1.0 Overview

1.1 Graduate Students.

Over 4,400 graduate students currently study at OSU. Part of OSU’s mission as a Land Grant University is to serve the people of the region, the state, the nation, and the world by making a first-class education available to all. In response to the growing diversity and demographic changes in the state and in the nation, OSU is committed to preparing graduates to live and work in a culturally pluralistic world. The Graduate College is proud of the diversity of its graduate student population and of their contributions to both the generation and dissemination of new knowledge through their involvement in the University’s research and instructional programs. Numerous multicultural student organizations on campus provide information and support to international and diverse students to assist in the successful completion of their graduate studies.

1.2 The Graduate College.

The Graduate College supervises all graduate work offered by OSU, including graduate degree programs at OSU–Stillwater, OSU–Tulsa, the Center for Health Sciences in Tulsa and the Center for Veterinary Health Sciences in Stillwater. Professional degrees are offered through the Center for Veterinary Health Sciences and the Center for Health Sciences in Tulsa. The Graduate College sets standards for admission to graduate standing and recommends to the Board of Regents for degrees those students who have completed work required for graduation.

In addition, the Graduate College offers a number of student services and professional preparation opportunities specifically designed for graduate student success while at OSU as well as after graduation. These activities include graduate teaching assistant orientation programs, three-minute oral communication competitions and thesis/dissertation writing workshops.

1.3 Graduate College Memberships.

The Graduate College is a member of the Council of Graduate Schools (CGS), the Conference of Southern Graduate Schools (CSGS) and the Midwestern Association of Graduate Schools (MAGS).

1.4 Organization of the Graduate College.

Consistent with its objective of maintaining the highest standards in graduate education, the Graduate College administers the policies and procedures specified and established by the Graduate Faculty, Board of Regents for the Oklahoma Agricultural and Mechanical Colleges and the Oklahoma State Regents for Higher Education. The dean of the Graduate College is the senior administrator of the College as well as the dean for graduate students. The Graduate Council is the executive committee of the Graduate Faculty; it is elected by the Graduate Faculty to work with the dean of the Graduate College in the development and administration of applicable policy. The Graduate Council formulates and reviews policies concerning the conduct of graduate study at OSU, and it participates in the periodic review of graduate programs. All proposed policies and requests related to the initiation and development of graduate curricular offerings and programs are referred to the Graduate Council for review, comment and approval.

1.5 Accreditation.

OSU is accredited by the Higher Learning Commission, (HLC) of the North Central Association of Colleges and Schools. (HLC, 30 N. LaSalle Street, Suite 2400, Chicago, IL 60602-2504; ph 1-800-621-7440; www.hlcommission.org (http://www.hlcommission.org)). Several programs within the disciplinary colleges are also accredited by other agencies; see “Accreditation (p. 15)” in “The University (p. 15)” section of the Catalog.

1.6 General Regulation.

Full authority on all academic decisions within the Graduate College rests with the dean of the Graduate College. The Graduate College policies and procedures described in the Catalog are for informational purposes. They are subject to regular review and may be revised at any time by the dean of the Graduate College in consultation with the Graduate Council.

1.7 Responsibilities.

All graduate students are expected to read and to comply with the written regulations of their graduate programs and disciplinary college as well as the Graduate College and University. The regulations presented in the Catalog may be supplemented by written departmental or program requirements available at departmental offices and/or websites. Admission to a specific graduate program obligates the student to understand and adhere to the policies of that program.

General regulations in the following sections relate to requirements for admission, enrollment and academic standing. Subsequent sections outline requirements for the following credentials: Graduate Certificate, Master’s, Specialist in Education, Doctor of Education, and Doctor of Philosophy degrees. Particular attention should be given to timing and substantive requirements for matriculation, especially admission, the Plan of Study, residency, language proficiency, research, dissertation/thesis/creative component/report, and graduation. The regulations are prescribed by the Graduate Council with the intent of assuring high-quality graduate programs and effective interaction of Graduate Faculty members and graduate students.
1.8 Email as Official Correspondence.
OSU uses the institutional O-Key email address as an official means of communication with OSU faculty, staff, administrators, and students. All students have an official OSU email address that is activated when they set up their O-Key account. Students are expected to activate and check their OSU email on a frequent and consistent basis to remain informed of their official University business and are expected to ensure that adequate email space is available to receive messages.

1.9 Tuition and Fees.
Refer to the “Tuition, Fees and Cost Estimates (p. 71)” section of the Catalog.

1.10 Exception Requests.
Any request for a waiver of, exception to, or deviation from, any requirement set forth in the “Graduate College” section of the Catalog must be in the form of a written petition to the dean of the Graduate College. Such petitions should include a supporting letter from the graduate faculty adviser or graduate program coordinator.

2.0 Services for Graduate Students
For a complete list of University services, please visit the “Current Student Resources” link on the Graduate College website (http://gradcollege.okstate.edu) or the “Student Life” link on the OSU website (http://go.okstate.edu).

2.1 Graduate and Professional Student Government Association.
The Graduate and Professional Student Government Association (GPSGA) is an official advisory body to the University President and dean of the Graduate College and serves as the representative voice for graduate and professional students at OSU. Its mission is to improve all aspects of post-graduate education and student life at OSU.

The Association provides for representation from each graduate and professional degree program. Representatives are nominated by the graduate programs with membership conferred by the GPSGA president. Each representative is appointed for a term of one year; a representative must be in good academic standing and enrolled in at least two graduate credit hours.

The GPSGA provides funds for graduate and professional student organizations and travel grants to help students defray costs incurred by attending and presenting at professional meetings. For more information consult gpsga.okstate.edu (http://gpsga.okstate.edu).

3.0 Funding Your Graduate Education

3.1 General Financial Aid.
One of the most common sources of funding for graduate students is graduate assistantships. Graduate teaching and research assistantships (GTAs/GRAs) support OSU’s instructional and scholarly activities. Most academic programs routinely evaluate graduate admission applications not only for admission consideration but also for the possibility of assistantship offers. The graduate program will contact newly admitted students to inform them if a funding offer is available. These awards assist students in paying for their graduate education and also offer opportunities to gain valuable skills and experience in their discipline and as a professional.

3.2 Federal Financial Aid.
All domestic students who want to qualify for federal financial aid should complete the Free Application for Federal Student Aid (FAFSA). Students are encouraged to complete the FAFSA annually as soon after January 1 as possible to receive aid for the subsequent academic year. The FAFSA is available at www.fafsa.ed.gov (http://www.fafsa.ed.gov).

3.3 OSU Short-Term Emergency Loans.
In addition to potential federal loans that may be awarded based, OSU assists students in need of immediate funds through the Short-Term Emergency Loan Program. This program is designed to help OSU students who are currently enrolled and attending classes to meet educationally-related off-campus unexpected expenses. The program is not designed to pay a debt owed to OSU. Qualified students may borrow up to $500 less a $10 service charge one time per semester. Additional information about the Short-Term Emergency Loan Program can be found at https://financialaid.okstate.edu/aid/loans/stl.

3.4 Graduate Assistantships.
OSU recognizes two types of graduate assistants for students enrolled in master’s, specialist and doctoral degree programs. Students in graduate certificates and non-degree seeking students are not eligible for GTA or GRA positions or associated benefits.

A Graduate Teaching Assistant (GTA) must be admitted to and meet the requirements of the Graduate College, be fully admitted to a graduate degree program, enrolled, and be under the supervision of an appropriate graduate faculty member. In consultation with the supervisor, the GTA works to gain instructional skills and an increased understanding of the discipline. The GTA is provided a stipend and their primary responsibilities are to support the University’s instructional mission. Services provided by a GTA may include: classroom or laboratory teaching; advising and mentoring of students; proctoring examinations; grading papers, homework, and/or projects; accompanying/coaching musical or vocal performances, providing artistic instruction or assisting with preparation and management of materials and programs that are utilized in imparting knowledge or in the instructional process; or providing other general assistance in the instructional process. The GTA is responsible for all of these duties.

A Graduate Research Assistant (GRA) must be admitted to and meet the requirements of the Graduate College, meet the requirements of the Graduate College, be fully admitted to a graduate degree program, enrolled, and be under the supervision of an appropriate graduate faculty member. A GRA is provided a stipend and their primary responsibilities are to provide general support to the University’s research mission. These responsibilities may or may not relate directly to the student’s thesis or dissertation. Duties of the GRA primarily involve applying and mastering research concepts, practices or methods of scholarship. Services provided by a GRA may include: assisting faculty members in a research or creative activity; perform degree-related professional or administrative services that supports research, instruction, professional development, or outreach missions of the University; developing and evaluating instructional materials or curricula; or assuming responsibility for designated scholarly endeavors.

“Perform degree-related professional or administrative services” does not include jobs that are outside the student’s field of study.
Assistantship inquiries should be addressed to the unit head or graduate program coordinator of the unit/department/school/program in which the appointment is desired. The service expected is governed by the terms of the appointment.

3.5 Graduate Assistantship Responsibilities.
An offer of an assistantship is a commitment by a unit/department/school/program to provide financial support to admitted graduate students. Assistantships are an investment made by a unit/department/school/program and are granted primarily to enable the student to pursue an advanced degree and gain valuable experience. Accepting an assistantship brings with it a professional obligation to fulfill all of the responsibilities associated with the assistantship assignment. Included in this professional obligation is the expectation that students who have accepted an assistantship will diligently pursue their degree to completion. In recognition of this commitment and to provide adequate time for students holding assistantships to devote to study, employment as a graduate assistant is limited to a total, from all University sources (including external grants and contracts), of 0.50 FTE (an average of 20 hours per week) in the Fall and Spring semesters, and 0.75 FTE (an average of 30 hours per week) between the end of the Spring semester and the beginning of the Fall semester. Exceptions to this limitation may be requested by the employing unit or graduate program to the dean of the Graduate College.

A student with an 0.50 FTE assistantship is expected to devote, on average, 20 hours per week to their duties as a graduate teaching or research assistant; the remainder of academic effort is devoted to his/her own studies and research. The time devoted to the assistantship may vary from day to day and week to week as long as it does not exceed the average given above.

As part of a graduate student’s educational experience, OSU makes a number of GRAs available on a routine basis. Graduate students on a GRA are expected to devote full-time effort to their graduate programs. While the GRA appointment provides a modest stipend for an average of 10 or 20 hours per week for a 0.25 or a 0.50 FTE assignment, respectively, in recognition of contributions to the OSU research enterprise, it does not indicate that no additional time and effort may be required of the graduate student who is actively pursuing a graduate research degree. Depending on the stage of the research project and the graduate student’s advancement in the program, the student may be enrolled in research credit hours for academic credit or only enrolled in formal coursework. Irrespective of that enrollment, it is expected that the graduate student is working full-time toward completion of the advanced degree. OSU, like most institutions nationwide, does not define the research credit hour as equating to a specific amount of time and effort, as the nature of research is highly dependent on the individual’s progress on the project. For instance, general OSU policy only requires a minimum enrollment in two credit hours when a graduate student is working on a research project and using OSU resources unless they are employed as a GTA/GRA.

In addition, all students holding a graduate assistantship are required to be full-time students - see “Enrollment Requirements” below. For fall and spring semesters, students employed 0.50 FTE must be enrolled in at least six credit hours to be considered full-time, while students employed less than 0.50 FTE must be enrolled in at least nine credit hours to be considered full-time. However, full-time enrollment for students admitted to doctoral candidacy is two credit hours. For the summer term, students employed at any level must be enrolled in at least two credit hours during any summer session to be considered full-time.

International students who are dependent upon an assistantship for their financial guarantee must remember that forfeiture of that assistantship may require the re-submission of a newly revised financial guarantee to the Office of International Students and Scholars. Students who forfeit their graduate assistantships risk rescission of tuition waivers, as well as any health insurance coverage for graduate assistants provided by the University.

Note that all graduate student benefit programs, such as tuition waivers, are only available to individuals with a primary classification as a graduate student enrolled in a degree program, which does not include certificate-seeking or non-degree seeking graduate students. OSU employees taking graduate classes do not qualify for graduate student benefit programs, irrespective of whether their employment is a benefit eligible position. One cannot selectively opt-out of certain benefits to seek eligibility for other benefits. Please contact the Graduate College or Human Resources if you have questions.

3.6 Graduate Assistantship General Benefits.
Graduate Teaching or Research Assistants employed at least 0.50 FTE in the fall/spring semester (average of 20 hours per week) are enrolled in a minimum of six (or two for doctoral candidates) eligible graduate hours will receive a tuition waiver (hours of enrollment must be required per the graduate degree program). Summer tuition waivers for the same GTA or GRA for spring semester will apply during the summer regardless of summer employment. Tuition waivers cannot be applied to independent study, leveling, undergraduate or some outreach type courses. Granting of these tuition waivers is also contingent upon the student submitting an electronic GTA/GRA (GSSI) tuition waiver agreement through the Graduate College website (http://gradcollege.okstate.edu/FormsPage), by the first day of the semester, in which they acknowledge their employment, enrollment and good academic standing responsibilities. Once enrolled, good academic standing (i.e., not on academic probation – beyond probationary admission) is a requirement for OSU tuition waiver eligibility. Once matriculated, a graduate student going on probation is not eligible for tuition waiver benefits. This does not preclude a GTA/GRA appointment(s). Graduate programs can request a one-time exception for exceptional circumstances from the graduate dean. For more information regarding tuition waiver benefits or academic standing, please visit the Graduate College website (gradcollege.okstate.edu (http://gradcollege.okstate.edu)).

Any graduate student employed as a GTA and/or a GRA less than 0.50 FTE total per week will not be eligible for any type of tuition waiver benefit.

3.6.1 Health Insurance Benefits.
Graduate Teaching or Research Assistants employed in a 0.25 FTE GTA/GRA position during the fall or spring semesters and who are enrolled in at least nine graduate credit hours throughout that entire semester are eligible for single-person-coverage health insurance through OSU for the fall (or spring) semester. Note: Spring semester eligibility coverage continues through the following summer regardless of employment or enrollment status.

Graduate Teaching or Research Assistants who are not eligible for health insurance coverage during the summer session by virtue of their eligibility during the previous spring semester but who are employed in a 0.25 FTE GTA/GRA position during the eight-week summer session and enrolled in at least two graduate credit hours are eligible for single-person-coverage health insurance through OSU for the summer term.
The University subsidizes the student’s coverage on a semester-by-semester basis. Students receiving the GTA/GRA insurance are required to pay the semester health fee. Coverage is through United Healthcare. Information on the policy is available at https://www.uchcsr.com/okstate and OSU Human Resources http://hr.okstate.edu/student-health-plan.

Eligible graduate students are automatically enrolled for the insurance coverage if they meet eligibility requirements. If students have other insurance coverage or choose not to be enrolled in the student health plan, they may complete a declination form to opt out. A declination form can be found at the following site http://hr.okstate.edu/student-health-plan. The form will need to be submitted to OSU Human Resources, Benefits Office 106J Whitehurst.

### 3.7 Health Insurance for International Students.

The Oklahoma State University Board of Regents requires that all visa-holding (i.e. non-immigrant) students at OSU be covered by health insurance. The OSU Student Insurance Policy is the recommended health insurance and will be billed to all non-immigrant student accounts automatically. Payment for the student insurance is included in the costs listed on the financial affidavit that international students are required to submit to receive a F-1 or J-1 visa.

The insurance premium can be waived for non-immigrant students sponsored by the United States Government, a foreign government recognized by the United States of America, or certain international, government sponsored or non-governmental organizations. Such waivers will be based on the government or organization guaranteeing payment of all health care expenses including evacuation and repatriation.

The insurance premium will also be waived for students who provide documented evidence of health insurance coverage by an employer. Non-immigrant students employed by OSU and eligible for both employer-provided insurance and international student health insurance may select between the two, as long as the insurance selected includes evacuation and repatriation coverage.

Students covered by a private medical insurance plan with benefits comparable to or better than the OSU plan, may request a waiver from OSU’s international student health insurance requirement. Coverage must be in effect from the first day of their first semester classes for a 12-month period.

To use alternate insurance, students must complete and submit a waiver request no later than the fifth day of classes. Waiver forms can be found on the International Students and Scholars (ISS) website at http://iss.okstate.edu.

If a student holds an appointment as at least a 0.25 FTE OSU GTA or GRA position, OSU provides the student health insurance policy.

### 3.8 McNair Graduate Fellowships for former McNair Scholars.

Entering graduate students in residential degree programs who are graduates of a McNair Scholar Program as undergraduates may be eligible to become McNair Graduate Fellows. McNair Graduate Fellows receive a tuition waiver for all degree-eligible courses up to the number of hours in their degree program, irrespective of a qualifying assistantship. Such tuition waivers cannot apply to independent study, leveling, or outreach-type courses. The McNair Graduate Fellow Tuition Waiver Program is competitive and is not guaranteed, irrespective of the application waiver received. Please contact the Graduate College (gradi@okstate.edu) for more information as restrictions apply. Also, note that all graduate student benefit programs, such as the McNair Graduate Fellow Tuition Waiver Program, are only available to individuals with a primary classification as graduate students. OSU employees taking graduate classes do not qualify for graduate student benefit programs, irrespective of whether their employment is a benefit eligible position. One cannot opt-out of certain benefits in an a-la-carte manner to seek eligibility for other benefits. Please contact the Graduate College or Human Resources if you have any additional questions. McNair Graduate Fellows are required to submit the necessary contract to the Graduate College each year and restrictions apply.

### 3.9 City Year National Service Scholars.

Oklahoma State University is proud to partner with City Year through our shared visions and values of integrating the power of knowledge and service in addressing social problems. The OSU Graduate College City Year National Service Scholars Program provides City Year Alumni an application fee waiver and a tuition waiver for all degree-eligible courses up to the number of hours in their degree program; however, acceptance as an OSU Graduate College City Year National Service Scholar is competitive and is not guaranteed. The following are program requirements:

1. Must be completing your year of service or be a senior AmeriCorps member, alumni or staff;
2. Must provide a letter of program completion from your Director of City Year Alumni and Career Services;
3. Only applies to residential graduate programs on Stillwater, Tulsa, or Center for Health Sciences campuses – no distance learning or outreach or online degree formats;
4. Graduate certificate programs are not eligible for this or other tuition benefit programs;
5. Cannot be used to earn a second graduate degree;
6. Cannot accept or have access to other tuition waiver programs, including faculty/staff programs;
7. Must participate in OSU City Year National Service Scholars Program activities;
8. OSU City Year National Service Scholars fellowship and subsequent tuition waiver is applicable to one OSU graduate degree;
9. Renewal of the OSU City Year National Service Scholars fellowship is contingent upon satisfactory progress each term;
10. See the OSU City Year National Service Scholars Fellowship Tuition Waiver Agreement for additional provisions.

### 3.10 Spouse Tuition Waivers.

A spouse of a graduate teaching or research assistant who is receiving a tuition waiver that is associated with an eligible assistantship is eligible to apply for a waiver of the non-resident portion of tuition for all graduate level/eligible courses taken. Tuition waivers cannot apply to independent study, leveling or certain outreach-type courses. Contact the Graduate College for details.

### 3.11 Student Employment.

Career Services provides assistance to OSU students seeking part-time employment or work study programs. Students are informed of job opportunities on campus and in the Stillwater community. Applications are available in room 360 Student Union. Jobs on campus usually offer 12 to 20 hours of work per week in clerical, technical, food service or general labor positions. Rate of pay and work schedules vary.

Individual job search assistance is available with the graduate career consultant in the Student Union Career Services Office or with any of the
4.0 Admission to the Graduate College

Holders of baccalaureate or first professional degrees from accredited colleges and universities or those of recognized standing are eligible to seek admission to the Graduate College. Applicants must complete the web-based application and submit official transcripts of all academic work and degrees received including any previous graduate coursework and degrees. No application for admission will be reviewed until the application fee is paid.

The prospective student should obtain transcripts for bachelor’s degree(s) conferred or pending as well as for any graduate or professional coursework and upload these transcripts as part of their application (some programs may require applicants to upload transcripts from all institutions previously attended). If an applicant is offered admission to graduate studies, then the applicant will be required to have the institution that granted their bachelor’s degree to send one official transcript to the Graduate College, 202 Whitehurst, Stillwater, OK 74078.

To be official, the transcript must be issued from the school and must show the complete scholastic record, bear the official seal of the institution, be signed by the issuing officer, and be in a sealed envelope or electronically delivered directly from the issuing institution.

To assure adequate time for review, completed applications and transcripts should be received at least 60-90 days prior to the graduate program application deadline or the beginning of the semester, whichever comes first. All transcripts become the property of OSU and are not released or returned.

When the applicant’s file is complete, the faculty in the graduate program of the student’s area of interest reviews the material and recommends an admission status to the dean of the Graduate College. The final decision for admission to the Graduate College is determined by the graduate dean on the basis of the graduate program’s recommendations, prior academic performance of the applicant, and availability of space, facilities, and faculty mentors in the program.

4.1 OSU Faculty Members.

No member of the faculty, with the rank of associate professor or above or equivalent rank at the time of completing the requirements, may be granted a degree or graduate certificate from this institution. This regulation also applies to faculty members in the schools of engineering holding the rank of assistant professor or above.

4.2 Types of Admission.

Admission to a graduate program at OSU is based on an evaluation of an applicant’s overall record, experience, personal qualifications, proposed area of study, and fit with the graduate program. For admission without qualification, a GPA of at least 3.00 on a 4.00 scale or the equivalent is expected in undergraduate coursework or a 3.00 in any graduate or professional coursework already completed. Graduate programs are encouraged to evaluate applications holistically and may petition the Graduate College on behalf of an applicant for an exception to the cumulative GPA requirement. Academic programs may set more stringent admission requirements. Please check with the graduate program to which you are applying in order to determine any program specific requirements.

4.2.1 Admission Without Qualification.

Students planning to work toward a graduate degree in a recognized graduate program may be admitted in good standing provided they meet all Graduate College and graduate program requirements.

4.2.2 Provisional Admission.

A student can be admitted provisionally upon recommendation of the graduate program and with concurrence by the dean of the Graduate College. Admission with provisional status is granted to an applicant who does not meet one or more of the graduate program’s admission requirements or when the applicant does not have the necessary academic background. In this case, the graduate program requires specific provisions be met for admission in good standing. For example, a graduate program may require additional leveling coursework or higher test scores. The first obligation of a student admitted provisionally is to successfully meet all of the provisions specified at the time of admission. Failure to meet these provisions could result in the dismissal from the program.

4.2.3 Probationary Admission.

A student can be admitted with probation status upon recommendation of the graduate program with concurrence by the dean of the Graduate College. Admission with probation status is granted to an applicant who has deficiencies in previous academic coursework. A student admitted on probation status must make at least a 3.00 GPA through the semester in which s/he completes nine hours of courses eligible for graduate credit. Upon successful fulfillment of these requirements the student will be granted good academic standing. Failure to meet the required level of academic performance while in a probationary status may result in dismissal from the Graduate College.

4.2.4 Conditional Admission.

Several graduate programs at OSU will consider an applicant for conditional admission. An applicant can be admitted conditionally upon recommendation of the graduate program and with concurrence by the dean of the Graduate College. Conditional admission means that the applicant is academically qualified for admission to the graduate degree program but lacks a minimum TOEFL or IELTS score which satisfies the University’s or graduate program's minimum (see “International Student Admission” for minimum requirements). Before the applicant will be allowed to matriculate in the graduate degree program, a sufficient TOEFL or IELTS score must be submitted. Failure to submit a sufficient TOEFL or IELTS score will result in the applicant not being allowed to enroll.

4.3 Non-Degree Seeking Student Status.

An applicant may be admitted to the Graduate College as a non-degree seeking student if he or she does not have immediate plans to become a degree candidate, but wants to take graduate courses, prerequisites, or other courses. Admission to the Graduate College as a non-degree seeking student means only that the student will be permitted to enroll in courses through the Graduate College. It does not imply that the student has been or will be admitted to a program leading to an advanced degree or that the student will be able to obtain a graduate degree from OSU. Non-degree seeking students are not eligible for GTA or GRA positions or associated tuition waiver benefits.

4.3.1 Non-Degree Seeking Student Status Requirements.

Non-degree seeking students are subject to the same admission standards as degree-seeking students, including English language proficiency. Applicants for non-degree seeking student status are not
automatically admitted without due deliberation of their past academic performance. A non-degree seeking applicant can be considered for admission "Without Qualification" provided his/her overall GPA is 3.00 or higher for all courses on his/her bachelor's degree transcript and/or transcripts from his/her graduate or professional coursework. An applicant whose GPA does not meet these criteria can be considered for admission after consultation and recommendation of the Graduate College's non-degree seeking student adviser who may consider additional factors in making a decision, such as the following:

- length of time since last attendance at an institution of higher learning,
- a written appeal from the applicant explaining exceptional circumstances that warrant admission, and/or
- a letter of recommendation written by faculty who can speak to the applicant's potential for graduate work.

The prospective student is responsible for filing a new application for admission to the Graduate College should he or she wish to become a degree-seeking candidate. The new application will be evaluated by the graduate program and the dean of the Graduate College to ascertain admissibility to the degree program.

Given that non-degree seeking coursework is not guided by a Plan of Study or approved by an adviser, no more than nine semester credit hours of coursework taken while a non-degree seeking student may be used on a Plan of Study to meet requirements for a graduate degree or graduate certificate program. In addition, only three semester credit hours of coursework taken while a non-degree seeking student may be used on a Plan of Study toward an MBA degree. Non-degree seeking students may not enroll in more than nine hours of courses eligible for graduate credit without permission of the dean of the Graduate College, or their designee. To ensure that non-degree seeking students do not inadvertently exceed this limitation, an enrollment hold will be placed on each student in this status after the student has registered for six or more credit hours. This hold may be removed by the Graduate College (see below) once the student has formally re-acknowledged this nine-hour limitation.

Non-degree seeking students are subject to the same academic regulations as those graduate students admitted into degree programs. Such students are strongly encouraged to consult with the instructor of any course in which they intend to enroll in order to ensure that they are adequately prepared for that course.

Non-degree seeking students may not enroll in thesis (5000) or dissertation (6000) courses.

Generally, International students with an F-1 visa, except students on Optional Practical training (OPT) or Curricular Practical training (CPT), may not be admitted or enroll as non-degree seeking students.

Academic advising for non-degree seeking student is provided by an adviser in the Graduate College. Students should contact the Graduate College at 405-744-6368 or gradi@okstate.edu for details.

4.4 International Student Admission.

International applicants are expected to submit applications, financial affidavits, transcripts and/or mark sheets, and, if required, official scores of the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) examinations. Applicants who present a TOEFL score of at least 79 iBT/550 PBT or an IELTS academic stream score of at least 6.5 satisfy the Graduate College's English proficiency requirements for admission to a graduate program. Note that some graduate programs require a TOEFL score above these levels, and applicants should contact the program for specific TOEFL or IELTS requirements. Completed applications are due no later than February 1 for fall enrollment and August 1 for spring enrollment. Applications that become complete after these deadline dates may be reviewed, but the Graduate College cannot guarantee an admissions decision will be made with sufficient time for the issuance of the I-20 form required to obtain an entry visa.

4.4.1 English Proficiency.

As a condition of admission to graduate study at OSU, all persons for whom English is a second language are required to present proof of English competency regardless of the number of semesters or terms completed at OSU or in other institutions of higher education. A waiver of this requirement can be obtained for students who have completed a baccalaureate or graduate degree from an accredited institution of higher learning, at which English is the primary language of instruction, located in a country in which English is a recognized primary language. Note, however, that proof of specific English proficiency through the submission of test scores, such as the Internet Based TOEFL (IBT) scores, or additional testing may be still necessary if employment as a graduate teaching assistant is desired. Graduate programs may have additional requirements.

Proof of English competency can be in the form of an official TOEFL or IELTS, (academic stream), score. Either examination must have been taken within the last two years.

Applicants who present a TOEFL score of at least 61 iBT/500 PBT, but less than 79 iBT/550 PBT (or an IELTS academic stream score of 6.0) and who demonstrate unusual academic promise may be admitted to graduate study on conditional status upon petition to the Graduate College by the graduate program.

Applicants with a TOEFL score of at least 61 iBT/500 PBT, but less than 79 iBT/550 PBT (or an IELTS academic stream score of 6.0), must successfully complete a minimum of 12 weeks of study at an intensive English program (IEP) approved by the Oklahoma State Regents for Higher Education State Regents. At least two-thirds (eight weeks) of the 12 weeks must be instruction at an advanced level. A list of State Regents’ approved IEPs can be found in the OSRHE Academic Affairs Procedures Handbook. The OSU intensive English program, known as the English Language Institute (ELI), is a state-approved IEP. More information on the OSU ELI program can be found here https://eli.okstate.edu/.

Applicants, who do not submit a TOEFL/IELTS score, can seek admission to the OSU English Language Institute (ELI) in their first semester. These students will be issued an I-20 by ELI. After achieving the required score (500) and immediately prior to admission, the applicant must successfully complete a minimum of 12 weeks of study at an intensive English program (IEP) approved by the State Regents as described above. Upon successful completion of the ELI program students will be issued an I-20 by the Office of International Students and Scholars and will be admitted into their graduate degree program. Concurrent enrollment in graduate courses and ELI is not permitted.

4.4.2 Spoken English Proficiency for Employment.

OSU policy requires all persons for whom English is a second language to demonstrate an acceptable level of spoken English before being employed in an instructional related capacity, including laboratory assignments. Graduate students who serve only as laboratory assistants (e.g., setting up and/or maintaining equipment) are not required to
comply with these provisions. See http://gradcollege.okstate.edu/ita for specific policy requirements for the International Teaching Assistant Program. Any new international teaching assistant (ITA) is required to have a qualifying score of 26 or greater on the speaking portion of the iBT or to take the ITA test prior to being approved for instructional assignments. All new ITAs are also required to participate in the international teaching assistant orientation. See http://gradcollege.okstate.edu/ita for specific policy requirements.

5.0 Transfer of Graduate Credits

Transfer credit for "non-aged" must be recommended by the graduate student’s advisory committee through the submission of a Plan of Study that is approved by the dean of the Graduate College. See Section 7.8 for additional information on coursework time limits.

Transfer credit will only be considered if it was earned when the student was post-baccalaureate (i.e., after earning a bachelor’s degree) at an accredited institution and the applicable course(s) was/were certified as graduate credit by that institution. All courses used as transfer credit must have a grade of "B" or better.

Transfer of credits from medical professional programs (e.g., DO, DVM and MD) to the Graduate College may also be considered when a student was admitted to a medical professional program at another accredited institution and the applicable courses were certified for enrollment restricted to professional-level study. All courses used as transfer credit must have a grade of "B" or better or a grade of "pass" for those institutions which only offer professional courses as a "pass/no pass" grading system.

Up to three hours of transfer credit may be used toward an OSU graduate certificate and up to nine credit hours of transfer credit may be used toward any OSU graduate degree. A doctoral student may transfer more than nine hours if the courses in question were housed in a department or program that offers an EdD or PhD (or equivalent) degree. Doctoral students must include a minimum of 30 hours of OSU credit on their Plan of Study.

Also, see Section 11.2 for the number of times a course can be used in multiple degree Plans of Study.

6.0 Enrollment Policies

6.1 Initial and Continuous Enrollment Policy.

A prospective student must enroll for courses at OSU within the time specified in his or her admission letter to retain active status. A prospective student who does not conform to these conditions must reapply for admission.

Any student who interrupts enrollment for one year (i.e., a consecutive period of one fall semester plus one spring semester plus one summer term) must re-apply for admission, and will be subject to the regulations in effect at the time of reapplication. See section 6.6 below for additional doctoral candidacy enrollment requirements.

6.2 Full-Time Enrollment.

To be considered enrolled full time, a graduate student must be enrolled in at least nine hours in either fall or spring semester and at least three hours during the summer sessions. Full-time enrollment for Graduate Teaching/Research Associate/Assistants (GTAs/GRAs) with a 0.50 FTE appointment is at least six hours in either fall or spring semester and at least two hours during a summer session.

6.3 Minimum and Maximum Enrollment.

Students are required to be enrolled in at least two credit hours in each semester in which they are using physical or faculty resources of the University. Students holding graduate assistantships should note that additional requirements apply (see below). Regardless of the number of hours taken, a student may not enroll in more than 12 (16 for the Spears School of Business graduate programs) credit hours in the fall or spring semester without permission of the dean of the Graduate College. During the summer session, a student may not enroll in more than nine credit hours taken in any session during the eight-week summer period. No more than three credit hours can be taken during the first summer session (intersession). Summer intersession is defined as any course that begins after the end of the spring semester and ends prior to the beginning of the eight-week summer session. For any short course session less than eight weeks in length, enrollment shall not exceed one credit hour for each week.

International students on F-1 or J-1 visas must maintain full-time status (as defined above) during the first semester of enrollment, and during each fall and spring semester thereafter.

Also, see Section 11.2 for the number of times a course can be used in multiple degree Plans of Study.

6.4 Graduating Semester Enrollment.

Each degree-seeking graduate student must be enrolled in at least two hours of courses eligible for graduate credit during their graduating semester (defined as the semester in which they satisfactorily complete all degree requirements). However, a student would not need to be enrolled during their graduating semester if they meet the following conditions:

1. has been assigned an "Incomplete" (grade of I) in a non-research or creative component course;
2. the course is required for graduation; and,
3. the course in which the incomplete was received is the only graduation requirement left to fulfill.

Students must enroll in research, thesis, or dissertation hours, as appropriate, during each semester in which they are involved in research leading to a thesis or dissertation, irrespective of the number of credit hours of such courses either required or permitted for the degree.

6.5 Master’s Degree Enrollment Requirements.

Students with a fall (spring/summer) graduating semester who have research courses (i.e., courses numbered 5000) on their approved Plan of Study must satisfactorily complete no fewer than six hours of courses eligible for graduate credit during the calendar (academic) year which includes the graduating semester. As an example, a student wishing to graduate in a fall semester must be enrolled in a total of at least six hours for that fall semester plus the preceding spring semester and summer session. Doctoral students meet this requirement by virtue of the Doctoral Candidacy Enrollment Requirements noted below.

6.6 Doctoral Candidacy Enrollment Requirements.

Doctoral students who have completed the requirements for admission to doctoral candidacy and had their “Admission to Doctoral Candidacy” form approved by the dean of the Graduate College may enroll for a minimum of at least two credit hours during any term and be considered full-time. This post-candidacy reduced enrollment option applies to all qualified graduate students, including GTAs, GRAs, international students and veterans receiving VA benefits. A student is normally expected to enroll...
primarily in research hours or in program-approved courses after being admitted to doctoral candidacy.

Continuous enrollment post-candidacy is required of all students. Enrollment of a minimum of at least two credits per semester is required for every semester of a student’s candidacy (summer session excluded) until graduation. It is ultimately the responsibility of each student to ensure that they meet this enrollment requirement. Students who are not able to maintain active status are strongly encouraged to consult with their program, adviser and the Graduate College to determine whether requesting a Leave of Absence (LOA) is the most appropriate course of action.

6.6.1 Reinstatement Fee.
Post-candidacy students who do not maintain continuous enrollment will be assessed a reinstatement fee based upon their residency status at the time of last enrollment as follows:

- Resident: $750/semester (summer session excluded) of non-enrollment
- Nonresident: $1,900/semester (summer session excluded) of non-enrollment

In addition to the reinstatement fee, students whose continuous enrollment disruption exceeds one academic year also must apply for readmission to the graduate program (see Enrollment).

During the readmission process, previous coursework will be evaluated for applicability in accordance with coursework (10 years) and time-to-degree (9 years) time limits (see Time to Degree Requirements).

Notification of the conditions of readmission and reinstatement will be provided if an acceptance occurs. New program requirements may apply based on the aforementioned enrollment policy. Please note that reinstatement and readmission are not guaranteed and significant challenges may occur that hinder a student’s ability to complete a degree after a lapse in enrollment, such as the reaplication process (e.g., new letters of recommendation and unexpired standardize test scores); availability of the same graduate adviser, project and/or grant support; and new/revised program requirements and/or core courses for degree.

6.7 Enrollment and Financial Assistance.
For the purpose of receiving monetary assistance through the Office of Scholarships and Financial Aid, the amount of the award is related to the total number of enrolled credit hours that apply toward the degree (for graduate students, such courses must be offered for graduate credit), such as 5000 and 6000 level courses. OSU graduate certificate and master’s, specialist and, doctoral degree programs are federal aid-eligible programs, depending on a person’s personal circumstances.

In general, a graduate student must be enrolled in four hours of courses eligible for graduate credit each fall and spring semester, and two hours of courses eligible for graduate credit in the summer term, to be eligible for federal financial aid. Some students may be required to enroll in more hours in the fall or spring or summer to receive the full amount of federal financial aid. Students should verify with their financial aid adviser in the OSU Office of Scholarship and Financial Aid about the number of hours they are required to take. Certifiable enrollment status, based upon a combination of enrollment and employment, only assists with the deferral of loan repayments, never qualification for aid, which is based solely on enrollment.

6.8 Enrollment as a Non-Degree Seeking or Degree-Seeking Graduate Student.
Students with a bachelor’s degree are expected to enroll in the Graduate College unless they want to obtain another bachelor’s degree. If they enroll as an undergraduate student, the courses taken cannot be given graduate credit at a later date.

6.9 Graduate Student Enrollment in Undergraduate Courses.
Students admitted to the Graduate College may enroll in, or audit, undergraduate courses or course sections that do not carry graduate credit if approved to do so by their graduate faculty adviser. Such courses cannot subsequently be used as part of a graduate Plan of Study and are not generally covered by graduate tuition waiver programs.

6.10 Undergraduate Student Enrollment in Graduate Courses.
An OSU undergraduate senior may take a limited number of courses for graduate credit toward an OSU degree program. Undergraduates admitted to an approved OSU accelerated master’s degree program may utilize some of these credits for both a baccalaureate degree and graduate degree as outlined in section 11.15 of the Graduate College section of the University Catalog. All other undergraduates are subject to the graduate credit rules below.

The credits may not be utilized for both a baccalaureate degree and a graduate degree. The courses in question must be approved for graduate credit (as listed in the Course Catalog). The applicability of such graduate courses to a specific graduate program will be determined by the student’s graduate advisory committee when the student enrolls in the Graduate College and submits a plan of study for an advanced degree.

To receive graduate credit for hours taken when not admitted to an approved OSU accelerated master’s degree program, a Graduate Credit for Seniors form must be completed by the student to receive graduate credit for courses taken. This form must be submitted prior to the end of the second week of class instruction of a regular semester, or the first week of a regular summer session. The required form is available on the Graduate College’s website or in the Graduate College.

Such credit may be earned only if the following conditions are satisfied at the time of application:

1. Students must have a minimum overall (cumulative graduation/retention) undergraduate GPA of 3.00.
2. The total semester enrollment must not exceed 18 credit hours for a regular semester or nine credit hours for a summer session.
3. The student must be within 12 semester credit hours of completing requirements for the baccalaureate degree at the beginning of the semester or summer session in which courses are taken for graduate credit.
4. Admission to courses taken for graduate credit must have approval of the course instructor, the dean of the disciplinary college associated with the student’s major, and the dean of the Graduate College.

No more than 15 semester credit hours taken while a senior may be approved for graduate credit. The student must earn a grade of “B” or higher in those courses for which he or she seeks graduate credit. Students are cautioned that institutions other than OSU may or may not allow courses taken for graduate credit during the senior year to be transferred into one of their graduate degree programs.
7.0 Time to Degree

Graduate College matriculation starts when a student first enrolls as an admitted, degree-seeking graduate student. That date will be used in calculating time limits for degree completion.

Students are expected to complete the degree requirements from first enrollment after admission within the following time limits: five years for a graduate certificate degree program, seven years for a master’s or specialist degree program, and nine years for a doctoral degree program. After that time, a student must submit a written petition to the Graduate College requesting an extension of time-to-degree limits. Credit for all courses on a graduate Plan of Study must have been awarded within ten years of completion of all degree requirements. Any exception to these time limits must be approved by the dean of the Graduate College.

7.1 Leave of Absence.

OSU graduate students are expected to maintain active status through continuous enrollment from the time they matriculate until they graduate. Students who are not able to maintain active status are strongly encouraged to consult with their program, adviser, and Graduate College to determine whether requesting a Leave of Absence (LOA) is the most appropriate course of action. International students must consult with the International Students and Scholars (ISS) office to ensure compliance with Federal immigration policy. Example situations that may lead a student to explore a Leave of Absence request are medical, personal, employment, and military service. Students who do not have an approved leave of absence and are not continuously enrolled may experience negative consequences related to academic, visa, financial aid, and other student issues – see University policies and guidelines for additional information. A student status of “good standing” (academic and conduct) is generally required for a leave of absence. Please see http://gradcollege.okstate.edu/leave-of-absence-policy for additional Leave of Absence information.

8.0 Enrollment Procedure

Students are strongly encouraged to review the course offerings for the upcoming semester prior to attempting to enroll. For more information about enrollment and classes go to http://my.okstate.edu.

First semester graduate students must first obtain their adviser’s clearance prior to attempting to enroll.

Non-degree seeking students may be granted enrollment clearance through the Graduate College. Non-degree seeking students will be provided assistance with selecting coursework, issues surrounding the transferability of special student credits, applying to degree-seeking programs, and other academic topics.

If the student has not completed a Plan of Study or if this is the first semester as a graduate student, the student should consult with the graduate faculty adviser. The graduate faculty adviser can provide information about required courses, course sequencing, and other information in order to select appropriate courses. The adviser should give approval for course selections prior to enrollment. All graduate students must complete Responsible Conduct of Research (RCR) requirements prior to the submission of a Plan of Study. A student should consult with his or her graduate coordinator as to what these requirements are in his or her graduate program. A Plan of Study will not be approved by the Graduate College until the program has certified RCR completion.

If a Plan of Study has been completed, the student should verify that all planned courses are listed on the Plan of Study. Students should consult with their adviser any time they deviate from courses listed on the Plan of Study. The ultimate responsibility for completing degree requirements rests with the student.

Students who have active academic, financial or advising holds must clear these holds prior to attempting to enroll. Students can view any holds by logging into the Self Service portal at http://my.okstate.edu.

8.1 Last Day to Enroll.

Information regarding dates to enroll, when courses begin, and last days to drop are listed in the Class Schedule available at the Office of the Registrar’s website at http://registrar.okstate.edu.

Generally, the sixth class day of a regular semester or the third class day of the eight-week summer session is the last day a course may be added (nonrestrictive) via the student enrollment system. A short course may be added no later than the first day of the short course.

8.2 Late Enrollment.

Graduate students should enroll prior to the end of the official enrollment deadline for the semester. If they do not, there are limited options to enroll in classes. The options available to the student depend on the number of weeks past the deadline and the student's current enrollment status.

During the second week of fall/spring or first week of the eight-week summer session:

- If a student wishes to add course hours or is not currently enrolled, they must submit a drop/add card or Trial Study signed by their adviser giving permission to enroll.
- If the student is adding a course they must have the instructor’s signature on the add/drop card or Trial Study.
- If a student is non-degree seeking, they must have the signature of the dean of the Graduate College and the instructor of the course in which they wish to enroll.

After the second week of fall/spring or first week of the eight-week summer session graduate students may add any course which has not started.

8.3 Other Enrollment.

In order to enroll in a given semester, a student must have received grades for at least six semester credit hours (including "I" and "R" and excluding "W") in the 12 months prior to the beginning of that semester.

9.0 Online and Outreach Courses

Courses offered online are considered equivalent to courses offered through traditional formats. However, some online courses classified as outreach may not be eligible for tuition waivers. Check with the Graduate College for eligibility before enrolling. Any student wishing to enroll in a graduate credit course offered online or through outreach must make application for admission to the Graduate College at OSU. Some limitations apply to McNair Graduate Fellows (see Section 3.8), City Year Scholars (see section 3.9), International students on F-1 or J-1 visas and students on spousal waivers (see Section 3.10).
10.0 Individual Study Credit (formerly Correspondence Education)

OSU does not offer graduate-level courses by individual study (formerly correspondence education) and does not accept credit taken by individual study (formerly correspondence education) toward an advanced degree. Graduate students may enroll in individual study courses (formerly correspondence education courses); however, such courses will not be considered as part of minimum graduate degree or certificate requirements. Tuition waiver programs are not applicable to courses taken through individual study (formerly correspondence study). Courses taken through individual study (formerly correspondence education) do not count toward minimum enrollment requirements for any graduate student.

11.0 Academic Regulations

Also refer to "University Academic Regulations (p. 842)" section in the Catalog.

11.1 Graduate Credit Courses.

Courses numbered 5000 and above are for graduate students. Seniors who have obtained prior approval from the Graduate College may enroll in graduate level courses in accordance with the provisions of "Enrollment" stated earlier.

11.2 Number of Times a Course Can be Used to Earn Multiple Degrees.

Typically, a graduate course can be used in more than one graduate certificate or graduate degree. For example, a student may initially earn a graduate certificate and later use the certificate coursework to earn a master's degree. Similarly, coursework from a master's degree may also be applied toward a doctoral degree. In both cases, the course credit has been used twice in earning the two graduate credentials – the certificate and the master's and a master's and a doctoral degree, respectively.

With approved Plans of Study, graduate courses can be used to earn no more than three graduate degrees, which includes graduate certificates. This applies to both OSU courses and courses approved for transfer credit. This policy does not refer to the use of zero-ending courses used within a Plan of Study.

11.3 Grades for Thesis (5000) and Dissertation (6000).

The grade of “SR,” indicating satisfactory research progress, or “UR,” indicating unsatisfactory progress, or “IUR,” indicating an incomplete (see section 6.2 “Grade Interpretation” in the “University Academic Regulations” chapter of the Catalog) will be assigned to thesis (5000) and dissertation (6000) courses at the end of the semester in which the course is taken. These grades are permanent and have no impact on a student’s grade point average, but affect the graduate student’s academic standing. Only courses in which a grade of “SR” (or a previously-awarded grade of “R,” “A,” “B,” or “C”) is earned may be used toward minimum degree requirements.

11.4 Grades for Creative Component Courses.

The “R” grade can be assigned in a course identified as a creative component portion of a master’s degree by a graduate program. The grade of “R” may be assigned if more than one semester is required to complete the creative component. Upon completion of the creative component, the adviser submits a Change of Grade form to have the final grade entered.

11.5 Pass-No Pass Grading System.

Graduate students may take a course utilizing the Pass-No Pass grading system with the consent of their faculty advisers, but courses taken under this system cannot be used on a Plan of Study to meet graduate degree requirements. A student who chooses the pass-no pass option must do so by the last date on which a course may be added. See section 6.6 “Grades and Grading” in the “University Academic Regulations (p. 842)” chapter of the Catalog.

11.6 Pass-Fail Grading System.

Graduate students may take courses utilizing the Pass-Fail grading system with the consent of their faculty advisers; however, only a limited number of these hours can be used on a Plan of Study to meet graduate degree requirements and these require advance permission of the dean of the Graduate College. Pass-Fail courses are typically internship, practicum, seminar, special problems and student teaching. See section 6.7 “Grades and Grading” in the "University Academic Regulations (p. 842)” chapter of the Catalog.

11.7 Minimum Grade Requirements.

A grade-point average of "B" (3.00) is required to maintain good standing as a graduate student and meet requirements for a degree. No course with a grade of "D" or "F" can be used on the Plan of Study to satisfy the degree course requirements. At the graduate level, a grade of a "D" or "F" is a failing grade that can result in dismissal by the dean of the Graduate College, regardless of academic standing. To receive a graduate degree, a student must have a minimum 3.00 GPA in the coursework taken for graduate credit.

No course with a grade below "C" can be used as part of the minimum number of semester credit hours required for the graduate degree.

Some programs have more stringent requirements. The graduate program should be consulted concerning minimum grade requirements.

11.8 Annual Review of Student Progress.

The graduate program in which a student is seeking a graduate degree will provide a mechanism for assessing the student’s progress toward degree completion at least once annually. If the student is assessed not to be making adequate progress, then a specific plan to address and correct any inadequacies in progress will be prepared in a written document provided to the student and the dean of the Graduate College annually by June 30. Failure to correct these inadequacies may result in termination from the graduate program and/or Graduate College.

11.9 Academic Progress.

Each semester, the dean of the Graduate College reviews the academic progress of any graduate student who receives a grade of "C" or lower in a class or "UR" in research. Programs are notified which of their students have received a “C” or lower and of the dean of the Graduate College's academic progress decision. At the discretion of the dean of the Graduate College, one of four actions based on the student's current semester performance and past academic history will be taken as follows:

1. Program Notice. The graduate program is notified and is encouraged to review the student’s performance to determine if any program intervention is needed.

2. Academic Probation. If a student’s overall GPA drops below a 3.00, if a “UR” grade is earned, or if the dean of the Graduate College judges
the student’s overall academic performance so warrants then s/he is subject to being placed on academic probation. At the discretion of the dean of the Graduate College, probation may be removed at the end of the semester only after the student brings his or her cumulative GPA for courses eligible for graduate credit taken at OSU to 3.0 or greater, earns a SR grade, and/or completes all degree requirements, whichever comes first.

3. No Further Enrollment Without Program Consent (NFEWPC).
   a. If the student was admitted on academic probation and did not meet the requirements of this admission, or
   b. If they have received two consecutive grades of “UR”, or
   c. If the student was on academic probation the previous semester; or
   d. If the dean of the Graduate College believes the student’s overall academic performance warrants program intervention, then the student is not permitted to enroll further without the consent of the program. To continue in the program, the student must submit a written petition to the dean of the Graduate College requesting reinstatement and outlining a plan to remedy the academic situation. This petition must be accompanied by a letter of support from the unit head or graduate program coordinator. Failure to submit such a reinstatement petition could result in the canceling of any pre-enrollment for the upcoming semester.

4. No Further Enrollment (NFE). The student has consistently performed below the acceptable standards for graduate students. The student is not permitted to continue graduate study at OSU.

11.10 Course Grade Appeals.
A student may appeal a grade given by an instructor in a case in which he or she believes the grade awarded is inconsistent with the announced grading policy. The student should consult the “Student Rights and Responsibilities” or contact the Office of Academic Affairs for information regarding initiating the appeals process.

11.11 Appeals of Research Grades and Non-grade Issues.
A student wishing to appeal a “UR” grade issued for a research course (5000 or 6000), or an academic issue not involving a grade should contact the dean of the Graduate College about the appeals process available to graduate students (http://gradcollege.okstate.edu/content/appeals-policy).

11.12 Advisory Committee Decisions-Criteria for Passing.
In decisions resulting from a vote of a graduate student advisory committee (e.g., PhD candidacy exam, final thesis defense, or approving a dissertation), a pass requires that the thesis/dissertation advisor vote in the affirmative and that no more than one member of the committee dissent. Graduate programs may impose more stringent requirements.

11.13 Discontinuance from a Program.
In instances when a student reaches a situation when it is no longer possible to complete the intended degree (e.g., failure of all permitted attempts of the PhD qualifying exam, comprehensive exam or candidacy exam), and is still in good academic standing with the Graduate College, a domestic student may be considered for transfer to non-degree seeking student status and be subject to all non-degree seeking student rules (including maximum number of hours that can later be used toward a graduate degree or certificate program). If visa restrictions prohibit the student’s matriculation as a non-degree seeking student, the Graduate College will inform the Office of International Students and Scholars of the student’s impending dismissal from the program; the student will have until the end of the semester to be admitted into another graduate program. This change in status is initiated with a letter from the unit head or graduate program coordinator to the student, copied to the dean of the Graduate College, and should detail the reasons for the student’s potential dismissal from the program. In accordance with graduate program policies, students have a limited number of days from the intent to dismiss letter date to initiate the appeals process in the program. Graduate students should contact the dean of the Graduate College about the appeals process (http://gradcollege.okstate.edu/content/appeals-policy).

11.14 Second Graduate Degrees.
The Oklahoma State Regents for Higher Education (OSRHE) do not allow students to obtain a second degree in the same “major” as the first degree, even if the options are different. Completion of requirements for more than one option may be noted on the official transcript, but a second degree will not be awarded. Additionally, because of the OSRHE requirement for a coursework common core within a master’s degree options, it should not be assumed that obtaining an additional option within the same degree program and level will be possible. Careful discussions and planning with the Graduate Program Coordinator prior to admission is imperative, if such study is desired.

11.15 Accelerated Master’s Degree
Accelerated master’s degree programs offer a streamlined path to a master’s degree, reducing the time to earn a master’s degree by sharing up to 30 percent of the coursework required for the stand-alone master’s degree with the undergraduate degree. All shared courses must be approved for graduate credit. For example, a 30-hour master’s degree would share 9 hours with the undergraduate degree, while a 45-hour master’s degree would share 14 hours. The curriculum of an accelerated master’s degree program is designed to fulfill all requirements of both the undergraduate and graduate degrees. Accelerated bachelor to master’s degree programs require approval of the Deans of the Graduate College and the relevant undergraduate College(s).

11.16 Awarding of Certificates and Degrees
The retroactive awarding of a newly approved graduate degree or certificate for prior coursework is prohibited. The majority of the coursework for a graduate certificate must be completed after the student is admitted to and enrolled in the degree program.

12.0 Responsible Conduct of Research
All graduate students must complete Responsible Conduct of Research (RCR) training requirements prior to the submission of a Plan of Study. Students should consult with their graduate coordinators as to what these requirements are in their graduate programs. Graduate programs may impose more stringent requirements. A Plan of Study will not be approved by the dean of the Graduate College until the graduate program has certified RCR completion. Information and University policies regarding RCR can be found at https://research.okstate.edu/compliance/policies.html.

12.1 Research Involving Human Subjects.
If the thesis, dissertation, formal report or creative component involves the use of human subjects, the research project is governed by federal
13.0 Graduation Clearance Process
At the time of enrollment for the last semester or summer session of work toward a degree, graduate students must complete and submit a Graduation Clearance form to the Graduate College before they can submit an Application for Diploma with the Office of the Registrar. The Graduation Clearance form is completed in conjunction with the academic adviser and confirms that a student has met or will meet by the end of the semester in question, all program and Graduate College requirements to earn the degree s/he is seeking. If these requirements are not met, the student must complete a new Graduation Clearance Form and Application for Diploma for a future semester. In order to allow opportunity for any class schedule changes necessitated by the review of the Graduation Clearance Form, this form and the Application for Diploma, should be submitted as early as possible in the graduating semester but no later than the deadlines listed on the Graduate College website.

13.1 Graduate Commencement and Diplomas.
The University holds one Graduate Commencement Ceremony at the close of the fall and spring semesters. Students who plan to meet graduation requirements at the close of the summer session are invited and encouraged to participate in the Graduate Commencement Ceremony at the close of the previous spring semester. Although attendance is not compulsory, the University encourages all candidates for advanced degrees to participate in the Graduate Commencement Ceremony. Candidates should also notify the Office of the Registrar of the address to which the diploma should be mailed.

13.2 Graduate Records and Transcripts.
All permanent records are stored in the Office of the Registrar. Requests for grades, transcripts, diplomas, and degree-completion letters should be made to that office.

A graduate student who does not complete the requirements in time to receive the degree at the end of the semester may secure a statement from the Office of the Registrar when all requirements for the degree have been satisfied. Such a statement will not be issued until all grades for the semester have been recorded.

14.0 Graduate Programs Offered At OSU-Tulsa, Greenwood Campus
OSU offers several graduate degrees and courses in Tulsa. All courses offered by OSU-Tulsa are considered resident credit for degrees granted by OSU. Both current and prospective graduate students are encouraged to utilize the OSU-Tulsa Graduate Student Services Center (GSSC), located in Main Hall 1101. To schedule an appointment with a GSSC representative or to learn more about a graduate program in Tulsa, call 918-594-8445 or email osutgssc@okstate.edu. The graduate degree, graduate certificate and certification programs that OSU offers in Tulsa can be found at http://www.osu-tulsa.okstate.edu.

15.0 Graduate Programs Offered at the OSU Center for Health Sciences in Tulsa
OSU offers specialized graduate programs in athletic training (MAT), biomedical sciences (MS, PhD, and a dual degree tract DO/PhD) forensic sciences (MSFS), and health care administration (MS) through the OSU Center for Health Sciences (CHS).

15.1 Athletic Training.
The Master of Athletic Training (MAT) graduate program in the School of Allied Health at OSU Center for Health Sciences prepares individuals to become competent and independent clinicians who will enhance the quality of patient health care and advance the profession of athletic training through practice and research. The MAT program is currently accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Once accepted into the program, students supervised by a Board of Certification (BOC) Certified Athletic Trainer (AT) or other healthcare provider where they are responsible to provide for the overall health care of patients over the course of their respective seasons or occupation. Clinical instruction of students is achieved through direct supervision of a licensed healthcare provider.

The curriculum is based in the human sciences with anatomy, physiology, biomechanics, pathology, pharmacology, nutrition and psychology providing the theoretical foundation of student inquiry. Students learn how to apply these theoretical concepts while in the clinical setting learning under licensed physicians, athletic trainers, physical therapists and other allied health care professionals. This balance of theory and practical application prepares students to sit for the Board of Certification examination where upon successful completion, may earn the credentials ATC.

15.2 Biomedical Sciences.
The MS and PhD programs in biomedical sciences are interdisciplinary programs involving the basic biomedical science disciplines of anatomy, biochemistry, cell biology, microbiology, pathology, pharmacology and physiology. The programs consist of core basic sciences medical courses, additional basic sciences graduate courses, research, and thesis for the MS and a dissertation for the PhD. A non-thesis MS is also available.

15.3 Forensic Sciences.
The graduate program in forensic sciences is an interdisciplinary master’s program that reflects a broad range of disciplines and offers specialization in both research and non-thesis tracks. All students must satisfactorily complete 39 credit hours to receive the Master of Science in Forensic Sciences.

Students working toward a degree requiring a thesis can specialize in one of four areas: forensic identification through DNA, forensic pathology, forensic psychology, or forensic toxicology. Successful presentation and defense of a thesis is required for a master’s degree in these areas.

Non-thesis options include forensic science administration and forensic document examination, with courses in both options offered entirely online. Applicants to the administrative program must have professional experience in a related field, while those entering the document examiner...
program must be either in training/apprenticeship positions or under the guidance/supervision of a certified document examiner.

15.4 Health Care Administration.
The graduate program requires students to take core courses in health care administration and research methods along with a series of electives selected from applicable courses in business and social sciences. The multidisciplinary approach to the health care administration discipline provides students with a unique perspective on the complex issues facing the profession today.

16.0 Interdisciplinary Graduate Programs Offered at OSU-Stillwater
OSU has a series of interdisciplinary graduate programs designed to provide students with a breadth of knowledge that is not ordinarily found in traditional programs. Descriptions are given below for the following interdisciplinary programs: Environmental Science (MS, PhD), Food Science (MS, PhD), Interdisciplinary Science (MS), International Studies (MS), Photonics (PhD), Plant Science (PhD), and Public Health (MPH).

16.1 Environmental Science
Scott Stoodley, PhD—Director
Ken Ede, PhD—Director, Professional Science Graduate Program in Environmental Management, OSU-Tulsa
Kerri Hoback—Program Coordinator

The Environmental Science Graduate Program (ESGP) is operated under the administration of the Graduate College at OSU. Due to its interdisciplinary nature, the ESGP attracts and produces students capable of thinking beyond a single discipline. Our unique approach to graduate education offers flexibility with locations in Stillwater and OSU-Tulsa. Our program is one of the oldest programs in the nation having been founded back in 1977. These ESGP graduates have gone on to be leaders in every facet of the environmental field.

Our students are housed in one of many departments including Agricultural Economics, Economics, Leisure Studies, Plant & Soil Sciences, Natural Resources Ecology & Management, Biosystems and Agricultural Engineering, Geology, Geography, Political Science, Educational and School Psychology, School of Teaching and Curriculum Leadership, Sociology, and Zoology. There are over 120 faculty affiliated with the ESGP at OSU and over 70 of these have served as faculty advisers.

We offer our graduate students either a Master of Science or PhD degree. Each student has a unique opportunity to develop a degree plan that specifically addresses their individual career goals. Degree integrity is ensured through the guidance of the student’s graduate adviser and committee.

16.1.1 Programs of Study.
The breadth of offerings at OSU affords flexibility to the student interested in specific environmental career tracks. A student can design a unique degree plan to target a particular focus area that meets his or her professional goals or can follow structured plans recommended for specializations in:

- Environmental Management, Environmental Management-
  Professional Science Masters (PSM), Environmental Education,
  Environmental Policy and Conflict Management, Environmental
  Sustainability, Environmental Chemistry-Toxicology and Risk
  Assessment, and Water and Watershed Management.

The student’s graduate advisory committee assists the student in preparing a Plan of Study to assure focus, breadth and quality.

16.1.2 Program Assessment Portfolio.
The ESGP assesses its curriculum each year to ensure that students are receiving the instruction needed to succeed in environmental careers. To accomplish this assessment, selected environmental faculty members review materials generated by students in the program. Each student must develop and maintain a collection of portfolio materials that demonstrate progress toward the degree. The portfolio must be submitted during the last semester of the student’s enrollment.

16.1.3 Master of Science Degree.
To obtain an MS degree in environmental science, the student must complete a 36-credit hour course of study. This must include fifteen hours of core curriculum (ENVR 5303 Issues in Environmental Sustainability, ENVR 5123 Environmental Problem Analysis, three hours in research methods or statistics, three hours in social science and three hours in natural science). Each student must also either complete a six-hour research thesis, a three-hour research report, or a creative component. The remaining credit hours can be taken as electives that focus on the student’s area of particular interest. Students create their original Plans of Study with the assistance of their adviser and committee. It must be completed prior to the end of the second semester (excluding summer sessions) of enrollment.

16.1.3.1. Professional Science Master (PSM) option in Environmental Management.
To obtain a non-thesis, industry-focused MS degree recognized by the Commission on Affiliation of PSM Programs students take 21 credit hours of science courses in addition to ENVR 5503 Environmental Management Practicum and ENVR 5510 Environmental Management Internship and Report.

16.1.4 Doctor of Philosophy Degree.
The Doctor of Philosophy degree requires a minimum of 60 credit hours beyond an MS degree. This includes a minimum of 36 to 45 hours of coursework consisting of six hours of a skill component, ENVR 5303 Issues in Environmental Sustainability, ENVR 5123 Environmental Problem Analysis, and ENVR 6011 Survey of Environmental Science. Course hours should reflect the biological, social, and physical aspects of the concentration area. Research and courses should reflect the student’s professional goals. A dissertation (ENVR 6000 Doctoral Research for Dissertation) is required and consists of a minimum of 15 credit hours. At least 75 percent of the courses for the PhD degree must be at the 5000 level or above, including dissertation research hours. The student must successfully pass a written and oral qualifying exam after coursework is completed. Students create their original Plans of Study with the assistance of their adviser and committee. It must be completed prior to the end of the third semester (excluding summer sessions) of enrollment.

16.1.5 Admission.
Each student seeking admission to the Environmental Science Graduate Program must submit the following materials:

1. An official Graduate College application for admission and a nonrefundable fee,
2. Official transcripts for all college level courses,
3. A statement of career goals, including competencies to be gained during program enrollment,
4. Three letters of recommendation discussing the student’s potential for graduate work, and
5. GRE test scores (use institution code 6546 and department code 0502).

International students must also earn a TOEFL score of at least 90 iBT/577 PBT and submit a financial affidavit for the amount required by OSU. To be admitted, applicants must have earned a college grade-point-average of 3.00 on a 4.00 scale. Students are required to have completed college-level courses that address the fundamentals and principles of chemistry, biology, ecology, and algebra prior to admission.

All applications to the ESGP should be submitted at least 60 days before the opening of the semester in which they wish to enroll. International students should supply all application materials by March 1st for summer enrollment, June 1st for fall enrollment, and October 15th for spring enrollment.

It is recommended that students identify an adviser prior to admission to the program. The ESGP Program Coordinator will assist the student with this process. If the student is unable to identify a permanent adviser, then a temporary adviser may be appointed. However, the student must identify a permanent adviser prior to completion of the ninth credit hour in order to be able to enroll in the following semester.

16.1.6 Financial Assistance.
Graduate research assistantships and other funding opportunities are often available through affiliated environmental science faculty members. The initial application should specify the student’s interest in an assistantship.

Additional information about the environmental science graduate program can be found at esgp.okstate.edu (http://esgp.okstate.edu).

16.2 Food Science.
William McGlynn, PhD—Program Coordinator

The following departments participate in the food science program: Agricultural Economics, Animal Science, Biochemistry and Molecular Biology, Biosystems and Agricultural Engineering, Entomology and Plant Pathology, Horticulture, Plant and Soil Science, and Nutritional Sciences.

Food science is an interdisciplinary graduate program designed to provide an opportunity for students to acquire basic knowledge of the food industry encompassing the biological and physical sciences. The increasing complexity of the problems involved in the safe and secure production, processing, and utilization of food requires us to expand our fundamental knowledge to solve these problems. There is a great demand for personnel with advanced training in the broad area of food science to staff research, production, food safety and quality assurance positions in industry, universities and government.

16.2.1 Program Assessment Portfolio.
Admission to either the Master of Science or Doctor of Philosophy degree program requires an undergraduate major in animal science, biochemistry, dairy science, food science, human nutrition, microbiology or poultry science. Students majoring in other curricula may qualify by remedying specific undergraduate deficiencies as recognized by the student’s graduate committee. A student enrolling in a degree program must have been accepted by an adviser prior to official admission.

The GRE is required for admission, no minimum score is required. Three letters of reference and a personal statement of purpose are also required.

16.3 Interdisciplinary Studies.
Mary Jo Self, EdD—General Program Coordinator

The Master of Science in Interdisciplinary Studies is for students who wish to increase their competence in a particular thematic area by taking a series of courses in several disciplines. This multidisciplinary approach provides educational opportunities leading to a variety of careers. Interdisciplinary studies consist of no fewer than two separate fields of study. The advisory committee will assist the student in formulating the Plan of Study.

16.3.1 Admission Requirements.
An undergraduate grade-point average of 3.00 is required for unqualified admission. Students with a grade-point average between 2.50 and 3.00 may be admitted on a probationary basis.

Applications to the program should include:
1. a cover letter indicating the personal goals and professional objectives to be obtained from the program;
2. transcripts from all schools previously attended;
3. three letters of recommendation from persons who can describe abilities, interest, and motivation as a student;
4. a proposed course of study with an endorsement from an OSU faculty adviser.

Particular courses are not specified for the degree; the advisory committee can assist in selecting appropriate courses. The course of study must include at least 21 credit hours at the graduate level (5000 or above). Up to nine graduate hours can be transferred from a regionally-accredited graduate program with consent of the advisory committee.

The student chooses one of the two master's degree plans:
1. a 30-hour plan, including a six-hour research thesis;
2. a 32-hour plan, non-thesis. May include a culminating experience (e.g., internship, practicum, comprehensive exam, portfolio, or capstone project); may include a final report with no more than three hours of research;

16.4 Photonics
Albert T. Rosenberger, Ph.D. Program Coordinator

OSU offers a multidisciplinary program leading to the PhD degree in photonics. The program draws on the faculties of the departments of Physics and Electrical and Computer Engineering. A student typically chooses either of these as his or her "home department" on the basis of academic background and research interests. A multidisciplinary program of coursework is tailored to the goals of each individual student mentored by a chosen faculty member from the home department and guided by the advisory committee. The PhD program also provides a biophotonics specialization with faculty from the departments of Chemistry or Microbiology and Molecular Genetics serving as research advisors. For information regarding the Photonics option in either the MS in Physics or MS in Electrical and Computer Engineering, see the relevant departmental section of the Catalog.

16.4.1 Doctoral Program Requirements.
A total of 72 credit hours beyond the BS (60 beyond the MS) degree are required for the PhD in Photonics. All students must form a preliminary
advisory committee to guide them initially in the Photonics PhD program. Eventually a student chooses a permanent research adviser who chairs the graduate research committee. Coursework is taken from the basic and advanced courses offered by the Departments of Physics and Electrical and Computer Engineering. Courses from other departments may also be recommended by the graduate research committee. In addition, students are required to take two or more Photonics tutorials, offered by faculty in their research lab, emphasizing particular research problems and techniques. A preliminary exam is administered usually during the student’s second year in the PhD program. Admission to PhD candidacy follows the successful completion of the qualifying exam. The focus of the PhD program is the completion of a faculty directed research project and the defense of the resulting dissertation. A detailed Plan of Study specific to the research specialization chosen is formulated by the student in consultation with the advisory committee.

16.4.2 Research Opportunities.
The faculty emphasizes both basic and applied interdisciplinary research. To accomplish this, in addition to a myriad of state-of-the-art laser systems and computational facilities, the OSU campus houses two molecular beam epitaxial (MBE) growth and analysis facilities and unique optoelectronics THz beam systems. Current research programs include quantum optics, quantum cryptography, “whispering gallery modes,” experimental and calculational programs in nanostructured materials, optical fiber communications and optical circuits for computing as well as high speed optoelectronics applications to fundamental and applied problems in the THz frequency range. Other investigations center on the preparation and characterization of specialty-doped insulators and semiconductors for use as lasing materials, non-linear optical crystals for data storage and holographic applications, and photonic-based chemical, physical and biochemical environmental sensors. Research programs in the biomedical applications of lasers at both the basic research and clinical application levels seek to understand the interaction of light with biological materials at the tissue, cellular and molecular levels.

16.4.3 Admission Requirements.
Students with a BS degree in physics, electrical engineering, chemistry(0,8),(999,995) (or related fields) are welcome to apply to the PhD photonics program. No additional tests (such as the GRE) are required, but such scores may be submitted in support of an application. A TOEFL score of at least 600 is required of international students.

Applications should include:

1. a cover letter indicating the program of specialization and whether the student wishes to be considered by that program for a fellowship or teaching assistantship;
2. a personal statement of interests and goals, noting especially how they relate to the degree in photonics;
3. transcripts of all previous academic work (an unofficial transcript will suffice for the application; official transcripts are required by the Graduate College after admission.); and
4. the names and email addresses of three persons who have been requested to submit letters of reference.

16.4.4 Financial Aid.
Most students entering the photonics programs are offered a graduate teaching assistantship in their home department. A student pursuing an original research project may receive support as a graduate research assistant (RA) through grants and contracts to the individual faculty member who serves as the adviser.

16.5 Plant Science.
William Henley, PhD—Program Coordinator

Solutions to current problems in plant science often require integration of knowledge from a number of disciplines. The Plant Science program at OSU provides the opportunity for the exceptional PhD student to develop an academic and research program tailored to his or her individual interests and needs. Faculty participating in this program comes from the departments of Plant Biology, Ecology and Evolution, Biochemistry and Molecular Biology, Botany, Entomology and Plant Pathology, Forestry, Horticulture and Landscape Architecture, Microbiology and Molecular Genetics, and Plant and Soil Science. The multidisciplinary nature of this program allows students to experience many facets of plant science and affords them the flexibility to seek employment in a variety of settings in the plant sciences. Students, in consultation with their graduate committees, develop a program in one of three specialization areas (cellular and molecular, organismal or ecological), but are expected to develop a sound foundation across all disciplines of plant study.

16.5.1 Admission Requirements.
Application for admission includes a statement defining plant science interests, a resume, three letters of reference, an abstract of the Master of Science thesis (if applicable), GRE scores (the Advanced Biology GRE is also desirable), and a minimum TOEFL of 88iBT/570PBT. A student must be accepted by a faculty adviser prior to official admission.

16.5.2 Financial Assistance.
Students seeking financial assistance (teaching and/or research assistantships) should inquire directly to the participating department(s) and faculty of interest within the plant science program.

16.6 Public Health.
Jean Van Delinder, PhD—Interim Program Director

The Master of Public Health (MPH) program focuses on training public health professionals to improve health and wellbeing of rural and underserved populations. Students are encouraged to identify a rural community or undeserved population as the focus of class projects. In doing so, students will have the opportunity to assess the needs of that community or population, and to thoughtfully create programs for preventing disease within that community or population. Prevention efforts often include a focus on lifestyle and health behaviors. Current students study health behaviors and health outcome areas that include: the use of alcohol, tobacco, other drugs, mental health, disabilities, zoonotic diseases, nutrition and food security, obesity, physical activity, maternal and child health, teen pregnancy and sexual health. These students are meaningfully engaged with rural communities throughout Oklahoma and underserved populations that include indigenous populations, racial minorities, recent immigrants, and sexual minorities.

16.6.1 Admission Requirements.
Application for admission includes a statement of purpose defining professional goals and interest in public health, a resume, three letters of reference, GRE, MAT, GMAT or MCAT scores.

17.0 Graduate Certificate Programs Offerings

Graduate certificate programs offer students the opportunity for focused study of a body of knowledge at the graduate level, leading to the award of an academic transcripted academic credential that can be earned in a relatively short time. Graduate certificate programs can serve both as a stepping stone onto more advanced study leading to a master’s or
doctoral degree or as a stand alone educational achievement to assist an individual in their career. Many OSU graduate certificate programs are offered online or on the graduate-serving campuses (OSU-Stillwater, OSU-Tulsa and Center for Health Sciences in Tulsa). In addition, many graduate certificate programs allow students to enroll as either a certificate-seeking or a degree-seeking graduate student. Certificate-seeking students are not eligible for GTA or GRA positions or associated benefits, but may be eligible for federal financial aid. For the current graduate certificate offerings at OSU please see the Graduate College website for additional information (http://gradcollege.okstate.edu/content/graduate-certificates).

17.1 Admission to a Graduate Certificate Program.
Any student admitted to the Graduate College may apply for admission to a graduate certificate program. Some certificate programs may have additional requirements, such as official scores on a standardized test, letters of recommendation, etc. Contact the appropriate graduate program for specifics.

17.2 Basic Requirements.
A graduate certificate requires completion of a minimum of 12 credit hours of coursework eligible for graduate credit, of which at least two-thirds must be at the 5000-level or above. Specific certificate programs may have more stringent requirements.

Also, see Section 11.2 for the number of times a course can be used in multiple degree Plans of Study.

17.3 Transfer of Courses.
With the approval of the graduate program and the Graduate College, up to three hours of graduate-level credit from another institution may be used toward certificate requirements. The GPA must be at least 3.0 on any transfer credit.

17.4 Academic Standing.
A grade-point average of "B" (3.0) is required on courses applicable to a graduate certificate. No grade lower than a "C" may be used as part of the minimum requirements for the certificate. Individual certificate programs may have more stringent requirements.

17.5 Plan of Study and Certificate Completion Procedures.
Upon application to a graduate certificate program, a student should complete a plan of study listing the courses intended to be used in earning the certificate. This plan must be approved by the graduate program and the Graduate College prior to recording the credential on the student’s academic record. During the semester of anticipated certificate completion, the student must complete an Application for Certificate Completion, which is submitted to the Office of the Registrar. This action will cause the graduate certificate to be recorded on the official transcript and a certificate will be printed, provided all requirements have been met.

17.6 Special Program – Certificate Program in Education.
OSU offers Oklahoma State Department of Education-approved post-bachelor’s certification programs for elementary school principals, school counselors, reading specialists, library/media specialists, and secondary school principals. Certification is also offered in speech and language pathology and in special education.

Master's degrees are available in most of these programs and doctorates are available in many.

Post-master’s level certification programs are available for school superintendents and school psychologists.

Inquiries concerning any aspect of the Professional Education program should be addressed to the Office of Professional Education at 405-744-6252 or the head of the unit/department/school offering the program.

18.0 Graduate Minors
Graduate minors offer students the opportunity to pursue coursework outside, or ancillary to, the requirements for the degree earned. Minors may not be earned independently of a degree granted by OSU. OSU offers graduate minors in the following areas:

Agribusiness
Agricultural Economics
Entomology
Plant Pathology
Statistics

18.1 Basic Requirements.
A graduate minor must include between nine and eighteen hours, inclusive, of coursework eligible for graduate credit. At least two-thirds of the applicable coursework must be at the 5000-level or above.

Transfer of courses: No more than one-third of the credit for the minor may be earned through transfer credit of courses taken at other institutions, with the approval of the coordinator of the minor and the dean of the Graduate College. Transfer credit will only be considered if it was earned when the student was post-baccalaureate (i.e., after earning a bachelor’s degree) at another accredited institution. All courses used as transfer credit must have a grade of “B” or better. Grades earned in courses transferred to Oklahoma State University will not be used in calculating the cumulative GPA.

18.2 Academic Standing.
A grade-point average of “B” (3.0) is required on courses applicable to a graduate minor. No grade lower than a “C” may be used as part of the minimum requirements for the minor. Individual minors may have more stringent requirements.

18.3 Plan of Study and Minor Completion Procedures.
Graduate students can declare a minor by entering it in the appropriate section of an original or revised Plan of Study submitted to the Graduate College prior to conferral of the degree. The required courses for that minor will be finished. At that time, the graduate student should ask the coordinator for that minor area to submit a memorandum to the Graduate College certifying the completion of the minor requirements and listing the courses required for the minor. A notation of the minor will be added to the student’s transcript after the conferral of a degree. The courses required for a graduate minor may be included on a Plan of Study for any graduate degree or they may be in addition to the degree requirements, depending on the overlap between the minor and the degree Plan of Study. However, the graduate minor must be earned in an academic field other than the student’s graduate
program or degree option (for example, a graduate student who is majoring in economics could not receive a graduate minor in economics).

18.4 Time Limits.
Requirements for the graduate minor must be completed at the time of conferral of the primary degree. All graduate courses used to complete the minor must have been taken within ten years prior to the date of completion of the graduate minor requirements.

19.0 Master's Degree Programs

19.1 Abbreviations.
MA - Master of Arts
MAG - Master of Agriculture
MAT - Master of Athletic Training
MBA - Master of Business Administration
MEN - Master of Engineering
MFA - Master of Fine Arts
MM - Master of Music
MPH - Master of Public Health
MS - Master of Science

19.2 Current Degree Inventory.
For the current listing of master's degrees offered at OSU see the Graduate College website: https://gradcollege.okstate.edu/programs/listing-by-degree.html#Masters.

19.3 Basic Requirements.
The master's degree may be earned by one of two plans as follows:

Plan I—coursework with thesis. Minimum 30 credit hours consisting of 24 hours of coursework and 6 hours of research or creative component with a grade of "SR."

Plan II—coursework without thesis. Minimum of 32 credit hours. May include no more than three hours of research or creative component with a grade of "SR." May include culminating experiences (e.g., formal report, final report, internship, practicum, comprehensive exam, portfolio or capstone project).

The numbers of credits specified for each plan are minimums set by the Graduate College. Graduate program requirements may exceed these minimums.

The graduate program, with the approval of the dean of the Graduate College, decides which alternatives are open to the students. Some graduate programs may require a minimum number of credit hours of upper-division and graduate courses in the major field, including courses taken as an undergraduate.

A student who obtains a DVM, MD, DO, DDS, LLB, JD, or equivalent professional degree may receive up to nine hours credit toward a master's degree, subject to the recommendation of the advisory committee and the approval of the dean of the Graduate College. However, a student receiving this credit may not transfer additional hours to OSU from other graduate programs.

Also, see Section 11.2 for the number of times a course can be used in multiple degree Plans of Study.

19.4 Residence Requirements.
Candidates for a master's degree must complete a minimum of 21 semester credit hours from OSU if they follow Plan I, or 23 semester credit hours if they follow Plan II. Nine semester credit hours of the 30 or 32 required for the degree may be graduate courses taken at another accredited college or university with appropriate approvals.

19.5 Advisory Committee.
Upon recommendation of the graduate program and approval of the dean of the Graduate College, an advisory committee of no fewer than three voting members will be appointed. The advisory committee must include a minimum of three members of the Graduate Faculty. The chair of the committee need not necessarily serve as the student's research adviser, but must hold an OSU faculty appointment and have familiarity with the academic requirements of the degree sought. To view the roles and responsibilities associated with members of advisory committees, go to https://gradcollege.okstate.edu/prospective-students/best-practices.html.

19.6 Level of Courses Applied to Graduate Degree.
Graduate students must complete no fewer than 21 semester credit hours of 5000- and 6000-level courses through OSU as presented on the Plan of Study to meet requirements for the master's degree.

19.7 Plan of Study.
The Plan of Study for the degree must be submitted online to the Graduate College prior to completion of the second semester of enrollment for a master's program. The student should develop the Plan of Study with the adviser using the online Plan of Study application (http://planofstudy.okstate.edu). The online submission request requires approval by the advisory committee and the student's graduate program with final approval by the Graduate College. The Plan of Study is subject to modification. All changes must have the approval of the adviser and the student's graduate program, and a final Plan of Study incorporating all changes should be submitted to the Graduate College by the posted deadline.

Graduate credit, up to a maximum of nine hours, used to obtain one master's degree may, with the approval of the advisory committee, be counted toward completion of another master's degree.

19.8 Major Subject or Field.
A major field of study may cross graduate program lines with approval of the graduate program and dean of the Graduate College.

To receive a master's degree, the student must have completed in the major field of study a minimum of 16 semester credit hours above the prerequisites required for graduate work in that subject or field.

19.9 Language Requirements.
A candidate for a master's degree may be required to demonstrate a reading knowledge of a modern foreign language. Any such requirement of the graduate program included on the Plan of Study and is noted at the time the preliminary plan is approved by the student's adviser.

A foreign language requirement for a master's degree may be met either by examination or by college credit, according to individual graduate program requirement.

19.10 Written Examinations.
Some graduate programs require a written examination covering the major and minor fields. It is usually taken before the thesis or report.
has been completed. Arrangements for taking the examination should be made with the graduate program at least three weeks in advance. The written examination must be passed before a final examination is scheduled, if a thesis or report option is used.

A student who fails all or part of the written examination should consult the chair of the examination committee to find out what must be done before taking another examination.

19.11 Thesis.
Any student working on a thesis should obtain a copy of the Graduate College Thesis/Dissertation Handbook available from the Graduate College at http://gradcollege.okstate.edu/tdg. A thesis must conform to the format specifications set forth in this document. The style of the document is to be determined by the advisory committee and should be reflective of publications in the student's discipline. Any graduate student who is writing a thesis must attend a format workshop prior to submission of their final copy. The dates for the workshops are on the Graduate Calendar and a webinar version is available.

It is strongly recommended that a graduate student submit complete copies of his or her thesis to the committee members at least two weeks prior to the defense date, that the defense presentation be publicized, and that the thesis defense occur on a date during the normal academic semesters and sessions. Graduate programs may have additional or more restrictive requirements for thesis defenses.

The student should submit an electronic copy of the final thesis through the OSU electronic submission website. Directions for the website submission are given to the student when he or she submits the Oral Defense Results Form to the Graduate College. In addition, the student must submit to the Graduate College one paper copy of the approval page with all original signatures and the student's name and eight digit CWID number entered at the top of the page. Both the electronic submission and paper approval page must be received no later than the stated final submission deadline date (see the "Calendar" at the front of the "Graduate College" chapter of the Catalog for dates).

The student must submit to the Graduate College the Formal Report Approval form.

19.13 Final Examination.
If the thesis or report option is used, the student should arrange with the graduate program for the final examination and to distribute a copy as described in the preceding section. The final examination may be oral or written or both.

The final examination is primarily a defense of the thesis or report. If the defense is judged inadequate, a decision on whether to permit re-examination will be made by the advisory committee. Another examination cannot be given for at least two months after a failure, and a graduate program may limit the number of times that the examination may be repeated.

The committee will notify the Graduate College immediately of results of the final examination. Following satisfactory completion of the final examination, the candidate will make changes in the thesis or report as required by the committee and by the Graduate College, and submit it in final form signed by the committee to the Graduate College by the semester deadline.

Please see the Graduate College’s Best Practices: Advisory Committees and Defenses document for additional guidance (https://gradcollege.okstate.edu/prospective-students/best-practices.html).

20.0 Specialist in Education (EdS) Degree Program
The Specialist in Education degree in School Psychology is conferred as an appropriate recognition of achievement as evidenced by the following:

1. Successful professional performance in the area of the student’s specialization.
2. Satisfactory completion of a program of graduate study of approximately two academic years.
3. Satisfactory performance on examinations designed to reveal the student's understanding of the field of specialization and its relation to other areas.
4. Preparation of a thesis dealing with some aspect of concern to the student’s profession and its defense before a committee of the Graduate Faculty.

20.1 Temporary Adviser.
At the beginning of a student’s Specialist in Education program, the school head will designate a member of the Graduate Faculty to serve as temporary adviser to the student. The temporary adviser will guide the student in the selection of courses for the first semester.

20.2 Advisory Committee.
Upon recommendation of the school head or the graduate committee of the school, an advisory committee of no fewer than three voting members will be appointed by the dean of the Graduate College. At least one member of the advisory committee must be from a school or department outside the student’s major field of study. This committee:

1. conducts the preliminary examination and conference,
2. approves the proposed Plan of Study,
3. supervises the student's progress in the program,
4. supervises the research, and
5. arranges for and conducts the final examination.

The chair of the committee need not necessarily serve as the student’s research adviser, but must hold an OSU faculty appointment and have familiarity with the academic requirements of the degree sought. To view the roles and responsibilities associated with members of advisory committees, go to http://gradcollege.okstate.edu/faculty-and-staff-resources.

20.3 Plan of Study.
The original Plan of Study for the degree must be submitted to the Graduate College prior to the end of the second semester (excluding summer sessions) of enrollment for a specialist in education program. The student should develop the Plan of Study with the adviser using the online Plan of Study application (planofstudy.okstate.edu) (http://planofstudy.okstate.edu). The online submission requires approval by the advisory committee and the student’s graduate program with final approval by the Graduate College.

The Plan of Study may be modified with the approval of the adviser. A final Plan of Study incorporating all changes should be filed in the
Graduate College by the eighth week of the semester in which the degree is to be conferred.

20.4 Credit Hour Requirements.
A minimum of 60 credit hours beyond the bachelor’s degree or 33 credit hours beyond the master's degree are required for the Specialist in Education degree. This may include as many as 10 credit hours for the practicum study and accompanying report.

Also, see Section 11.2 for the number of times a course can be used in multiple degree Plans of Study.

20.5 Character of Work.
The satisfactory completion of coursework (see "General Regulations") is only one requirement for receiving the degree. The student must also:
1. pass a qualifying examination,
2. conduct an appropriate study of education,
3. show qualities of professional leadership, and
4. pass a final examination.

20.6 Residence Requirements.
While the Graduate College does not have a specific residence requirement that applies to all graduate programs, programs may require a period of time in residence for students enrolled in departmental graduate programs. Programs must inform students of any residence requirements upon their admission to departmental graduate programs. No more than nine hours may be transferred from another university.

20.7 Qualifying Examination.
A qualifying examination is required of all candidates for the Specialist in Education degree. The nature of this exam is determined within each specialization.

20.8 Credit Toward an EdD or a PhD.
A student holding an EdS may have the credit hour requirements for a PhD or EdD reduced to 30 hours subject to recommendation by the advisory committee and approval of the dean of the Graduate College. However, all of the remaining 30 hours toward the doctoral degree must be taken at the 5000- or 6000-level and all must be taken at OSU.

21.0 Doctor of Education (EdD) Degree Programs.
The degree of Doctor of Education is a professional degree conferred in recognition of outstanding ability as an educator in some special field or fields as shown by:
1. satisfactory completion of a program of study;
2. passing examinations showing an understanding of the field of specialization and its relation to allied subjects;
3. the preparation of a dissertation demonstrating ability to approach problems with a high degree of originality and independence; and
4. passing an examination covering the dissertation and related fields.

The following EdD degrees are offered:
- Applied Educational Studies (Aviation and Space Education)
- Higher Education
- School Administration

21.1 Basic Requirements.
The Doctor of Education degree requires a minimum of 90 semester credit hours beyond the bachelor’s degree, or a minimum of 60 semester credit hours beyond the master’s degree in a related discipline. Courses at the 5000- and 6000-level should make up at least 75 percent of the Plan of Study and must include ten hours, with a grade of "SR," for the doctoral dissertation. Students may use 90 hours beyond the bachelor’s degree as a degree total only if admitted directly into the doctoral program from the bachelor's degree.

A student who holds a DVM, MD, DO, DDS, LLB, JD, or equivalent professional degree may also have the minimum credit hour requirement reduced to 60 hours, subject to the recommendation of their advisory committee and the approval of the dean of the Graduate College. A student may receive only one 30-hour credit reduction in the EdD requirement regardless of the number of master's or professional degrees that he or she holds.

Also, see Section 11.2 for the number of times a course can be used in multiple degree Plans of Study.

21.2 Temporary Adviser.
At the beginning of a student's doctoral program, the school head will designate a member of the Graduate Faculty to serve as temporary adviser to the student. The temporary adviser will guide the student in the selection of courses for the first semester.

21.3 Advisory Committee.
Upon recommendation of the head of the graduate program and approval of the graduate dean, an advisory committee of no fewer than four voting members will be appointed. The duties of the advisory committee consist of:
1. advising the student,
2. assisting the student in preparing a Plan of Study,
3. assisting in planning and conducting the research,
4. supervising the writing of the dissertation, and
5. conducting the dissertation defense.

The chair of the committee need not necessarily serve as the student’s research adviser, but must hold an OSU faculty appointment, be a member of the Graduate Faculty with doctoral chairing privileges, and have familiarity with the academic requirements of the degree sought. Each doctoral committee must have at least one member of the Graduate Faculty from outside the student’s major department. To view the roles and responsibilities associated with members of advisory committees, go to https://gradcollege.okstate.edu/prospective-students/best-practices.html.

The student should consult the members of the advisory committee frequently and keep them informed on the progress of his or her work.

21.4 Preliminary Conference.
As soon as the student is notified that an advisory committee has been appointed, the student should arrange with the chair for a conference with the committee. During the conference, the preparation and qualifications of the student for graduate work will be discussed and appropriate plans made for future study.

21.5 Plan of Study.
The student should develop the Plan of Study with the adviser and committee using the online Plan of Study application (http://
planofstudy.okstate.edu/). The online submission requires approval by the advisory committee and the student's graduate program with final approval by the Graduate College.

Because the acceptance of work that the student desires to use toward the degree rests with the advisory committee, it is important to plan a complete program and have it approved by the dean of the Graduate College as soon as possible.

The original Plan of Study must be submitted to the Graduate College prior to the end of the third semester (excluding summer sessions) of enrollment in the doctoral program.

The Plan must include all the acceptable graduate work that has been completed and all that will be taken for the degree. The plan should include:

1. at least 75 percent of courses taken at the 5000-6000 level,
2. a minimum of 60 hours beyond the master's degree or 30 hours beyond the EdS, and
3. at least 10 hours of dissertation credit. Courses from a master's degree or EdS are not listed on the doctoral Plan of Study.

Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements.

Changes in the Plan of Study can be made with the approval of the advisory committee and the dean of the Graduate College. A final, accurate and approved plan must be filed by eighth week of the semester in which the degree is to be conferred.

21.6 Character of Work.
The satisfactory completion of coursework (see "General Regulations") is only one requirement for receiving the degree. The student must also:

1. pass a qualifying examination,
2. prepare an acceptable dissertation,
3. demonstrate the ability to do independent study,
4. pass a defense of dissertation, and
5. comply with any other requirements of the major department.

21.7 Residence Requirements.
A minimum of 30 credit hours must be taken at OSU. While the Graduate College does not have a specific residence requirement that applies to all graduate programs, departments may require a period of time in residence for students enrolled in departmental graduate programs. Programs must inform students of any residence requirements upon their admission to graduate programs.

21.8 Language and Research Instruments Proficiency.
All candidates will be expected to have a command of those instruments necessary in the study of educational problems. The doctoral advisory committee of each candidate may require evidence of proficiency in one or more foreign languages, educational research, statistics and computer usage.

21.9 Admission to Doctoral Candidacy.
Admission to doctoral candidacy marks the transition into the research phase of a doctoral degree and indicates agreement that the student has demonstrated the ability to do acceptable graduate work and that satisfactory progress has been made toward a degree. Consideration for candidacy requires the presentation of a written research proposal for doctoral research to the doctoral advisory committee, who will assess the proposal and offer the student pertinent counsel, advice and feedback. The approval of the research proposal by the advisory committee is the basic requirement for admission to doctoral candidacy; individual programs will normally impose additional requirements, such as the successful completion of oral and/or written comprehensive or qualifying examinations. These additional requirements may occur in conjunction with the presentation of the research proposal, or they may occur at different times within the course of doctoral study. Admission to doctoral candidacy is conferred with the approval of the dean of the Graduate College, on behalf of the Graduate Council, acting upon the recommendation of program faculty. It is the responsibility of the chair of the advisory committee to notify the Graduate College when admission to candidacy is granted by submitting the Admission to Doctoral Candidacy form.

21.10 Dissertation Hours Taken as a Doctoral Candidate.
Admission to candidacy must occur at least six months prior to the date of the final dissertation defense. Since admission to candidacy may occur at various times related to the academic calendar, the student will need to be admitted to candidacy early in the fall semester to be eligible to schedule their final dissertation defense and graduate in the spring; very early in the spring semester for summer graduation; and extremely early in the summer session for fall graduation. (See the Graduate College Calendar for term-specific dates.) If a student is admitted to candidacy prior to the first day of a given term, all dissertation hours taken that term and following may be included in the hours of dissertation research required as a doctoral candidate.

21.11 Dissertation.
A dissertation is required of each candidate for the Doctor of Education degree. The dissertation has three principal functions:

1. training in research,
2. promoting professional growth, and
3. contributing to professional knowledge in education. Not every dissertation will be expected to serve these three functions in the same way or to the same extent.

The format specifications, procedures and regulations for the dissertation are the same as for the PhD. The EdD candidate should refer to the "Doctor of Philosophy" section in the Graduate College chapter of the Catalog on dissertations and submission procedures through the Graduate College. The style of the document is to be determined by the advisory committee and should be reflective of publications in the student’s discipline. Any graduate student is writing a thesis must attend a format workshop prior to submission of their final copy. The dates for the workshops are on the Graduate Calendar and a webinar version is available.

22.0 Doctor of Philosophy (PhD) Degree Programs
The Doctor of Philosophy (PhD) degree is granted in recognition of high achievement in scholarship and independent investigation. The student must prove his or her acceptability by:

1. successfully completing a series of courses comprising a Plan of Study;
2. passing various examinations demonstrating academic competence;
3. carrying out a research program under supervision and preparing an acceptable dissertation; and
4. demonstrating initiative, creative intelligence, and ability to plan and carry out research in his or her chosen field.

22.1 Current Degree Inventory.
For the current listing of doctoral programs offered at OSU see the Graduate College website: https://gradcollege.okstate.edu/programs/listing-by-degree.html#Doctoral.

22.2 Basic Requirements.
The Doctor of Philosophy degree requires the number of credit hours as specified by the degree program with a minimum of 60 credit hours beyond the bachelor’s degree. These hours must include a minimum of 15 dissertation hours (6000) with a grade of “SR.” The maximum number of dissertation hours (6000 with a grade of “SR”) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program.

Also, see Section 11.2 for the number of times a course can be used in multiple degree Plans of Study.

22.3 Temporary Adviser.
At the beginning of a student’s doctoral program, the graduate program will designate a member of the Graduate Faculty to serve as temporary adviser to the student. The temporary adviser will assist the student in the early selection of courses. Often, it is the graduate coordinator who serves as the temporary adviser.

22.4 Advisory Committee.
Upon recommendation of the graduate program and approval of the dean of the Graduate College, an advisory committee of not fewer than four voting members will be appointed. The duties of the advisory committee consist of:

1. advising the student,
2. assisting the student in preparing a Plan of Study,
3. assisting in planning and conducting the research,
4. supervising the writing of the dissertation, and
5. conducting the dissertation defense.

The chair of the committee need not necessarily serve as the student’s research adviser, but must hold an OSU faculty appointment, be a member of the Graduate Faculty with doctoral chairing privileges, and have familiarity with the academic requirements of the degree sought. Each doctoral committee must have at least one member of the Graduate Faculty from outside the student’s major department. To view the roles and responsibilities associated with members of advisory committees, go to https://gradcollege.okstate.edu/prospective-students/best-practices.html.

The student should consult the members of the advisory committee frequently and keep them informed on the progress of his or her work.

22.5 Preliminary Conference.
As soon as the student is notified that an advisory committee has been appointed, the student should arrange with the chairperson for a conference with the committee. During the conference, the preparation and qualifications of the student for graduate work will be discussed and appropriate plans made for future study.

22.6 Plan of Study.
The student should develop the Plan of Study with the adviser and committee using the online Plan of Study application (http://planofstudy.okstate.edu/). The online submission requires approval by the advisory committee and the student’s graduate program with final approval by the Graduate College.

The original Plan of Study must be submitted to the Graduate College prior to the end of the third semester (excluding summer sessions) of enrollment in the doctoral program. The plan must include all the acceptable graduate work that has been completed and all that will be taken for the doctoral degree.

The Plan of Study must include all the acceptable graduate work that has been completed and all that will be taken for the doctoral degree. The Plan of Study should include:

1. at least 75 percent of courses taken at the 5000-6000 level,
2. a minimum of 60 hours beyond the master’s degree, and
3. a minimum of 15 (maximum of 45) dissertation hours (6000) with a grade of “SR” for the 60 hour doctorate or a minimum of 15 (maximum of 60) dissertation hours (6000) for the 90 hour doctorate.

Courses used to earn a master’s degree are not listed on the doctoral Plan of Study. Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements.

Changes in the Plan of Study can be made with the approval of the advisory committee and the dean of the Graduate College. A final, accurate and approved plan must be filed by the eighth week of the semester in which the degree is to be conferred.

22.7 Character of Work.
The satisfactory completion of coursework (see “General Regulations”) is only one requirement for receiving the degree. The student must also:

1. pass a qualifying examination,
2. prepare an acceptable dissertation,
3. demonstrate the ability to do independent study,
4. pass a defense of dissertation, and
5. comply with any other requirements of the major department.

22.8 Residence Requirements.
A minimum of 30 credit hours must be taken at OSU. While the Graduate College does not have a specific residence requirement that applies to all graduate programs, graduate programs may require a period of time in residence for students enrolled in departmental graduate programs. Programs must inform students of any residence requirements upon their admission to their graduate programs.

22.9 Language Requirement.
Foreign language or other proficiency requirements may be specified to meet the need for specific skills and areas of knowledge that facilitate research and contribute to wider understanding. Specific requirements are determined by graduate programs. In many fields, a reading knowledge of one or two modern foreign languages is an important part of scholarship and necessary for research. In other fields, proficiency in special and related disciplines may be required that will contribute to the needs of the individual program.
22.10 Admission to Doctoral Candidacy.
Admission to doctoral candidacy marks the transition into the research phase of a doctoral degree and indicates agreement that the student has demonstrated the ability to do acceptable graduate work and that satisfactory progress has been made toward a degree. Consideration for candidacy requires the presentation of a written research proposal for doctoral research to the doctoral advisory committee, who will assess the proposal and offer the student pertinent counsel, advice and feedback. The approval of the research proposal by the advisory committee is the basic requirement for admission to doctoral candidacy; individual programs will normally impose additional requirements, such as the successful completion of oral and/or written comprehensive or qualifying examinations. These additional requirements may occur in conjunction with the presentation of the research proposal, or they may occur at different times within the course of doctoral study. Admission to doctoral candidacy is conferred with the approval of the dean of the Graduate College, on behalf of the Graduate Council, acting upon the recommendation of program faculty. It is the responsibility of the chair of the advisory committee to notify the Graduate College when admission to candidacy is granted by submitting the Admission to Doctoral Candidacy form.

22.11 Dissertation Hours Taken as a Doctoral Candidate.
Admission to candidacy must occur at least six months prior to the date of the final dissertation defense.

Since admission to candidacy may occur at various times related to the academic calendar, the student will need to be admitted to candidacy early in fall semester to be eligible to schedule their final dissertation defense and graduate in the spring; very early in the spring semester for summer graduation; and extremely early in the summer session for fall graduation. See the Graduate College Calendar for term-specific dates.

22.12 Dissertation.
A dissertation (doctoral thesis) is required of each doctoral candidate. The subject of the dissertation must be approved by the advisory committee and the dissertation is prepared under the direction of members of the committee or a special dissertation committee approved by the advisory committee chair.

The dissertation must follow specifications in the Graduate College Thesis/ Dissertation Guidelines, available at http://gradcollege.okstate.edu/tdg. The style of the document is to be determined by the advisory committee and should be reflective of publications in the student's discipline. Any graduate student is writing a thesis must attend a format workshop prior to submission of their final copy. The dates for the workshops are on the Graduate Calendar and a webinar version is available.

All dissertation copies must have the necessary approval signatures before submission to the Graduate College.

It is strongly recommended that a graduate student submit complete copies of his or her dissertation to the committee members at least two weeks prior to the defense date, that the defense presentation be publicized, and that the dissertation defense occur on a date during the normal academic semesters and sessions. Graduate programs may have additional or more restrictive requirements for dissertation defenses.

The student should submit an electronic copy of the dissertation through the OSU electronic submission website. Instructions for on-line submission are given to the student after completion of the National Survey of Earned Doctorates. In addition, the student must submit to the

Graduate College one paper copy of the approval page with all original signatures and the student's name and CWID number entered at the top of the page. Both the electronic submission and paper approval page must be received no later than the stated final copy submission deadline date (see the Calendar at the front of the “Graduate College” chapter for dates).

22.13 Final Examination.
The student should arrange with the graduate program for the final examination and to distribute a copy of the dissertation as described in the preceding section. The final examination is primarily a defense of the dissertation. If the defense is judged inadequate, a decision on whether to permit re-examination will be made by the advisory committee. Another examination cannot be given for at least two months after a failure, and a graduate program may limit the number of times that the examination may be repeated. If the advisory committee decides against re-examination, the committee's decision is final. The outcome of the dissertation defense falls under the “professional and scholarly assessment made by faculty and advisory committees” and is not appealable.

The committee will notify the Graduate College immediately of results of the final examination. Following satisfactory completion of the final examination, the candidate will make changes in the dissertation as required by the committee and by the Graduate College and submit it in final form signed by the committee to the Graduate College by the semester deadline.

Please see the Graduate College's Best Practices: Advisory Committees and Defenses document for additional guidance (https://gradcollege.okstate.edu/prospective-students/best-practices.html).

Academic Calendar
Graduate College Academic Calendar
Refer also to the University Academic Calendar (p. 86).

<table>
<thead>
<tr>
<th>2019-2020</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class work begins</td>
<td>Aug 19</td>
<td>Jan 13</td>
<td>May 25</td>
</tr>
<tr>
<td>Admission to doctoral candidacy for summer graduation due in Graduate College</td>
<td>Feb 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission to doctoral candidacy for fall graduation due in Graduate College</td>
<td>Jun 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Event</td>
<td>Fall</td>
<td>Spring</td>
<td>Summer</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
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<td>------------</td>
</tr>
<tr>
<td>Last day to complete online submission of electronic dissertation or thesis, and paper submission of signature approval page</td>
<td>Dec 6</td>
<td>Apr 24</td>
<td>Jul 24</td>
</tr>
<tr>
<td>Term ends</td>
<td>Dec 6</td>
<td>May 8</td>
<td>Jul 31</td>
</tr>
<tr>
<td>Graduate Commencement</td>
<td>Dec 13</td>
<td>May 8</td>
<td></td>
</tr>
</tbody>
</table>

* Last day to file for your name to appear in Fall and Spring/Summer Commencement Book. Summer deadline is for graduation clearance only.

### 2020-2021 [Tentative]

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>Aug 17</td>
<td>Jan 11</td>
<td>May 24</td>
</tr>
<tr>
<td>2021</td>
<td>Feb 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>Jun 11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>Oct 16</td>
<td>Mar 5</td>
<td>Jun 11</td>
</tr>
<tr>
<td>2021</td>
<td>Nov 1</td>
<td>Apr 1</td>
<td>Jul 1</td>
</tr>
</tbody>
</table>

The following events were highlighted:

- **Thesis/Dissertation Workshop** (formerly FORMATT REVIEW DRAFT of dissertation or thesis): Attend workshop or watch the on-line tutorial.
- **Last day to file a Graduation Clearance Form and a revised plan of study (if needed) and to** Graduate College.
- **Last day to file a Graduation Application** (formerly diploma application).
- **Admission to doctoral candidacy for spring due in Graduate College**.
- **Priority deadline to submit results of thesis/dissertation oral defense form to Graduate College**.
- **Last day to submit results of thesis/dissertation defense forms to Graduate College to meet semester graduation deadlines**.
- **Priority deadline for online submission of electronic dissertation or thesis, and paper submission of signature approval page**.
<table>
<thead>
<tr>
<th>Priority deadline to submit results of thesis/dissertation oral defense form to Graduate College</th>
<th>Nov 27</th>
<th>Apr 9</th>
<th>Jul 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last day to submit results of thesis/dissertation defense forms to Graduate College to meet semester graduation deadlines</td>
<td>Nov 29</td>
<td>Apr 16</td>
<td>Jul 16</td>
</tr>
<tr>
<td>Priority deadline for online submission of electronic dissertation or thesis, and paper submission of signature approval page</td>
<td>Nov 23</td>
<td>Apr 16</td>
<td>Jul 16</td>
</tr>
<tr>
<td>Last day to complete online submission of electronic dissertation or thesis, and paper submission of signature approval page</td>
<td>Dec 4</td>
<td>Apr 23</td>
<td>Jul 23</td>
</tr>
<tr>
<td>Term ends</td>
<td>Dec 4</td>
<td>May 7</td>
<td>July 30</td>
</tr>
<tr>
<td>Graduate Commencement</td>
<td>Dec 11</td>
<td>May 7</td>
<td></td>
</tr>
</tbody>
</table>

* Last day to file for your name to appear in Fall and Spring/Summer Commencement Book. Summer deadline is for graduation clearance only.

**Graduate Programs**

- Accounting, MS (p. 1927)
- Agricultural Communications, MS (p. 1928)
- Agricultural Economics, MS (p. 1929)
- Agricultural Economics, PhD (p. 1805)
- Agricultural Education, MS (p. 1931)
- Agricultural Education, PhD (p. 1806)
- Animal Science, MS (p. 1932)
- Animal Science, PhD (p. 1807)
- Applied Educational Studies: Aviation and Space, EdD (p. 1808)
- Applied Statistics, MS (p. 1933)
- Art History, MA (p. 1934)
- Athletic Training, MAT (p. 1935)
- Aviation and Space, MS (p. 1937)
- Big Data Analytics, GCRT (p. 1892)
- Biochemistry and Molecular Biology, MS (p. 1938)
- Biochemistry and Molecular Biology, PhD (p. 1809)
- Bioinformatics, GCRT (p. 1893)
- Biomedical Sciences, MS (p. 1940)
- Biomedical Sciences, PhD (p. 1811)
- Biosystems Engineering, MS (p. 1943)
- Biosystems Engineering, PhD (p. 1813)
- Building Level Leadership, GCRT (p. 1894)
- Business Administration, MBA (p. 1944)
- Business Administration: Accounting, MBA (p. 1946)
- Business Administration: Accounting, PhD (p. 1814)
- Business Administration: Business Sustainability, MBA (p. 1947)
- Business Administration: Data Science, MBA (p. 1948)
- Business Administration: Economics, MBA (p. 1949)
- Business Administration: Energy Business, MBA (p. 1950)
- Business Administration: Entrepreneurship, MBA (p. 1951)
- Business Administration: Entrepreneurship, PhD (p. 1815)
- Business Administration: Executive Research, PhD (p. 1816)
- Business Administration: Finance, PhD (p. 1817)
- Business Administration: Global Marketing, MBA (p. 1952)
- Business Administration: Human Resource Management, MBA (p. 1953)
- Business Administration: Information Assurance, MBA (p. 1954)
- Business Administration: Management, PhD (p. 1818)
- Business Administration: Management Science and Information Systems, PhD (p. 1819)
- Business Administration: Marketing, PhD (p. 1820)
- Business Administration: Marketing Analytics, MBA (p. 1955)
- Business Administration: Nonprofit Management, MBA (p. 1956)
- Business Administration: Risk Management, MBA (p. 1957)
- Business Analytics, MS (p. 1958)
- Business Data Mining, GCRT (p. 1895)
- Business Sustainability, GCRT (p. 1896)
- Chemical Engineering, MS (p. 1959)
- Chemical Engineering, PhD (p. 1821)
- Chemistry, MS (p. 1960)
- Chemistry, PhD (p. 1823)
- Civil Engineering, MS (p. 1961)
- Civil Engineering, PhD (p. 1824)
- College Teaching, GCRT (p. 1897)
- Communication Sciences and Disorders, MS (p. 1962)
- Computer Science, MS (p. 1964)
- Computer Science, PhD (p. 1825)
- Counseling: Mental Health Counseling, MS (p. 1965)
- Counseling: School Counseling, MS (p. 1966)
- Creative Writing, MFA (p. 1968)
- Crop Science, PhD (p. 1826)
- Design, Housing and Merchandising: Apparel Design and Production, MS (p. 1969)
- Design, Housing and Merchandising: Interior Design, MS (p. 1970)
- Design, Housing and Merchandising: Merchandising, MS (p. 1971)
- Design, Housing and Merchandising: Retail Merchandising Leadership, MS (p. 1972)
- Developmental Disabilities, GCRT (p. 1898)
• District Level Leadership, GCRT (p. 1899)
• Economics, MS (p. 1973)
• Economics, PhD (p. 1827)
• Education: Curriculum Studies, PhD (p. 1828)
• Education: Educational Administration, EdS (p. 1830)
• Education: Educational Technology, PhD (p. 1831)
• Education: Language, Literacy and Culture, PhD (p. 1832)
• Education: Mathematics Education, PhD (p. 1833)
• Education: School Psychology, EdS (p. 1834)
• Education: Science Education, PhD (p. 1835)
• Education: Social Foundations of Education, PhD (p. 1836)
• Education: Special Education, PhD (p. 1838)
• Education: Workforce and Adult Education, PhD (p. 1839)
• Educational and Psychological Measurement, GCRT (p. 1900)
• Educational Leadership and Policy Studies: Educational Administration, PhD (p. 1840)
• Educational Leadership and Policy Studies: Higher Education, PhD (p. 1841)
• Educational Leadership Studies: College Student Development, MS (p. 1974)
• Educational Leadership Studies: Higher Education, MS (p. 1975)
• Educational Leadership Studies: School Administration, MS (p. 1976)
• Educational Psychology: Counseling Psychology, PhD (p. 1842)
• Educational Psychology: Educational Psychology, MS (p. 1977)
• Educational Psychology: Educational Psychology, PhD (p. 1843)
• Educational Psychology: Research, Evaluation Measurement and Statistics, MS (p. 1978)
• Educational Psychology: Research, Evaluation Measurement and Statistics, PhD (p. 1845)
• Educational Psychology: School Psychometrics, MS (p. 1980)
• Educational Technology: Educational Technology, MS (p. 1981)
• Educational Technology: School Library Media, MS (p. 1982)
• Electrical Engineering, MEN (p. 1983)
• Electrical Engineering, MS (p. 1984)
• Electrical Engineering, PhD (p. 1848)
• Engineering and Technology Management, GCRT (p. 1901)
• Engineering and Technology Management, MS (p. 1985)
• Engineering Technology: Fire Safety and Explosion Protection, MS (p. 1986)
• English, MA (p. 1988)
• English, PhD (p. 1849)
• English: Professional Writing, MA (p. 1989)
• English: Teaching English to Speakers of Other Languages, MA (p. 1991)
• Entomology, PhD (p. 1850)
• Entomology and Plant Pathology: Entomology, MS (p. 1993)
• Entomology and Plant Pathology: Plant Pathology, MS (p. 1994)
• Entrepreneurship, GCRT (p. 1902)
• Entrepreneurship, MS (p. 1995)
• Environmental Science, MS (p. 1996)
• Environmental Science, PhD (p. 1851)
• Environmental Sciences: Environmental Management Professional Science Masters, MS (p. 1997)
• Family and Consumer Sciences Education, MS (p. 1998)
• Family Financial Planning, GCRT (p. 1903)
• Family Financial Planning, MS (p. 1999)
• Fire and Emergency Management Administration, MS (p. 2000)
• Fire and Emergency Management Administration, PhD (p. 1852)
• Food Science, MS (p. 2002)
• Food Science, PhD (p. 1853)
• Forensic Arson, Explosives, Firearms, and Toolmarks Investigation, GCRT (p. 1904)
• Forensic Sciences, MS (p. 2003)
• Forensic Sciences: Arson, Explosives, Firearms and Toolmarks Investigation, MS (p. 2004)
• Forensic Sciences: Forensic Document Examination, MS (p. 2005)
• Forensic Sciences: Forensic Science Administration, MS (p. 2006)
• General Agriculture: Agribusiness, MAG (p. 2007)
• General Agriculture: Agriculture Leadership, MAG (p. 2009)
• Geography, MS (p. 2010)
• Geography, PhD (p. 1854)
• Geology, MS (p. 2011)
• Geology, PhD (p. 1855)
• Global Issues, GCRT (p. 1905)
• Global Health, MS (p. 2014)
• Global Studies, MS (p. 2014)
• Graphic Design, MFA (p. 2015)
• Grassland Management, GCRT (p. 1908)
• Health Analytics, GCRT (p. 1909)
• Health and Human Performance: Applied Exercise Science, MS (p. 2016)
• Health and Human Performance: Health Promotions, MS (p. 2017)
• Health and Human Performance: Physical Education, MS (p. 2018)
• Health Care Administration, MS (p. 2019)
• Health, Leisure and Human Performance: Health and Human Performance, PhD (p. 1856)
• Health, Leisure and Human Performance: Leisure Studies, PhD (p. 1857)
• History, MA (p. 2020)
• History, PhD (p. 1859)
• Horticulture, MS (p. 2021)
• Hospitality and Tourism Management, MS (p. 2022)
• Hospitality and Tourism Management, PhD (p. 1860)
• Human Development and Family Science: Applied Human Services, MS (p. 2024)
• Human Development and Family Science: Developmental and Family Sciences, MS (p. 2025)
• Human Development and Family Science: Early Childhood Education, MS (p. 2026)
• Human Development and Family Science: Family and Community Services, MS (p. 2027)
• Human Development and Family Science: Gerontology (Internet-Based Program), MS (p. 2028)
• Human Development and Family Science: Marriage and Family Therapy, MS (p. 2029)
• Human Resource Management, GCRT (p. 1910)
• Human Sciences: Design, Housing and Merchandising, PhD (p. 1862)
• Human Sciences: Hospitality Administration, PhD (p. 1863)
• Human Sciences: Human Development and Family Science, PhD (p. 1864)
• Industrial Engineering and Management, MS (p. 2031)
• Industrial Engineering and Management, PhD (p. 1866)
• Infant Mental Health, GCRT (p. 1911)
• Information Assurance, GCRT (p. 1912)
• Information Assurance, MS (p. 2032)
• Integrative Biology, MS (p. 2033)
• Integrative Biology, PhD (p. 1867)
• Integrative Design Building Envelope, GCRT (p. 1913)
• Interdisciplinary Studies, MS (p. 2034)
• Interdisciplinary Toxicology, GCRT (p. 1914)
• International Agriculture, MAG (p. 2035)
• International Agriculture, MS (p. 2036)
• Leisure Studies, MS (p. 2037)
• Management Information Systems, MS (p. 2039)
• Management Information Systems: Application Development, MS (p. 2040)
• Management Information Systems: Data Science, MS (p. 2041)
• Marketing Analytics, GCRT (p. 1915)
• Mass Communications, MS (p. 2042)
• Materials Science and Engineering, MS (p. 2044)
• Materials Science and Engineering, PhD (p. 1868)
• Mathematics, MS (p. 2046)
• Mathematics, PhD (p. 1871)
• Mechanical and Aerospace Engineering, MS (p. 2047)
• Mechanical and Aerospace Engineering, PhD (p. 1872)
• Medical Sciences, GCRT (p. 1916)
• Microbiology, Cell and Molecular Biology, MS (p. 2048)
• Microbiology, Cell and Molecular Biology, PhD (p. 1873)
• Museum and Curatorial Studies, GCRT (p. 1917)
• Music: Applied Music, MM (p. 2049)
• Music: Conducting, MM (p. 2050)
• Natural Resource Ecology and Management, MS (p. 2051)
• Natural Resource Ecology and Management, PhD (p. 1874)
• Non-Profit Management, GCRT (p. 1918)
• Nutritional Sciences, PhD (p. 1875)
• Nutritional Sciences: Dietetics (Internet-Based Program), MS (p. 2052)
• Nutritional Sciences: Nutrition, MS (p. 2053)
• Online Teaching, GCRT (p. 1919)
• Petroleum Engineering, MS (p. 2055)
• Philosophy, MA (p. 2056)
• Photonics, PhD (p. 1877)
• Physician Assistant Studies, MS (p. 2057)
• Physics, MS (p. 2058)
• Physics: Optics and Photonics, MS (p. 2059)
• Physics, PhD (p. 1879)
• Plant and Soil Science, MS (p. 2061)
• Plant Biology, MS (p. 2062)
• Plant Biology, PhD (p. 1880)
• Plant Pathology, PhD (p. 1881)
• Political Science, MA (p. 2063)
• Program Evaluation, GCRT (p. 1920)
• Psychology: Clinical, PhD (p. 1883)
• Psychology: Experimental Psychology, PhD (p. 1884)
• Public Health, GCRT (p. 1921)
• Public Health: Rural and Underserved Populations, MPH (p. 2064)
• Quantitative Financial Economics, MS (p. 2066)
• School Administration, EdD (p. 1885)
• School Library Certification, GCRT (p. 1922)
• School Psychology, PhD (p. 1886)
• Social Foundations of Education, MA (p. 2067)
• Sociology, MS (p. 2068)
• Sociology, PhD (p. 1887)
• Soil Science, PhD (p. 1888)
• Statistics, MS (p. 2070)
• Statistics, PhD (p. 1889)
• Teaching: Elementary, MATT (p. 2072)
• Teaching: Secondary Mathematics, MATT (p. 2073)
• Teaching: Secondary Science, MATT (p. 2074)
• Teaching English to Speakers of Other Languages, GCRT (p. 1923)
• Teaching, Learning and Leadership: Curriculum and Leadership Studies, MS (p. 2075)
• Teaching, Learning and Leadership: Elementary/Middle/Secondary Education/K-12 Education, MS (p. 2077)
• Teaching, Learning and Leadership: Gifted and Talented Education, MS (p. 2079)
• Teaching, Learning and Leadership: Mathematics/Science Education, MS (p. 2080)
• Teaching, Learning and Leadership: Reading and Literacy, MS (p. 2081)
• Teaching, Learning and Leadership: Special Education, MS (p. 2082)
• Teaching, Learning and Leadership: Workforce and Adult Education, MS (p. 2083)
• Theatre, MA (p. 2084)
• Veterinary Biomedical Science, MS (p. 2085)
• Veterinary Biomedical Science, PhD (p. 1890)
• Workforce and Adult Education, GCRT (p. 1924)

Faculty

The OSU Graduate Faculty are searchable by name and department in the Graduate Faculty Database on the Graduate College Website: http://graduatefaculty.okstate.edu/Default.aspx
• Agricultural Economics, PhD (p. 1805)
• Agricultural Education, PhD (p. 1806)
• Animal Science, PhD (p. 1807)
• Applied Educational Studies: Aviation and Space, EdD (p. 1808)
• Biochemistry and Molecular Biology, PhD (p. 1809)
• Biomedical Sciences, PhD (p. 1811)
• Biosystems Engineering, PhD (p. 1813)
• Business Administration: Accounting, PhD (p. 1814)
• Business Administration: Entrepreneurship, PhD (p. 1815)
• Business Administration: Executive Research, PhD (p. 1816)
• Business Administration: Finance, PhD (p. 1817)
• Business Administration: Management, PhD (p. 1818)
• Business Administration: Management Science and Information Systems, PhD (p. 1819)
• Business Administration: Marketing, PhD (p. 1820)
• Chemical Engineering, PhD (p. 1821)
• Chemistry, PhD (p. 1823)
• Civil Engineering, PhD (p. 1824)
• Computer Science, PhD (p. 1825)
• Crop Science, PhD (p. 1826)
• Economics, PhD (p. 1827)
• Education: Curriculum Studies, PhD (p. 1828)
• Education: Educational Administration, EdS (p. 1830)
• Education: Educational Technology, PhD (p. 1831)
• Education: Language, Literacy and Culture, PhD (p. 1832)
• Education: Mathematics Education, PhD (p. 1833)
• Education: School Psychology, EdS (p. 1834)
• Education: Science Education, PhD (p. 1835)
• Education: Social Foundations of Education, PhD (p. 1836)
• Education: Special Education, PhD (p. 1838)
• Education: Workforce and Adult Education, PhD (p. 1839)
• Educational Leadership and Policy Studies: Educational Administration, PhD (p. 1840)
• Educational Leadership and Policy Studies: Higher Education, PhD (p. 1841)
• Educational Psychology: Counseling Psychology, PhD (p. 1842)
• Educational Psychology: Educational Psychology, PhD (p. 1843)
• Educational Psychology: Research, Evaluation Measurement and Statistics, PhD (p. 1845)
• Educational Psychology: School Psychology, PhD (p. 1847)
• Electrical Engineering, PhD (p. 1848)
• English, PhD (p. 1849)
• Entomology, PhD (p. 1850)
• Environmental Science, PhD (p. 1851)
• Fire and Emergency Management Administration, PhD (p. 1852)
• Food Science, PhD (p. 1853)
• Geography, PhD (p. 1854)
• Geology, PhD (p. 1855)
• Health, Leisure and Human Performance: Health and Human Performance, PhD (p. 1856)
# Agricultural Economics, PhD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours

<table>
<thead>
<tr>
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<tr>
<td>Core Courses</td>
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<tr>
<td>ECON 6023</td>
<td>Microeconomic Theory II</td>
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<td>ECON 6043</td>
<td>Macroeconomic Theory II</td>
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<td>AGEC 6213</td>
<td>Advanced Econometrics</td>
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<td>STAT 4203</td>
<td>Mathematical Statistics I</td>
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<td>STAT 4213</td>
<td>Mathematical Statistics II</td>
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<tr>
<td>AGEC 6403</td>
<td>Advanced Production Economics</td>
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<tr>
<td>AGEC 6303</td>
<td>Advanced Agricultural Marketing ¹</td>
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<tr>
<td>AGEC 5703</td>
<td>Economics of Agriculture and Food Policy</td>
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<tr>
<td>AGEC 6102</td>
<td>Teaching Practicum in Agricultural Economics</td>
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**Hours Subtotal:** 26

**Electives**

Select at least 10 hours of electives: ²

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td>AGEC 5203</td>
<td>Advanced Agricultural Prices</td>
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<tr>
<td>AGEC 5233</td>
<td>Primary Data Analysis in Economic Research</td>
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<tr>
<td>AGEC 5311</td>
<td>Agricultural Marketing: Concepts and Tools</td>
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<tr>
<td>AGEC 5321</td>
<td>Agricultural Marketing and Economic Development</td>
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<td>AGEC 5331</td>
<td>Agricultural Marketing: Advanced Concepts</td>
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<td>AGEC 5403</td>
<td>Production Economics</td>
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<td>AGEC 5503</td>
<td>Economics of Natural and Environmental Resource Policy</td>
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<td>AGEC 5603</td>
<td>Advanced Agricultural Finance</td>
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<td>AGEC 5723</td>
<td>Plan &amp; Pol Devlpmnt</td>
<td></td>
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<tr>
<td>AGEC 6103</td>
<td>Advanced Applications of Mathematical Programming</td>
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<tr>
<td>ECON 6623</td>
<td>Economic Development I</td>
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<tr>
<td>ECON 6643</td>
<td>Economic Development II</td>
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</table>

**Hours Subtotal:** 10

**Thesis**

Total thesis hours based on advice of student’s advisory committee. ²

**Hours Subtotal:** 24

**Total Hours:** 60

1 Prerequisites of AGEC 5203 or AGEC 5311, 5321, and 5331.

2 Total number of hours for thesis must be approved by student’s advisory committee and will need to reach a total of 34 hours combined with electives.

## Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval

## General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
Agricultural Education, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

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<thead>
<tr>
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<th>Title</th>
<th>Hours</th>
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<tr>
<td></td>
<td><strong>Required Courses</strong></td>
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<tr>
<td>AGED 5823</td>
<td>Advanced Methods of Teaching Agriculture</td>
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<tr>
<td>AGED 6103</td>
<td>History and Philosophical Foundations of Agricultural and Extension Education</td>
<td></td>
</tr>
<tr>
<td>AGLE 5303</td>
<td>Foundations of Leadership Theory</td>
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</tr>
<tr>
<td>AGED 5863</td>
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<tr>
<td>AGED 6223</td>
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<tr>
<td>AGED 5983</td>
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<tr>
<td>AGED 6000</td>
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<td><strong>Hours Subtotal</strong></td>
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<td></td>
<td><strong>Specialty-area Courses</strong></td>
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<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education (or equivalent)</td>
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<td>STAT 5013</td>
<td>Statistics for Experimenters I</td>
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<tr>
<td>REMS 6003</td>
<td>Analyses of Variance (or equivalent)</td>
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</tr>
<tr>
<td>STAT 5023</td>
<td>Statistics for Experimenters II</td>
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<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies (or equivalent)</td>
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<td></td>
<td><strong>One additional qualitative research course</strong></td>
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<td></td>
<td><strong>Electives</strong></td>
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<tr>
<td>AGCM 5100</td>
<td>Special Topics in Agricultural Communications</td>
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<tr>
<td>AGCM 5101</td>
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<tr>
<td>AGCM 5103</td>
<td>History and Philosophical Foundations of Agricultural Communications</td>
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<tr>
<td>AGCM 5203</td>
<td>Theory and Practice in Agricultural Communications</td>
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<tr>
<td>AGCM 5213</td>
<td>Advanced Concepts in Agricultural Publishing</td>
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<td>AGCM 5303</td>
<td>Communicating Ethical Issues in Agriculture</td>
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<td>AGCM 5990</td>
<td>Advanced Studies in Agricultural Communications</td>
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<td>AGED 5101</td>
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<tr>
<td>AGED 5123</td>
<td>Adult Programs in Agricultural and Extension Education</td>
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<tr>
<td>AGED 5203</td>
<td>Grant Seeking</td>
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<td>AGED 5500</td>
<td>Directing Programs of Supervised Experience</td>
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<td>AGED 5990</td>
<td>Problems in Agricultural and Extension Education</td>
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<td>AGED 6100</td>
<td>Graduate Seminar in Agricultural Education</td>
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<td>AGED 6120</td>
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<td>AGLE 5353</td>
<td>Leadership in Agriculture</td>
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<td>AGLE 6203</td>
<td>Extension Program Development</td>
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<tr>
<td>AGED 5993</td>
<td>Qualitative Research Methods in Agricultural Education</td>
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<tr>
<td>AGED 6983</td>
<td>Qualitative Research Methods in Agricultural Education</td>
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</table>

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
## Animal Science, PhD

### Requirements for Students Matriculating in or before Academic Year 2019-2020
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td><strong>Required Courses</strong></td>
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</tr>
<tr>
<td>Select at least 15 hours from below with approval of the advisory committee and area of specialization:</td>
<td></td>
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<tr>
<td>ANSI 5102</td>
<td>Ethics and Professionalism in Animal and Food Science</td>
<td></td>
</tr>
<tr>
<td>ANSI 5101</td>
<td>Special Problems</td>
<td></td>
</tr>
<tr>
<td>ANSI 5113</td>
<td>Basic Reproductive Physiology</td>
<td></td>
</tr>
<tr>
<td>ANSI 5123</td>
<td>Functional and Molecular Endocrinology</td>
<td></td>
</tr>
<tr>
<td>ANSI 5213</td>
<td>Advances in Meat Science</td>
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<tr>
<td>ANSI 5303</td>
<td>Advanced Animal Breeding</td>
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<tr>
<td>ANSI 5313</td>
<td>Marker Assisted Selection in Livestock</td>
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<tr>
<td>ANSI 5333</td>
<td>Carcass Value Estimation Systems</td>
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<tr>
<td>ANSI 5553</td>
<td>Interpreting Animal and Food Science Research</td>
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<tr>
<td>ANSI 5573</td>
<td>Techniques in Animal Molecular Biology</td>
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<tr>
<td>ANSI 5613</td>
<td>Advanced Beef Production</td>
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<tr>
<td>ANSI 5733</td>
<td>Advanced Ruminant Nutrition</td>
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<tr>
<td>ANSI 5743</td>
<td>Rumenology</td>
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<tr>
<td>ANSI 5753</td>
<td>Animal Nutrition Techniques and Laboratory Methods</td>
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<td>ANSI 5763</td>
<td>Advanced Nonruminant Nutrition</td>
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<td>ANSI 5773</td>
<td>Protein Nutrition</td>
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<tr>
<td>ANSI 5783</td>
<td>Vitamin and Mineral Nutrition</td>
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<tr>
<td>FDSC 5000- and 6000-level courses</td>
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<tr>
<td><strong>Electives</strong></td>
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<tr>
<td>Select 15 hours of other graduate courses with the approval of the advisory committee and area of specialization.</td>
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</tr>
<tr>
<td>Choose from graduate level classes in STAT, BIOC, MICR, BIOL, ZOOL, NSCI, BVSC, or other courses deemed appropriate by advisory committee.</td>
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<tr>
<td><strong>Other Requirements</strong></td>
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<tr>
<td>ANSI 6000 or FDSC 6000 (Offered for variable credit, 1-10 credit hours, maximum of 30 credit hours.)</td>
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</tr>
<tr>
<td>ANSI 6110 or FDSC 6110 (Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.)</td>
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<tr>
<td><strong>Total Hours</strong></td>
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<td>60</td>
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</table>

1 Combined Required Courses, Electives and Other Requirements must total 60 hours.

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval

### Animal Science Requirements

- At least 75 percent of total credit hours must be 5000/6000 level courses.
Applied Educational Studies: Aviation and Space, EdD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 61 Hours

### Required Courses

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>AVED 5553</td>
<td>Aerospace Proposal and Procurement</td>
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</tr>
<tr>
<td>AVED 5573</td>
<td>Aerospace Defense Acquisition</td>
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</tr>
<tr>
<td>AVED 5593</td>
<td>Influencing Public Policy in the Aerospace Industry</td>
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<td>AVED 6000</td>
<td>Doctoral Thesis</td>
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<td>AVED 6103</td>
<td>Doctoral Seminar in Aerospace Education</td>
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</tr>
<tr>
<td>AVED 6303</td>
<td>The Application of Qualitative Methods in Aviation Research</td>
<td>3</td>
</tr>
<tr>
<td>AVED 6313</td>
<td>Administration of Aviation Institutions</td>
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<tr>
<td>AVED 6413</td>
<td>Development of Air and Space Flight</td>
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</tr>
<tr>
<td>AVED 6553</td>
<td>Foundations of Airline Executive Leadership</td>
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<tr>
<td>AVED 6613</td>
<td>Aviation Executive Development</td>
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</tr>
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<td>AVED 6773</td>
<td>Applied Aviation and Space Research</td>
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**Hours Subtotal**: 40

### Electives

Select 21 hours of the following:

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<td>AVED 5453</td>
<td>Advanced Aviation Security</td>
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<tr>
<td>AVED 5563</td>
<td>Aerospace Leadership and Management</td>
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<tr>
<td>AVED 5773</td>
<td>Historical Significance of Aviation</td>
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<tr>
<td>AVED 5823</td>
<td>Space Science</td>
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<tr>
<td>AVED 5883</td>
<td>Aviation Economics</td>
</tr>
<tr>
<td>AVED 5893</td>
<td>Aerospace Executive Decision Making</td>
</tr>
<tr>
<td>AVED 5963</td>
<td>Airport Operations</td>
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<tr>
<td>AVED 5973</td>
<td>Aerospace Law</td>
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<tr>
<td>AVED 5993</td>
<td>Ethics in Aviation</td>
</tr>
<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
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<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
</tr>
<tr>
<td>SCFD 6113</td>
<td>Theoretical Foundations of Inquiry</td>
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</tbody>
</table>

**Hours Subtotal**: 21

**Total Hours**: 61

### Additional Doctor of Education (Ed.D.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
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- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertations Submission/Approval

### General Graduate College Requirements

- A minimum Grade Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
# Biochemistry and Molecular Biology, PhD

## Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Total Hours: 60 Hours (Beyond the Master's Degree)

<table>
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<tr>
<th>Code</th>
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<th>Hours</th>
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<td><strong>Required Core Courses</strong></td>
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<td>Combined 45 hours of required core courses and electives to total 45 hours.</td>
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<tr>
<td>BIOC 5002</td>
<td>Research Compliance and Biochemistry Graduate Colloquium</td>
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<tr>
<td>BIOC 5112</td>
<td>Articulation of Research Logic</td>
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<tr>
<td>BIOC 5121</td>
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<td><strong>Other Core Courses Listed Below as Required by the Student's Advisor and Graduate Thesis Advisory Committee:</strong></td>
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<tr>
<td>BIOC 5753</td>
<td>Biochemical Principles</td>
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<tr>
<td>BIOC 5853</td>
<td>Metabolism</td>
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<tr>
<td>BIOC 5930</td>
<td>Advanced Biochemical Techniques (10 credits maximum)</td>
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<tr>
<td>BIOC 6110</td>
<td>Seminar</td>
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<tr>
<td>BIOC 6740</td>
<td>Physical Biochemistry</td>
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<tr>
<td>BIOC 6723</td>
<td>Signal Transduction</td>
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<tr>
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<td>Functional Genomics</td>
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<td>BIOC 6733</td>
<td>Protein Structure and Enzyme Function</td>
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<td>BIOC 6783</td>
<td>Biomembranes and Bioenergetics</td>
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<td>BIOC 6793</td>
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<td>BIOC 4723</td>
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<td>BIOC 5102</td>
<td>Molecular Genetics</td>
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<td>BIOC 5824</td>
<td>Biochemical Laboratory Methods</td>
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<td>BIOC 6820</td>
<td>Selected Topics in Biochemistry</td>
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<td><strong>Other Graduate-Level Courses Approved by the Graduate Committee</strong></td>
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<tr>
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1  Course to be taken 1 time each year prior to year of graduation.

### Total Hours: 90 Hours (Beyond the Bachelor's Degree)

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1  Course to be taken 1 time each year prior to year of graduation.

### Other Biochemistry and Molecular Biology, PhD, Requirements

- Pass PhD Preliminary Examination.
- Pass PhD Candidacy Examination: Present and pass the defense of a written research proposal.
- The student's Graduate Committee must approve the written thesis, and an oral defense on the content of the thesis must be passed.

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Additional Graduate College Masters
Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
### Biomedical Sciences, PhD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours

<table>
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<tr>
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<td><strong>Degree Core</strong></td>
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<td>BIOM 6000 (Offered for variable credit, 1-15 credit hours, maximum of 45 credit hours)</td>
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<td>BIOM 6662</td>
<td>Research Ethics and Survival Skills for the Biomedical Sciences</td>
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<td>BIOM 6922</td>
<td>Scientific Communication in Biomedical Sciences</td>
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<td>Select 26 hours from the following:</td>
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<td>BIOM 5010</td>
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<td>BIOM 5020</td>
<td>Biomedical Sciences Seminar</td>
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</tr>
<tr>
<td>BIOM 5116</td>
<td>Clinical Anatomy</td>
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<tr>
<td>BIOM 5122</td>
<td>Clinical Anatomy for Allied Healthcare</td>
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<td>BIOM 5316</td>
<td>Medical Microbiology and Immunology</td>
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<td>BIOM 5616</td>
<td>Graduate Biomedical Physiology</td>
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<tr>
<td>BIOM 5621</td>
<td>Introduction to Translational Research</td>
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<td>BIOM 5631</td>
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<tr>
<td>BIOM 5641</td>
<td>Cornerstones of Vertebrate Paleontology</td>
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<td>BIOM 5653</td>
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<td>BIOM 5663</td>
<td>Graduate Pharmacology</td>
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<tr>
<td>BIOM 5672</td>
<td>Scientific Outreach Training for Graduate Students</td>
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<tr>
<td>BIOM 5683</td>
<td>Chronic Inflammation and Cancer Development</td>
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<td>BIOM 5693</td>
<td>Principle Concepts of Cellular and Molecular Immunology</td>
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<td>BIOM 5703</td>
<td>Applied Multivariate and Evolutionary Analysis of Paleontological Data</td>
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<td>BIOM 6175</td>
<td>Molecular And Cellular Biology</td>
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<td>BIOM 6183</td>
<td>Cellular and Molecular Biology of Pain</td>
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<td>BIOM 6193</td>
<td>Paleommalogy</td>
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<td>BIOM 6214</td>
<td>Advanced Topics in Medical Biochemistry</td>
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<td>BIOM 6233</td>
<td>Enzyme Analysis</td>
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<td>Human Nutrition</td>
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<td>BIOM 6263</td>
<td>Techniques in Molecular Biology</td>
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<td>BIOM 6333</td>
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<td>Immunobiology of Infectious Disease</td>
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<td>BIOM 6413</td>
<td>Graduate General Pathology and Laboratory Medicine</td>
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<td>BIOM 6523</td>
<td>Cardiovascular Physiology and Pharmacology</td>
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<td>Genomics</td>
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<td>Field Techniques in Vertebrate Paleontology</td>
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<td>BIOM 6733</td>
<td>Microbial Pathogenesis</td>
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<td>BIOM 6743</td>
<td>Foundations in Medical Genetics, Molecular Biology and Development</td>
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<td>BIOM 6752</td>
<td>Foundations in Medical Cell and Tissue Biology</td>
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<td>BIOM 6762</td>
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<td>BIOM 6771</td>
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<td>BIOM 6781</td>
<td>Foundations in Medical Immunology</td>
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<td>BIOM 6791</td>
<td>Foundations in Medical Microbiology</td>
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<td>Critical Readings in Biomedical Sciences</td>
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<td>Structure and Function of the Human Gastrointestinal/Hepatic System</td>
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<td>Biomedical Perspectives on Human Hematology</td>
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<td>Structure and Function of the Human Musculoskeletal System</td>
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<td>BIOM 6850</td>
<td>Structure and Function of the Human Renal System</td>
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<td>BIOM 6860</td>
<td>Structure and Function of the Human Reproductive Systems and Reproductive Biology</td>
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<td>BIOM 6870</td>
<td>Structure and Function of the Human Respiratory System</td>
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<td>BIOM 6880</td>
<td>Biomedical Perspectives on Psychiatry</td>
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<td>BIOM 6980</td>
<td>Biomedical Perspectives on Psychiatry</td>
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Oklahoma State University
<table>
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<tr>
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<td>Structure and Function of the Human Nervous System</td>
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<tr>
<td>BIOM 6933</td>
<td>Cornerstones of Graduate Biomedical Sciences</td>
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<tr>
<td>BIOM 6943</td>
<td>Advanced Vertebrate Paleontology</td>
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<tr>
<td>BIOM 6952</td>
<td>Paleohistology Techniques</td>
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<tr>
<td>BIOM 6962</td>
<td>Evolutionary Biomechanics</td>
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**Hours Subtotal**: 26

**Other Requirements**
- Research Proposal
- Qualifying Exam
- Dissertation Defense

**Total Hours**: 60

**General Graduate College Requirements**
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**
- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Biosystems Engineering, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours

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<td>Teaching Practicum in Biosystems Engineering</td>
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<td>Advanced Math (if the student didn't take any advanced math in the Master’s program)</td>
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Hours Subtotal 5

Specialization and Dissertation
Combination of Dissertation and Specialization to total 55 hours. 55

Core Courses (By Specialty Area)

Biomechanical Systems
- BAE 5413 Advanced Instrumentation and Control Systems for Biological Applications
- BAE 6540 Prob Farm Power & Mach

Environment and Natural Resources
- BAE 6313 Stochastic Methods in Hydrology
- BAE 6333 Fluvial Hydraulics
- BAE 6343 Ground Water Contaminant Transport
- BAE 6520 Problems in Soil and Water Engineering

Bioprocessing and Biotechnology
- BAE 5213 Renewable Energy Engineering
- BAE 5283 Advanced Bioprocess Engineering
- BAE 5413 Advanced Instrumentation and Control Systems for Biological Applications
- CHE 5123 Advanced Chemical Reaction Engineering
- CHE 5373 Process Simulation
- CHE 5743 Chemical Engineering Process Modeling
- STAT 5303 Experimental Designs

Food Processing

No Required Core Courses

Research and Additional Requirements
- BAE 6000 (Offered for variable credit, 1-10 credit hours, maximum of 42 credit hours.)

Hours Subtotal 55

Total Hours 60

1 Prerequisites: BAE 4313 or CIVEN 5843 and STAT 4053.
2 Prerequisites: ENGSC 3233 or equivalent.
3 Prerequisites: AGRON 5583 or CIVEN 5913.
4 Prerequisites: CHEM 1515, BAE 4313 or equivalent.

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required

Non-Course requirements:
- Doctoral Candidacy
- Dissertation Defense
- Dissertation Submission/Approval

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
Business Administration: Accounting, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours

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<td>ECON 5223</td>
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<td>ECON 6013</td>
<td>Microeconomic Theory I</td>
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<td>STAT 5203</td>
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<td>STAT 5023</td>
<td>Statistics for Experimenters II</td>
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<td>STAT 5063</td>
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Dissertation Hours

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Doctoral Seminars

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<td>ACCT 6110</td>
<td>Graduate Readings and Special Topics in Accounting (Behavioral Research in Accounting)</td>
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<tr>
<td>ACCT 6110</td>
<td>Graduate Readings and Special Topics in Accounting (Analytical and Empirical Research)</td>
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<tr>
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<td>Graduate Readings and Special Topics in Accounting (Capital Markets Research)</td>
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Guided Electives

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For Archival Research Candidates

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<td>Graduate Readings and Special Topics in Accounting (Faculty-Guided Independent Study)</td>
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<td>AGEC 5213</td>
<td>Econometric Methods</td>
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<td>AGEC 6213</td>
<td>Advanced Econometrics</td>
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<td>ECON 6213</td>
<td>Econometrics I</td>
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<td>ECON 6243</td>
<td>Econometrics II</td>
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<td>FIN 5243</td>
<td>Financial Markets</td>
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<td>FIN 6053</td>
<td>Financial Theory and Corporate Policy</td>
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<td>FIN 6660</td>
<td>Seminar in Finance (Corporate Finance)</td>
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<td>STAT 5053</td>
<td>Time Series Analysis</td>
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For Behavioral Research Candidates

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<td>Advanced Methods in Management Research</td>
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<td>REMS 6003</td>
<td>Analyses of Variance</td>
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<td>STAT 5033</td>
<td>Nonparametric Methods</td>
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<td>STAT 5043</td>
<td>Sample Survey Designs</td>
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<td>STAT 5303</td>
<td>Experimental Designs</td>
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General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of "C" is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

• 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
• At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
• A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
• Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
• A minimum of 30 in-residence credit hours are required
• Non-Course requirements:
  • Doctoral Candidacy
  • Dissertation Defense
  • Dissertation Submission/Approval
Business Administration: Entrepreneurship, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours

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<td><strong>Doctoral Seminars</strong></td>
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<td>Requirements include department seminars in entrepreneurship and related disciplines, a minor area.</td>
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<td>EEE 6343 Entrepreneurship Processes</td>
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<td>EEE 6200 Entrepreneurship Research Project</td>
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<td></td>
<td>EEE 6213 Entrepreneurship: Theory and History</td>
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<td>EEE 6263 Theoretical Foundations in Entrepreneurship</td>
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<td>EEE 6353 Advanced Research Methods in Entrepreneurship</td>
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<td></td>
<td>EEE 6363 Individual Theories in Entrepreneurship Research</td>
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<td></td>
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General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
## Business Administration: Executive Research, PhD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours

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<td>MGMT 6343</td>
<td>Contemporary Research in Management I (Contemporary Research in Management II)</td>
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<td>MGMT 6353</td>
<td>Advanced Methods in Management Research</td>
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<td>MSIS 6100</td>
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<td>MSIS 6343</td>
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<tr>
<td>MKTG 6413</td>
<td>Advanced Marketing Research</td>
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<tr>
<td>BADM 6713</td>
<td>Theory Building and Scientific Research in Business</td>
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**Hours Subtotal** 21

**Dissertation**

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**Hours Subtotal** 18

**Doctoral Seminars**

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<td>BADM 6513</td>
<td>Org Science I: Micro Issues in Business</td>
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<td>Advanced Seminar in Marketing (Theory Building)</td>
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<tr>
<td>BADM 6100</td>
<td>Seminar in Business Administration (Applied Research Practicum I)</td>
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<td>BADM 6723</td>
<td>Dissertation Design</td>
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**Hours Subtotal** 15

**Guided Electives**

Select 6 Hours of additional courses required by the committee

**Hours Subtotal** 6

**Total Hours** 60

### Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Business Administration: Finance, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 69 Hours

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<td>ACCT 6110</td>
<td>Graduate Readings and Special Topics in Accounting</td>
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<td>ACCT 6703</td>
<td>Seminar in Accounting Research</td>
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<td>STAT 5033</td>
<td>Nonparametric Methods</td>
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<td>STAT 5043</td>
<td>Sample Survey Designs</td>
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<td>STAT 5053</td>
<td>Time Series Analysis</td>
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<td>STAT 5063</td>
<td>Multivariate Methods</td>
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<td>STAT 5073</td>
<td>Categorical Data Analysis</td>
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<td>STAT 5133</td>
<td>Stochastic Processes</td>
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<td>STAT 5213</td>
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Hours Subtotal: 15

Dissertation Hours

Select 15 hours of Thesis: 15

Hours Subtotal: 15

Doctoral Seminars

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<tr>
<td>FIN 5763</td>
<td>Derivative Securities and the Management of Financial Price Risk</td>
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<td>FIN 5773</td>
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Hours Subtotal: 24

Guided Electives

Required: Economics

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<tr>
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<td>ECON 5123</td>
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<td>ECON 5223</td>
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<tr>
<td>ECON 5243</td>
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<td>ECON 6243</td>
<td>Econometrics II</td>
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Hours Subtotal: 15

Total Hours: 69

General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of “C” is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

• 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
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• Non-Course requirements:
  • Doctoral Candidacy
  • Dissertation Defense
  • Dissertation Submission/Approval
Business Administration: Management, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours

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<tr>
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<td>Analyses of Variance</td>
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<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
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<td>REMS 6320</td>
<td>Doctoral Seminar in REMS</td>
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<td>MGMT 6553</td>
<td>Structural Equation Modeling Applications in Business</td>
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Hours Subtotal: 15

Dissertation
Select 18 hours of Dissertation

Hours Subtotal: 18

Doctoral Seminars

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<tr>
<td>MGMT 6313</td>
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<td>MGMT 6323</td>
<td>Advanced Strategic Management</td>
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<td>MGMT 6333</td>
<td>MESO Organization Studies</td>
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<tr>
<td>MGMT 6343</td>
<td>Contemporary Research in Management I</td>
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Hours Subtotal: 12

Guided Electives
Additional coursework will be chosen by the student, in conjunction with a faculty committee, to support the individual student’s specific interests and/or needs. In cases where an incoming student does not have an undergraduate degree in Business or an MBA, it may be determined that s/he needs to take one or more leveling courses in the functional areas of business (e.g., Accounting, Finance, Marketing, etc.).

Hours Subtotal: 15

Total Hours: 60

Additional Business Administration, PhD, Requirements
- Minimum grade of "B" required on all degree courses

General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements
- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
**Business Administration: Management Science and Information Systems, PhD**

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours

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**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**

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- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
**Business Administration: Marketing, PhD**

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours (Beyond the Master's Degree)

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<td>MKTG 6913</td>
<td>Measurement and Experimental Design</td>
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</tr>
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<td>MKTG 6323</td>
<td>Seminar in Advanced Consumer Behavior</td>
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</tr>
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<td>MKTG 6513</td>
<td>Seminar in Marketing Theory</td>
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<td>MKTG 6683</td>
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**Hours Subtotal**

15

**Electives**

27 hours of electives

**Required Electives**

- MKTG 6100 Advanced Seminar in Marketing
- BADM 6100 Seminar in Business Administration
- MSIS 6343 Advanced Methods in MSIS Research
- Additional electives chosen in consultation with adviser

**Hours Subtotal**

57

**Dissertation**

Select 18 hours of dissertation

**Hours Subtotal**

18

**Total Hours**

60

**Total Hours:** 90 Hours (Beyond the Bachelor's Degree)

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<td>MKTG 6913</td>
<td>Measurement and Experimental Design</td>
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<td>MKTG 6323</td>
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<td>MKTG 6513</td>
<td>Seminar in Marketing Theory</td>
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<tr>
<td>MKTG 6683</td>
<td>Seminar in Marketing Strategy</td>
<td>3</td>
</tr>
</tbody>
</table>

**Hours Subtotal**

15

**Electives**

57 hours of electives

**Required Electives**

- MKTG 6100 Advanced Seminar in Marketing
- BADM 6100 Seminar in Business Administration
- MSIS 6343 Advanced Methods in MSIS Research
- Additional electives chosen in consultation with adviser

**Hours Subtotal**

57

**Dissertation**

Select 18 hours of dissertation

**Hours Subtotal**

18

**Total Hours**

90

---

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**

- 90 credits beyond the Bachelor's degree, 60 credits beyond the Master's degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
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- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
### Chemical Engineering, PhD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours (Beyond the Master’s Degree from Oklahoma State University)

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<td>CHE 6703</td>
<td>Research Methods in Chemical Engineering</td>
<td>3</td>
</tr>
<tr>
<td><strong>Seminar</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHE 6010</td>
<td>(Offered for variable credit, 1 credit hour, maximum of 10 credit hours.)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td>6</td>
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<tr>
<td><strong>Electives</strong></td>
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<tr>
<td>Graduate-approved elective (CHE or other) courses, selected by the student, with approval of the student’s advisor.</td>
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</table>

1 With approval of the student’s advisory committee, additional elective courses may be taken, with a corresponding reduction in required credits in CHE 6000; but the number of CHE credits may be no less than 30.

**Total Hours:** 90 Hours (Beyond the Bachelor’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td><strong>Core Courses</strong></td>
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</tr>
<tr>
<td>CHE 5123</td>
<td>Advanced Chemical Reaction Engineering</td>
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<tr>
<td>CHE 5213</td>
<td>Advanced Transport Phenomena</td>
<td>3</td>
</tr>
<tr>
<td>CHE 5743</td>
<td>Chemical Engineering Process Modeling</td>
<td>3</td>
</tr>
<tr>
<td>CHE 5843</td>
<td>Principles of Chemical Engineering Thermodynamics</td>
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<tr>
<td>CHE 6703</td>
<td>Research Methods in Chemical Engineering</td>
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<td><strong>Hours Subtotal</strong></td>
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<td>15</td>
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<tr>
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<tr>
<td>CHE 6010</td>
<td>(Offered for variable credit, 1 credit hour, maximum of 10 credit hours.)</td>
<td>6</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
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<td>6</td>
</tr>
<tr>
<td><strong>Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
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<td><strong>Suggested Elective Courses</strong></td>
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<tr>
<td><strong>Fall Semester</strong></td>
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<tr>
<td>CHE 5293</td>
<td>Advanced Biomedical Engineering</td>
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<tr>
<td>CHE 5523</td>
<td>Colloid Processing</td>
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<tr>
<td>CHE 5273</td>
<td>Basic Physiology and Physiological System Analysis for Engineers</td>
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<tr>
<td><strong>Spring Semester</strong></td>
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<tr>
<td>CHE 5373</td>
<td>Process Simulation</td>
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<tr>
<td>CHE 5343</td>
<td>Advanced Environmental Engineering</td>
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<tr>
<td>CHE 5733</td>
<td>Neural Networks</td>
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<tr>
<td><strong>Thesis</strong></td>
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<td>90</td>
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</table>

2 With approval of the student’s advisory committee, additional elective courses may be taken, with a corresponding reduction in required credits in CHE 6000; but the number of CHE credits may be no less than 36.
General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of "C" is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

• 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
• At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
• A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
• Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
• A minimum of 30 in-residence credit hours are required
• Non-Course requirements:
  • Doctoral Candidacy
  • Dissertation Defense
  • Dissertation Submission/Approval
**Chemistry, PhD**

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 90 Hours

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td><strong>Core Courses</strong></td>
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<tr>
<td>CHEM 5001</td>
<td>Introduction to Chemistry Research</td>
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<tr>
<td>CHEM 5000</td>
<td>Thesis</td>
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<tr>
<td>CHEM 5011</td>
<td>Graduate Seminar</td>
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<td>CHEM 6010</td>
<td>Research Seminar</td>
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<td>CHEM 6011</td>
<td>Advanced Seminar</td>
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<td><strong>Electives</strong></td>
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<td>Select 20 hours from the following:</td>
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<tr>
<td>CHEM 5053</td>
<td>Foundations of Physical Chemistry</td>
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<tr>
<td>CHEM 5063</td>
<td>Foundations of Organic Chemistry</td>
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<tr>
<td>CHEM 5073</td>
<td>Foundations of Analytical Chemistry</td>
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</tr>
<tr>
<td>CHEM 5263</td>
<td>Foundations of Inorganic Chemistry</td>
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</tr>
<tr>
<td>CHEM 5103</td>
<td>Physical and Chemical Separations</td>
<td></td>
</tr>
<tr>
<td>CHEM 5223</td>
<td>Polymer Chemistry</td>
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<tr>
<td>CHEM 5373</td>
<td>Spectrometric Identification of Organic Compounds</td>
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<tr>
<td>CHEM 5443</td>
<td>Mechanism and Structure in Organic Chemistry</td>
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<tr>
<td>CHEM 5563</td>
<td>Chemical Thermodynamics I</td>
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<tr>
<td>CHEM 5963</td>
<td>Advanced Inorganic Chemistry</td>
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<tr>
<td>CHEM 6103</td>
<td>Electroanalytical Chemistry</td>
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<td>CHEM 6223</td>
<td>Physical Polymer Science</td>
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<td>CHEM 6420</td>
<td>Special Topics in Organic Chemistry</td>
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<td>CHEM 6650</td>
<td>Selected Topics in Advanced Physical and Inorganic Chemistry</td>
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<td><strong>Dissertation</strong></td>
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<td><strong>Total Hours</strong></td>
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**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required

- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Civil Engineering, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

<table>
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<th>Code</th>
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<td>Coursework</td>
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<td>Select 30 credit hours of approved 5000-level coursework.</td>
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<td></td>
<td>Thesis</td>
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</tr>
<tr>
<td></td>
<td>CIVE 6000 (Offered for variable credit, 1-16 credit hours, maximum of 30 credit hours.)</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
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<td></td>
<td>Total Hours</td>
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Total Hours: 90 Hours (Beyond the Bachelor’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Coursework</td>
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</tr>
<tr>
<td></td>
<td>Select 60 hours of approved 5000-level coursework.</td>
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<td></td>
<td>Hours Subtotal</td>
<td>60</td>
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<tr>
<td></td>
<td>Thesis</td>
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<tr>
<td></td>
<td>CIVE 6000 (Offered for variable credit, 1-16 credit hours, maximum of 30 credit hours.)</td>
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<td>Hours Subtotal</td>
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<tr>
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<td>Total Hours</td>
<td>90</td>
</tr>
</tbody>
</table>

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Computer Science, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours

<table>
<thead>
<tr>
<th>Code</th>
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<td>Core Requirements 1, 2</td>
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<tr>
<td>CS 5113</td>
<td>Computer Organization and Architecture</td>
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<tr>
<td>CS 5313</td>
<td>Formal Language Theory</td>
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<tr>
<td>CS 5323</td>
<td>Design and Implementation of Operating Systems II</td>
<td>3</td>
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<tr>
<td>CS 5413</td>
<td>Data Structures and Algorithm Analysis II</td>
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</tr>
<tr>
<td>CS 5513</td>
<td>Numerical Computation</td>
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<td>Hours Subtotal</td>
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<tr>
<td>Research Specialization</td>
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<tr>
<td>Select 12 hours from one area of CS at the 6000 level, excluding CS 6000.</td>
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<td>Hours Subtotal</td>
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<tr>
<td>Secondary Area of Study</td>
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<tr>
<td>Select 6 hours in one area of CS at the 6000 level, outside the area of specialization and excluding CS 6000.</td>
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<td>Hours Subtotal</td>
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<tr>
<td>Electives 3, 4</td>
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<tr>
<td>Select 6 hours of elective CS courses at the 5000-level or above.</td>
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<td>Hours Subtotal</td>
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</table>

1 For Ph.D. students who have not earned a master's degree, at most one grade of "C" in a core course is acceptable providing it is offset by a grade of "A" in another core course.
2 A student who has completed a master's degree at another university may petition to have one or more of the OSU core courses waived in favor of equivalent graduate-level course(s) taken elsewhere. The question or whether or not a course at another university is equivalent to an OSU core course is entirely up to the judgment of the department.
3 These elective hours cannot include any courses claimed Core Requirements, Research Specialization or Secondary Area of Study, nor may they include any courses used on the plan of study for a master's degree, nor may they include any hours of CS 5000 or of CS 6000.
4 Students who have not completed a master's degree must satisfy the above elective requirements in this item plus the elective requirements for the master's degree (under the thesis option) in this department.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor's degree, 60 credits beyond the Master's degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Crop Science, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
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</thead>
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<tr>
<td>Required Courses</td>
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<tr>
<td>PLNT 5020</td>
<td>Graduate Seminar</td>
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<tr>
<td>PLNT 5020</td>
<td>Graduate Seminar</td>
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<tr>
<td>SOIL 5131</td>
<td>Professional Development Colloquium in Plant and Soil Sciences</td>
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<td>SOIL 5120</td>
<td>Teaching Practicum in Plant and Soil Sciences</td>
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Additional Coursework Hours: 23

Total Subtotal: 27

Additional Coursework

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<th>Required Minimum Thesis Credit Hours</th>
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<tr>
<td>Additional Minimum Coursework or Thesis Credit Hours</td>
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Total Subtotal: 33

Total Hours: 60

1 This course is to be taken two separate times during the student's studies. The first seminar will consist of a topic agreed upon by the student and professor in charge of SOIL 5020 and should be relevant to a current controversy, significant research discovery, or other important issue related to Oklahoma or world agriculture. The second seminar will consist of a presentation of the student's research.

Crop Science Requirements

- No more than 15 credit hours of 3000- or 4000-level courses can be approved for graduate credit.
- No more than 6 credit hours of PLNT 5110 and PLNT 6010 can be approved for graduate credit.
- 18 additional credit hours as coursework, thesis hours (PLNT 6000) or research hours (PLNT 5230 - maximum of 8 credit hours total) can be granted toward graduation.
- All students must indicate on their plans of study whether or not their research will involve human subjects. If human subjects are to be used, approval must be received from the Institutional Research Board (IRB) prior to the beginning of the research.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Economics, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 64 Hours

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<td></td>
<td><strong>Required Courses</strong></td>
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<tr>
<td>ECON 5033</td>
<td>Macroeconomic Analysis</td>
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<td>ECON 5223</td>
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</tr>
<tr>
<td>ECON 5213</td>
<td>Introduction to Econometrics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 6000 Research and Thesis (offered for variable credit, 1-12 credit hours, maximum of 30 credit hours)</td>
<td>16</td>
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<tr>
<td>ECON 6013</td>
<td>Microeconomic Theory I</td>
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<td>ECON 6023</td>
<td>Microeconomic Theory II</td>
<td>3</td>
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<td>ECON 6033</td>
<td>Macroeconomic Theory I</td>
<td>3</td>
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<tr>
<td>ECON 6043</td>
<td>Macroeconomic Theory II</td>
<td>3</td>
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<tr>
<td>ECON 6213</td>
<td>Econometrics I</td>
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<td>ECON 6233</td>
<td>Time Series Econometrics</td>
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<td>ECON 6243</td>
<td>Econometrics II</td>
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<td>ECON 6623</td>
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<td>Regional Economic Analysis and Policy</td>
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<td>ECON 6913</td>
<td>Urban Economics</td>
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<tr>
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<td>Microeconomic Theory Prelim</td>
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</table>

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor's degree, 60 credits beyond the Master's degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program

- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
**Education: Curriculum Studies, PhD**

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 69 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td><strong>Common Program Core</strong></td>
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<td></td>
</tr>
<tr>
<td>SCFD 6983</td>
<td>Diversity and Equity Issues in Education</td>
<td>3</td>
</tr>
<tr>
<td>CIED 6503</td>
<td>Doctoral Seminar</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 6113</td>
<td>Theoretical Foundations of Inquiry</td>
<td>3</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

**Extended Inquiry**

One qualitative and one quantitative research course are required; only one of the four research courses may be at the 5000-level. Students select appropriate courses in consultation with their advisor and dissertation committee. Examples of courses are the following:

- CIED 5073 Pedagogical Research
- CIED 6073 Advanced Pedagogical Research
- CIED 6163 Advanced Research Strategies in Curriculum
- CIED 6253 Designing and Conducting Mixed Methods Research
- HIST 5023 Historical Methods
- REMS 5373 Educational Measurements
- REMS 6003 Analyses of Variance
- REMS 6013 Multiple Regression Analysis in Behavioral Studies
- REMS 6663 Applied Multivariate Research in Behavioral Studies
- SCFD 6123 Qualitative Research I
- SCFD 6190 Qualitative Research: Selected Methods
- SCFD 6193 Qualitative Research II
- SOC 5273 Qualitative Research Methods
- STAT 5043 Sample Survey Designs
- WAED 6110 Graduate Reading in Workforce and Adult Education

**Hours Subtotal**                                                | 12   |

**Specializations**

Students select appropriate courses in consultation with their advisor and dissertation committee. Examples of courses are the following:

- CIED 6030 Contemporary Issues in Curriculum Studies
- CIED 6033 Analysis of Teaching
- CIED 6043 Curriculum Leadership
- CIED 6053 Advanced Curriculum Studies
- CIED 6063 Curriculum History
- CIED 6073 Advanced Pedagogical Research
- CIED 6133 Theory to Practice in Education
- CIED 6143 School Reform

**Cognate Area**

Students select appropriate related courses in consultation with their advisor and dissertation committee. These are to be graduate courses available at Oklahoma State University, preferably outside the College of Education, Health and Aviation.

**Hours Subtotal**                                                | 9    |

**Independent Research**

- CIED 6000 Doctoral Dissertation

**Hours Subtotal**                                                | 15   |

**Total Hours**                                                   | 69   |

**College Teaching Emphasis Area**

Students select appropriate courses in consultation with their advisor and dissertation committee. Examples of courses are the following:

- EDLE 6713
- CIED 6030 Contemporary Issues in Curriculum Studies
- CIED 6033 Analysis of Teaching
- CIED 6073 Advanced Pedagogical Research
- CIED 6043 Curriculum Leadership
- CIED 6053 Advanced Curriculum Studies
- CIED 6133 Theory to Practice in Education
- CIED 6183 Advanced Media Literacy Across the Curriculum
- CIED 6030 Contemporary Issues in Curriculum Studies
- EDLE 5313
- HESA 6583 The Impact of College on Students and Society
- HESA 6753 Historical Development of Higher Education
- HESA 6843 The Academic Department

**Hours Subtotal**                                                | 24   |

**Education: Curriculum Studies Requirements**

- All students admitted into the Ph.D. degree option in Curriculum Studies are expected to meet all university requirements and the requirements for admission to the PhD in Education. For students with no or little background in curriculum studies, additional leveling work may be required. The student and the respective advisory committee determine such prerequisite considerations as they design the program of study. Specific graduate courses that may be required include CIED 5053, REMS 5013, and REMS 5953.
- Students will be expected to use technology resources appropriately in course projects, assignments, and research. For students with little or no background in the uses of technology, additional leveling work may be required. Students may select the Curriculum Studies Specialization or the Specialization with the Emphasis in College Teaching.
General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor's degree, 60 credits beyond the Master's degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
### Education: Educational Administration, EdS

#### Requirements for Students Matriculating in or before Academic Year 2019-2020
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 36 Hours (Beyond the Master’s Degree)

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>EDLE 6483</td>
<td>School Leadership, Culture and Ethics</td>
<td>3</td>
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<tr>
<td>EDLE 6493</td>
<td>School Improvement/Reform</td>
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</tr>
<tr>
<td>EDLE 6633</td>
<td>School Leadership and Community Collaboration</td>
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**Hours Subtotal:** 9

**Emphasis Core**

<table>
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<tr>
<th>Code</th>
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<tr>
<td>EDLE 6453</td>
<td>Special Topics in Education Law</td>
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<tr>
<td>EDLE 6353</td>
<td>The Superintendency</td>
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</tr>
<tr>
<td>EDLE 6363</td>
<td>Special Topics in School Finance Policy</td>
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</tr>
<tr>
<td>EDLE 6423</td>
<td>The Politics of Education</td>
<td>3</td>
</tr>
<tr>
<td>or EDLE 6393</td>
<td>The Human Factor in Administering Schools</td>
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</tr>
<tr>
<td>EDLE 6603</td>
<td>Organizational Theory in Education</td>
<td>3</td>
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<tr>
<td>or EDLE 5953</td>
<td>Developing Educational Organizations</td>
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**Hours Subtotal:** 15

**Research and Inquiry**

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<tbody>
<tr>
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<td>SCFD 6123</td>
<td>Qualitative Research I</td>
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<tr>
<td>or REMS 6373</td>
<td>Program Evaluation</td>
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**Hours Subtotal:** 6

**Fieldwork**

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<td>EDLE 6883</td>
<td>Internship in Education I</td>
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<tr>
<td>EDLE 6893</td>
<td>Internship in Education II</td>
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</table>

**Hours Subtotal:** 6

**Required Creative Component: Portfolio**

The Portfolio, designed and completed by Candidates to exhibit competency in the ELCC Standards, serves as the required Creative Component for the Ed.S. degree in School Administration; satisfactory completion of the Portfolio is required for degree completion and recommendation for certification.

**Total Hours:** 36

1 Designates prerequisites.

### Additional Education Specialist (EdS) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertations Submission/Approval

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
# Education: Educational Technology, PhD

## Requirements for Students Matriculating in or before Academic Year 2019-2020

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 69 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>Common Core</strong> (Plan to take these 1st or 2nd semester)</td>
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<tr>
<td>SCFD 6983</td>
<td>Diversity and Equity Issues in Education</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 6113</td>
<td>Theoretical Foundations of Inquiry</td>
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<tr>
<td>CIED 6503</td>
<td>Doctoral Seminar</td>
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</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
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</tr>
<tr>
<td></td>
<td><strong>Research Courses</strong></td>
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<tr>
<td></td>
<td>Select 12 hours from the following:</td>
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<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
<td></td>
</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
<td></td>
</tr>
<tr>
<td>SCFD 6123</td>
<td>Qualitative Research I</td>
<td></td>
</tr>
<tr>
<td>SCFD 6193</td>
<td>Qualitative Research II</td>
<td></td>
</tr>
<tr>
<td>CIED 6253</td>
<td>Designing and Conducting Mixed Methods Research</td>
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</tr>
<tr>
<td>CIED 6073</td>
<td>Advanced Pedagogical Research</td>
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</tr>
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<td></td>
<td><strong>Hours Subtotal</strong></td>
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<tr>
<td></td>
<td><strong>Specialization</strong></td>
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<td>Select 24 hours from the following:</td>
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</tr>
<tr>
<td>EDTC 5203</td>
<td>Foundations of Educational Technologies</td>
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<tr>
<td>EDTC 5503</td>
<td>Facilitating Online Learning</td>
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<tr>
<td>EDTC 6153</td>
<td>Advanced Computer-Based Instructional Development</td>
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<tr>
<td>EDTC 6333</td>
<td>Human Computer Interaction</td>
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<tr>
<td>EDTC 6423</td>
<td>Trends and Issues in Educational Technology</td>
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<tr>
<td>CIED 6183</td>
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<td>EPSY 6613</td>
<td>Instructional Systems Design</td>
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<td>EDTC 6283</td>
<td>Performance Improvement Technology</td>
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<tr>
<td>EDTC 6850</td>
<td>Directed Reading</td>
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<tr>
<td>EDTC 6880</td>
<td>Internship in Education</td>
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<tr>
<td>EDTC 6910</td>
<td>Practicum</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td><strong>Cognate Area of Study</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note: The Graduate Certificate in Online Teaching can be used as a cognate (must apply through the Graduate College since this is a separate program).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 9 hours from the following:</td>
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<tr>
<td>EDTC 5053</td>
<td>Learning in a Digital Age</td>
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<tr>
<td>EDTC 5103</td>
<td>Advanced Computing Applications in Education</td>
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<tr>
<td>EDTC 5153</td>
<td>Computer-Based Instruction Development</td>
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<tr>
<td>EDTC 5503</td>
<td>Facilitating Online Learning</td>
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</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
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<table>
<thead>
<tr>
<th>Hours Subtotal</th>
<th>9</th>
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</thead>
<tbody>
<tr>
<td><strong>Dissertation</strong></td>
<td>EDTC 6000  Doctoral Dissertation 15</td>
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<td><strong>Hours Subtotal</strong></td>
<td>15</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td>69</td>
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</tbody>
</table>

## General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

## Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor's degree, 60 credits beyond the Master's degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required

## Non-Course requirements:
- Doctoral Candidacy
- Dissertation Defense
- Dissertation Submission/Approval
Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 69 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCFD 6983</td>
<td>Diversity and Equity Issues in Education</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 6113</td>
<td>Theoretical Foundations of Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>CIED 6503</td>
<td>Doctoral Seminar</td>
<td>3</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>9</strong></td>
</tr>
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Research Methods

Select 12 hours from courses such as these: 12

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CIED 6073</td>
<td>Advanced Pedagogical Research</td>
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</tr>
<tr>
<td>CIED 6253</td>
<td>Designing and Conducting Mixed Methods Research</td>
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</tr>
<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
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</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
<td></td>
</tr>
<tr>
<td>REMS 6023</td>
<td>Psychometric Theory</td>
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</tr>
<tr>
<td>REMS 6033</td>
<td>Factor Analysis in Behavioral Research</td>
<td></td>
</tr>
<tr>
<td>CIED 6663</td>
<td>Applied Multivariate Research in Behavioral Studies</td>
<td></td>
</tr>
<tr>
<td>REMS 5963</td>
<td>Computer Applications in Nonparametric Data Analyses</td>
<td></td>
</tr>
<tr>
<td>SCFD 6123</td>
<td>Qualitative Research I</td>
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</tr>
<tr>
<td>SCFD 6190</td>
<td>Qualitative Research: Selected Methods</td>
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</tr>
<tr>
<td>SCFD 6193</td>
<td>Qualitative Research II</td>
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</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Language, Literacy and Culture Option

Select 24 hours from the following: 24

<table>
<thead>
<tr>
<th>Code</th>
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<th>Hours</th>
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<tr>
<td>CIED 5473</td>
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<tr>
<td>CIED 5483</td>
<td>Literacy and Technology Across the Curriculum</td>
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<tr>
<td>CIED 5733</td>
<td>History of Reading</td>
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<tr>
<td>CIED 6060</td>
<td>Advanced Special Topics in Literacy Education</td>
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<tr>
<td>CIED 6083</td>
<td>Seminar in Writing Pedagogy</td>
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<tr>
<td>CIED 6093</td>
<td>English Language Learners: Theory, Research, Policy and Practice</td>
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<td>CIED 6193</td>
<td>21st Century Literacies: Theory, Research, and Practice</td>
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<tr>
<td>CIED 6433</td>
<td>Seminar in Literacy</td>
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<tr>
<td>CIED 6653</td>
<td>Issues and Trends in Adolescent Literacy</td>
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<td>CIED 6673</td>
<td>Theory and Research on Teaching Contemporary Children’s and YA Literature</td>
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<tr>
<td>CIED 6680</td>
<td>Language, Literacy and Culture</td>
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</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
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</table>

Independent Research

CIED 6000 Doctoral Dissertation 15

**Hours Subtotal** 15

Electives/Cognate

The doctoral advisory committee will work with individual students to select the most appropriate courses to enhance their knowledge within their specializations.

**Hours Subtotal** 9

Total Hours 69

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
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  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 69 Hours (Beyond the Master’s Degree)

<table>
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<tr>
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<tr>
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<td>Diversity and Equity Issues in Education</td>
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</tr>
<tr>
<td>SCFD 6113</td>
<td>Theoretical Foundations of Inquiry</td>
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<tr>
<td>CIED 6503</td>
<td>Doctoral Seminar</td>
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</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Extended Inquiry

At least six of these hours, selected from courses such as those listed below, should be comprised of the same type of research method (i.e., quantitative, qualitative, historical, etc.). Students should work with their advisory committee to select the appropriate 12 hours for their program of study.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>CIED 6073</td>
<td>Advanced Pedagogical Research</td>
</tr>
<tr>
<td>CIED 6253</td>
<td>Designing and Conducting Mixed Methods</td>
</tr>
<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
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<td>REMS 6023</td>
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<td>REMS 6033</td>
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<tr>
<td>REMS 6663</td>
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<tr>
<td>REMS 5963</td>
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<td>Qualitative Research I</td>
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<tr>
<td>SCFD 6190</td>
<td>Qualitative Research: Selected Methods</td>
</tr>
<tr>
<td>SCFD 6193</td>
<td>Qualitative Research II</td>
</tr>
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<td>MATH 5913</td>
<td>Introduction to Research in Mathematics Education</td>
</tr>
<tr>
<td>MATH 6923</td>
<td>Research in Undergraduate Mathematics Education</td>
</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
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</table>

Cognate Area

The doctoral advisory committee will work with individual students to select the most appropriate courses to enhance their knowledge within their specializations.

<table>
<thead>
<tr>
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<th>Title</th>
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<td>CIED 6000</td>
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<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
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</table>

Specialization - Mathematics Education

Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>SMED 6223</td>
<td>Instruction and Learning in Science and Mathematics Education</td>
<td>3</td>
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<tr>
<td>SMED 6233</td>
<td>Affective Issues in Teaching Mathematics and Sciences</td>
<td>3</td>
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Elective Courses

Select 15 hours from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>CIED 5850</td>
<td>Directed Study</td>
<td>15</td>
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<tr>
<td>CIED 6910</td>
<td>Practicum</td>
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</tr>
<tr>
<td>CIED 6850</td>
<td>Directed Reading</td>
<td></td>
</tr>
<tr>
<td>SMED 5253</td>
<td>Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions</td>
<td></td>
</tr>
<tr>
<td>SMED 5263</td>
<td>Assessment and Evaluation in School Mathematics</td>
<td></td>
</tr>
<tr>
<td>SMED 5270</td>
<td>Practicum in School Mathematics</td>
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</tr>
<tr>
<td>SMED 5273</td>
<td>Number Concepts and Assessment at the Elementary Level (PK-6)</td>
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<tr>
<td>SMED 5283</td>
<td>Problem-Centered Learning in Mathematics</td>
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<tr>
<td>SMED 5293</td>
<td>Teaching and Learning Mathematics in Technology</td>
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<tr>
<td>SMED 5613</td>
<td>Effective Teaching of Mathematics in the Secondary School</td>
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<tr>
<td>SMED 5750</td>
<td>Seminar in Mathematics Education</td>
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<tr>
<td>SMED 5913</td>
<td>Teaching Geometry and Spatial Visualization</td>
<td></td>
</tr>
<tr>
<td>SMED 5923</td>
<td>Teaching Algebra and Mathematical Tasks</td>
<td></td>
</tr>
<tr>
<td>SMED 5933</td>
<td>Teaching Data and Probability in Schools</td>
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<td>SMED 5943</td>
<td>Mathematics Leadership and Coaching</td>
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<td></td>
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General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required

Non-Course requirements:
- Doctoral Candidacy
- Dissertation Defense
- Dissertation Submission/Approval
Education: School Psychology, EdS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 83-87 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>SPSY 5023</td>
<td>Introduction to School Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SPSY 5113</td>
<td>Developmental Psychopathology</td>
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<tr>
<td>EPSY 5103</td>
<td>Human Development in Psychology</td>
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<td>REMS 5013</td>
<td>Research Design and Methodology</td>
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<td>SPSY 5110</td>
<td>Observation and Participation Field Experience for School Psychology Majors</td>
<td>2</td>
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<tr>
<td>SPSY 5793</td>
<td>Individual Intellectual Assessment of Children and Youth</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
<td>3</td>
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<tr>
<td>SPSY 5000</td>
<td>Master's Thesis</td>
<td>2-6</td>
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<tr>
<td>SPSY 6313</td>
<td>Advanced Interventions for Increased Academic Achievement</td>
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<tr>
<td>SPSY 6143</td>
<td>Introduction to Developmental Psychopharmacology</td>
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<td>SPSY 5803</td>
<td>Advanced Cognitive Assessment and Theory</td>
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<tr>
<td>FDEP 5463</td>
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<tr>
<td>SPSY 6333</td>
<td>Instructional Assessment and Consultation</td>
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<td>SPSY 5853</td>
<td>Applied Behavior Analysis</td>
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<td>SPSY 5210</td>
<td>Introductory Practicum in School Psychology</td>
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<td>SPSY 5813</td>
<td>Parent and Family Intervention in School Psychology</td>
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<td>SPSY 6343</td>
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<td>SPSY 6113</td>
<td>Behavioral and Personality Assessment of Children and Youth</td>
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<td>FDEP 5183</td>
<td>Theories of Social Psychology</td>
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<td>SPSY 6253</td>
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<td>SPSY 5873</td>
<td>Applied Behavior Analysis II</td>
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<td>SPSY 5510</td>
<td>Advanced Practicum in School Psychology</td>
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<tr>
<td>SPSY 6033</td>
<td>Introduction to Psychotherapy with Children and Adolescents</td>
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<tr>
<td>Creative Component</td>
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<tr>
<td>SPSY 5503</td>
<td>Crisis Intervention and Emergency Action in School Settings</td>
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<tr>
<td>SPSY 5310</td>
<td>Practicum in Child and Adolescent Therapy</td>
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<tr>
<td>SPSY 6210</td>
<td>Specialist Internship in School Psychology</td>
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</table>

**Total Hours:** 83-87

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted

**Additional Education Specialist (EdS) Requirements**

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required

**Non-Course requirements:**
- Doctoral Candidacy
- Dissertation Defense
- Dissertations Submission/Approval
Education: Science Education, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 69 hours (Beyond the Master's Degree)

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<tr>
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<td>CIED 6073</td>
<td>Advanced Pedagogical Research</td>
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<tr>
<td>CIED 6253</td>
<td>Designing and Conducting Mixed Methods Research</td>
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<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
<td></td>
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<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
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<tr>
<td>REMS 6023</td>
<td>Psychometric Theory</td>
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<tr>
<td>REMS 6033</td>
<td>Factor Analysis in Behavioral Research</td>
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<td>REMS 6663</td>
<td>Applied Multivariate Research in Behavioral Studies</td>
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<td>REMS 5963</td>
<td>Computer Applications in Nonparametric Data Analyses</td>
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<td>SCFD 6123</td>
<td>Qualitative Research I</td>
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</tr>
<tr>
<td>SCFD 6190</td>
<td>Qualitative Research: Selected Methods</td>
<td></td>
</tr>
<tr>
<td>SCFD 6193</td>
<td>Qualitative Research II</td>
<td></td>
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<tr>
<td>Hours Subtotal</td>
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</table>

Extended Inquiry

At least six of these hours, selected from courses such as those listed below, should be composed of the same type of research method (i.e., quantitative, qualitative, historical, etc.). Students should work with their advisory committee to select the appropriate 12 hours for their program of study.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
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<td>CIED 6910</td>
<td>Practicum</td>
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<td>CIED 6850</td>
<td>Directed Reading</td>
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<tr>
<td>CIED 5720</td>
<td>Education Workshop</td>
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<tr>
<td>CIED 5850</td>
<td>Directed Study</td>
<td></td>
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<td>CIED 6850</td>
<td>Directed Reading</td>
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<td>CIED 6910</td>
<td>Practicum</td>
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<td>SMED 5050</td>
<td>Seminar in Integrated Mathematics and Science Applications</td>
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<tr>
<td>SMED 5193</td>
<td>Inquiry and Problem-Based Learning in Science Education</td>
<td></td>
</tr>
<tr>
<td>SMED 5223</td>
<td>Teaching Science in the Schools</td>
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<tr>
<td>SMED 5243</td>
<td>Environmental Education in the Curriculum</td>
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<td>SMED 5280</td>
<td>Workshop in Science Education</td>
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<td>SMED 5313</td>
<td>Introduction to K-12 Engineering Education</td>
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<tr>
<td>SMED 5323</td>
<td>Technology for the K-12 STEM Educator</td>
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<tr>
<td>SMED 5333</td>
<td>Developing Informal and Formal STEM Programs in Schools</td>
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<tr>
<td>SMED 5813</td>
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<tr>
<td>SMED 6123</td>
<td>Teaching the Nature of Science in Secondary Science Education</td>
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<tr>
<td>Hours Subtotal</td>
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Cognate Area

The doctoral advisory committee will work with individual students to select the most appropriate courses to enhance their knowledge within their specializations.

<table>
<thead>
<tr>
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<th>Title</th>
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</thead>
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<tr>
<td>CIED 5720</td>
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<td>CIED 5850</td>
<td>Directed Study</td>
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<tr>
<td>SMED 5000</td>
<td>Seminar in Integrated Mathematics and Science Applications</td>
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<tr>
<td>SMED 5193</td>
<td>Inquiry and Problem-Based Learning in Science Education</td>
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<tr>
<td>SMED 5223</td>
<td>Teaching Science in the Schools</td>
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<tr>
<td>SMED 5243</td>
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<td>SMED 5280</td>
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<td>SMED 5313</td>
<td>Introduction to K-12 Engineering Education</td>
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<tr>
<td>SMED 5323</td>
<td>Technology for the K-12 STEM Educator</td>
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<tr>
<td>SMED 5813</td>
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<tr>
<td>SMED 6123</td>
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Independent Research

<table>
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<th>Hours</th>
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<tbody>
<tr>
<td>CIED 6000</td>
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Specialization - Science Education

Required Courses

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<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMED 6223</td>
<td>Instruction and Learning in Science and Mathematics Education</td>
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</tr>
<tr>
<td>SMED 6233</td>
<td>Affective Issues in Teaching Mathematics and Sciences</td>
<td></td>
</tr>
<tr>
<td>SMED 6750</td>
<td>Research in Mathematics and Science Education</td>
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<tr>
<td>Electives</td>
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Select 15 hours from the following: 15

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</thead>
<tbody>
<tr>
<td>CIED 5850</td>
<td>Directed Study</td>
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</tbody>
</table>

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor's degree, 60 credits beyond the Master's degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required

Non-Course requirements:
- Doctoral Candidacy
- Dissertation Defense
- Dissertation Submission/Approval
Education: Social Foundations of Education, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 69 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<td>SCFD 6983</td>
<td>Diversity and Equity Issues in Education</td>
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<td>SCFD 6113</td>
<td>Theoretical Foundations of Inquiry</td>
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<td>CIED 6503</td>
<td>Doctoral Seminar</td>
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<tr>
<td><strong>Hours Subtotal</strong></td>
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Research Courses

12 credit hours, at least one qualitative and one quantitative course at 6000-level. (Note: all 6000-level REMS quantitative courses require prerequisites of REMS 5013 and REMS 5953, which will not count toward the 69 total hours). Only one 5000-level course (excluding REMS 5013 and REMS 5953) may count toward the required coursework in this category.

Pending committee approval, appropriate courses include the following:

<table>
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<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CIED 6073</td>
<td>Advanced Pedagogical Research</td>
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<td>CIED 6163</td>
<td>Advanced Research Strategies in Curriculum</td>
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<tr>
<td>CIED 6523</td>
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<td>EDLE 6910</td>
<td>Practicum (May only be taken the last term of coursework)</td>
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<tr>
<td>HIST 5023</td>
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<td>HIST 6023</td>
<td>Historiography</td>
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<tr>
<td>REMS 6373</td>
<td>Program Evaluation</td>
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<td>REMS 6383</td>
<td>Program Evaluation II</td>
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Quantitative Approaches

<table>
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<tr>
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<td>REMS 5013</td>
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<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
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<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
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</tr>
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<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
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<td>REMS 6663</td>
<td>Applied Multivariate Research in Behavioral Studies</td>
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<td>STAT 5033</td>
<td>Nonparametric Methods</td>
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<td>STAT 5043</td>
<td>Sample Survey Designs</td>
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Qualitative Methodologies

<table>
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<td>GEOG 5423</td>
<td>Geographic Renderings in Qualitative Methods</td>
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<tr>
<td>SCFD 5913</td>
<td>Introduction to Qualitative Inquiry</td>
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<tr>
<td>SCFD 6123</td>
<td>Qualitative Research I</td>
<td>17</td>
</tr>
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<td>SCFD 6133</td>
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<tr>
<td>SCFD 6190</td>
<td>Qualitative Research: Selected Methods</td>
<td>18</td>
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<tr>
<td><strong>Hours Subtotal</strong></td>
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</tr>
</tbody>
</table>

Social Foundations Core

24 credit hours, at least one 6000-level course (except for SCFD 5713, SCFD 5883) from each of the four areas of Social Foundations: Philosophy of Education, History of Education, Anthropology of Education, and Sociology of Education.

<table>
<thead>
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<th>Hours</th>
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<td>Educational Philosophy</td>
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<tr>
<td>SCFD 5883</td>
<td>Educational Sociology</td>
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<tr>
<td>SCFD 6823</td>
<td>Anthropology of Education</td>
<td>21</td>
</tr>
<tr>
<td>SCFD 6853</td>
<td>Culture, Society and Education</td>
<td>22</td>
</tr>
<tr>
<td>SCFD 5923</td>
<td>Popular Culture and Education</td>
<td>23</td>
</tr>
<tr>
<td>SCFD 5990</td>
<td>Problems and Issues in Social Foundations</td>
<td>24</td>
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<tr>
<td>SCFD 5998</td>
<td>Urban Education</td>
<td>25</td>
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<tr>
<td>SCFD 6023</td>
<td>Comparative Education</td>
<td>26</td>
</tr>
<tr>
<td>SCFD 6443</td>
<td>Ethics and Moral Education</td>
<td>27</td>
</tr>
<tr>
<td>SCFD 6850</td>
<td>Directed Reading</td>
<td>28</td>
</tr>
<tr>
<td>SCFD 6883</td>
<td>Transforming Pedagogies</td>
<td>29</td>
</tr>
<tr>
<td>SCFD 6630</td>
<td>Topics in Philosophy Education</td>
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<tr>
<td>SCFD 6973</td>
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<tr>
<td>SCFD 6990</td>
<td>Seminar in Social Foundations</td>
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</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>24</strong></td>
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</tbody>
</table>

Cognate Area

Students take 9 credit hours in a concentration or cognate area based on their research interest and in consultation with their advisor and dissertation committee. These areas are available at Oklahoma State University, especially in the College of Education, Health and Aviation and the College of Arts and Sciences. They can be, but are not limited to, the following areas:

- History; Philosophy; Sociology; International Studies;
- Comparative Education; Gender and Women’s Studies; Higher Education; Educational Administration; Educational Technology; Pedagogy; STEM Education; College Teaching; Qualitative Inquiry; Research, Evaluation, Measurement, and Statistics; Special Education; Curriculum Studies; Media and Culture

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
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Independent Research

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<tr>
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<th>Title</th>
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<tr>
<td>CIED 6000</td>
<td>Doctoral Dissertation</td>
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<td><strong>Hours Subtotal</strong></td>
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Total Hours: 69

1. Requires REMS 5013 and REMS 5953 as prerequisites.
2. Requires REMS 6003 as prerequisite.
3. Requires REMS 6013 as prerequisite.
4. Must take if no equivalent course has been taken in Master’s program.

Education: Social Foundations of Education Requirements

- All students admitted into the Ph.D. degree option in Social Foundations are expected to meet all university requirements and the requirements for admission to the Ph.D. in Education. Students with little or no background in social foundations may be required to take additional leveling coursework. The Social Foundations admission committee determines such prerequisite considerations. Specific graduate courses that may be required as a leveling course include SCFD 5223, SCFD 5873, SCFD 5923, SCFD 5990, SCFD 5998.
• Students will be expected to use technology resources appropriately in course projects, assignments, and research. Ph.D. in Education (69 credit hours minimum, with typically no more than two 5000-level courses (in addition to SCFD 5713, SCFD 5883, if these courses are taken as part of Ph.D. coursework). Leveling courses are not included in the 69 hours.)

General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of "C" is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (Ph.D.) Requirements

• 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
• At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
• A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
• Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
• A minimum of 30 in-residence credit hours are required
• Non-Course requirements:
  • Doctoral Candidacy
  • Dissertation Defense
  • Dissertation Submission/Approval
Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 69 Hours

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td></td>
<td>Required Core</td>
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<tr>
<td>CIED 6503</td>
<td>Doctoral Seminar</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 6113</td>
<td>Theoretical Foundations of Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 6983</td>
<td>Diversity and Equity Issues in Education</td>
<td>3</td>
</tr>
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<td>Hours Subtotal</td>
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<td>9</td>
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<td></td>
<td>Research</td>
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<td>Choose 12 hours from the following (must include one quantitative and one qualitative course):</td>
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<tr>
<td>CIED 6073</td>
<td>Advanced Pedagogical Research</td>
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<tr>
<td>CIED 6253</td>
<td>Designing and Conducting Mixed Methods Research</td>
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</tr>
<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
<td></td>
</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
<td></td>
</tr>
<tr>
<td>REMS 6023</td>
<td>Psychometric Theory</td>
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</tr>
<tr>
<td>REMS 6033</td>
<td>Factor Analysis in Behavioral Research</td>
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<td>REMS 6663</td>
<td>Applied Multivariate Research in Behavioral Studies</td>
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<td>REMS 5963</td>
<td>Computer Applications in Nonparametric Data Analyzes</td>
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<td>SCFD 6123</td>
<td>Qualitative Research I</td>
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</tr>
<tr>
<td>SCFD 6190</td>
<td>Qualitative Research: Selected Methods</td>
<td></td>
</tr>
<tr>
<td>SCFD 6193</td>
<td>Qualitative Research II</td>
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<tr>
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<tr>
<td></td>
<td>Cognate or Electives with a Thematic Focus</td>
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<tr>
<td></td>
<td>Select 9 hours</td>
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<tr>
<td>Hours Subtotal</td>
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<tr>
<td></td>
<td>Specialization</td>
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<td>Select 24 hours from the following:</td>
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<td>SPED 6183</td>
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<td>SPED 6543</td>
<td>School and Interagency Collaboration</td>
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<tr>
<td>SPED 6603</td>
<td>Current Trends and Issues in Special Education</td>
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<td>SPED 6063</td>
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<td>SPED 6563</td>
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<td>SPED 6743</td>
<td>Single Subject Design in Special Education</td>
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<td>SPED 6880</td>
<td>Internship in Education</td>
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<td>SPED 6850</td>
<td>Directed Reading</td>
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<td>SPED 5993</td>
<td>Culturally Responsive Teaching in Special Education</td>
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<tr>
<td>EPSY 6333</td>
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<tr>
<td>EPSY 6323</td>
<td>Psychological Consultation</td>
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<td>Dissertation</td>
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<td>CIED 6000</td>
<td>Doctoral Dissertation</td>
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</table>

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor's degree, 60 credits beyond the Master's degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
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- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
**Education: Workforce and Adult Education, PhD**

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours: 72 Hours**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>SCFD 6983</td>
<td>Diversity and Equity Issues in Education</td>
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</tr>
<tr>
<td>SCFD 6113</td>
<td>Theoretical Foundations of Inquiry</td>
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**Extended Inquiry**

Select 12 hours from the following:

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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
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</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral</td>
<td>1</td>
</tr>
<tr>
<td>SCFD 6123</td>
<td>Qualitative Research I</td>
<td>1</td>
</tr>
<tr>
<td>SCFD 6190</td>
<td>Qualitative Research: Selected Methods</td>
<td>1</td>
</tr>
<tr>
<td>SCFD 6193</td>
<td>Qualitative Research II</td>
<td>1</td>
</tr>
<tr>
<td><strong>Other courses as appropriate and available</strong></td>
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<td><strong>Hours Subtotal</strong></td>
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</table>

**Specialization Structure (Core for WAED)**

<table>
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<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAED 6103</td>
<td>Philosophy of Workforce and Adult</td>
<td>3</td>
</tr>
<tr>
<td>WAED 6233</td>
<td>Managing Knowledge in Learning</td>
<td>3</td>
</tr>
<tr>
<td>CIED 6503</td>
<td>Doctoral Seminar</td>
<td>3</td>
</tr>
<tr>
<td>WAED 6353</td>
<td>Future of Technology, Work and Society</td>
<td>3</td>
</tr>
<tr>
<td>WAED 5010</td>
<td>Seminar</td>
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<td><strong>Hours Subtotal</strong></td>
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**Specialization Electives**

Select 15 hours from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>WAED 5010</td>
<td>Seminar</td>
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</tr>
<tr>
<td>WAED 5010</td>
<td>Seminar</td>
<td>3</td>
</tr>
<tr>
<td>WAED 5123</td>
<td>Evaluation of Workforce and Adult</td>
<td>3</td>
</tr>
<tr>
<td>WAED 5133</td>
<td>Internationalism, Globalization and Workforce</td>
<td>3</td>
</tr>
<tr>
<td>WAED 5153</td>
<td>Curriculum Planning in Workforce and Adult</td>
<td>3</td>
</tr>
<tr>
<td>WAED 5233</td>
<td>Advanced Instructional Procedures in</td>
<td>3</td>
</tr>
<tr>
<td>WAED 5313</td>
<td>History, Principles, and Organization of Workforce</td>
<td>3</td>
</tr>
<tr>
<td>WAED 5333</td>
<td>Administration and Supervision of</td>
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</tr>
<tr>
<td>WAED 5340</td>
<td>Special Problems in Workforce and Adult</td>
<td>3</td>
</tr>
<tr>
<td>WAED 5423</td>
<td>Individualized Competency Based</td>
<td>3</td>
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<tr>
<td>WAED 5483</td>
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</tr>
</tbody>
</table>

| **Total Hours** |                                         | **72** |

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**

- 90 credits beyond the Bachelor's degree, 60 credits beyond the Master's degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
# Educational Leadership and Policy Studies: Educational Administration, PhD

## Requirements for Students Matriculating in or before Academic Year 2019-2020

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 72 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td><strong>General EDLE Doctoral Core</strong></td>
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</tr>
<tr>
<td>EDLE 6483</td>
<td>School Leadership, Culture and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 6493</td>
<td>School Improvement/Reform</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 6603</td>
<td>Organizational Theory in Education</td>
<td>3</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
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<tr>
<td><strong>Inquiry Core</strong></td>
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<tr>
<td>EDLE 6853</td>
<td>Rsrch Trad n Ed Leadership</td>
<td>3</td>
</tr>
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<td>SCFD 6123</td>
<td>Qualitative Research I</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 6193</td>
<td>Qualitative Research II</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
<td>3</td>
</tr>
<tr>
<td>Select 6 hours from the following:</td>
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</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies ^1</td>
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</tr>
<tr>
<td>REMS 6373</td>
<td>Program Evaluation ^1</td>
<td></td>
</tr>
<tr>
<td>REMS 5373</td>
<td>Educational Measurements ^1</td>
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<tr>
<td><strong>Option Area: Educational Administration</strong></td>
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<tr>
<td><strong>Required Core</strong></td>
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<tr>
<td>EDLE 6423</td>
<td>The Politics of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 6453</td>
<td>Special Topics in Education Law</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 6363</td>
<td>Special Topics in School Finance Policy</td>
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<tr>
<td><strong>Electives</strong></td>
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<tr>
<td>Select 9 hours from the following:</td>
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<tr>
<td>EDLE 6003</td>
<td>Educational Ideas</td>
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<td>EDLE 6263</td>
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<td>EDLE 6333</td>
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<tr>
<td>EDLE 6343</td>
<td>Problem Solving in School Administration</td>
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</tr>
<tr>
<td>EDLE 6353</td>
<td>The Superintendentcy</td>
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</tr>
<tr>
<td>EDLE 6393</td>
<td>The Human Factor in Administering Schools</td>
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<tr>
<td>EDLE 6573</td>
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<tr>
<td>EDLE 6633</td>
<td>School Leadership and Community Collaboration</td>
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<td>EDLE 6823</td>
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<td>REMS 5953</td>
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<tr>
<td><strong>Cognate or Electives with a Thematic Focus</strong></td>
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<tr>
<td>Select 12 hours</td>
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<tr>
<td><strong>Independent Research (Dissertation)</strong></td>
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</tr>
</tbody>
</table>

^1 Alternate research courses may be taken with committee approval.

## General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

## Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
# Educational Leadership and Policy Studies: Higher Education, PhD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 72 Hours (beyond the Master’s degree)

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<th>Code</th>
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</thead>
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<tr>
<td>EDLE 6143</td>
<td>Resources for the Study of Educational Leadership</td>
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</tr>
<tr>
<td>EDLE 6603</td>
<td>Organizational Theory in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 6823</td>
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<td>3</td>
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<tr>
<td><strong>Hours Subtotal</strong></td>
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**Inquiry Core**

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCFD 6123</td>
<td>Qualitative Research I</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6003</td>
<td>Analyses of Variance ^1</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 6193</td>
<td>Qualitative Research II ^1</td>
<td>3</td>
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<tr>
<td>or REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
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</tbody>
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One additional research course (approval of committee chair required) 3

| **Hours Subtotal** | **18** |

**Tracks**

Choose one of the following tracks 18

**Higher Education Administration Track**

Higher Education Administrative Track Required Core

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td>EDLE 6233</td>
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<td>EDLE 6463</td>
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<td>EDLE 6870</td>
<td>Seminar (Research and Policy Analysis in Educational Administration)</td>
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Higher Education Administrative Track Electives ^2

<table>
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<tr>
<th>Code</th>
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<td>EDLE 6583</td>
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<td>EDLE 6833</td>
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<tr>
<td>EDLE 6870</td>
<td>Seminar (Institutional Research and Policy Analysis)</td>
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</tr>
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</table>

**Educational Administration Track**

Educational Administration Track Required Core

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDLE 6243</td>
<td>Connecting Theory and Practice in Administering Schools</td>
<td></td>
</tr>
<tr>
<td>EDLE 6423</td>
<td>The Politics of Education</td>
<td></td>
</tr>
</tbody>
</table>

**Cognate or Electives with a Thematic Focus**

Select 12 Hours 12

**Independent Research (Dissertation)**

Select minimum of 15 hours 15

**Hours Subtotal** 15

**Total Hours** 72

1 Denotes classes with prerequisites.

2 Electives and any additional courses must be approved by the student’s committee.

---

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Educational Psychology: Counseling Psychology, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 117 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
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<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Psychology Core Courses</td>
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<tr>
<td></td>
<td>Select 30 approved credit hours.</td>
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<td></td>
<td>Counseling Psychology Core Courses</td>
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<td></td>
<td>Electives</td>
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Total Hours: 129 Hours (Beyond the Bachelor’s Degree)

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<td></td>
<td>Counseling Psychology Core Courses</td>
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<td>Select 69 approved credit hours.</td>
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<tr>
<td></td>
<td>Research Core</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 18 approved credit hours.</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 9 approved credit hours.</td>
<td>9</td>
</tr>
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<td></td>
<td>Hours Subtotal</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>129</td>
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</table>

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
# Educational Psychology: Educational Psychology, PhD

## Requirements for Students Matriculating in or before Academic Year 2019-2020

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 70 Hours

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td><strong>Domain I - Research and Inquiry</strong></td>
<td></td>
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<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
<td></td>
</tr>
<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
<td></td>
</tr>
<tr>
<td><strong>Required Courses for Domain I</strong></td>
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<td></td>
</tr>
<tr>
<td>SCFD 6113</td>
<td>Theoretical Foundations of Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

**Other coursework recommended for expertise in the Research and Inquiry Domain:** 9

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>REMS 5063</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REMS 6023</td>
<td>Psychometric Theory</td>
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</tr>
<tr>
<td>REMS 6033</td>
<td>Factor Analysis in Behavioral Research</td>
<td></td>
</tr>
<tr>
<td>SCFD 6123</td>
<td>Qualitative Research I</td>
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</tr>
<tr>
<td>SCFD 6193</td>
<td>Qualitative Research II</td>
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</tr>
<tr>
<td>REMS 6373</td>
<td>Program Evaluation</td>
<td></td>
</tr>
<tr>
<td>REMS 6663</td>
<td>Applied Multivariate Research in Behavioral Studies</td>
<td></td>
</tr>
<tr>
<td>REMS 6673</td>
<td>Item Response Theory</td>
<td></td>
</tr>
<tr>
<td>REMS 6683</td>
<td>Multilevel Modeling Methods in Education</td>
<td></td>
</tr>
<tr>
<td>REMS 6693</td>
<td>Structural Equation Modeling for Behavioral and Educational Research</td>
<td></td>
</tr>
<tr>
<td>CIED 6253</td>
<td>Designing and Conducting Mixed Methods Research</td>
<td></td>
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</tbody>
</table>

**Hours Subtotal:** 24

**Area of Expertise Domain III:**

Select 12 hours

Student-scholars select 12 hours related to an area of expertise based on student career goals, expertise, interest and background. Examples of areas of expertise may derive from the other domains, such as measurement or program evaluation in a specific context; instructional development for students with diverse needs; studies of gender, race, class, ability; multicultural issues in education; adult development or aging learners; social and emotional needs of children, and many others.

**Hours Subtotal:** 12

**Dissertation (Doctoral Thesis)**

EPSY 6000 Doctoral Dissertation 15

**Hours Subtotal:** 15

**Total Hours:** 69

---

1. Many students have taken these courses as part of the master's degree. These courses are considered prerequisites and will not count on the formal and submitted doctoral plan of study.

2. Many students have taken these courses as part of the master's degree. Although these courses are considered prerequisites to the doctorate, they are not required and may be counted on the doctoral plan of study if needed.

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor's degree, 60 credits beyond the Master's degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
• Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
• A minimum of 30 in-residence credit hours are required
• Non-Course requirements:
  • Doctoral Candidacy
  • Dissertation Defense
  • Dissertation Submission/Approval
## Educational Psychology: Research, Evaluation, Measurement and Statistics, PhD

### Requirements for Students Matriculating in or before Academic Year 2019-2020.

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 66 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6023</td>
<td>Psychometric Theory</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6373</td>
<td>Program Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6633</td>
<td>Applied Multivariate Research in Behavioral Studies</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 6113</td>
<td>Theoretical Foundations of Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 6123</td>
<td>Qualitative Research I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>

### Educational Psychology Degree Core

Select 3 hours from each group: 9

**Human Development**

- EPSY 5103 | Human Development in Psychology
- EPSY 6043 | Adult Development

**Learning and Cognition**

- EPSY 5463 | Psychology of Learning
- EPSY 6163 | Emotion and Cognition
- EPSY 6533 | Human Motivation

**Educational Psychology**

- EPSY 6133
- EPSY 5213

|          | **Hours Subtotal** | **9** |

### Research, Evaluation, Measurement, and Statistics Specialization

Select 12 hours from the following, including 9 hours at 6000-level: 12

(Additional relevant coursework may be found in other departments: e.g., PSYC, STAT, SOC, HDFS. Check Catalog for applicable prerequisites.)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMS 5373</td>
<td>Educational Measurements</td>
<td></td>
</tr>
<tr>
<td>REMS 5963</td>
<td>Computer Applications in Nonparametric Data Analyses</td>
<td></td>
</tr>
<tr>
<td>REMS 6033</td>
<td>Factor Analysis in Behavioral Research</td>
<td></td>
</tr>
<tr>
<td>REMS 6320</td>
<td>Doctoral Seminar in REMS</td>
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</tr>
<tr>
<td>REMS 6383</td>
<td>Program Evaluation II</td>
<td></td>
</tr>
<tr>
<td>REMS 6633</td>
<td>Applied Multivariate Research in Behavioral Studies</td>
<td></td>
</tr>
<tr>
<td>REMS 6673</td>
<td>Item Response Theory</td>
<td></td>
</tr>
<tr>
<td>REMS 6683</td>
<td>Multilevel Modeling Methods in Education</td>
<td></td>
</tr>
<tr>
<td>REMS 6693</td>
<td>Structural Equation Modeling for Behavioral and Educational Research</td>
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</tr>
<tr>
<td>REMS 6850</td>
<td>Directed Reading</td>
<td></td>
</tr>
</tbody>
</table>

|          | **Hours Subtotal** | **12** |

### Cognate Area

Select minimum of 9 hours: 9

Courses will be selected from one or two cognate areas to develop and improve knowledge and skills in a content and/or methodological area. Following are some examples of cognate areas and relative choices in coursework. This is not an exhaustive list.

### Student Development and Higher Education

- SDEV 5213
- SDEV 5223
- SDEV 5320
- SDEV 5733
- SDEV 5333
- SDEV 6173
- SDEV 6213
- EDLE 5953 | Developing Educational Organizations
- EDLE 5973

### Mathematical Sciences

- MATH 5593 | Methods of Applied Mathematics
- STAT 5093 | Statistical Computing
- STAT 5123 | Probability Theory
- STAT 5133 | Stochastic Processes
- STAT 5213 | Bayesian Analysis
- STAT 6113 | Probability Theory
- STAT 6223 | Advanced Statistical Inference
- STAT 6323

### Institutional Research

- STAT 5033 | Nonparametric Methods
- ECON 4223 | Business and Economic Forecasting
- EDLE 6703
- EDLE 6753
- EDLE 6803
- EDLE 6823

### Measurement and Cognitive Psychology

- PSYC 4813 | Psychological Testing
- EPSY 5663 | Creativity for Teachers
- EPSY 6533 | Human Motivation
- EPSY 6163 | Emotion and Cognition
- EPSY 5783
- EPSY 6063
- PSYC 5823 | Cognitive Processes

|          | **Hours Subtotal** | **9** |

### Qualifying Exams

Students must pass a written and oral comprehensive exam. Passing the exams qualifies students for Admission to Doctoral Candidacy, and they should move to the dissertation proposal phase.

### Dissertation Hours

- REMS 6000 | Doctoral Dissertation

|          | **Hours Subtotal** | **15** |
### Emotional Psychology: Research, Evaluation, Measurement and Statistics, PhD

<table>
<thead>
<tr>
<th>Hours Subtotal</th>
<th>15</th>
</tr>
</thead>
</table>

**Applied Experience**

Each student will select two suggested experiences.

<table>
<thead>
<tr>
<th>Total Hours</th>
<th>66</th>
</tr>
</thead>
</table>

---

1 REMS 5013 and REMS 5953 are required prerequisites.

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
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- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required

- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
# Educational Psychology: School Psychology, PhD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:**

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td><strong>Core Courses</strong></td>
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</tr>
<tr>
<td>EPSY 5023</td>
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<tr>
<td>EPSY 5113</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>EPSY 5103</td>
<td>Human Development in Psychology</td>
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<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
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<tr>
<td>EDUC 5910</td>
<td>Educational Field Experiences</td>
<td>1-6</td>
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<tr>
<td>EPSY 5793</td>
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<td>REMS 6003</td>
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<td>CIED 5463</td>
<td>Reading Assessment and Instruction</td>
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<td></td>
<td>or CIED 5473 Reading &amp; Writing Difficulties</td>
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<tr>
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<td>EPSY 5463</td>
<td>Psychology of Learning</td>
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<td>EPSY 6323</td>
<td>Psychological Consultation</td>
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<td>EPSY 5210</td>
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<td>Behavioral Assessment and Consultation</td>
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<td>EPSY 6113</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>REMS 6663</td>
<td>Applied Multivariate Research in Behavioral Studies</td>
<td>3</td>
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<tr>
<td>EPSY 6033</td>
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<td>3</td>
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<tr>
<td>EPSY 6153</td>
<td>Advanced Research in Educational Psychology</td>
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<td>EPSY 5510</td>
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<td>Seminar in Educational and School Psychology</td>
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<td>Seminar in Educational and School Psychology</td>
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<td>EPSY 5000</td>
<td>Master's Thesis</td>
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<tr>
<td>EPSY 6310</td>
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**Total Hours: 118-150**

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Electrical Engineering, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 73 Hours (beyond the Bachelor’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>Lecture Courses</td>
<td>Select 33 hours that may include up to 6 credit hours of ECEN 5070 or equivalent with approval of the student's graduate advisory committee.</td>
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<td>Hours Subtotal</td>
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<tr>
<td>Preliminary PhD Research and Proposal</td>
<td>ECEN 6050 Preliminary PhD Research and Proposal</td>
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<tr>
<td>Hours Subtotal</td>
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<td>3</td>
</tr>
<tr>
<td>PhD Seminar Series</td>
<td>ECEN 6001 PhD Seminar Series</td>
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<tr>
<td>Hours Subtotal</td>
<td></td>
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</tr>
<tr>
<td>Dissertation Research</td>
<td>ECEN 6000 (Offered for variable credit, 1-16 credit hours, maximum of 36 credit hours.)</td>
<td>30</td>
</tr>
<tr>
<td>Hours Subtotal</td>
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<td>30</td>
</tr>
<tr>
<td>Additional Courses</td>
<td>May include additional lecture courses, Master’s thesis (ECEN 5000 or equivalent), and/or dissertation research hours as approved by the student’s graduate advisory committee.</td>
<td>6</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>73</td>
</tr>
</tbody>
</table>

Note: ENGL 4893 CANNOT be used toward the degree.

General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of "C" is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

• 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
• At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
• A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
• Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
• A minimum of 30 in-residence credit hours are required
• Non-Course requirements:
English, PhD

Requirements for Students Matriculating in or before Academic Year
2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>60</td>
</tr>
</tbody>
</table>

Required Courses
Core and Dissertation hours to total 60 hours.
- Select 35-40 hours of coursework, per plan of study approved by advisor

Dissertation
ENGL 6000 (Offered for variable credit, 1-9 credit hours, maximum of 30 credit hours.)

Total Hours
60

General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements
- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Entomology, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td></td>
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</tr>
<tr>
<td>ENTO 5464</td>
<td>Insect Biology and Classification</td>
<td>4</td>
</tr>
<tr>
<td>ENTO 5003</td>
<td>Insect Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>ENTO 5044</td>
<td>Insect Morphology and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>ENTO 5870</td>
<td>Scientific Presentations</td>
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</tr>
<tr>
<td>Recommended Courses</td>
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<td></td>
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<tr>
<td>ENTO 5992</td>
<td>Career Skills and Professionalism for Scientists</td>
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</tr>
<tr>
<td>ENTO 5524</td>
<td>Integrated Management of Insect Pests and Pathogens</td>
<td></td>
</tr>
<tr>
<td>ENTO 5623</td>
<td>Advanced Biotechnology Methods</td>
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</tr>
<tr>
<td>Plus additional approved courses to complete the graduate program Plan of Study</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>60</td>
</tr>
</tbody>
</table>

1 Only required for students who didn’t take this course as part of an OSU Master’s program.

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Environmental Science, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours

<table>
<thead>
<tr>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>Combination of core courses and dissertation to total 60 hours.</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Core Courses</td>
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</tr>
<tr>
<td></td>
<td>ENVR 5123 Environmental Problem Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENVR 5303 Issues in Environmental Sustainability</td>
<td></td>
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<tr>
<td></td>
<td>Select 3 approved hours of Natural or Physical Science courses.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 6 approved hours of skills courses.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select an additional 21-30 approved hours.</td>
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</tr>
<tr>
<td></td>
<td>Dissertation</td>
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<tr>
<td></td>
<td>Dissertation course</td>
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<td>Hours Subtotal</td>
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<td></td>
<td>Total Hours</td>
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</tr>
</tbody>
</table>

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor's degree, 60 credits beyond the Master's degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Fire and Emergency Management Administration, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEMP 5113</td>
<td>Introduction to Fire Administration</td>
<td>3</td>
</tr>
<tr>
<td>FEMP 5123</td>
<td>Introduction to Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>FEMP 6103</td>
<td>Proseminar in Fire and Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>FEMP 6323</td>
<td>Organizational Behavior in Disasters</td>
<td>3</td>
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<tr>
<td>FEMP 6413</td>
<td>Seminar Risk Theory and Management</td>
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<td>Hours Subtotal</td>
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</tr>
<tr>
<td>FEMP 5013</td>
<td>Research Design</td>
<td>3</td>
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<tr>
<td>FEMP 5023</td>
<td>Quantitative Methods for Fire and Emergency Management I</td>
<td>3</td>
</tr>
<tr>
<td>FEMP 6013</td>
<td>Qualitative Methods for Fire and Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>FEMP 6023</td>
<td>Quantitative Methods for Fire and Emergency Management II</td>
<td>3</td>
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<tr>
<td></td>
<td>Hours Subtotal</td>
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<tr>
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<td></td>
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<td>FEMP 5653</td>
<td>Hazard, Vulnerability, and Risk Analysis</td>
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</tr>
<tr>
<td>FEMP 5413</td>
<td>Financial Administration for Fire and Emergency Management</td>
<td></td>
</tr>
<tr>
<td>FEMP 5423</td>
<td>Labor Management for Fire and Emergency Management</td>
<td></td>
</tr>
<tr>
<td>FEMP 5213</td>
<td>Disaster Response</td>
<td></td>
</tr>
<tr>
<td>FEMP 5223</td>
<td>Preparedness and Planning</td>
<td></td>
</tr>
<tr>
<td>FEMP 5233</td>
<td>Disaster Recovery</td>
<td></td>
</tr>
<tr>
<td>FEMP 5243</td>
<td>Mitigation</td>
<td></td>
</tr>
<tr>
<td>FEMP 5313</td>
<td>Political and Community Relations for Fire and Emergency Management Administration</td>
<td></td>
</tr>
<tr>
<td>FEMP 5323</td>
<td>Leadership and Management for Fire and Emergency Management</td>
<td></td>
</tr>
<tr>
<td>FEMP 5333</td>
<td>Incident Command System</td>
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<tr>
<td>FEMP 5613</td>
<td>Complex Emergencies</td>
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</tr>
<tr>
<td>FEMP 5623</td>
<td>Emergency Management in the International Setting</td>
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<tr>
<td>FEMP 5633</td>
<td>Emergency Management and Public Policy in the United States</td>
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<tr>
<td>FEMP 5643</td>
<td>Politics of Disaster</td>
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</tr>
<tr>
<td>FEMP 5810</td>
<td>Special Topics Seminar in Fire and Emergency Management</td>
<td></td>
</tr>
<tr>
<td>FEMP 5820</td>
<td>Special Topics Seminar in Emergency Management</td>
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<tr>
<td>FEMP 5830</td>
<td>Special Topics Seminar in Fire Administration</td>
<td></td>
</tr>
<tr>
<td>FEMP 6303</td>
<td>Populations at Risk</td>
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</tr>
<tr>
<td>FEMP 6313</td>
<td>Comparative and International Dimensions of Emergency Management</td>
<td></td>
</tr>
<tr>
<td>FEMP 6840</td>
<td>Directed Readings in Fire and Emergency Management</td>
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</tr>
<tr>
<td>FEMP 6820</td>
<td>Advanced Special Topics Seminar in Emergency Management</td>
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</tr>
<tr>
<td>FEMP 6810</td>
<td>Advanced Special Topics Seminar in Fire Administration</td>
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<tr>
<td>FEMP 6850</td>
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<tr>
<td>POLS 5673</td>
<td>Understanding and Responding to Terrorism</td>
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<tr>
<td></td>
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<tr>
<td>FEMP 6000</td>
<td>Offered for variable credit, 1-12 credit hours, maximum of 60 credit hours)</td>
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<td>Hours Subtotal</td>
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<tr>
<td></td>
<td>Total Hours</td>
<td>60</td>
</tr>
</tbody>
</table>

¹ These 6 courses should be chosen in consultation with your advisor.

General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of “C” is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

• 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
• At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
• A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
• Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
• A minimum of 30 in-residence credit hours are required
• Non-Course requirements:
  • Doctoral Candidacy
  • Dissertation Defense
  • Dissertation Submission/Approval
## Food Science, PhD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>Degree Core</strong></td>
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<tr>
<td>FDSC 4153</td>
<td>Advanced Food Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>FDSC 4763</td>
<td>Analysis of Food Products</td>
<td>3</td>
</tr>
<tr>
<td>FDSC 5300</td>
<td>Food Science Seminar</td>
<td>1</td>
</tr>
<tr>
<td>FDSC 5373</td>
<td>Advanced Food Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>FDSC 6000 (Offered for variable credit, 1-10 credit hours, maximum of 30 credit hours.)</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>STAT 5013</td>
<td>Statistics for Experimenters I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
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<tr>
<td></td>
<td><strong>Electives</strong></td>
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<tr>
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<td>Select 16 hours from the following:</td>
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<tr>
<td>FDSC 4123</td>
<td>Principles of Food Engineering</td>
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<tr>
<td>FDSC 4243</td>
<td>Researching Consumer Food Preferences</td>
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</tr>
<tr>
<td>FDSC 4253</td>
<td>Pre-Harvest Food Safety</td>
<td></td>
</tr>
<tr>
<td>FDSC 4333</td>
<td>Processed Meat</td>
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<tr>
<td>FDSC 5102</td>
<td>Ethics and Professionalism in Animal and Food Science</td>
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<tr>
<td>FDSC 5113</td>
<td>Quality Control II</td>
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<tr>
<td>FDSC 5120</td>
<td>Special Topics in Food Science</td>
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<tr>
<td>FDSC 5143</td>
<td>Food Safety Modernization Act</td>
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<tr>
<td>FDSC 5213</td>
<td>Advances in Meat Science</td>
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<tr>
<td>FDSC 5233</td>
<td>Food Safety Audit Schemes</td>
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<tr>
<td>FDSC 5333</td>
<td>Carcass Value Estimation Systems</td>
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<tr>
<td>FDSC 5393</td>
<td>Issues in Food Science</td>
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<tr>
<td>FDSC 5553</td>
<td>Interpreting Animal and Food Science Research</td>
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<tr>
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<td><strong>Hours Subtotal</strong></td>
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<td><strong>Other Requirements</strong></td>
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<tr>
<td>FDSC 5300</td>
<td>Food Science Seminar</td>
<td>1</td>
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<td></td>
<td><strong>Hours Subtotal</strong></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td>60</td>
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</tbody>
</table>

### General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Doctor of Philosophy (PhD.) Requirements
- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
# Geography, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours (Beyond the Master's Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Coursework</strong></td>
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<tr>
<td></td>
<td>Approved courses to complete the graduate program Plan of Study</td>
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</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td>45</td>
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<tr>
<td></td>
<td><strong>Dissertation</strong></td>
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<tr>
<td></td>
<td>GEOG 6000 (Minimum of 15 hours)</td>
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<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td>60</td>
</tr>
</tbody>
</table>

1 Combined coursework and dissertation hours to total 60 hours.

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:  
  - Doctoral Candidacy  
  - Dissertation Defense  
  - Dissertation Submission/Approval
Geology, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
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</tr>
<tr>
<td>GEOL 5300 (Offered for fixed 1 credit hour, maximum of 2 credit hours.)</td>
<td>2</td>
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</tr>
<tr>
<td>GEOL 5243 Research Methods and Techniques in Geosciences</td>
<td>3</td>
<td></td>
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<td>Hours Subtotal</td>
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</tr>
<tr>
<td>Additional coursework in GEOL</td>
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<tr>
<td>Select 15 hours 1</td>
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<td></td>
</tr>
<tr>
<td>Hours Subtotal</td>
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<td></td>
</tr>
<tr>
<td>Research and Dissertation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 40 hours 2</td>
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<td>Total Hours</td>
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</tbody>
</table>

1. Up to 12 hours of coursework may be taken outside of GEOL.
2. At the discretion of the advisory committee, up to 20 hours of dissertation hours may be replaced by additional course hours.

Total Hours: 90 Hours (Beyond the Bachelor’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</tr>
<tr>
<td>GEOL 5300 (Offered for fixed 1 credit hour, maximum of 2 credit hours.)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>GEOL 5243 Research Methods and Techniques in Geosciences</td>
<td>3</td>
<td></td>
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<tr>
<td>Hours Subtotal</td>
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<td></td>
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<tr>
<td>Additional coursework in GEOL</td>
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<td>Select 35 hours 1</td>
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<tr>
<td>Research and Dissertation</td>
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<tr>
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</tr>
<tr>
<td>Hours Subtotal</td>
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<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td>90</td>
<td></td>
</tr>
</tbody>
</table>

1. Up to 12 hours of coursework may be taken outside of GEOL.
2. At the discretion of the advisory committee, up to 20 hours of dissertation hours may be replaced by additional course hours.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Health, Leisure and Human Performance: Health and Human Performance, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td></td>
<td><strong>Common Core</strong></td>
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<tr>
<td>3 hours</td>
<td><strong>Development of Curricula</strong></td>
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</tr>
<tr>
<td>HHP 6723</td>
<td>Curriculum Development in Health, Leisure and Human Performance</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>3 hours Organization/Leadership</strong></td>
<td></td>
</tr>
<tr>
<td>LEIS 6763</td>
<td>Management in Health, Leisure, and Human Performance Settings</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>3 hours Professional Ethics</strong></td>
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</tr>
<tr>
<td>HHP 6043</td>
<td></td>
<td>3</td>
</tr>
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</table>

Hours Subtotal: 9

Research Design and Statistics (Inquiry)

Select 9 hours from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
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</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6663</td>
<td>Applied Multivariate Research in Behavioral Studies</td>
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</tr>
<tr>
<td>STAT 5033</td>
<td>Nonparametric Methods</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5043</td>
<td>Sample Survey Designs</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 6123</td>
<td>Qualitative Research I</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 6190</td>
<td>Qualitative Research: Selected Methods</td>
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<tr>
<td>SCFD 6193</td>
<td>Qualitative Research II</td>
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</table>

Hours Subtotal: 9

Option Hours

Select 27 approved hours

Hours Subtotal: 27

Dissertation

Select 15 hours

Hours Subtotal: 15

Total Hours: 60

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
## Health, Leisure and Human Performance: Leisure Studies, PhD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours

<table>
<thead>
<tr>
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<th>Title</th>
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</thead>
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<tr>
<td>LEIS 6453</td>
<td>Leisure Behavior</td>
<td>3</td>
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<tr>
<td>LEIS 6013</td>
<td>Professional Issues in Leisure Studies</td>
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<tr>
<td>Select 6 hours that may include the following:</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
<td></td>
</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
<td></td>
</tr>
<tr>
<td>REMS 6663</td>
<td>Applied Multivariate Research in Behavioral Studies</td>
<td></td>
</tr>
<tr>
<td>STAT 5033</td>
<td>Nonparametric Methods</td>
<td></td>
</tr>
<tr>
<td>STAT 5043</td>
<td>Sample Survey Designs</td>
<td></td>
</tr>
<tr>
<td>SCFD 6113</td>
<td>Theoretical Foundations of Inquiry</td>
<td></td>
</tr>
</tbody>
</table>

**Hours Subtotal:** 12

**Independent Study Opportunities**

The doctoral advisory committee and the individual student will work together to select the most appropriate additional coursework for the Plan of Study. Students may wish to work one-on-one with a faculty member, or engage in an independent project in a field-based setting. These types of experiences are generally addressed within the independent study coursework, which allow flexibility in credit hours and academic assignments. These courses are generally established as contracts with a specific faculty member.

- LEIS 5020 | Workshop in Leisure Studies                                   |       |
- LEIS 5030 | Field Problems in Leisure Studies                           |       |
- LEIS 6010 | Independent Study in Leisure Studies                        |       |
- LEIS 6020 | Leisure Research Colloquium                                  |       |

**Common Core**

- HHP 6723 | Curriculum Development in Health, Leisure and Human Performance | 3     |
- LEIS 6763 | Management in Health, Leisure, and Human Performance Settings | 3     |
- LEIS 6043 | Ethical Issues in Health, Leisure, and Human Performance     | 3     |

**Hours Subtotal:** 9

**Dissertation**

- LEIS 6000 | Doctoral Dissertation                                         | 15    |

**Hours Subtotal:** 15

**Electives**

Select 24 hours that may include the following: 24

- ENGL 0003 | Academic English for Graduate Students                       |       |
- ENGL 4893 | Research Writing for International Graduate Students         |       |
- HHP 5073 | Psychological Aspects of Sport                               |       |

**Recreational Therapy**

- LEIS 5073 | Recreational Therapy and Geriatrics                          |       |
- LEIS 5483 | Recreational Therapy for Persons with Physical Disabilities  |       |
- LEIS 5493 | Recreational Therapy in Mental Health and Intellectual Disabilities |       |
- CPSY 5173 | Gerontological Counseling                                    |       |
- CPSY 5223 |                                                     |       |
- EPSY 5403 | Issues in Adolescent Development                            |       |
- EPSY 6043 | Adult Development                                            |       |
- EPSY 6163 | Emotion and Cognition                                        |       |
- HHP 5883 | Developmental Disabilities                                   |       |
- HDFS 5283 | Perspectives in Gerontology                                  |       |
- HDFS 5443 | Ethics and Aging                                             |       |

**Natural Resource Recreation Management**

- LEIS 5403 | Interpretation in Leisure Services                          |       |
- LEIS 6023 | Special Topics in Leisure Studies                           |       |
- GEOL 5100 | Problems in Hydrogeology                                    |       |
- POLS 5620 | Seminar in Natural Resource Policy, Law and Administration  |       |
- ZOOL 5153 |                                                     |       |
- ENVR 5303 | Issues in Environmental Sustainability                       |       |
- NREM 4053 | Natural Resource Recreation                                  |       |
- GEOG 5150 | Geography of Sport, Recreation and Leisure Seminar           |       |
- GEOG 5163 | Resource Management in the National Parks                    |       |

**Tourism and Hospitality**

- GEOG 4143 | Geography of Travel and Tourism                              |       |
- HTM 5213 | Hospitality and Tourism Management                           |       |
- HTM 5233 | Convention and Special Event Management                      |       |
- HTM 5513 | Hospitality Strategic Management                             |       |
- HTM 6113 | Hospitality and Tourism Education                            |       |
- HTM 6313 | Tourism Policy and Planning                                  |       |
- HTM 6413 |                                                     |       |

**Higher Education**

- EDLE 5973 |                                                     |       |
- EDLE 6233 |                                                     |       |
- EDLE 6463 |                                                     |       |
- EDLE 6583 |                                                     |       |
- EDLE 6713 |                                                     |       |
- EDLE 6753 |                                                     |       |
- EDLE 6813 |                                                     |       |
- EDLE 6843 |                                                     |       |
- CIED 5243 |                                                     |       |
- CIED 5623 | Multicultural and Diversity Issues in Curriculum            |       |
- CIED 6033 | Analysis of Teaching                                        |       |
- EPSY 5463 | Psychology of Learning                                      |       |
- EPSY 5663 | Creativity for Teachers                                     |       |
- EPSY 6533 | Human Motivation                                            |       |
- EDTC 5153 | Computer-Based Instruction Development                      |       |
- SCFD 5873 | Culture, Society and Education                              |       |
Depending on one's interests, the following courses and programs may be suitable for doctoral study. The list of courses is for illustration only - with permission of the advisory committee, a doctoral student may take coursework such as those below.

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
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- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
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- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
# History, PhD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
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<td><strong>Required Courses</strong></td>
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<tr>
<td>HIST 6023</td>
<td>Historiography</td>
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<tr>
<td>HIST 5021</td>
<td>Teaching History at the College Level</td>
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<td></td>
<td><strong>Hours Subtotal</strong></td>
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</tr>
<tr>
<td></td>
<td><strong>Seminar</strong></td>
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<tr>
<td></td>
<td>Select 36 approved hours, including 3 hours of research seminar.</td>
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<td></td>
<td><strong>Suggested Courses</strong></td>
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</tr>
<tr>
<td>HIST 6100</td>
<td>Directed Readings in History 1</td>
<td>1</td>
</tr>
<tr>
<td>HIST 6130</td>
<td>Graduate Studies in History 1</td>
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<td></td>
<td><strong>Hours Subtotal</strong></td>
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<tr>
<td></td>
<td><strong>Thesis</strong></td>
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<td>15 hours of Thesis</td>
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<tr>
<td></td>
<td><strong>Additional Courses</strong></td>
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<tr>
<td></td>
<td>Approved courses needed to complete degree requirements.</td>
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<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td>60</td>
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</tbody>
</table>

1 Students may include no more than six hours in HIST 6100 and six hours in HIST 6130 courses.

## General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

## Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
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- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:

- Doctoral Candidacy
- Dissertation Defense
- Dissertation Submission/Approval
Hospitality and Tourism Management, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>HTM 6111</td>
<td>Hospitality and Tourism Doctoral Studies and Research</td>
<td>1</td>
</tr>
<tr>
<td>HTM 6713</td>
<td>Contemporary Hospitality and Tourism Theory</td>
<td>3</td>
</tr>
<tr>
<td>HTM 6993</td>
<td>Advanced Hospitality and Tourism Research</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select 3 hours from the following:</td>
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</tr>
<tr>
<td></td>
<td>HTM 6113</td>
<td>Hospitality and Tourism Education</td>
</tr>
<tr>
<td></td>
<td>Or EDUC 5993</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Or EDLE 6713</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td><strong>10</strong></td>
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**Electives (Specialization)**
Select 17 hours of approved courses.

| Hours Subtotal | 17 |

**Research Support Courses**
Select at least one course from each of the three groups: Intermediate Statistics

<table>
<thead>
<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>SOC 5243</td>
<td>Social Research Design</td>
</tr>
<tr>
<td>SOC 5213</td>
<td>Techniques of Population Analysis</td>
</tr>
<tr>
<td>STAT 5023</td>
<td>Statistics for Experimenters II</td>
</tr>
<tr>
<td>STAT 5043</td>
<td>Sample Survey Designs</td>
</tr>
<tr>
<td>STAT 5223</td>
<td>Statistical Inference</td>
</tr>
<tr>
<td>STAT 5303</td>
<td>Experimental Designs</td>
</tr>
<tr>
<td>STAT 5323</td>
<td>Theory of Linear Models I</td>
</tr>
<tr>
<td>STAT 5333</td>
<td>Theory of Linear Models II</td>
</tr>
<tr>
<td>STAT 5513</td>
<td>Multivariate Analysis</td>
</tr>
<tr>
<td>REMS 5373</td>
<td>Educational Measurements</td>
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<td>REMS 6003</td>
<td>Analyses of Variance</td>
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Advanced Statistics

<table>
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<td>HDFS 6153</td>
<td>Multilevel Modeling for HDFS Applications</td>
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<td>MGMT 6553</td>
<td>Structural Equation Modeling Applications in Business</td>
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<td>MSIS 6343</td>
<td>Advanced Methods in MSIS Research</td>
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<tr>
<td>MKTG 6913</td>
<td>Measurement and Experimental Design</td>
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<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
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<td>REMS 6033</td>
<td>Factor Analysis in Behavioral Research</td>
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<td>STAT 5073</td>
<td>Categorical Data Analysis</td>
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<td>STAT 5303</td>
<td>Experimental Designs</td>
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<td>Theory of Linear Models II</td>
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<td>Probability Theory</td>
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<td>STAT 6203</td>
<td>Large Sample Inference</td>
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<tr>
<td>STAT 6223</td>
<td>Advanced Statistical Inference</td>
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<tr>
<td>MKTG 6413</td>
<td>Advanced Marketing Research</td>
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<td>MGMT 6353</td>
<td>Advanced Methods in Management Research</td>
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<td>REMS 6663</td>
<td>Applied Multivariate Research in Behavioral Studies</td>
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<tr>
<td>SOC 5263</td>
<td>Quantitative Analysis of Social Research</td>
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<td>SOC 5273</td>
<td>Qualitative Research Methods</td>
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<tr>
<td>STAT 5063</td>
<td>Multivariate Methods</td>
</tr>
</tbody>
</table>

**Hours Subtotal** 18

**Dissertation**
Select 15 hours of approved dissertation.

**Hours Subtotal** 15

**Total Hours** 60

Additional Hospitality and Tourism Management, PhD, Requirements

- The minimum number of years of study for the doctoral degree at HTM is 3.5 years. During that period, students must present at least one refereed conference paper and submit/in press/publish one refereed journal article for graduation.
- Minimum 16 credit hours coursework (excluding dissertation credit hours) MUST be in HTM.
- Requirements include a minimum of 90 credits with 60 credit hours past the M.S. Degree.
- If a thesis was not completed as a part of the M.S. Program, a thesis or equivalent must be completed in addition to the minimum 60 credit hours past the M.S. Degree.
- None of the leveling credit hours can be counted as the graduate credit hours and included in the plan of study.
- No more than 6 credit hours of independent study will be included in the plan of study. The independent study authorization form must be filled out to offer an independent study.
- A 3-hour graduate internship is required unless waived by the graduate admission committee.
- No fewer than 51 credit hours of 5000-level courses for Ph.D. students.

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
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  - Dissertation Defense
  - Dissertation Submission/Approval
Human Sciences: Design, Housing and Merchandising, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Core Courses</td>
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<tr>
<td></td>
<td>Coursework in DHM or related content area</td>
<td>18-27</td>
</tr>
<tr>
<td></td>
<td>Coursework in Research Methods and Statistics</td>
<td>9-15</td>
</tr>
<tr>
<td></td>
<td>HS 6993 Graduate Seminar in Human Sciences</td>
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<tr>
<td>Hours Subtotal</td>
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<tr>
<td>Dissertation</td>
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<td></td>
<td>DHM 6000 (Offered for variable credit, 1-12 credit hours, maximum of 30 credit hours.)</td>
<td>15-30</td>
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<td>15-30</td>
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<td>Total Hours</td>
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<td>60</td>
</tr>
</tbody>
</table>

1 Combined core and dissertation hours must total 60 hours.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
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Human Sciences: Hospitality and Tourism Management, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>HS 6993</td>
<td>Graduate Seminar in Human Sciences</td>
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<tr>
<td>HTM 6111</td>
<td>Hospitality and Tourism Doctoral Studies and Research</td>
<td>1</td>
</tr>
<tr>
<td>HTM 6113</td>
<td>Hospitality and Tourism Education</td>
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<td>Or EDUC 5993</td>
<td>Hospitality and Tourism Education</td>
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<tr>
<td>Or EDLE 6713</td>
<td>Hospitality and Tourism Education</td>
<td>3</td>
</tr>
<tr>
<td>HTM 6713</td>
<td>Contemporary Hospitality and Tourism Theory</td>
<td>3</td>
</tr>
<tr>
<td>HTM 6993</td>
<td>Advanced Hospitality and Tourism Research</td>
<td>3</td>
</tr>
</tbody>
</table>

Hours Subtotal 13

Electives
Select 14 hours:

Hours Subtotal 14

Research Support Courses
Select 18 Hours

Must include one Intermediate Statistics course:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 5223</td>
<td>Statistical Inference</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5303</td>
<td>Experimental Designs</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5323</td>
<td>Theory of Linear Models I</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5333</td>
<td>Theory of Linear Models II</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5513</td>
<td>Multivariate Analysis</td>
<td>3</td>
</tr>
<tr>
<td>REMS 5373</td>
<td>Educational Measurements</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
<td>3</td>
</tr>
<tr>
<td>SOC 5243</td>
<td>Social Research Design</td>
<td>3</td>
</tr>
<tr>
<td>SOC 5213</td>
<td>Techniques of Population Analysis</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5023</td>
<td>Statistics for Experimenter II</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5043</td>
<td>Sample Survey Designs</td>
<td>3</td>
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</table>

Must include one Advanced Statistics course:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 6113</td>
<td>Probability Theory</td>
<td>3</td>
</tr>
<tr>
<td>STAT 6203</td>
<td>Large Sample Inference</td>
<td>3</td>
</tr>
<tr>
<td>STAT 6223</td>
<td>Advanced Statistical Inference</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 6553</td>
<td>Structural Equation Modeling Applications in Business</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 6913</td>
<td>Measurement and Experimental Design</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5073</td>
<td>Categorical Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5303</td>
<td>Experimental Designs</td>
<td>3</td>
</tr>
</tbody>
</table>

Hours Subtotal 18

Dissertation
15 hours

Hours Subtotal 15

Strongly Encouraged
(Approved internship in research and/or instruction - Maximum of 3 hours for each intern program.)

Foreign or computer language skills

Total Hours 60

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
## Human Sciences: Human Development and Family Science, PhD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites</td>
<td>HDFS 5213 Lifespan Development</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HDFS 5513 Issues in Family Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 credit hours of Master's level research methods/statistics courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thesis equivalency project for students without a MS thesis</td>
<td></td>
</tr>
</tbody>
</table>

### Degree Core

#### Required Courses

- Theoretical and Research Foundations in Human Development and Family Science
  - HDFS 5523 Conceptual Frameworks in Human Development and Family Science 3
  - HDFS 6123 Risk and Resilience in Human Development and Family Science 3
  - HDFS 6523 Advanced Theory in Human Development and Family Science 3
  - HDFS 6283 Seminar in Human Development and Family Science 3
  - HDFS 5750 Seminar in Human Development and Family Science 6

- Professional Development
  - HDFS 6113 Professional Development in HDFS 3
  - HDFS 6112 Teaching Seminar in Human Development and Family Science 2
  - HDFS 6121 Teaching Practicum in Human Development and Family Science 1
  - HDFS 5413 Adult Development and Aging 3

- Human Sciences
  - HS 6993 Graduate Seminar in Human Sciences 3

- Research Methods and Statistics
  - HDFS 6133 Advanced Research Methods in Human Development and Family Science 3
  - HDFS 6190 Research Internship 6

### Hours Subtotal

Two 3-hour courses in advanced statistics or qualitative/quantitative research methods (6 semester-hour minimum)

Select one of the following tracks:

#### Quantitative Track

- HDFS 6143 Structural Equation Modeling for HDFS Applications 1

Or MGMT 6553 1

- HDFS 6153 Multilevel Modeling for HDFS Applications (Or PSYC grad course in multilevel modeling) 1

### Dissertation

- HDFS 6000 Doctoral Dissertation (offered for variable credit, 1-12 credit hours, maximum of 30 credit hours)

### Total Hours

60

---

1. Substitutions must be approved by student’s advisory committee.

2. Students with prior teaching experience or who do not plan to teach at the college level can substitute 3 credit hours of HDFS 6190 - Research Practicum or other advisor-approved elective.

---

## Total Hours: 90 Hours (Beyond the Bachelor’s Degree)

### Code | Title | Hours |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites</td>
<td>HDFS 5213 Lifespan Development</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HDFS 5513 Issues in Family Science</td>
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<tr>
<td></td>
<td>12 credit hours of Master's level research methods/statistics courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thesis equivalency project for students without a MS thesis</td>
<td></td>
</tr>
</tbody>
</table>

### Degree Core

#### Required Courses

- Theoretical and Research Foundations in Human Development and Family Science
  - HDFS 5523 Conceptual Frameworks in Human Development and Family Science 3
  - HDFS 6123 Risk and Resilience in Human Development and Family Science 3
  - HDFS 6523 Advanced Theory in Human Development and Family Science 3
  - HDFS 6283 Seminar in Human Development and Family Science 3
  - HDFS 5750 Seminar in Human Development and Family Science 6

- Professional Development
  - HDFS 6113 Professional Development in HDFS 3
  - HDFS 6112 Teaching Seminar in Human Development and Family Science 2
  - HDFS 6121 Teaching Practicum in Human Development and Family Science 1
  - HDFS 5413 Adult Development and Aging 3

- Human Sciences
  - HS 6993 Graduate Seminar in Human Sciences 3

- Research Methods and Statistics
  - HDFS 6133 Advanced Research Methods in Human Development and Family Science 3
  - HDFS 6190 Research Internship 6

### Hours Subtotal

69

Select one of the following tracks:

#### Quantitative Track

- HDFS 6143 Structural Equation Modeling for HDFS Applications 1

Or MGMT 6553 1

- HDFS 6153 Multilevel Modeling for HDFS Applications (Or PSYC grad course in multilevel modeling) 1

### Total Hours

90

---

1. Substitutions must be approved by student’s advisory committee.

2. Students with prior teaching experience or who do not plan to teach at the college level can substitute 3 credit hours of HDFS 6190 - Research Practicum or other advisor-approved elective.
### Research Methods and Statistics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDFS 6133</td>
<td>Advanced Research Methods in Human Development</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>and Family Science</td>
<td></td>
</tr>
<tr>
<td>HDFS 6190</td>
<td>Research Internship</td>
<td>6</td>
</tr>
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</table>

**Hours Subtotal: 39**

*Two 3-hour courses in advanced statistics or qualitative/quantitative research methods (6 semester-hour minimum)*

Select one of the following tracks: 6

#### Quantitative Track

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>HDFS 6143</td>
<td>Structural Equation Modeling for HDFS Applications</td>
<td>1</td>
</tr>
<tr>
<td>Or MGMT 6153</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>HDFS 6153</td>
<td>Multilevel Modeling for HDFS Applications</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(Or PSYC grad course in multilevel modeling)</td>
<td></td>
</tr>
<tr>
<td>REMS 6663</td>
<td>Applied Multivariate Research in Behavioral Studies</td>
<td>1</td>
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<tr>
<td>or PSYC 5620</td>
<td>Seminar in Psychology</td>
<td></td>
</tr>
<tr>
<td>or MKTG 6413</td>
<td>Advanced Marketing Research</td>
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<tr>
<td>REMS 6373</td>
<td>Program Evaluation</td>
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#### Qualitative Track

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Hours</th>
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<tr>
<td>SCFD 6113</td>
<td>Theoretical Foundations of Inquiry</td>
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<tr>
<td>SCFD 6123</td>
<td>Qualitative Research I</td>
<td></td>
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<tr>
<td>SCFD 6133</td>
<td></td>
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<tr>
<td>SCFD 6193</td>
<td>Qualitative Research II</td>
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<tr>
<td>SOC 5273</td>
<td>Qualitative Research Methods</td>
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</table>

**Hours Subtotal: 6**

**Dissertation**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>HDFS 6000</td>
<td>Doctoral Dissertation (offered for variable</td>
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<tr>
<td></td>
<td>credit, 1-12 credit hours, maximum of 30 credit</td>
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</tr>
<tr>
<td></td>
<td>hours)</td>
<td></td>
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</table>

**Hours Subtotal: 15**

**Total Hours: 60**

1. Substitutions must be approved by student’s advisory committee.
2. Students with prior teaching experience or who do not plan to teach at the college level can substitute 3 credit hours of HDFS 6190 - Research Practicum or other advisor-approved elective.

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Doctor of Philosophy (Ph.D.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Industrial Engineering and Management, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 27 hours of courses eligible for graduate plan of study with the approval of the advisory committee.</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>IEM 6000 (Offered for variable credit, 1-15 credit hours, maximum of 30 credit hours.)</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
<td>45</td>
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<tr>
<td></td>
<td>Electives</td>
<td></td>
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<tr>
<td></td>
<td>Select 12 hours of IEM graduate courses or research credits with the approval of the advisory committee.</td>
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</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
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<tr>
<td></td>
<td>Dissertation</td>
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<td></td>
<td>IEM 6903 IEM Doctoral Seminar</td>
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<td>Hours Subtotal</td>
<td>3</td>
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<td></td>
<td>Total Hours</td>
<td>60</td>
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</tbody>
</table>

1 At least 75 percent of total credit hours must be 5000/6000 level courses.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Industrial Engineering and Management, PhD., Requirements

- Minimum 60 hours required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertations Submission/Approval
Integrative Biology, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Seminar</td>
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</tr>
<tr>
<td></td>
<td>Select three hours of approved seminar</td>
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</tr>
<tr>
<td></td>
<td>5000-level or 6000-level courses or seminars</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 25 approved hours to complete the program</td>
<td>25</td>
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<tr>
<td></td>
<td>Plan of Study</td>
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<tr>
<td></td>
<td>Dissertation</td>
<td>15</td>
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<tr>
<td></td>
<td>Select 15 approved hours to complete the program</td>
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<td></td>
<td>Plan of Study</td>
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<tr>
<td></td>
<td>Additional Courses</td>
<td>17</td>
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<td></td>
<td>Select a minimum of 17 approved additional hours</td>
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<td></td>
<td>to complete degree requirements.</td>
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<td>Hours Subtotal</td>
<td>60</td>
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<td></td>
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Total Hours: 90 Hours (Beyond the Bachelor’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Seminar</td>
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<tr>
<td></td>
<td>Select three hours of approved seminar</td>
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</tr>
<tr>
<td></td>
<td>5000-level or 6000-level courses or seminars</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 25 approved hours to complete the program</td>
<td>25</td>
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<tr>
<td></td>
<td>Plan of Study</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dissertation</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Select 15 approved hours to complete the program</td>
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<tr>
<td></td>
<td>Plan of Study</td>
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<tr>
<td></td>
<td>Additional Courses</td>
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<tr>
<td></td>
<td>Select a minimum of 47 approved additional hours</td>
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<tr>
<td></td>
<td>to complete degree requirements.</td>
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<tr>
<td></td>
<td>Hours Subtotal</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>90</td>
</tr>
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</table>

General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of "C" is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

• 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
• At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
• A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
• Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
• A minimum of 30 in-residence credit hours are required
• Non-Course requirements:
  • Doctoral Candidacy
  • Dissertation Defense
  • Dissertation Submission/Approval
# Materials Science and Engineering, PhD

## Requirements for Students Matriculating in or before Academic Year 2019-2020

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours: 90 Hours (Group I - Beyond the Bachelor's Degree)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSE 5013</td>
<td>Advanced Thermodynamics of Materials</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5023</td>
<td>Diffusion and Kinetics</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5033</td>
<td>Composite Materials</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5043</td>
<td>Advanced Materials Characterization</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5083</td>
<td>Advanced Ceramics Processing</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5010</td>
<td>Materials Science and Engineering Seminar for Masters Students</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5113</td>
<td>Diffraction in Materials or MAE 5113</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5693</td>
<td>Phase Transformations in Materials or MAE 5693</td>
<td>1</td>
</tr>
<tr>
<td>MSE 6010</td>
<td>Materials Science and Engineering Seminar for PhD Students</td>
<td>1</td>
</tr>
</tbody>
</table>

**Hours Subtotal**: 21

**Dissertation and Other Requirements**

Combination of Dissertation and Electives to total 69 hours: 69

**Electives**

Materials Science and Engineering

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE 5053</td>
<td>Smart Materials</td>
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</tr>
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<td>MSE 5063</td>
<td>Biomedical Materials</td>
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</tr>
<tr>
<td>MSE 5073</td>
<td>Tissue Engineering</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5093</td>
<td>Fundamentals of Materials Science</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5103</td>
<td>Electrical and Optical Properties of Ceramics</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5123</td>
<td>Advanced Composites Manufacturing: Materials, Methods and Applications</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5133</td>
<td>Solid Oxide Fuel Cells</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5143</td>
<td>Batteries and Supercapacitors for Energy Storage</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5153</td>
<td>Crystal Physics and Materials Properties</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5200</td>
<td>Applied Innovation I or EEE 5200</td>
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</tr>
<tr>
<td>or MSE 5223</td>
<td>Additive Manufacturing: Materials, Methods and Applications</td>
<td>1</td>
</tr>
<tr>
<td>or MSE 5583</td>
<td>Corrosion Engineering</td>
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</table>

**Chemical Engineering**

CHE 5413

**Electrical and Computer Engineering**

ECEN 5843 Microelectronic Fabrication

ECEN 6843 Advanced Microelectronic Fabrication

**Mechanical and Aerospace Engineering**

**Total Hours**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE 6000</td>
<td>Offered for variable credit, 1-9 credit hours, maximum of 60 credit hours.</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Hours**: 90

1 With approval of the student’s advisory committee, additional elective courses may be taken, with a corresponding reduction in required credits in MSE 6000.

## Total Hours: 60 Hours (Group II - Beyond the Master's Degree from Outside OSU)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>MSE 5013</td>
<td>Advanced Thermodynamics of Materials</td>
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<td>MSE 5023</td>
<td>Diffusion and Kinetics</td>
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<td>MSE 5033</td>
<td>Composite Materials</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5043</td>
<td>Advanced Materials Characterization</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5083</td>
<td>Advanced Ceramics Processing</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5010</td>
<td>Materials Science and Engineering Seminar for Masters Students</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5113</td>
<td>Diffraction in Materials or MAE 5113</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5693</td>
<td>Phase Transformations in Materials or MAE 5693</td>
<td>1</td>
</tr>
<tr>
<td>MSE 6010</td>
<td>Materials Science and Engineering Seminar for PhD Students</td>
<td>1</td>
</tr>
</tbody>
</table>

**Hours Subtotal**: 21

**Electives**

Select 9 hours of the following: 9

Materials Science and Engineering

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE 5053</td>
<td>Smart Materials</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5063</td>
<td>Biomedical Materials</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5073</td>
<td>Tissue Engineering</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5093</td>
<td>Fundamentals of Materials Science</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5103</td>
<td>Electrical and Optical Properties of Ceramics</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5123</td>
<td>Advanced Composites Manufacturing: Materials, Methods and Applications</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5133</td>
<td>Solid Oxide Fuel Cells</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5143</td>
<td>Batteries and Supercapacitors for Energy Storage</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5153</td>
<td>Crystal Physics and Materials Properties</td>
<td>1</td>
</tr>
<tr>
<td>MSE 5200</td>
<td>Applied Innovation I or EEE 5200</td>
<td>1</td>
</tr>
<tr>
<td>or MSE 5223</td>
<td>Additive Manufacturing: Materials, Methods and Applications</td>
<td>1</td>
</tr>
<tr>
<td>or MSE 5583</td>
<td>Corrosion Engineering</td>
<td>1</td>
</tr>
</tbody>
</table>
### Chemical Engineering

CHE 5413

### Electrical and Computer Engineering

ECEN 5843 Microelectronic Fabrication

ECEN 6843 Advanced Microelectronic Fabrication

### Mechanical and Aerospace Engineering

MAE 5133 Mechanical Behavior of Materials

MAE 5503 Mechanics of Advanced Composites for Structural Design

MAE 5543 Modern Materials

### Thesis Research

MSE 6000 (Offered for variable credit, 1-9 credit hours, maximum of 60 credit hours.)

### Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE 5013</td>
<td>Advanced Thermodynamics of Materials</td>
<td></td>
</tr>
<tr>
<td>MSE 5023</td>
<td>Diffusion and Kinetics</td>
<td></td>
</tr>
<tr>
<td>MSE 5033</td>
<td>Composite Materials</td>
<td></td>
</tr>
<tr>
<td>MSE 5043</td>
<td>Advanced Materials Characterization</td>
<td></td>
</tr>
<tr>
<td>MSE 5083</td>
<td>Advanced Ceramics Processing</td>
<td></td>
</tr>
<tr>
<td>MSE 5010</td>
<td>Materials Science and Engineering Seminar for Masters Students</td>
<td></td>
</tr>
<tr>
<td>MSE 5113</td>
<td>Diffraction in Materials</td>
<td></td>
</tr>
<tr>
<td>or MAE 5113</td>
<td>Diffraction in Materials</td>
<td></td>
</tr>
<tr>
<td>MSE 5693</td>
<td>Phase Transformations in Materials</td>
<td></td>
</tr>
<tr>
<td>or MAE 5693</td>
<td>Phase Transformations in Materials</td>
<td></td>
</tr>
<tr>
<td>MSE 6010</td>
<td>Materials Science and Engineering Seminar for PhD Students</td>
<td></td>
</tr>
</tbody>
</table>

### Hours Subtotal

21

### Electives and Dissertation

Combination of electives and dissertation to equal 39 hours:

### Electives

Select a minimum of 12 hours (max of 24) from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE 5053</td>
<td>Smart Materials</td>
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<tr>
<td>MSE 5063</td>
<td>Biomedical Materials</td>
</tr>
<tr>
<td>MSE 5073</td>
<td>Tissue Engineering</td>
</tr>
<tr>
<td>MSE 5093</td>
<td>Fundamentals of Materials Science</td>
</tr>
<tr>
<td>MSE 5103</td>
<td>Electrical and Optical Properties of Ceramics</td>
</tr>
<tr>
<td>MSE 5123</td>
<td>Advanced Composites Manufacturing: Materials, Methods and Applications</td>
</tr>
<tr>
<td>MSE 5133</td>
<td>Solid Oxide Fuel Cells</td>
</tr>
</tbody>
</table>

### MSE 5143

Batteries and Supercapacitors for Energy Storage

### MSE 5153

Crystal Physics and Materials Properties

### MSE 5200

Applied Innovation I

or EEE 5200 Special Topics in Entrepreneurship

### MSE 5223

Additive Manufacturing: Materials, Methods and Applications

### MSE 5583

Corrosion Engineering

or MAE 5583 Corrosion Engineering

### Chemical Engineering

CHE 5413

### Electrical and Computer Engineering

ECEN 5843 Microelectronic Fabrication

ECEN 6843 Advanced Microelectronic Fabrication

### Mechanical and Aerospace Engineering

MAE 5133 Mechanical Behavior of Materials

MAE 5503 Mechanics of Advanced Composites for Structural Design

MAE 5543 Modern Materials

### Thesis Research

MSE 6000 (Offered for variable credit, 1-9 credit hours, maximum of 60 credit hours.)

### Hours Subtotal

39

### Total Hours

60

1. With approval of the student's advisory committee, additional elective courses may be taken, with a corresponding reduction in required credits in MSE 6000.

### Total Hours: 60 Hours (Group III - Beyond the Master's Degree from OSU)

### Additional Materials Science and Engineering, PhD, Requirements

- Upon approval by the committee, students may choose other appropriate elective courses from engineering, physics and chemistry departments.
- Requirement for taking the "Required" courses for Group III Ph.D. students will be waived if they have taken that course while doing their M.S. degree at OSU. The same course however, cannot be counted towards fulfilling the credit hour requirements for two degrees (M.S. and Ph.D.) at OSU. The student will be required to fulfill the remaining coursework credit hour requirement for the Ph.D. degree by taking "Elective" courses.
- Students entering the Ph.D. program without an undergraduate/graduate degree in Materials Science and Engineering or related degree will be required to complete the ENSC 3313 Materials Science (undergraduate course) with an "A" grade or better in their first year at OSU. This will not be counted towards their degree requirements.

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master's degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Mathematics, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Core Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 15 hours from one of the following tracks:</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td><strong>Applied</strong></td>
<td></td>
</tr>
<tr>
<td>MATH 5023</td>
<td>Advanced Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH 5143</td>
<td>Real Analysis I</td>
<td></td>
</tr>
<tr>
<td>MATH 5283</td>
<td>Complex Analysis I</td>
<td></td>
</tr>
<tr>
<td>MATH 5543</td>
<td>Numerical Analysis for Differential Equations</td>
<td></td>
</tr>
<tr>
<td>MATH 5233</td>
<td>Partial Differential Equations</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Pure</strong></td>
<td></td>
</tr>
<tr>
<td>MATH 5023</td>
<td>Advanced Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH 5143</td>
<td>Real Analysis I</td>
<td></td>
</tr>
<tr>
<td>MATH 5283</td>
<td>Complex Analysis I</td>
<td></td>
</tr>
<tr>
<td>MATH 5613</td>
<td>Algebra I</td>
<td></td>
</tr>
<tr>
<td>MATH 5313</td>
<td>Geometric Topology</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Mathematics Education</strong></td>
<td></td>
</tr>
<tr>
<td>MATH 5023</td>
<td>Advanced Linear Algebra</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 9 hours from the following:</td>
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</tr>
<tr>
<td>MATH 5143</td>
<td>Real Analysis I</td>
<td></td>
</tr>
<tr>
<td>MATH 5283</td>
<td>Complex Analysis I</td>
<td></td>
</tr>
<tr>
<td>MATH 5613</td>
<td>Algebra I</td>
<td></td>
</tr>
<tr>
<td>MATH 5313</td>
<td>Geometric Topology</td>
<td></td>
</tr>
<tr>
<td>MATH 5543</td>
<td>Numerical Analysis for Differential Equations</td>
<td></td>
</tr>
<tr>
<td>MATH 5233</td>
<td>Partial Differential Equations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>STAT 5023</td>
<td>Statistics for Experimenters II</td>
<td></td>
</tr>
<tr>
<td>STAT 5063</td>
<td>Multivariate Methods</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td><strong>Additional Math Courses</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 12 hours from track used for core courses.</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td><strong>Applied</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>In addition to the core course requirements, every plan of study must contain at least 12 hours of graduate courses in the mathematical sciences (mathematics, statistics, or computer science).</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Pure</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>In addition to the core course requirements, every plan of study must contain at least 12 hours of graduate courses in the mathematical sciences (mathematics, statistics, or computer science).</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Mathematics Education</strong></td>
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</tr>
<tr>
<td>MATH 5913</td>
<td>Introduction to Research in Mathematics Education</td>
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</tr>
<tr>
<td>MATH 6923</td>
<td>Research in Undergraduate Mathematics Education</td>
<td></td>
</tr>
</tbody>
</table>

Select 6 hours from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCFD 6113</td>
<td>Theoretical Foundations of Inquiry</td>
</tr>
<tr>
<td>SCFD 6123</td>
<td>Qualitative Research I</td>
</tr>
<tr>
<td>EPSY 5463</td>
<td>Psychology of Learning</td>
</tr>
<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
</tr>
</tbody>
</table>

| Hours Subtotal | 12 |
| Preliminary Research Project |
| MATH 6010 | Advanced Seminar in Mathematics (Reading course with advisor) | 3 |
| MATH 6090 | Doctoral Research Project                          | 3 |
| Hours Subtotal | 6 |
| Additional Graduate Courses |
| Combination of electives and dissertation hours to total 27 hours. | 27 |
| Electives |
| Select 3-12 hours. |
| Dissertation |
| Select 15-24 hours. |
| Hours Subtotal | 27 |
| Total Hours | 60 |

General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of “C” is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

• 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
• At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
• A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
• Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
• A minimum of 30 in-residence credit hours are required
• Non-Course requirements:
  • Doctoral Candidacy
  • Dissertation Defense
  • Dissertation Submission/Approval
# Mechanical and Aerospace Engineering, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coursework</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 24 hours of 5000- and 6000-level coursework beyond the Master’s degree.</td>
<td>24</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td><strong>Research</strong></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>MAE 6000 (Offered for variable credit, 1-15 credit hours, maximum of 42 credit hours.)</td>
<td>29</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>29</td>
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<tr>
<td><strong>Technical Elective</strong></td>
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</tr>
<tr>
<td></td>
<td>Select 6 approved hours</td>
<td>6</td>
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<tr>
<td>Hours Subtotal</td>
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<td>6</td>
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<tr>
<td><strong>Other Requirements</strong></td>
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<td></td>
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<tr>
<td></td>
<td>MAE 6010 Advanced Study</td>
<td>1</td>
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<tr>
<td>Hours Subtotal</td>
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<td>1</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td>60</td>
</tr>
</tbody>
</table>

1 MAE PhD students are not permitted to count any 4000-level coursework on their Plan of Study without approval from your advisor and the MAE Graduate Coordinator.

2 To be taken the same semester as the Preliminary Examination in order to be assigned a letter grade.

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
Microbiology, Cell and Molecular Biology, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Coursework</td>
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</tr>
<tr>
<td></td>
<td>Select 11 hours of MICR 5000- or 6000-level courses (non-zero ending)</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Select 6 hours of any 5000- or 6000-level courses (non-zero ending)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>MICR 6120 (Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>MICR 5160 Seminar</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Dissertation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MICR 6000 (Offered for variable credit, 1-15 credit hours, maximum of 45 credit hours.)</td>
<td>40</td>
</tr>
</tbody>
</table>

Hours Subtotal: 60

Total Hours: 90 Hours (Beyond the Bachelor’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Coursework</td>
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</tr>
<tr>
<td></td>
<td>Select 14 hours of MICR 5000- or 6000-level courses (non-zero ending)</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Select 25 hours of any 5000- or 6000-level courses (non-zero ending)</td>
<td>25</td>
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<tr>
<td></td>
<td>MICR 6120 (Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MICR 5160 (Offered for fixed credit, 1 credit hour, maximum of 2 credit hours.)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Dissertation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MICR 6000 (Offered for variable credit, 1-15 credit hours, maximum of 45 credit hours.)</td>
<td>45</td>
</tr>
</tbody>
</table>

Hours Subtotal: 90

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval

Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Natural Resource Ecology and Management, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select a minimum of 45 hours of approved 5000- or 6000-level or other courses approved for graduate credit courses and one hour of NREM 5020.</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Dissertation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NREM 6000 Doctoral Dissertation (Maximum of 45 hours.)</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
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<tr>
<td></td>
<td>Total Hours</td>
<td>60</td>
</tr>
</tbody>
</table>

1 Combined courses plus dissertation must be between 60-66 total hours.

Total Hours: 90 Hours (Beyond the Bachelor’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
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</tr>
<tr>
<td></td>
<td>Select a minimum of 66 hours of approved 5000- or 6000-level or other courses approved for graduate credit and one hour of NREM 5020.</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Dissertation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NREM 6000 Doctoral Dissertation (Maximum of 48 hours.)</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>90</td>
</tr>
</tbody>
</table>

2 Combined courses plus dissertation must be 90 total hours.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
## Nutritional Sciences, PhD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours

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**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

• 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
• At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
• A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
• Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
• A minimum of 30 in-residence credit hours are required
• Non-Course requirements:
  • Doctoral Candidacy
  • Dissertation Defense
  • Dissertation Submission/Approval
## Photonics, PhD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours (Beyond the Master’s Degree)

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**Total Hours:** 72 Hours (Beyond the Bachelor’s Degree)

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Combined Coursework and Dissertation to total 60 hours beyond the Master’s Degree and 72 hours beyond the Bachelor’s Degree.

For students pursuing the bio/nano photonics option, additional courses from departments other than ECEN and PHYS may be included.

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
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- A minimum of 30 in-residence credit hours are required

**Non-Course requirements:**
- Doctoral Candidacy
- Dissertation Defense
- Dissertation Submission/Approval
Physics, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 5113</td>
<td>Statistical Thermodynamics and Kinetic Theory</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5213</td>
<td>Statistical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5313</td>
<td>Electromagnetic Theory</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5413</td>
<td>Classical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5453</td>
<td>Methods of Theoretical Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5613</td>
<td>Quantum Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 6313</td>
<td>Quantum Mechanics II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>

**Electives**

Select a minimum of 9 hours of PHYS 5000- or 6000-level courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

**Research**

PHYS 6000 (Offered for variable credit, 1-15 credit hours, maximum of 60 credit hours.)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hours Subtotal</strong></td>
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<td><strong>30</strong></td>
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</tbody>
</table>

Total Hours: 60

1 Combined elective and research hours should total 39 hours.

Total Hours: 72 Hours (Beyond the Bachelor’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 5113</td>
<td>Statistical Thermodynamics and Kinetic Theory</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5213</td>
<td>Statistical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5313</td>
<td>Electromagnetic Theory</td>
<td>3</td>
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<tr>
<td>PHYS 5413</td>
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<td>3</td>
</tr>
<tr>
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</tr>
<tr>
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<td>3</td>
</tr>
<tr>
<td>PHYS 6313</td>
<td>Quantum Mechanics II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>

**Electives**

Select a minimum of 9 hours of PHYS 5000- or 6000-level courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

**Research**

PHYS 6000 (Offered for variable credit, 1-15 credit hours, maximum of 60 credit hours.)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>42</strong></td>
</tr>
</tbody>
</table>

Total Hours: 72

2 Combined elective and research hours should total 51 hours.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Plant Biology, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
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</tr>
<tr>
<td>PBIO 5110</td>
<td>Special Topics in Plant Biology</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(Professional Development)</td>
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</tr>
<tr>
<td>PBIO 5850</td>
<td>(offered for fixed credit, 1 credit hour, maximum of 6 credit hours)</td>
<td>2</td>
</tr>
<tr>
<td>PBIO 6000</td>
<td>Doctoral Research</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 42 graduate credit hours at the 5000 level or higher from the following: BIOC, BIOL, CHEM, CS, ENVR, GENE, GEOG, GEOL, MATH, MICR, PBIO, PHYS, PLNT, NREM, STAT</td>
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</tr>
<tr>
<td></td>
<td><strong>Comprehensive Exams Required</strong></td>
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</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
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<tr>
<td></td>
<td><strong>Total Hours:</strong> 60 Hours (Beyond the Master’s Degree)</td>
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</table>

**Total Hours:** 90 Hours (Beyond the Bachelor’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>PBIO 5110</td>
<td>Special Topics in Plant Biology</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(Professional Development)</td>
<td></td>
</tr>
<tr>
<td>PBIO 5850</td>
<td>(offered for fixed credit, 1 credit hour, maximum of 6 credit hours)</td>
<td>2</td>
</tr>
<tr>
<td>PBIO 6000</td>
<td>Doctoral Research</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 72 graduate credit hours at the 5000 level or higher from the following: BIOC, BIOL, CHEM, CS, ENVR, GENE, GEOG, GEOL, MATH, MICR, PBIO, PHYS, PLNT, NREM, STAT</td>
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<td></td>
<td><strong>Comprehensive Exams Required</strong></td>
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</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours:</strong> 90 Hours (Beyond the Bachelor’s Degree)</td>
<td></td>
</tr>
</tbody>
</table>

**Additional Plant Science, PhD, Requirements**

- Minimum grade of "B" in all courses

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Plant Pathology, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours (Beyond the Master’s Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introductory (one is required if not previously taken)</td>
<td></td>
</tr>
<tr>
<td>PLP 3343</td>
<td>Principles of Plant Pathology (Introductory - no graduate credit)</td>
<td>3</td>
</tr>
<tr>
<td>PLP 5343</td>
<td>Principles of Plant Pathology</td>
<td>3</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>6</td>
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<tr>
<td></td>
<td>Pathogens courses</td>
<td></td>
</tr>
<tr>
<td>PLP 5104</td>
<td>Mycology</td>
<td>4</td>
</tr>
<tr>
<td>PLP 5724</td>
<td>Physiology of Host-Pathogen Interactions</td>
<td>4</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Additional Pathogen courses</td>
<td></td>
</tr>
<tr>
<td>Select 7-8 hours, depending on advisory committee decision.</td>
<td>7-8</td>
<td></td>
</tr>
<tr>
<td>PLP 5003</td>
<td>Plant Nematology</td>
<td></td>
</tr>
<tr>
<td>PLP 5014</td>
<td>Plant Virology</td>
<td></td>
</tr>
<tr>
<td>PLP 5304</td>
<td>Phytobacteriology</td>
<td></td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>7-8</td>
</tr>
<tr>
<td></td>
<td>Concepts courses</td>
<td></td>
</tr>
<tr>
<td>Select 6-7 hours, depending on advisory committee decision.</td>
<td>6-7</td>
<td></td>
</tr>
<tr>
<td>PLP 5524</td>
<td>Integrated Management of Insect Pests and Pathogens</td>
<td></td>
</tr>
<tr>
<td>PLP 5613</td>
<td>Host Plant Resistance</td>
<td></td>
</tr>
<tr>
<td>PLP 6303</td>
<td>Soilborne Diseases of Plants</td>
<td></td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>6-7</td>
</tr>
<tr>
<td></td>
<td>Professionalism</td>
<td></td>
</tr>
<tr>
<td>PLP 5870</td>
<td>Scientific Presentations (Both fall and spring semesters - 1 credit hour each.)</td>
<td>2</td>
</tr>
<tr>
<td>Optional if two semesters of PLP 5870 were previously completed during an OSU ENTO-PLP master’s degree program.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Recommended course</td>
<td></td>
</tr>
<tr>
<td>PLP 5992</td>
<td>Career Skills and Professionalism for Scientists</td>
<td></td>
</tr>
<tr>
<td>Plus additional courses to complete the graduate program and Plan of Study.</td>
<td>32-34</td>
<td></td>
</tr>
<tr>
<td>Hours Subtotal</td>
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<td>32-34</td>
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<tr>
<td>Total Hours</td>
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</tbody>
</table>

1 Completion of PLP 5524 or PLP 5613 is required for the degree program.

Total Hours: 90 Hours (Beyond the Bachelor’s Degree)

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
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</tr>
<tr>
<td></td>
<td>Introductory (one if required if not previously taken)</td>
<td></td>
</tr>
<tr>
<td>PLP 3343</td>
<td>Principles of Plant Pathology (Introductory - no graduate credit)</td>
<td>3</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Pathogens courses</td>
<td></td>
</tr>
<tr>
<td>PLP 5104</td>
<td>Mycology</td>
<td>4</td>
</tr>
<tr>
<td>PLP 5724</td>
<td>Physiology of Host-Pathogen Interactions</td>
<td>4</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Additional Pathogen courses</td>
<td></td>
</tr>
<tr>
<td>Select 7-8 hours, depending on advisory committee decision.</td>
<td>7-8</td>
<td></td>
</tr>
<tr>
<td>PLP 5003</td>
<td>Plant Nematology</td>
<td></td>
</tr>
<tr>
<td>PLP 5014</td>
<td>Plant Virology</td>
<td></td>
</tr>
<tr>
<td>PLP 5304</td>
<td>Phytobacteriology</td>
<td></td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>7-8</td>
</tr>
<tr>
<td></td>
<td>Concepts courses</td>
<td></td>
</tr>
<tr>
<td>Select 6-7 hours, depending on advisory committee decision.</td>
<td>6-7</td>
<td></td>
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<tr>
<td>PLP 5524</td>
<td>Integrated Management of Insect Pests and Pathogens</td>
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<tr>
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<td></td>
</tr>
<tr>
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<td></td>
<td>6-7</td>
</tr>
<tr>
<td></td>
<td>Professionalism</td>
<td></td>
</tr>
<tr>
<td>PLP 5870</td>
<td>Scientific Presentations (Both fall and spring semesters - 1 credit hour each.)</td>
<td>2</td>
</tr>
<tr>
<td>Optional if two semesters of PLP 5870 were previously completed during an OSU ENTO-PLP master’s degree program.</td>
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<tr>
<td>Hours Subtotal</td>
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<tr>
<td></td>
<td>Recommended course</td>
<td></td>
</tr>
<tr>
<td>PLP 5992</td>
<td>Career Skills and Professionalism for Scientists</td>
<td></td>
</tr>
<tr>
<td>Plus additional courses to complete the graduate program and Plan of Study.</td>
<td>62-64</td>
<td></td>
</tr>
<tr>
<td>Hours Subtotal</td>
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<td>62-64</td>
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<td>Total Hours</td>
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</table>

1 Completion of PLP 5524 or PLP 5613 is required for the degree program.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
• Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
• A minimum of 30 in-residence credit hours are required
• Non-Course requirements:
  • Doctoral Candidacy
  • Dissertation Defense
  • Dissertation Submission/Approval
# Psychology: Clinical, PhD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 106 Hours (Beyond the Bachelor's Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Core Courses</strong></td>
<td></td>
</tr>
<tr>
<td>Select three courses:</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>PSYC 5823</td>
<td>Cognitive Processes</td>
<td></td>
</tr>
<tr>
<td>PSYC 5813</td>
<td>Lifespan Cognitive Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 6483</td>
<td>Neurobiological Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 6253</td>
<td>Seminar in Human Development</td>
<td></td>
</tr>
<tr>
<td>PSYC 6563</td>
<td>Advanced Social Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 6613</td>
<td>Experimental Learning Theories</td>
<td></td>
</tr>
<tr>
<td>PSYC 5304</td>
<td>Quantitative Methods in Psychology I</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 5314</td>
<td>Quantitative Methods in Psychology II</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 6223</td>
<td>Research Design</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 5660</td>
<td>Teaching Practicum</td>
<td>2</td>
</tr>
<tr>
<td>PSYC 5000</td>
<td>Thesis (minimum of 6 hours)</td>
<td>6</td>
</tr>
<tr>
<td>PSYC 6000</td>
<td>Dissertation (minimum of 15 hours)</td>
<td>15</td>
</tr>
<tr>
<td>3 Hours Quantitative Requirement</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>3 Hours History Requirement</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Fulfilled by PSYC 4493, outside course, or waived by CTC if psychology was major or minor as undergraduate.

**Hours Subtotal:** 49

| PSYC 6440 | (continuously enrolled 2 hours during years 1-2 and 1 hour years 3-4) | 18 |
| PSYC 6650 | Practicum (continuously enrolled 1 hour for a minimum of 2 years) | 6 |
| PSYC 6990 | Advanced Internship in Clinical Psychology (1 hour for three semesters) | 3 |

**Clinical Core Requirements**

| PSYC 5113 | Psychopathology                                    | 3 |
| PSYC 5333 | Systems of Psychotherapy                           | 3 |
| PSYC 5153 | Cognitive Assessment                               | 3 |
| PSYC 6753 | Assessment of Personality                          | 3 |
| PSYC 6083 | Principles of Behavior Therapy                     | 3 |
| PSYC 6133 | Ethnic and Cultural Diversity in Psychotherapy      | 3 |

| PSYC 6440 | (continuously enrolled 2 hours during years 1-2 and 1 hour years 3-4) | 18 |
| PSYC 6650 | Practicum (continuously enrolled 1 hour for a minimum of 2 years) | 6 |
| PSYC 6990 | Advanced Internship in Clinical Psychology (1 hour for three semesters) | 3 |

**Hours Subtotal:** 45

| PSYC 5113 | Psychopathology                                    | 3 |
| PSYC 5333 | Systems of Psychotherapy                           | 3 |
| PSYC 5153 | Cognitive Assessment                               | 3 |
| PSYC 6753 | Assessment of Personality                          | 3 |
| PSYC 6083 | Principles of Behavior Therapy                     | 3 |
| PSYC 6133 | Ethnic and Cultural Diversity in Psychotherapy      | 3 |

**Subspecialty Training**

Select 12 from one of the following subspecialties: 12

**Adult Psychopathology**

Student must take four elective courses chosen in consultation with program advisor

**Clinical Child Psychology**

The following courses should be taken by students interested in the Clinical Child Psychology subspecialty. Students must take two additional elective courses, to be determined by the student and his or her advisor.

| PSYC 6173 | Child Psychopathology and Treatment | |

**Health Psychology**

The following courses should be taken by students interested in the Health Psychology subspecialty. Student must take two additional elective courses, to be determined by the student and his or her advisor.

| PSYC 6443 | Behavioral Medicine | |
| PSYC 6143 | The Psychology of Substance Abuse | |

**Pediatric Psychology**

The following courses should be taken by students interested in the Pediatric Psychology subspecialty.

| PSYC 6173 | Child Psychopathology and Treatment | |
| PSYC 6723 | Child Diagnostic Methods | |
| PSYC 6523 | Family Treatment Methods | |
| PSYC 6453 | Pediatric Psychology | |

**Hours Subtotal:** 12

**Total Hours:** 106

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
# Psychology: Experimental Psychology, PhD

## Requirements for Students Matriculating in or before Academic Year 2019-2020

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Total Hours: 80 Hours (Beyond the Bachelor’s Degree)

<table>
<thead>
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<td>Quantitative Methods in Psychology I</td>
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<tr>
<td>PSYC 5314</td>
<td>Quantitative Methods in Psychology II</td>
<td>4</td>
</tr>
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<td>PSYC 6223</td>
<td>Research Design</td>
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<tr>
<td>PSYC 5660</td>
<td>Teaching Practicum</td>
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<tr>
<td>PSYC 5000</td>
<td>Thesis</td>
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<tr>
<td>PSYC 6000</td>
<td>Dissertation</td>
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</tr>
<tr>
<td>Select 3 hours in additional quantitative electives (within or outside department)</td>
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Select 9 hours from the following:

- PSYC 5823 Cognitive Processes
- PSYC 6483 Neurobiological Psychology
- PSYC 6563 Advanced Social Psychology
- PSYC 6613 Experimental Learning Theories
- PSYC 5813 Lifespan Cognitive Developmental Psychology
- PSYC 5913 Lifespan Social Developmental Psychology

### Experimental Core Courses

Select 9 hours from the following:

#### Cognitive
- PSYC 4223 Decision Making and Problem Solving
- PSYC 5823 Cognitive Processes
- PSYC 6393 Language Development

#### Comparative-Neurobiology
- PSYC 6483 Neurobiological Psychology
- PSYC 6583 Developmental Psychobiology
- PSYC 6613 Experimental Learning Theories
- ZOOL 5293
- ZOOL 5353

#### Developmental Psychology
- PSYC 4243 Psychology of Aging
- PSYC 5813 Lifespan Cognitive Developmental Psychology
- PSYC 5913 Lifespan Social Developmental Psychology
- PSYC 6583 Developmental Psychobiology
- PSYC 6393 Language Development
- HDFS 5243 Infant and Early Childhood Development and Attachment
- HDFS 5433 Theories of Aging
- HDFS 5583 Intimate Relationships and Sexuality across the Lifespan

#### Social-Personality Track
- PSYC 4333 Personality

### Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Hours May Be Taken From the Following:

- PSYC 5000 Thesis
- PSYC 5380 Research
- PSYC 6000 Dissertation

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<td>PSYC 6393</td>
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<tr>
<td>PSYC 6663</td>
<td>Marital and Couple Relationships</td>
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<td>HDFS 6553</td>
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<td>Hours Subtotal</td>
<td>Hours needed to reach 80 hours</td>
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<tr>
<td>PSYC 5000</td>
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<tr>
<td>PSYC 5380</td>
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# School Administration, EdD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 64 Hours

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<tr>
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<tr>
<td>EDLE 6483</td>
<td>School Leadership, Culture and Ethics</td>
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<tr>
<td>EDLE 6493</td>
<td>School Improvement/Reform</td>
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<tr>
<td>EDLE 6633</td>
<td>School Leadership and Community Collaboration</td>
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<td><strong>Research</strong></td>
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<td>EDLE 6853</td>
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<td>Select 6 hours from the following:</td>
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<td>SCFD 6123</td>
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<td>SCFD 6193</td>
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<td>REMS 6003</td>
<td>Analyses of Variance</td>
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<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
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<tr>
<td>REMS 6373</td>
<td>Program Evaluation</td>
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<td>REMS 5373</td>
<td>Educational Measurements</td>
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<td>EDLE 6893</td>
<td>Internship in Education II</td>
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<td>EDLE 6353</td>
<td>The Superintendency</td>
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<td>Special Topics in School Finance Policy</td>
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<tr>
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<td>The Politics of Education</td>
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<td>EDLE 6453</td>
<td>Special Topics in Education Law</td>
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<td>EDLE 6603</td>
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</tr>
<tr>
<td>EDLE 6710</td>
<td>Special Problems</td>
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<td>EDTC 5773</td>
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</table>

**Dissertation**

10 hours required

**Hours Subtotal**

10

Note: Cognate and any additional courses must be approved by the student's committee.

**Total Hours**

64

\[\text{1 Denotes classes with prerequisites.}\]

## General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

## Additional Doctor of Education (Ed.D.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required

**Non-Course requirements:**

- Doctoral Candidacy
- Dissertation Defense
- Dissertations Submission/Approval
## School Psychology, PhD

### Requirements for Students Matriculating in or before Academic Year 2019-2020
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours (Beyond the Master's Degree)

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<td>REMS 5953</td>
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<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
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<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
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</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
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<td>REMS 6663</td>
<td>Applied Multivariate Research in Behavioral Studies</td>
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<tr>
<td>SPSY 6153</td>
<td>Advanced Research in School Psychology</td>
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<td>SPSY 5000</td>
<td>Master's Thesis</td>
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<td>Biological Bases of Behavior</td>
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<td><strong>Social Aspects/Diversity</strong></td>
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<td>or FDEP 5183</td>
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<td>SCFD 6983</td>
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<td>Neurobiological Psychology</td>
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<td><strong>Cognitive/Affective Aspects of Behavior</strong></td>
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<td>SPSY 5110</td>
<td>Observation and Participation Field Experience for School Psychology Majors</td>
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<td>SPSY 6313</td>
<td>Advanced Interventions for Increased Academic Achievement</td>
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<td><strong>School Psychology Professional Practice Skills</strong></td>
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<td>SPSY 5023</td>
<td>Introduction to School Psychology</td>
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<td>SPSY 6030</td>
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<td><strong>Assessment for Intervention/Measurement</strong></td>
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<td>SPSY 5793</td>
<td>Individual Intellectual Assessment of Children and Youth</td>
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<td>SPSY 5803</td>
<td>Advanced Cognitive Assessment and Theory</td>
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<td>SPSY 6113</td>
<td>Behavioral and Personality Assessment of Children and Youth</td>
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<td><strong>Consultation/Prevention/Intervention/Program Evaluation</strong></td>
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<td>SPSY 5873</td>
<td>Applied Behavior Analysis II</td>
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<td>SPSY 6333</td>
<td>Instructional Assessment and Consultation</td>
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<td>SPSY 6343</td>
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<td><strong>Direct Service/Psychotherapy</strong></td>
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<td>SPSY 5503</td>
<td>Crisis Intervention and Emergency Action in School Settings</td>
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<td>SPSY 5813</td>
<td>Parent and Family Intervention in School Psychology</td>
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<td>SPSY 6033</td>
<td>Introduction to Psychotherapy with Children and Adolescents</td>
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**Total Hours Subtotal:** 125-129

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### General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Doctor of Philosophy (PhD.) Requirements
- 90 credits beyond the Bachelor's degree, 60 credits beyond the Master's degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
## Sociology, PhD

### Requirements for Students Matriculating in or before Academic Year 2019-2020

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours (Beyond the Master’s Degree)

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<td></td>
<td><strong>Sociological Theory</strong></td>
<td>Select 6 hours of approved coursework.</td>
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<td></td>
<td><strong>Research Methods/Statistics</strong></td>
<td>Select 15 hours of approved Research Methods/Statistics coursework.</td>
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<td></td>
<td><strong>Two Comprehensive Areas</strong></td>
<td>Select 12 hours from two approved comprehensive areas.</td>
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<td></td>
<td><strong>Electives</strong></td>
<td>Select 39-42 hours, based on number of dissertation hours. ¹</td>
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<td></td>
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<td>Select 15-18 hours, depending on elective hours. ¹</td>
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<td><strong>Pro-Seminar</strong></td>
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¹ Combined elective and dissertation hours must total 57 hours.

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required

### Non-Course requirements:
- Doctoral Candidacy
- Dissertation Defense
- Dissertation Submission/Approval
Soil Science, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours

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Additional Coursework Hours 23

Hours Subtotal 27

Thesis and Electives

Required Minimum Thesis Credit Hours 15

Additional Minimum Coursework or Thesis Credit Hours 18

Hours Subtotal 33

Total Hours 60

General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of "C" is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

• 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
• At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
• A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
• Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
• A minimum of 30 in-residence credit hours are required
• Non-Course requirements:
  • Doctoral Candidacy
  • Dissertation Defense
  • Dissertation Submission/Approval
Statistics, PhD

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 90 Hours (Beyond the Bachelor's Degree)

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<td>STAT 5223</td>
<td>Statistical Inference</td>
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<tr>
<td>STAT 5013</td>
<td>Statistics for Experimenters I</td>
<td>3</td>
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<td>STAT 5023</td>
<td>Statistics for Experimenters II</td>
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<td>Statistical Computing</td>
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<td>STAT 6113</td>
<td>Probability Theory</td>
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<td>STAT 6203</td>
<td>Large Sample Inference</td>
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<td>STAT 5303</td>
<td>Experimental Designs</td>
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<td>STAT 5323</td>
<td>Theory of Linear Models I</td>
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<td>STAT 5333</td>
<td>Theory of Linear Models II</td>
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<td>STAT 6001</td>
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<td>STAT 6223</td>
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<td>STAT 6910</td>
<td>Special Problems</td>
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<td>Advanced Calculus II</td>
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<td>MATH 5143</td>
<td>Real Analysis I</td>
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General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of "C" is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

• 90 credits beyond the Bachelor's degree, 60 credits beyond the Master's degree are required
• At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
• A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
• Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
**Veterinary Biomedical Science, PhD**

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours

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<td>VBSC 5023</td>
<td>Veterinary Biomedical Sciences II</td>
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<tr>
<td>STAT 5013</td>
<td>Statistics for Experimenters I</td>
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<tr>
<td>STAT 5083</td>
<td>Statistics for Biomedical Researchers</td>
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<td>VBSC 6110</td>
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<td>VBSC 6000</td>
<td>(offered for variable credit, 1-15 credit hours, maximum of 45 credit hours)</td>
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**Hours Subtotal** 60

**Total Hours** 60

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Doctor of Philosophy (PhD.) Requirements**

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval
Graduate Certificates

- Big Data Analytics, GCRT (p. 1892)
- Bioinformatics, GCRT (p. 1893)
- Building Level Leadership, GCRT (p. 1894)
- Business Data Mining, GCRT (p. 1895)
- Business Sustainability, GCRT (p. 1896)
- College Teaching, GCRT (p. 1897)
- Developmental Disabilities, GCRT (p. 1898)
- District Level Leadership, GCRT (p. 1899)
- Educational and Psychological Measurement, GCRT (p. 1900)
- Engineering and Technology Management, GCRT (p. 1901)
- Entrepreneurship, GCRT (p. 1902)
- Family Financial Planning, GCRT (p. 1903)
- Forensic Arson, Explosives, Firearms, and Toolmarks Investigation, GCRT (p. 1904)
- Global Issues, GCRT (p. 1905)
- Grassland Management, GCRT (p. 1908)
- Health Analytics, GCRT (p. 1909)
- Human Resource Management, GCRT (p. 1910)
- Infant Mental Health, GCRT (p. 1911)
- Information Assurance, GCRT (p. 1912)
- Integrative Design of Building Envelope, GCRT (p. 1913)
- Interdisciplinary Toxicology, GCRT (p. 1914)
- Marketing Analytics, GCRT (p. 1915)
- Medical Sciences, GCRT (p. 1916)
- Museum and Curatorial Studies, GCRT (p. 1917)
- Non-Profit Management, GCRT (p. 1918)
- Online Teaching, GCRT (p. 1919)
- Program Evaluation, GCRT (p. 1920)
- Public Health in Rural and Underserved Communities, GCRT (p. 1921)
- School Library Certification, GCRT (p. 1922)
- Teaching English to Speakers of Other Languages, GCRT (p. 1923)
- Workforce and Adult Education, GCRT (p. 1924)
## Big Data Analytics, GCRT

### Requirements for Students Matriculating in or before Academic Year 2019-2020
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 18 Hours

<table>
<thead>
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<tr>
<td>CS 5423</td>
<td>Principles of Database Systems</td>
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<tr>
<td>CS 5433</td>
<td>Big Data Management</td>
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<td>MSIS 5633</td>
<td>Predictive Analytics Technologies</td>
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<td>STAT 5023</td>
<td>Statistics for Experimenters II</td>
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<tr>
<td>CS 5030</td>
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<td>CS 5123</td>
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<td>CS 5793</td>
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<td>CS 6620</td>
<td>Advanced Topics in Applied Algorithms</td>
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<td>MSIS 5600</td>
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<tr>
<td>IEM 5723</td>
<td>Data, Process and Object Modeling</td>
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</tr>
<tr>
<td>STAT 5091</td>
<td>Sas Programming</td>
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</tr>
<tr>
<td>STAT 4043</td>
<td>Applied Regression Analysis</td>
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<td>STAT 5063</td>
<td>Multivariate Methods</td>
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<td>STAT 5053</td>
<td>Time Series Analysis</td>
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<td>STAT 5093</td>
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</table>
## Bioinformatics, GCRT

### Requirements for Students Matriculating in or before Academic Year 2019-2020.
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 16 Hours

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<thead>
<tr>
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<tr>
<td>MICR 5203</td>
<td>Bioinformatics</td>
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<tr>
<td>BIOC 5930</td>
<td>Advanced Biochemical Techniques (Capstone Project)</td>
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**Electives**

Select 12 hours from the following: ¹

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>BIOC 6733</td>
<td>Functional Genomics</td>
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<td>PBIO 5553</td>
<td>Molecular Phylogenectic Analysis</td>
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<td>ANSI 5010</td>
<td>Special Problems (Mapping and Marker Assisted Selection)</td>
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<td>PBIO 5110</td>
<td>Special Topics in Plant Biology (Phylogenomics)</td>
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<td>BIOC 5102</td>
<td>Molecular Genetics</td>
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**Life Sciences Core**

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<tr>
<td>STAT 6013</td>
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<td>STAT 5013</td>
<td>Statistics for Experimenters I</td>
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<td>STAT 5023</td>
<td>Statistics for Experimenters II</td>
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<td>STAT 5093</td>
<td>Statistical Computing</td>
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<td>STAT 4203</td>
<td>Mathematical Statistics I</td>
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**Statistics Core**

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<tr>
<td>CS 5423</td>
<td>Principles of Database Systems</td>
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<td>CS 5433</td>
<td>Big Data Management</td>
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<tr>
<td>CS 5070</td>
<td>Seminar and Special Problems</td>
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<td>CS 4433</td>
<td>Introduction to Database Systems</td>
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**Computer Science Core**

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<td>MATH 6590</td>
<td>Topics in Applied Mathematics</td>
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**Math Core**

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<td>Total Hours</td>
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¹ Select 3 hours from each discipline or more than one from various disciplines with Advisory Committee approval.
Building Level Leadership, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 12 Hours

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<tr>
<td>EDLE 5813</td>
<td>Leadership Theory and Ethical Decision</td>
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<td>Making</td>
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<td>EDLE 5953</td>
<td>Developing Educational Organizations</td>
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<tr>
<td>EDLE 5253</td>
<td>The Principalship</td>
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<td>EDLE 5723</td>
<td>Education Law</td>
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<td>EDLE 5353</td>
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<td>EDLE 5473</td>
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<td>EDLE 5893</td>
<td>Field Studies Intern II</td>
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Hours Subtotal 12

Total Hours 12
## Business Data Mining, GCRT

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 12 Hours

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<td>BAN 5743</td>
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<td>MKTG 5243</td>
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<td>Advanced SAS Programming for Marketing Analytics</td>
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<td>BAN 5511</td>
<td>Web Analytics and Digital Marketing</td>
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<td>BAN 5521</td>
<td>GIS Applications in Marketing Analytics</td>
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<td>BAN 5551</td>
<td>Optimization Applications in Marketing Analytics</td>
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<td>BAN 5561</td>
<td>Customer Lifetime Value Models in Marketing</td>
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<td>BAN 5753</td>
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<td>BAN 5763</td>
<td>Advanced Marketing Research Analytics</td>
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<td>Predictive Analytics Technologies</td>
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<td>MSIS 5643</td>
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Business Sustainability, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 12 Hours

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<td>MGMT 5023</td>
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<td>MGMT 5083</td>
<td>Corporate and Social Responsibility</td>
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<td>MGMT 5031</td>
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<td>MGMT 5051</td>
<td>Creating Ethical Work Places</td>
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<td>MGMT 5061</td>
<td>Managing Confrontations</td>
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<td>MGMT 5073</td>
<td>Management and Ethical Leadership</td>
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<td>Management of Nonprofit Organizations</td>
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<td>MGMT 5533</td>
<td>Leadership Challenges</td>
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<td>MGMT 5563</td>
<td>Crisis in Organizations</td>
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<tr>
<td>EEE 5213</td>
<td>Entrepreneurship in Science and Technology</td>
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<td>EEE 5403</td>
<td>Social Entrepreneurship</td>
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<tr>
<td>EEE 5603</td>
<td>Entrepreneurship Empowerment in South Africa</td>
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<tr>
<td>Total Hours</td>
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## College Teaching, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 12 Hours

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<tr>
<th>Code</th>
<th>Title</th>
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<td>Select 3 hours from the following:</td>
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<td>CIED 5073</td>
<td>Pedagogical Research</td>
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<tr>
<td>CIED 6073</td>
<td>Advanced Pedagogical Research</td>
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<td><strong>Electives</strong></td>
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<td>Select 9 hours from the following:</td>
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<td>CIED 5043</td>
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<td>CIED 5093</td>
<td>Curriculum Design</td>
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<tr>
<td>CIED 5623</td>
<td>Multicultural and Diversity Issues in Curriculum</td>
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<tr>
<td>CIED 5183</td>
<td>Media Literacy Across the Curriculum</td>
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<tr>
<td>CIED 6033</td>
<td>Analysis of Teaching</td>
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<tr>
<td>CIED 6133</td>
<td>Theory to Practice in Education</td>
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<tr>
<td>EDTC 5503</td>
<td>Facilitating Online Learning</td>
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<td>HESA 6713</td>
<td>Effective Teaching in College and Universities</td>
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<td>HIST 5021</td>
<td>Teaching History at the College Level</td>
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<td>AGED 5813</td>
<td>College Teaching of Agriculture and Natural Resources</td>
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<td>AGED 5823</td>
<td>Advanced Methods of Teaching Agriculture</td>
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<td>EPSY 5473</td>
<td>Psychology of Adult Learning</td>
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<td>EPSY 5983</td>
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Developmental Disabilities, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 12 Hours

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<td>HDFS 5283</td>
<td>Developmental Disabilities</td>
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<tr>
<td>HDFS 5623</td>
<td>Systems Theory and Applications to the Family</td>
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<tr>
<td>HDFS 5653</td>
<td>Systemic Approaches to Psychopathology and Psychopharmacology</td>
<td>3</td>
</tr>
<tr>
<td>HDFS 5193</td>
<td>Reflective Practice</td>
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</tbody>
</table>

**Hours Subtotal** 12

**Total Hours** 12
District Level Leadership, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 12 Hours

<table>
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<tr>
<td>EDLE 6873</td>
<td>Leading Schools with Data</td>
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<td>EDLE 6633</td>
<td>School Leadership and Community Collaboration</td>
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<td>Select 6 hours from the following:¹</td>
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<td>EDLE 6493</td>
<td>School Improvement/Reform</td>
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<td>EDLE 6483</td>
<td>School Leadership, Culture and Ethics</td>
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<tr>
<td>EDLE 6853</td>
<td>Rsrch Trad n Ed Leadership</td>
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<tr>
<td>EDLE 6353</td>
<td>The Superintendency</td>
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<tr>
<td>EDLE 6453</td>
<td>Special Topics in Education Law</td>
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<td>EDLE 6363</td>
<td>Special Topics in School Finance Policy</td>
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<td>EDLE 6393</td>
<td>The Human Factor in Administering Schools</td>
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<td>EDLE 6893</td>
<td>Internship in Education II</td>
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¹ Other education courses may be approved by the certificate coordinator.
### Educational and Psychological Measurement, GCRT

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 12 Hours

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<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
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<td>Select 9 hours of the following:</td>
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<td>Educational Measurements</td>
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<td>REMS 6023</td>
<td>Psychometric Theory</td>
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<td>REMS 6033</td>
<td>Factor Analysis in Behavioral Research</td>
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<td>REMS 6673</td>
<td>Item Response Theory</td>
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**Hours Subtotal**

12

**Total Hours**

12
# Engineering and Technology Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 12 Hours

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<td><strong>Required Course</strong></td>
<td><strong>ETM 5111</strong> Introduction to Strategy, Technology and Integration</td>
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<td>ETM 5241</td>
<td>Strategic Project Management</td>
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<td>ETM 5291</td>
<td>Failure Mode and Effects Analysis in Design</td>
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<td>ETM 5341</td>
<td>Leadership Strategies for Technical Professionals</td>
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<td>ETM 5351</td>
<td>Planning Technical Projects</td>
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<td>ETM 5371</td>
<td>Ethics for Practicing Engineers</td>
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<td>ETM 5391</td>
<td>New Product Introduction and Commercialization</td>
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<td>ETM 5411</td>
<td>Engineering Economic Analysis</td>
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<td>ETM 5461</td>
<td>Intellectual Property Management</td>
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<td>ETM 5471</td>
<td>Introduction to System Safety</td>
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<td>ETM 5481</td>
<td>Sustainable Enterprise Strategies</td>
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<td>ETM 5531</td>
<td>Contract Law in Engineering and Technology</td>
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<td>ETM 5253</td>
<td>Engineering Problem Solving and Decision-Making</td>
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<td>ETM 5943</td>
<td>Lean Sigma Implementation</td>
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<tr>
<td>ETM 5143</td>
<td>Strategic Decision Analysis for Engineering and Technology Managers</td>
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<td>ETM 5283</td>
<td>Strategic Planning</td>
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<td>ETM 5153</td>
<td>Foundations of Engineering Management</td>
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<td>ETM 5163</td>
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**Hours Subtotal** 12

**Total Hours** 12
Entrepreneurship, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 12 Hours

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<td>EEE 5113</td>
<td>Entrepreneurship and Venture Management</td>
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<td>EEE 5663</td>
<td>Imagination in Entrepreneurship</td>
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<td>EEE 5133</td>
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<tr>
<td>EEE 5200</td>
<td>Special Topics in Entrepreneurship</td>
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<tr>
<td></td>
<td>(Commercializing of New Technology)</td>
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<td>EEE 5200</td>
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<td>(Real Estate Development)</td>
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<td>EEE 5213</td>
<td>Entrepreneurship in Science and Technology</td>
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<td>EEE 5223</td>
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<td>EEE 5263</td>
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<td>EEE 5313</td>
<td>Emerging Enterprise Consulting</td>
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<td>EEE 5333</td>
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<td>EEE 5403</td>
<td>Social Entrepreneurship</td>
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<td>EEE 5513</td>
<td>Growing Small and Family Ventures</td>
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<td>EEE 5610</td>
<td>Advanced Entrepreneurship Practicum</td>
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<td></td>
<td>(Entrepreneurship Initiative - Wal-Mart)</td>
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<td>EEE 5610</td>
<td>Advanced Entrepreneurship Practicum</td>
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<td>(Project MGMT Consulting)</td>
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<td>EEE 5610</td>
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<td>(Advanced Practicum CIE Scholar (special permission required))</td>
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<td>EEE 5653</td>
<td>Venture Capital</td>
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<td>Imagination in Entrepreneurship</td>
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<td>EEE 5703</td>
<td>Project Management for Entrepreneurship</td>
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<td>EEE 5713</td>
<td>Native American Entrepreneurship</td>
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<td>EEE 5803</td>
<td>Operating an Entrepreneurial Firm</td>
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<td>EEE 5993</td>
<td>Preparing Effective Business Plans</td>
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Family Financial Planning, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 18 Hours

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<td>HS 5453</td>
<td>Retirement Planning, Employee Benefits and the Family</td>
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<td>HS 5553</td>
<td>Insurance Planning for Families</td>
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<td>HS 5603</td>
<td>Investing for the Family's Future</td>
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<td>HS 5653</td>
<td>Personal Income Tax for Family Financial Planning</td>
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<td>HS 5803</td>
<td>Case Studies in Family Financial Planning</td>
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Total Hours 18
**Forensic Arson, Explosives, Firearms, and Toolmarks Investigation, GCRT**

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 12 Hours

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<td>FRNS 5013</td>
<td>Survey of Forensic Sciences</td>
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<tr>
<td>FRNS 5063</td>
<td>Ethical Research and Scientific Writing</td>
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<tr>
<td>FRNS 5073</td>
<td>Quality Assurance in Forensic Science</td>
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<tr>
<td>FRNS 5613</td>
<td>Criminalistics and Evidence Analysis</td>
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<tr>
<td>FRNS 5653</td>
<td>The Law and Expert Evidence</td>
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<td>FRNS 5663</td>
<td>Forensic Statistics</td>
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<td>FRNS 5103</td>
<td>The Chemistry of Pyrotechnics</td>
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<td>FRNS 5113</td>
<td>The Chemistry of Explosives</td>
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<tr>
<td>FRNS 5123</td>
<td>Fire Dynamics in Forensic Investigations</td>
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<tr>
<td>FRNS 5133</td>
<td>Ordnance Identification and Recognition</td>
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<td>FRNS 5143</td>
<td>Methods in Fire and Explosion Investigation NFPA 921/1033</td>
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<td>FRNS 5153</td>
<td>Explosives Research, Testing and Evaluation Methods</td>
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<td>FRNS 5163</td>
<td>Advanced Fire Dynamics</td>
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<td>FRNS 5173</td>
<td>Advanced Explosion Investigation</td>
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<td>FRNS 5183</td>
<td>Computer Fire Modeling</td>
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<td>FRNS 5423</td>
<td>Blast Injuries and Effects</td>
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<td>Advanced Blast Injuries and Effects</td>
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<td>FRNS 5663</td>
<td>Destructive Devices/Explosives: Law and Regulations</td>
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<td>FRNS 5673</td>
<td>Intelligence for Forensic Investigators</td>
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<td>FRNS 5713</td>
<td>Forensic Psychology</td>
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<td>FRNS 5723</td>
<td>Advanced Forensic Psychology</td>
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<td>FRNS 5803</td>
<td>Circuit Exploitation of Destructive Devices</td>
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<td>FRNS 5813</td>
<td>Building Construction and Fire/Explosion Forensic Examination</td>
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<td>FRNS 5823</td>
<td>Forensic Examination of Fire Protection Systems</td>
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<td>FRNS 5833</td>
<td>Identification of Destructive Device Fuzing Systems</td>
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<td>FRNS 5843</td>
<td>Advanced Destructive Device Circuit Exploitation</td>
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<td>FRNS 5853</td>
<td>Electrical Theory and Failure Analysis in Forensic Fire Investigations</td>
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<td>FRNS 5863</td>
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## Global Issues, GCRT

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 15 Hours

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<td>INTL 5043</td>
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<tr>
<td>ANTH 5243</td>
<td>Globalization and Culture</td>
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<td>AGEC 5343</td>
<td>International Agricultural Markets and Trade</td>
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<td>EEE 5403</td>
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<tr>
<td>GEOG 5233</td>
<td>Human Dimensions of Global Environmental Change</td>
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<td>Foundations of Issue and Conflict Management</td>
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<td>MC 5253</td>
<td>International Mass Communication</td>
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<td>MGMT 5163</td>
<td>Fundraising for Nonprofit Organizations</td>
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<td>NSCI 5553</td>
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<td>Entrepreneurship and The Arts</td>
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<td>Dilemmas and Debates in Entrepreneurship</td>
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<td>International Negotiations</td>
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**Preservation of Environmental and Ecological Resources**

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**Total Hours** 15

1. When focused on business topics, students are restricted to note more than 15 credit hours of Business-related courses including INTL 5233, INTL 5110 and courses under the following course designations: ACCT, BADM, BCOM, BHON, BUSAD, FIN, LSB, MGMT, MSIS, TCOM. Economics courses are not restricted.

2. FIN 4213 should be taken under FIN 5550 with approval of instructor and advisor.

3. Taken under ART 5910.

4. Any 4000-level HIST course may be taken under the HIST 6120 with the approval of the student's advisor.
# Grassland Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 12 Hours

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# Health Analytics, GCRT

## Requirements for Students Matriculating in or before Academic Year 2019-2020
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 12 Hours

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Human Resource Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 15 Hours

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# Infant Mental Health, GCRT

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 15 Hours

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**Hours Subtotal** 15

**Total Hours** 15
# Information Assurance, GCRT

## Requirements for Students Matriculating in or before Academic Year 2019-2020
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 15 Hours

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<td>MSIS 5253</td>
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**Integrative Design of Building Envelope, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 12 Hours

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<tr>
<td>MET 4113</td>
<td>Practical Computational Fluid Dynamics *</td>
<td></td>
</tr>
<tr>
<td>MET 4413</td>
<td>Ground Source Heat Pump Systems *</td>
<td></td>
</tr>
<tr>
<td>CMT 5133</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMT 5263</td>
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</tr>
<tr>
<td>CMT 5273</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIVE 5113</td>
<td>Construction Business Management</td>
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<tr>
<td>CIVE 5183</td>
<td>Construction Estimating</td>
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</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
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</tbody>
</table>

**Other Requirements**

Must take one course from those above with an * and two from those without.

<table>
<thead>
<tr>
<th><strong>Hours Subtotal</strong></th>
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</tr>
</thead>
</table>

**Total Hours**

12
# Interdisciplinary Toxicology, GCRT

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 12 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Courses</td>
<td>Select 12 hours from at least two different participating departments/colleges:</td>
<td>12</td>
</tr>
<tr>
<td>Biomedical Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOM 6543 or ITOX 6543</td>
<td>Environmental Toxins in the Brain or Environmental Toxins of the Brain</td>
<td></td>
</tr>
<tr>
<td>Biochemistry and Molecular Biology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOC 6820 or ITOX 6820</td>
<td>Selected Topics in Biochemistry or Selected Topics in Biochemistry</td>
<td></td>
</tr>
<tr>
<td>Forensic Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRNS 5523 or ITOX 5523</td>
<td>Forensic Toxicology or Forensic Toxicology</td>
<td></td>
</tr>
<tr>
<td>FRNS 5282 or ITOX 5282</td>
<td>Methods in Forensic Sciences or Methods of Forensic Science</td>
<td></td>
</tr>
<tr>
<td>Microbiology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MICR 5203 or ITOX 5203</td>
<td>Bioinformatics or Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>Veterinary Biomedical Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VBSC 5103 or ITOX 5103</td>
<td>Biochemical and Molecular Toxicology or Biochemical and Molecular Toxicology</td>
<td></td>
</tr>
<tr>
<td>VBSC 6213 or ITOX 6213</td>
<td>Toxicology: From Molecules to Ecosystems or Toxicology: From Molecules to Ecosystems</td>
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</tr>
<tr>
<td>VBSC 6223 or ITOX 6223</td>
<td>Xenobiotic Disposition or Xenobiotic Disposition</td>
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</tr>
<tr>
<td>VBSC 5801 or ITOX 5801</td>
<td>Nonclinical Drug Development or Non Clinical Drug Development</td>
<td></td>
</tr>
<tr>
<td>VBSC 5802 or ITOX 5802</td>
<td>Experimental Principles and Approaches or Experimental Principles and Approaches</td>
<td></td>
</tr>
<tr>
<td>VBSC 5902 or ITOX 5902</td>
<td>Toxicology of Chemical Warfare and Chemical Terrorism or Toxicology of Chemical Warfare and Chemical Terrorism</td>
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</tr>
<tr>
<td>Integrative Biology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 5303 or ITOX 5303</td>
<td>Organismal Ecotoxicology or Organismal Ecotoxicology</td>
<td></td>
</tr>
<tr>
<td>BIOL 5363 or ITOX 5363</td>
<td>Principles of Toxicology or Principles of Toxicology</td>
<td></td>
</tr>
<tr>
<td>BIOL 5343 or ITOX 5343</td>
<td>Population and Community Ecotoxicology or Population and Community Toxicology</td>
<td></td>
</tr>
<tr>
<td>BIOL 5423 or ITOX 5423</td>
<td>Techniques in Environmental Toxicology or Techniques in Environmental Toxicology</td>
<td></td>
</tr>
</tbody>
</table>

**Hours Subtotal** 12
# Marketing Analytics, GCRT

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 12 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 5733</td>
<td>Introduction to Marketing Analytics</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 5743</td>
<td>Advanced Marketing Analytics</td>
<td>3</td>
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</tbody>
</table>

**Hours Subtotal**

6

**Electives**

Select 6 hours from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 5243</td>
<td>Base SAS Programming for Database Marketing</td>
<td></td>
</tr>
<tr>
<td>BAN 5511</td>
<td>Web Analytics and Digital Marketing</td>
<td></td>
</tr>
<tr>
<td>BAN 5521</td>
<td>GIS Applications in Marketing Analytics</td>
<td></td>
</tr>
<tr>
<td>BAN 5551</td>
<td>Optimization Applications in Marketing Analytics</td>
<td></td>
</tr>
<tr>
<td>BAN 5561</td>
<td>Customer Lifetime Value Models in Marketing</td>
<td></td>
</tr>
<tr>
<td>MSIS 5633</td>
<td>Predictive Analytics Technologies</td>
<td></td>
</tr>
<tr>
<td>MSIS 5303</td>
<td>Prescriptive Analytics</td>
<td></td>
</tr>
<tr>
<td>Other graduate courses as approved by the program director</td>
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</table>

**Hours Subtotal**

6

Total Hours

12
Medical Sciences, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 19 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOM 5122</td>
<td>Clinical Anatomy for Allied Healthcare</td>
<td>2</td>
</tr>
<tr>
<td>BIOM 5215</td>
<td>Medical Biochemistry</td>
<td>5</td>
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<tr>
<td>BIOM 5316</td>
<td>Medical Microbiology and Immunology</td>
<td>6</td>
</tr>
<tr>
<td>BIOM 5616</td>
<td>Graduate Biomedical Physiology</td>
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</tbody>
</table>

Hours Subtotal 19

Total Hours 19
# Museum and Curatorial Studies, GCRT

## Requirements for Students Matriculating in or before Academic Year 2019-2020
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 15 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Core Courses</strong></td>
<td></td>
</tr>
<tr>
<td>HIST 5053</td>
<td>Museum Studies</td>
<td>3</td>
</tr>
<tr>
<td>ART 5810</td>
<td>Museum Studies Internship</td>
<td>3</td>
</tr>
<tr>
<td>or HIST 5030</td>
<td>Public History Internship</td>
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<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
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<tr>
<td></td>
<td><strong>Guided Electives</strong></td>
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<tr>
<td>Select 6 hours of the following:</td>
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<tr>
<td>HIST 5033</td>
<td>Introduction to Public History</td>
<td></td>
</tr>
<tr>
<td>HIST 5063</td>
<td>Historic Preservation</td>
<td></td>
</tr>
<tr>
<td>HIST 5073</td>
<td>Digital Methods in History</td>
<td></td>
</tr>
<tr>
<td>ART 5813</td>
<td>Museum Exhibition</td>
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</tr>
<tr>
<td>ART 5723</td>
<td>History of Museums and Collecting</td>
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</tr>
<tr>
<td>ART 4733</td>
<td>Museum Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
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</tr>
<tr>
<td></td>
<td><strong>General Electives</strong></td>
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</tr>
<tr>
<td>Select 3 hours of graduate-level electives:</td>
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<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td>15</td>
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</tbody>
</table>

1. Students must choose one HIST class and one ART class.
2. May include additional hours of internship. May include History, Art History, Business Administration, Education, Zoology, among others, and are subject to the approval of the program coordinator.
**Non-Profit Management, GCRT**

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours**: 12 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Courses</strong></td>
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</tr>
<tr>
<td>MGMT 5093</td>
<td>Management of Nonprofit Organizations</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 5163</td>
<td>Fundraising for Nonprofit Organizations</td>
<td>3</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 6 hours from the following</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>MGMT 5023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGMT 5031</td>
<td>Leading Organizational Change</td>
<td></td>
</tr>
<tr>
<td>MGMT 5051</td>
<td>Creating Ethical Work Places</td>
<td></td>
</tr>
<tr>
<td>MGMT 5061</td>
<td>Managing Confrontations</td>
<td></td>
</tr>
<tr>
<td>MGMT 5083</td>
<td>Corporate and Social Responsibility</td>
<td></td>
</tr>
<tr>
<td>MGMT 5533</td>
<td>Leadership Challenges</td>
<td></td>
</tr>
<tr>
<td>MGMT 5563</td>
<td>Crisis in Organizations</td>
<td></td>
</tr>
<tr>
<td>MGMT 5713</td>
<td>Negotiation and Third-Party Dispute Resolution</td>
<td></td>
</tr>
<tr>
<td>EEE 5213</td>
<td>Entrepreneurship in Science and Technology</td>
<td></td>
</tr>
<tr>
<td>EEE 5403</td>
<td>Social Entrepreneurship</td>
<td></td>
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<tr>
<td>EEE 5603</td>
<td>Entrepreneurship Empowerment in South Africa</td>
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</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
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</tr>
<tr>
<td><strong>Total Hours</strong></td>
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</tbody>
</table>
# Online Teaching, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 12 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDTC 5053</td>
<td>Learning in a Digital Age</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5103</td>
<td>Advanced Computing Applications in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5153</td>
<td>Computer-Based Instruction Development</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5503</td>
<td>Facilitating Online Learning</td>
<td>3</td>
</tr>
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</table>

**Hours Subtotal** 12

**Total Hours** 12
Program Evaluation, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 12 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6373</td>
<td>Program Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6383</td>
<td>Program Evaluation II</td>
<td>3</td>
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<tr>
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<td>Select 3 hours from the following:</td>
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</tr>
<tr>
<td>SCFD 5913</td>
<td>Introduction to Qualitative Inquiry</td>
<td></td>
</tr>
<tr>
<td>SCFD 6123</td>
<td>Qualitative Research I</td>
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</tr>
</tbody>
</table>

Similar courses from related disciplines will be considered as recommended by the student's advisory committee.

Hours Subtotal 12

Total Hours 12
Public Health in Rural and Underserved Communities, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 15 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 5323</td>
<td>General Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 5133</td>
<td>Environmental Health</td>
<td>3</td>
</tr>
<tr>
<td>HCA 5013</td>
<td>Survey of Health Care Administration</td>
<td>3</td>
</tr>
<tr>
<td>MPH 5653</td>
<td>Foundations of Public Health Education and Promotion</td>
<td>3</td>
</tr>
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</table>

Hours Subtotal 15

Total Hours 15
School Library Certification, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 18 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>LBSC 5113</td>
<td>Selection and Organization of Informational and Educational Resources</td>
<td>3</td>
</tr>
<tr>
<td>LBSC 5613</td>
<td>Library Networks and Databases</td>
<td>3</td>
</tr>
<tr>
<td>LBSC 5823</td>
<td>Administration of School Library Media and Technology Programs</td>
<td>3</td>
</tr>
<tr>
<td>CIED 5353</td>
<td>Literature for Children, Adolescents and Adults</td>
<td>3</td>
</tr>
<tr>
<td>CIED 5443</td>
<td>Teaching Reading with Literature</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5103</td>
<td>Advanced Computing Applications in Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Hours Subtotal 18

Total Hours 18
Teaching English to Speakers of Other Languages, GCRT

Total Hours: 12 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL 5130</td>
<td>Studies in English Grammar</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 5243</td>
<td>Teaching English as a Second Language</td>
<td>3</td>
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<tr>
<td>ENGL 5333</td>
<td>Seminar in Teaching English as a Second Language: Testing</td>
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Hours Subtotal 9

Sample Elective Courses
Select 3 hours from the following: 3

<table>
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<th>Title</th>
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<tbody>
<tr>
<td>ENGL 4083</td>
<td>Applied Linguistics</td>
</tr>
<tr>
<td>ENGL 4093</td>
<td>Language in America</td>
</tr>
<tr>
<td>ENGL 5120</td>
<td>Studies in Teaching English as a Second Language</td>
</tr>
<tr>
<td>ENGL 5123</td>
<td>Approaches to Language Acquisition</td>
</tr>
<tr>
<td>ENGL 5143</td>
<td>Descriptive Linguistics</td>
</tr>
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</table>

Hours Subtotal 3

Total Hours 12

Other Requirements

- Minimum of 12 credit hours, with three required courses and one elective course chosen from a group of courses offered by the English Department.
- No more than 9 hours of coursework taken as special student.
- All courses, including 4000-level, must be taken for graduate credit.
# Workforce and Adult Education, GCRT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 12 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAED 5013</td>
<td>Characteristics of Adult Learners</td>
<td>3</td>
</tr>
<tr>
<td>WAED 5153</td>
<td>Curriculum Planning in Workforce and Adult Education</td>
<td>3</td>
</tr>
<tr>
<td>WAED 5353</td>
<td>Instructional Strategies for Adults</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select 3 hours from the following:</td>
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</tr>
<tr>
<td>WAED 5123</td>
<td>Evaluation of Workforce and Adult Education Programs and Instruction</td>
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</tr>
<tr>
<td>WAED 5143</td>
<td>Organization and Administration of Adult Education</td>
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</tr>
<tr>
<td>WAED 5203</td>
<td>Foundations of Adult and Continuing Education</td>
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</tr>
<tr>
<td>WAED 5313</td>
<td>History, Principles, and Organization of Workforce Education</td>
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</tr>
</tbody>
</table>

**Hours Subtotal**

12

**Total Hours**

12
Master's Degrees

- Accounting, MS (p. 1927)
- Agricultural Communications, MS (p. 1928)
- Agricultural Economics, MS (p. 1929)
- Agricultural Education, MS (p. 1931)
- Animal Science, MS (p. 1932)
- Applied Statistics, MS (p. 1933)
- Art History, MA (p. 1934)
- Athletic Training, MAT (p. 1935)
- Aviation and Space, MS (p. 1937)
- Biochemistry and Molecular Biology, MS (p. 1938)
- Biomedical Sciences, MS (p. 1940)
- Biosystems Engineering, MS (p. 1943)
- Business Administration, MBA (p. 1944)
- Business Administration: Accounting, MBA (p. 1946)
- Business Administration: Business Sustainability, MBA (p. 1947)
- Business Administration: Data Science, MBA (p. 1948)
- Business Administration: Economics, MBA (p. 1949)
- Business Administration: Energy Business, MBA (p. 1950)
- Business Administration: Entrepreneurship, MBA (p. 1951)
- Business Administration: Global Marketing, MBA (p. 1952)
- Business Administration: Human Resource Management, MBA (p. 1953)
- Business Administration: Information Assurance, MBA (p. 1954)
- Business Administration: Marketing Analytics, MBA (p. 1955)
- Business Administration: Nonprofit Management, MBA (p. 1956)
- Business Administration: Risk Management, MBA (p. 1957)
- Business Analytics, MS (p. 1958)
- Chemical Engineering, MS (p. 1959)
- Chemistry, MS (p. 1960)
- Civil Engineering, MS (p. 1961)
- Communication Sciences and Disorders, MS (p. 1962)
- Computer Science, MS (p. 1964)
- Counseling: Mental Health Counseling, MS (p. 1965)
- Counseling: School Counseling, MS (p. 1966)
- Creative Writing, MFA (p. 1968)
- Design, Housing and Merchandising: Apparel Design and Production, MS (p. 1969)
- Design, Housing and Merchandising: Interior Design, MS (p. 1970)
- Design, Housing and Merchandising: Merchandising, MS (p. 1971)
- Design, Housing and Merchandising: Retail Merchandising Leadership, MS (p. 1972)
- Economics, MS (p. 1973)
- Educational Leadership Studies: College Student Development, MS (p. 1974)
- Educational Leadership Studies: Higher Education, MS (p. 1975)
- Educational Leadership Studies: School Administration, MS (p. 1976)
- Educational Psychology: Educational Psychology, MS (p. 1977)
- Educational Psychology: Research, Evaluation, Measurement and Statistics, MS (p. 1978)
- Educational Psychology: School Psychometrics, MS (p. 1980)
- Educational Technology: Educational Technology, MS (p. 1981)
- Educational Technology: School Library Media, MS (p. 1982)
- Electrical Engineering, MEN (p. 1983)
- Electrical Engineering, MS (p. 1984)
- Engineering and Technology Management, MS (p. 1985)
- Engineering Technology: Fire Safety and Explosion Protection, MS (p. 1986)
- English, MA (p. 1988)
- English: Professional Writing, MA (p. 1989)
- English: Teaching English to Speakers of Other Languages, MA (p. 1991)
- Entomology and Plant Pathology: Entomology, MS (p. 1993)
- Entomology and Plant Pathology: Plant Pathology, MS (p. 1994)
- Entrepreneurship, MS (p. 1995)
- Environmental Science, MS (p. 1996)
- Environmental Science: Environmental Management Professional Science Masters, MS (p. 1997)
- Family and Consumer Sciences Education, MS (p. 1998)
- Family Financial Planning, MS (p. 1999)
- Fire and Emergency Management Administration, MS (p. 2000)
- Food Science, MS (p. 2002)
- Forensic Sciences, MS (p. 2003)
- Forensic Sciences: Arson, Explosives, Firearms and Toolmarks Investigation, MS (p. 2004)
- Forensic Sciences: Forensic Document Examination, MS (p. 2005)
- Forensic Sciences: Forensic Science Administration, MS (p. 2006)
- General Agriculture: Agribusiness, MAG (p. 2007)
- General Agriculture: Agriculture Leadership, MAG (p. 2009)
- Geography, MS (p. 2010)
- Geology, MS (p. 2011)
- Global Health, MS (p. 2013)
- Global Studies, MS (p. 2014)
- Graphic Design, MFA (p. 2015)
- Health and Human Performance: Applied Exercise Science, MS (p. 2016)
- Health and Human Performance: Health Promotions, MS (p. 2017)
- Health and Human Performance: Physical Education, MS (p. 2018)
- Health Care Administration, MS (p. 2019)
- History, MA (p. 2020)
- Horticulture, MS (p. 2021)
- Hospitality and Tourism Management, MS (p. 2022)
- Human Development and Family Science: Applied Human Services, MS (p. 2024)
- Human Development and Family Science: Developmental and Family Sciences, MS (p. 2025)
- Human Development and Family Science: Early Childhood Education, MS (p. 2026)
- Human Development and Family Science: Family and Community Services, MS (p. 2027)
- Human Development and Family Science: Gerontology (Internet-Based Program), MS (p. 2028)
- Human Development and Family Science: Marriage and Family Therapy, MS (p. 2029)
- Industrial Engineering and Management, MS (p. 2031)
- Information Assurance, MS (p. 2032)
Master's Degrees

- Integrative Biology, MS (p. 2033)
- Interdisciplinary Studies, MS (p. 2034)
- International Agriculture, MAG (p. 2035)
- International Agriculture, MS (p. 2036)
- Leisure Studies, MS (p. 2037)
- Management Information Systems, MS (p. 2039)
- Management Information Systems: Application Development, MS (p. 2040)
- Management Information Systems: Data Science, MS (p. 2041)
- Mass Communications, MS (p. 2042)
- Materials Science and Engineering, MS (p. 2044)
- Mathematics, MS (p. 2046)
- Mechanical and Aerospace Engineering, MS (p. 2047)
- Microbiology, Cell and Molecular Biology, MS (p. 2048)
- Music: Applied Music, MM (p. 2049)
- Music: Conducting, MM (p. 2050)
- Natural Resource Ecology and Management, MS (p. 2051)
- Nutritional Sciences: Dietetics (Internet-Based Program), MS (p. 2052)
- Nutritional Sciences: Nutrition, MS (p. 2053)
- Petroleum Engineering, MS (p. 2055)
- Philosophy, MA (p. 2056)
- Physician Assistant Studies, MS (p. 2057)
- Physics, MS (p. 2058)
- Physics: Optics and Photonics, MS (p. 2059)
- Plant and Soil Science, MS (p. 2061)
- Plant Biology, MS (p. 2062)
- Political Science, MA (p. 2063)
- Public Health: Rural and Underserved Populations, MPH (p. 2064)
- Quantitative Financial Economics, MS (p. 2066)
- Social Foundations of Education, MA (p. 2067)
- Sociology, MS (p. 2068)
- Statistics, MS (p. 2070)
- Teaching: Elementary, MATT (p. 2072)
- Teaching: Secondary Mathematics, MATT (p. 2073)
- Teaching: Secondary Science, MATT (p. 2074)
- Teaching, Learning and Leadership: Curriculum and Leadership Studies, MS (p. 2075)
- Teaching, Learning and Leadership: Elementary/Middle/Secondary Education/K-12 Education, MS (p. 2077)
- Teaching, Learning and Leadership: Gifted and Talented Education, MS (p. 2079)
- Teaching, Learning and Leadership: Mathematics/Science Education, MS (p. 2080)
- Teaching, Learning and Leadership: Reading and Literacy, MS (p. 2081)
- Teaching, Learning and Leadership: Special Education, MS (p. 2082)
- Teaching, Learning and Leadership: Workforce and Adult Education, MS (p. 2083)
- Theatre, MA (p. 2084)
- Veterinary Biomedical Science, MS (p. 2085)
Accounting, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 33 Hours

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Total Hours 33

General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)
- A minimum of 32 credit hours
  - A minimum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
**Agricultural Communications, MS**

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Thesis Option**

Total Hours: 30 Hours

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<td>REMS 5953</td>
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<td>AGCM 5103</td>
<td>History and Philosophical Foundations of Agricultural Communications</td>
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<td>Theory and Practice in Agricultural Communications</td>
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**Formal Report Option**

Total Hours: 32 Hours

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<td>REMS 5953</td>
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<td></td>
<td><strong>Other Required Courses</strong></td>
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<tr>
<td>AGCM 5103</td>
<td>History and Philosophical Foundations of Agricultural Communications</td>
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<tr>
<td>AGCM 5203</td>
<td>Theory and Practice in Agricultural Communications</td>
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<td>AGED 5863 or AGED 6223</td>
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**Other Agricultural Communications Requirements**

- Totals must include a minimum of 21 hours of 5000 or higher credit and a maximum of 9 transfer credit hours.

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
# Agricultural Economics, MS

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

## Thesis Option

**Total Hours:** 30 Hours

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<td>Research Methodology</td>
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<td>AGE 5103</td>
<td>Mathematical Economics</td>
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<tr>
<td>AGE 5403</td>
<td>Production Economics</td>
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<td>Choose six hours from the following:</td>
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<tr>
<td>AGE 5113</td>
<td>Applications of Mathematical Programming</td>
<td></td>
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<tr>
<td>AGE 5213</td>
<td>Econometric Methods</td>
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<tr>
<td>STAT 4043</td>
<td>Applied Regression Analysis or ECON 4213 Econometric Methods</td>
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<tr>
<td>Choose six additional hours in Agricultural Economics at the 5000- or 6000-level (excluding AGEC 5000) with a minimum of 3 hours in marketing or prices.</td>
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<tr>
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<td>Primary Data Analysis in Economic Research</td>
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<td>AGE 5331</td>
<td>Agricultural Marketing: Advanced Concepts</td>
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<td>AGE 5503</td>
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<td>AGE 5603</td>
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<td>Plan &amp; Pol Devlpmnt</td>
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1. A total of 21 credit hours at 5000- and 6000-level is required.

## Formal Report Option

**Total Hours:** 32 Hours

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<td>AGE 5103</td>
<td>Mathematical Economics</td>
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<td>AGE 5403</td>
<td>Production Economics</td>
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<td>Choose six hours from the following:</td>
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<td>AGE 5113</td>
<td>Applications of Mathematical Programming</td>
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<td>STAT 4043</td>
<td>Applied Regression Analysis or ECON 4213 Econometric Methods</td>
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<tr>
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2. These courses are preferred but ECON 6013 and ECON 6213 are allowed as substitutions.
General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours
      with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9
    transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Agricultural Education, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Thesis Option**

Total Hours: 30 Hours

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>Core Requirements</td>
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<td></td>
</tr>
<tr>
<td>AGED 5000</td>
<td>Research Methods</td>
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<tr>
<td>AGED 5983</td>
<td>Statistics</td>
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</tr>
<tr>
<td>AGED 5863</td>
<td>Agricultural Education</td>
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</tr>
<tr>
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<td>6</td>
</tr>
<tr>
<td>AGED 5813</td>
<td>College Teaching of Agriculture and Natural Resources</td>
<td></td>
</tr>
<tr>
<td>AGED 5823</td>
<td>Advanced Methods of Teaching Agriculture</td>
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</tr>
<tr>
<td>AGED 5863</td>
<td>History and Philosophical Foundations of Agricultural and Extension Education</td>
<td></td>
</tr>
<tr>
<td>AGED 6223</td>
<td>AGLE 5303</td>
<td>Foundations of Leadership Theory</td>
</tr>
</tbody>
</table>

**Research or Creative Component**

AGED 5101 | Graduate Orientation                                                 | 1     |

**Hours Subtotal**

19

**Electives**

Select 11 hours

**Hours Subtotal**

17

**Total Hours**

30

**Formal Report Option**

Total Hours: 32 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Requirements</td>
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<td></td>
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<tr>
<td>AGED 5000</td>
<td>Research Methods</td>
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</tr>
<tr>
<td>AGED 5983</td>
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<tr>
<td>AGED 6103</td>
<td>AGED 6223</td>
<td>AGLE 5303</td>
</tr>
</tbody>
</table>

**Research or Creative Component**

AGED 5101 | Graduate Orientation                                                 | 1     |

**Hours Subtotal**

15

**Electives**

Select 17 hours

**Hours Subtotal**

17

**Total Hours**

32

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
# Animal Science, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

## Thesis Option

**Total Hours:** 30 Hours

<table>
<thead>
<tr>
<th>Code</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>ANSI 5000</td>
<td>Master's Research and Thesis</td>
<td>6</td>
</tr>
<tr>
<td>ANSI 5010</td>
<td>Offered for variable credit, 1-3 credit hours, maximum</td>
<td>6</td>
</tr>
<tr>
<td>ANSI 5110</td>
<td>Offered for 1 credit hour, maximum of 3 credit hours</td>
<td>3</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

### Electives

Select 15 hours of ANSI graduate courses with the approval of the advisory committee.

| Hours Subtotal |                                                   | 15    |
| Total Hours    |                                                   | 30    |

## Formal Report Option

**Total Hours:** 32 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSI 5000</td>
<td>Master's Research and Thesis</td>
<td>6</td>
</tr>
<tr>
<td>ANSI 5010</td>
<td>Offered for variable credit, 1-3 credit hours, maximum</td>
<td>6</td>
</tr>
<tr>
<td>ANSI 5110</td>
<td>Offered for 1 credit hour, maximum of 3 credit hours</td>
<td>3</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

### Electives

Select 15 hours of ANSI graduate courses with the approval of the advisory committee.

| Hours Subtotal |                                                   | 15    |

### Research

| Two Hours |                                                   | 2     |
| Hours Subtotal |                                                   | 2     |
| Total Hours    |                                                   | 32    |

## General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

## Additional Graduate College Masters Degree Requirements

### Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

### Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
Applied Statistics, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 32 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Coursework</td>
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</tr>
<tr>
<td>STAT 4043</td>
<td>Applied Regression Analysis</td>
<td>3</td>
</tr>
<tr>
<td>STAT 4203</td>
<td>Mathematical Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>STAT 4213</td>
<td>Mathematical Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5013</td>
<td>Statistics for Experimenters I</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5023</td>
<td>Statistics for Experimenters II</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5063</td>
<td>Multivariate Methods</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5193</td>
<td>SAS and R Programming</td>
<td>3</td>
</tr>
<tr>
<td>STAT 5303</td>
<td>Experimental Designs</td>
<td>3</td>
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<td>STAT 5002</td>
<td>Applied Masters Creative Component</td>
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<td>Outside Course</td>
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<tr>
<td><strong>Hours Subtotal</strong></td>
<td>29</td>
<td></td>
</tr>
</tbody>
</table>

| Elective Coursework                                   |       |
| STAT 5033   | Nonparametric Methods     |       |
| STAT 5043   | Sample Survey Designs     |       |
| STAT 5053   | Time Series Analysis      |       |
| STAT 5073   | Categorical Data Analysis |       |

Other courses can be used as electives at the discretion of the MSAS committee and the graduate coordinator.

The formal report course can take many different forms. One possible incarnation would be to require the students to find suitable data sets to analyze and provide written reports of these analyses. Another possible approach would be to provide the students with data.

<table>
<thead>
<tr>
<th>Hours Subtotal</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 32

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Art History, MA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 30 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Graduate-level seminars</td>
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<tr>
<td>ART 5920</td>
<td>Art History Graduate Seminar</td>
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<td>Hours Subtotal</td>
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<tr>
<td></td>
<td>Other Requirements</td>
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</tr>
<tr>
<td>ART 5013</td>
<td>Theory and Methods in Art History</td>
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</tr>
<tr>
<td>Select 9 hours related to the student's curricular track or geographic areas.</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Select 6 hours outside of the art history program but related to the student's area of study.</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td>Thesis</td>
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<tr>
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<td></td>
</tr>
<tr>
<td></td>
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<td>6</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>30</td>
</tr>
</tbody>
</table>

1 At least 21 credit hours must be graduate (5000 or 6000) level courses.

Other Thesis Requirements
- Completed master's thesis and oral defense.
  - Thesis and defense will be supervised and evaluated as to its success or failure by a committee of 3 full-time faculty members with graduate college standing.
  - At least 2 members of the committee must be drawn from the art history faculty, with one of those being the committee chair.
  - Plan of Study grade-point-average of 3.0.

Non-Thesis Option
Total Hours: 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Graduate-level seminars</td>
<td></td>
</tr>
<tr>
<td>ART 5920</td>
<td>Art History Graduate Seminar</td>
<td>6</td>
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<td></td>
<td>Hours Subtotal</td>
<td>6</td>
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<tr>
<td></td>
<td>Other Requirements</td>
<td></td>
</tr>
<tr>
<td>ART 5013</td>
<td>Theory and Methods in Art History</td>
<td>3</td>
</tr>
<tr>
<td>Select 9 hours related to the student's curricular track or geographic areas.</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Select 12 hours outside of the art history program but related to the student's area of study.</td>
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<tr>
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<td>Thesis</td>
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<tr>
<td>ART 5000 (Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.)</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

2 At least 27 hours of the 36 total must be graduate (5000 or 6000) level courses.

Other Non-Thesis Requirements
- Submission of qualifying paper (after the completion of 27 hours) judged satisfactory by a committee of 3 full-time faculty members with graduate college standing. The qualifying paper must be between 15-20 pages in length. It may take one of the following forms: 1) A research paper on a focused topic (a traditional seminar paper); or 2) A scholarly catalog essay. The public presentation may take place in the department as part of the art history roundtable series of talks or at an academic conference.
  - Plan of Study grade-point-average of 3.0.

General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)
- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
## Athletic Training, MAT

### Requirements for Students Matriculating in or before Academic Year 2019-2020.
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Thesis Option

**Total Hours:** 59 Hours

<table>
<thead>
<tr>
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</tr>
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</tr>
<tr>
<td>MAT 5103</td>
<td>Emergency Management in Athletic Healthcare</td>
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</tr>
<tr>
<td>MAT 5183</td>
<td>Injury Prevention</td>
<td>3</td>
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<tr>
<td>BIOM 5122</td>
<td>Clinical Anatomy for Allied Healthcare</td>
<td>2</td>
</tr>
<tr>
<td>MAT 5223</td>
<td>Therapeutic Modalities</td>
<td>3</td>
</tr>
<tr>
<td>MAT 5233</td>
<td>Clinical Evaluation and Diagnosis of the Lower Extremity</td>
<td>3</td>
</tr>
<tr>
<td>MAT 5243</td>
<td>Therapeutic Exercise of the Lower Extremity</td>
<td>3</td>
</tr>
<tr>
<td>MAT 5202</td>
<td>Athletic Training Practicum I</td>
<td>2</td>
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<tr>
<td>MAT 5313</td>
<td>Clinical Evaluation and Diagnosis of General Medical Conditions</td>
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<td>MAT 5333</td>
<td>Clinical Evaluation and Diagnosis of the Upper Extremity</td>
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<td>MAT 5302</td>
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<tr>
<td>MAT 5412</td>
<td>Radiography Evaluation and Assessment</td>
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<tr>
<td>MAT 5483</td>
<td>Pathology and Pharmacology in Sports Medicine</td>
<td>3</td>
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<tr>
<td>MAT 5402</td>
<td>Athletic Training Practicum III</td>
<td>2</td>
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<tr>
<td>MAT 5553</td>
<td>Research Methods in Athletic Health Care</td>
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<td>MAT 5573</td>
<td>Athletic Healthcare Administration</td>
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<td>MAT 5583</td>
<td>Psychosocial Strategies in Athletic Healthcare</td>
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<tr>
<td>MAT 5443</td>
<td>Clinical Diagnosis, Evaluation, and Therapeutic Exercise of the Head and Spine</td>
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<tr>
<td>MAT 5502</td>
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<tr>
<td>MAT 5602</td>
<td>Athletic Training Practicum V</td>
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<tr>
<td><strong>Total Hours</strong></td>
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### Non-Thesis Option

**Total Hours:** 56 Hours

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<td></td>
</tr>
<tr>
<td>MAT 5103</td>
<td>Emergency Management in Athletic Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>MAT 5183</td>
<td>Injury Prevention</td>
<td>3</td>
</tr>
<tr>
<td>BIOM 5122</td>
<td>Clinical Anatomy for Allied Healthcare</td>
<td>2</td>
</tr>
<tr>
<td>MAT 5223</td>
<td>Therapeutic Modalities</td>
<td>3</td>
</tr>
<tr>
<td>MAT 5233</td>
<td>Clinical Evaluation and Diagnosis of the Lower Extremity</td>
<td>3</td>
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<tr>
<td>MAT 5243</td>
<td>Therapeutic Exercise of the Lower Extremity</td>
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<tr>
<td>MAT 5313</td>
<td>Clinical Evaluation and Diagnosis of General Medical Conditions</td>
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<tr>
<td>MAT 5202</td>
<td>Athletic Training Practicum I</td>
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<tr>
<td>MAT 5302</td>
<td>Athletic Training Practicum II</td>
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<tr>
<td>MAT 5412</td>
<td>Radiography Evaluation and Assessment</td>
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<tr>
<td>MAT 5483</td>
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<td>3</td>
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<tr>
<td>MAT 5402</td>
<td>Athletic Training Practicum III</td>
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<tr>
<td>MAT 5553</td>
<td>Research Methods in Athletic Health Care</td>
<td>3</td>
</tr>
<tr>
<td>MAT 5573</td>
<td>Athletic Healthcare Administration</td>
<td>3</td>
</tr>
<tr>
<td>MAT 5583</td>
<td>Psychosocial Strategies in Athletic Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>MAT 5443</td>
<td>Clinical Diagnosis, Evaluation, and Therapeutic Exercise of the Head and Spine</td>
<td>3</td>
</tr>
<tr>
<td>MAT 5502</td>
<td>Athletic Training Practicum IV</td>
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<tr>
<td>MAT 5602</td>
<td>Athletic Training Practicum V</td>
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</tr>
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<td>BIOM 5000</td>
<td>Research &amp; Thesis</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td>56</td>
<td></td>
</tr>
</tbody>
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### Additional Master of Athletic Training Requirements

- A minimum of "B" or higher required in all coursework.
- Transfers not allowed in this program.

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Graduate College Masters Degree Requirements

#### Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

#### Plan II (coursework without thesis)
• A minimum of 32 credit hours
  • A maximum of 3 credit hours of research or creative component
  • A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  • A minimum of 21 credit hours at the 5000- or 6000-level
Aviation and Space, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 33 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>AVED 5053</td>
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<td>AVED 5153</td>
<td>Capstone in Aerospace Research</td>
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<tr>
<td>AVED 5453</td>
<td>Advanced Aviation Security</td>
<td>3</td>
</tr>
<tr>
<td>AVED 5563</td>
<td>Aerospace Leadership and Management</td>
<td>3</td>
</tr>
<tr>
<td>AVED 5773</td>
<td>Historical Significance of Aviation</td>
<td>3</td>
</tr>
<tr>
<td>AVED 5823</td>
<td>Space Science</td>
<td>3</td>
</tr>
<tr>
<td>AVED 5883</td>
<td>Aviation Economics</td>
<td>3</td>
</tr>
<tr>
<td>AVED 5893</td>
<td>Aerospace Executive Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>AVED 5963</td>
<td>Airport Operations</td>
<td>3</td>
</tr>
<tr>
<td>AVED 5973</td>
<td>Aerospace Law</td>
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General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A minimum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Biochemistry and Molecular Biology, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Thesis Option**

**Total Hours:** 30 Hours

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**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

Plan I (coursework with thesis)

**Non-Thesis Option**

**Total Hours:** 32 Hours

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</table>
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
## Biomedical Sciences, MS

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Thesis Option
**Total Hours:** 30 Hours

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**Hours Subtotal:** 13

#### Optional Electives
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<td>Medical Biochemistry</td>
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**Hours Subtotal:** 17

**Total Hours:** 30

### Non-Thesis Option
**Total Hours:** 32 Hours
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**Hours Subtotal**: 9

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**Hours Subtotal**: 23

**Total Hours**: 32

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

Plan I (coursework with thesis)
• A minimum of 30 credit hours
  • A minimum of 24 coursework credit hours comprised of:
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• A minimum of 32 credit hours
  • A maximum of 3 credit hours of research or creative component
  • A minimum of 23 in-residence credit hours (maximum of 9
    transfer credit hours with "B" or better)
  • A minimum of 21 credit hours at the 5000- or 6000-level
# Biosystems Engineering, MS

## Requirements for Students Matriculating in or before Academic Year 2019-2020

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Thesis Option

**Total Hours:** 30 Hours

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<tr>
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### Non-Thesis Option

**Total Hours:** 32 Hours

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### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Graduate College Masters Degree Requirements

#### Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

#### Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
## Business Administration, MBA

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 36 Hours (33 for online or professional MBA)

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<td>MGMT 5303</td>
<td>Corporate and Business Strategy</td>
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<tr>
<td>MBA 5010 (Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.)</td>
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<tr>
<td>MBA 5010</td>
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<td>MBA 5010</td>
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<td>MBA 5010</td>
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<td>ECON 5113</td>
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**Electives**

Select 9 hours of the following: 9

- EEE 5013 Creative Experiences
- EEE 5090 Study Abroad In Entrepreneurship
- EEE 5113 Entrepreneurship and Venture Management
- EEE 5123 Entrepreneurship and The Arts
- EEE 5133 Dilemmas and Debates in Entrepreneurship
- EEE 5200 Special Topics in Entrepreneurship
- EEE 5213 Entrepreneurship in Science and Technology
- EEE 5223 Entrepreneurial Marketing
- EEE 5263 Corporate Entrepreneurship
- EEE 5313 Emerging Enterprise Consulting
- EEE 5333 Launching a Business: The First 100 Days
- EEE 5403 Social Entrepreneurship
- EEE 5493 Entrepreneurship and Architecture
- EEE 5503 Designing, Prototyping, and Testing Creative Products
- EEE 5513 Growing Small and Family Ventures
- EEE 5653 Venture Capital
- EEE 5663 Imagination in Entrepreneurship
- EEE 5703 Project Management for Entrepreneurship
- EEE 5713 Native American Entrepreneurship
- EEE 5803 Operating an Entrepreneurial Firm
- EEE 5813 The Entrepreneur: Hero or Villain
- EEE 5903 Applied Innovation I
- FIN 5153 Corporate Financial Strategy
- FIN 5213 International Business Finance
- FIN 5223 Investment Theory and Strategy
- FIN 5243 Financial Markets
- FIN 5550 Special Topics in Finance
- FIN 5763 Derivative Securities and the Management of Financial Price Risk
- FIN 5883 Quantitative Financial Applications
- LSB 5163 Legal Environment of Business
- LSB 5203 Foundations of Issue and Conflict Management
- LSB 5423 Employment Law
- MGMT 5011 Crucial Interactions
- MGMT 5021 Managing Professional Relationships
- MGMT 5031 Leading Organizational Change
- MGMT 5033 Management of Sustainable Enterprises
- MGMT 5041 Performance Management
- MGMT 5051 Creating Ethical Work Places
- MGMT 5061 Managing Confrontations
- MGMT 5083 Corporate and Social Responsibility
- MGMT 5093 Management of Nonprofit Organizations
- MGMT 5123 Contemporary Management Topics
- MGMT 5133 Total Rewards
- MGMT 5153 Talent Development
- MGMT 5163 Fundraising for Nonprofit Organizations
- MGMT 5223 Seminar in Human Resource Management
- MGMT 5313 Project Management
- MGMT 5323 Teams in Organizations
- MGMT 5500 Special Projects in Management
- MGMT 5533 Leadership Challenges
- MGMT 5543 Human Resource Analytics
- MGMT 5643 Sport Management
- MGMT 5673 Advanced Sport Management
- MGMT 5713 Negotiation and Third-Party Dispute Resolution
- MGMT 5823 Talent Acquisition
- MGMT 5843 Advanced Strategic Sports Management
- MGMT 5943 Advanced International Sports Management
- MSIS 5020 Advanced Applications Software Tools
- MSIS 5033 Information Systems Project Management
- MSIS 5123 Enterprise Resource Planning
- MSIS 5133 Advanced Web Based Application Development
- MSIS 5213 Information Assurance Management
- MSIS 5253 Advanced System Certification and Accreditation
- MSIS 5273 Legal and Ethical Issues in Information Technology
- MSIS 5313 Supply Chain Analytics
- MSIS 5393 Advanced Spreadsheet Modeling
- MSIS 5410 Advanced Topics in Information Assurance
General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level

1 Not required for online or professional MBA.
## Business Administration: Accounting, MBA

### Requirements for Students Matriculating in or before Academic Year 2019-2020
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours: 39 Hours**

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<td>Degree Core</td>
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<td>MGMT 5303 Corporate and Business Strategy</td>
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<td>MBA 5010 Independent Study (Ethics)</td>
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<td>ACCT 5183 MBA Financial Reporting</td>
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<td>ECON 5113 Managerial Economics</td>
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<td>FIN 5013 Business Finance</td>
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<td>MKTG 5133 Marketing Management</td>
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<td>MSIS 5303 Prescriptive Analytics</td>
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</table>
| MBA 5100 Professional Development (Part 1) 
1                 | 1     |
| MBA 5100 Professional Development (Case Consulting)          | 1     |
| MBA 5100 Professional Development (Part 2)                    | 1     |
| Hours Subtotal                                                | 27    |

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1 Not required for online or professional MBA.

### General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Graduate College Masters Degree Requirements

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
### Business Administration: Business Sustainability, MBA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 39 Hours

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<td>Creating Ethical Work Places</td>
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<td>Managing Confrontations</td>
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<td>MGMT 5073</td>
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<td>MGMT 5533</td>
<td>Leadership Challenges</td>
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<td>EEE 5603</td>
<td>Entrepreneurship Empowerment in South Africa</td>
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**Total Hours**

|        | **39** |

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**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted

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**Additional Graduate College Masters Degree Requirements**

### Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

### Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level

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1 Not required for online or professional MBA.
Business Administration: Data Science, MBA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 45 Hours

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<td>ACCT 5283</td>
<td>MBA Managerial Accounting</td>
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<td>Managerial Economics</td>
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<td>Management and Organization Theory</td>
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<td>FIN 5013</td>
<td>Business Finance</td>
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<td>FIN 5053</td>
<td>Theory and Practice of Financial Management (or other FIN 5000-level course)</td>
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<td>or MSIS 5633 Predictive Analytics Technologies</td>
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1 credit hour class taken each semester (3 semesters)

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
# Business Administration: Economics, MBA

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 39 Hours

<table>
<thead>
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<th>Code</th>
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</thead>
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<td><strong>Degree Core</strong></td>
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<td>Management and Organization Theory</td>
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<td>Business Finance</td>
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<td>Theory and Practice of Financial Management</td>
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<td>(or other Finance 5000-level course)</td>
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<td>Macroeconomic Analysis</td>
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<td>Introduction to Econometrics</td>
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<td>ECON 6013</td>
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¹ Not required for online or professional MBA.

## Additional Graduate College Masters Degree Requirements

### Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

### Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level

## General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
Business Administration: Energy Business, MBA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 39 Hours

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Option Requirements

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<td>MSIS 5393</td>
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Hours Subtotal 12

Total Hours 39

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
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  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

^1 Not required for online or professional MBA.
## Business Administration: Entrepreneurship, MBA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 39 Hours

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### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Graduate College Masters Degree Requirements

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Business Administration: Global Marketing, MBA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 39 Hours

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1 Not required for online or professional MBA.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
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Additional Graduate College Masters Degree Requirements

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- A minimum of 30 credit hours
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  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
Business Administration: Human Resource Management, MBA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 42 Hours

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1 Not required for online or professional MBA.

General Graduate College Requirements

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- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

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- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
Business Administration: Information Assurance, MBA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 39 Hours

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1 Not required for online or professional MBA.

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Business Administration: Marketing Analytics, MBA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 39 Hours

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1 Not required for online or professional MBA.

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
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  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level

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Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)
## Business Administration: Nonprofit Management, MBA

### Requirements for Students Matriculating in or before Academic Year 2019-2020
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 39 Hours

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</table>

¹ Not required for online or professional MBA.

### General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Graduate College Masters Degree Requirements

#### Plan I (coursework with thesis)
- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level

#### Plan II (coursework without thesis)
- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
Business Administration: Risk Management, MBA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 42 Hours

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| Total Hours | 42 |

¹ Not required for online or professional MBA.

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

• A minimum of 30 credit hours
  • A minimum of 24 coursework credit hours comprised of:
    • 6 research or creative component credit hours
    • 21 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
    • 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

• A minimum of 32 credit hours
  • A maximum of 3 credit hours of research or creative component
  • A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  • A minimum of 21 credit hours at the 5000- or 6000-level

General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of "C" is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
# Business Analytics, MS

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Total Hours: 37 Hours

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- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
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  - 21 credit hours at 5000- or 6000-level

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- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Chemical Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 30 Hours

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<th>Code</th>
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<tbody>
<tr>
<td>CHE 5123</td>
<td>Advanced Chemical Reaction Engineering</td>
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<td>CHE 5213</td>
<td>Advanced Transport Phenomena</td>
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<tr>
<td>CHE 5743</td>
<td>Chemical Engineering Process Modeling</td>
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<td>CHE 5843</td>
<td>Principles of Chemical Engineering Thermodynamics</td>
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<tr>
<td>CHE 5302</td>
<td>Introduction to Science and Engineering Research</td>
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Hours Subtotal: 14

Seminar

CHE 6010 (Offered for variable credit, 1 credit hour, maximum of 10 credit hours.)

Hours Subtotal: 3

Electives

Graduate-approved elective (CHE or other) courses, selected by the student with the approval of the student's advisor.

Hours Subtotal: 7

Suggested Elective Courses

Fall Semester

CHE 5293 Advanced Biomedical Engineering
CHE 5523 Colloid Processing
CHE 5273 Basic Physiology and Physiological System Analysis for Engineers
CHE 5373 Process Simulation
CHE 5343 Advanced Environmental Engineering
CHE 5733 Neural Networks

Spring Semester

CHE 5283 Advanced Bioprocess Engineering
CHE 5633 Stagewise Operations
CHE 5263 Advanced Biomaterials Science and Engineering
CHE 5853 Advanced Chemical Process Control
CHE 5223 MAE 6233 Turbulent Fluid Dynamics
BAE 5030 Problems in Biosystems Engineering and Agricultural Technology

Hours Subtotal: 7

Thesis

CHE 5000 Master's Thesis

Hours Subtotal: 6

Total Hours: 30

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
Chemistry, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 30 Hours

<table>
<thead>
<tr>
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<tr>
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<td>CHEM 5000</td>
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<td>CHEM 5011</td>
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<td>CHEM 6010</td>
<td>Research Seminar</td>
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Electives

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<tbody>
<tr>
<td>CHEM 5053</td>
<td>Foundations of Physical Chemistry</td>
</tr>
<tr>
<td>CHEM 5063</td>
<td>Foundations of Organic Chemistry</td>
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<tr>
<td>CHEM 5073</td>
<td>Foundations of Analytical Chemistry</td>
</tr>
<tr>
<td>CHEM 5263</td>
<td>Foundations of Inorganic Chemistry</td>
</tr>
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<td>CHEM 5103</td>
<td>Physical and Chemical Separations</td>
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<tr>
<td>CHEM 5223</td>
<td>Polymer Chemistry</td>
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<tr>
<td>CHEM 5373</td>
<td>Spectrometric Identification of Organic Compounds</td>
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<tr>
<td>CHEM 5443</td>
<td>Mechanism and Structure in Organic Chemistry</td>
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<tr>
<td>CHEM 5563</td>
<td>Chemical Thermodynamics I</td>
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<tr>
<td>CHEM 5963</td>
<td>Advanced Inorganic Chemistry</td>
</tr>
<tr>
<td>CHEM 6103</td>
<td>Electroanalytical Chemistry</td>
</tr>
<tr>
<td>CHEM 6223</td>
<td>Physical Polymer Science</td>
</tr>
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<td>CHEM 6420</td>
<td>Special Topics in Organic Chemistry</td>
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<tr>
<td>CHEM 6650</td>
<td>Selected Topics in Advanced Physical and Inorganic Chemistry</td>
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|          | **Hours Subtotal**                              | **17**|

Total Hours 30

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level
Civil Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 30 Hours

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<th>Title</th>
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<tr>
<td>CIVE 5000</td>
<td>Master's Thesis</td>
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<td></td>
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Creative Component Option
Total Hours: 32 Hours

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<tr>
<td></td>
<td><strong>Core Courses</strong></td>
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</tr>
<tr>
<td></td>
<td>Select 30 hours of approved graduate level coursework in consultation with the CIVE Graduate Coordinator (minimum of 24 hours at the 5000 level or higher)</td>
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<tr>
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<td>CIVE 5080</td>
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General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
Communication Sciences and Disorders, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 57 Hours

<table>
<thead>
<tr>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>CDIS 5013</td>
<td>Research Methods in Communication Disorders</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 5193</td>
<td>Motor Speech Disorders</td>
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</tr>
<tr>
<td>CDIS 5143</td>
<td>Phonological Disorders</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 5210</td>
<td>Advanced Practicum</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 5334</td>
<td>Voice and Resonance Disorders</td>
<td>4</td>
</tr>
<tr>
<td>CDIS 5153</td>
<td>Neurological Communication Disorders</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 5113</td>
<td>Advanced Language Disorders in Children</td>
<td>3</td>
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<tr>
<td>CDIS 5210</td>
<td>Advanced Practicum</td>
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<tr>
<td>CDIS 5210</td>
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<tr>
<td>CDIS 5163</td>
<td>Dysphagia</td>
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</tr>
<tr>
<td>CDIS 5422</td>
<td>Augmentative/Alternative Communication</td>
<td>2</td>
</tr>
<tr>
<td>CDIS 5183</td>
<td>Traumatic Brain Injury and Dementia</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 5210</td>
<td>Advanced Practicum</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 5210</td>
<td>Advanced Practicum</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 5243</td>
<td>Language Disorders in School-Age and Adolescence</td>
<td>3</td>
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<tr>
<td>CDIS 5533</td>
<td>Autism Spectrum Disorder: Assessment &amp; Intervention of Communication Deficits</td>
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Hours Subtotal: 51

Thesis

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CDIS 5000</td>
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<td>6</td>
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</tbody>
</table>

Hours Subtotal: 57

Prerequisite Requirements

- Students with a Bachelor’s Degree in a discipline other than communication sciences and disorders must complete 24 semester hours of prerequisite coursework before being admitted to the graduate program. These students should apply to the graduate school as a “Special Student (Non-Degree Seeking).” Prerequisite courses include CDIS 2223, CDIS 3313, CDIS 4313, CDIS 3203, CDIS 3123, CDIS 4023, CDIS 4423 and CDIS 3113. Check individual courses for grade requirements.

Non-Thesis Option
Total Hours: 51 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDIS 5013</td>
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</tr>
<tr>
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<td>Motor Speech Disorders</td>
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<td>CDIS 5143</td>
<td>Phonological Disorders</td>
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<td>CDIS 5210</td>
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<td>CDIS 5334</td>
<td>Voice and Resonance Disorders</td>
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<td>CDIS 5153</td>
<td>Neurological Communication Disorders</td>
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<tr>
<td>CDIS 5113</td>
<td>Advanced Language Disorders in Children</td>
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<tr>
<td>CDIS 5210</td>
<td>Advanced Practicum</td>
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<tr>
<td>CDIS 5163</td>
<td>Dysphagia</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 5422</td>
<td>Augmentative/Alternative Communication</td>
<td>2</td>
</tr>
<tr>
<td>CDIS 5183</td>
<td>Traumatic Brain Injury and Dementia</td>
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<td>Advanced Practicum</td>
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<td>CDIS 5210</td>
<td>Advanced Practicum</td>
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<tr>
<td>CDIS 5243</td>
<td>Language Disorders in School-Age and Adolescence</td>
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<tr>
<td>CDIS 5533</td>
<td>Autism Spectrum Disorder: Assessment &amp; Intervention of Communication Deficits</td>
<td>3</td>
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</table>

Hours Subtotal: 51

Thesis

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CDIS 5000</td>
<td>Masters Research &amp; Thesis</td>
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</tbody>
</table>

Hours Subtotal: 57

Prerequisite Requirements

- Students with a Bachelor’s Degree in a discipline other than communication sciences and disorders must complete 24 semester hours of prerequisite coursework before being admitted to the graduate program. These students should apply to the graduate school as a “Special Student (Non-Degree Seeking).” Prerequisite courses include CDIS 2223, CDIS 3313, CDIS 4313, CDIS 3203, CDIS 3123, CDIS 4023, CDIS 4423 and CDIS 3113. Check individual courses for grade requirements.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Computer Science, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option

Total Hours: 30 Hours

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<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
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<td>CS 5313</td>
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<td>CS 5323</td>
<td>Design and Implementation of Operating Systems II</td>
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<tr>
<td>CS 5413</td>
<td>Data Structures and Algorithm Analysis II</td>
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Non-Thesis Option

Total Hours: 33 Hours

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<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>CS 5113</td>
<td>Computer Organization and Architecture</td>
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<tr>
<td>CS 5313</td>
<td>Formal Language Theory</td>
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<tr>
<td>CS 5323</td>
<td>Design and Implementation of Operating Systems II</td>
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</tr>
<tr>
<td>CS 5413</td>
<td>Data Structures and Algorithm Analysis II</td>
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<tr>
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<tr>
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General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
Counseling: Mental Health Counseling, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 60 Hours

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<tr>
<td>CPSY 5453</td>
<td>Vocational and Career Information</td>
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<tr>
<td>CPSY 5473</td>
<td>Basic Counseling Skills ¹</td>
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<tr>
<td>CPSY 5493</td>
<td>Professional and Ethical Issues in Counseling</td>
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<td>CPSY 5503</td>
<td>Multicultural Counseling</td>
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<td>CPSY 5553</td>
<td>Theories of Counseling</td>
<td>3</td>
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<tr>
<td>CPSY 5563</td>
<td>Conceptualization and Diagnosis in Counseling</td>
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<td>CPSY 5583</td>
<td>Group Process</td>
<td>3</td>
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<tr>
<td>CPSY 6323</td>
<td>Psychological Consultation</td>
<td>3</td>
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<tr>
<td>CPSY 6553</td>
<td>Advanced Practice in Marital and Family Treatment</td>
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<td>EPSY 5103</td>
<td>Human Development in Psychology</td>
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<td>REMS 5013</td>
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<td><strong>Counseling Practice</strong></td>
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<tr>
<td>CPSY 5593</td>
<td>Counseling Practicum ²</td>
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<tr>
<td>CPSY 5683</td>
<td>Internship In Counseling I</td>
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</tr>
<tr>
<td>CPSY 5693</td>
<td>Internship In Counseling II</td>
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<td><strong>Community Counseling Specialization</strong></td>
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<td>CPSY 5483</td>
<td>Mental Health Counseling</td>
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<tr>
<td>CPSY 5523</td>
<td>Assessment in Counseling ³</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 5673</td>
<td>Substance Abuse Counseling</td>
<td>3</td>
</tr>
<tr>
<td><strong>Electives</strong></td>
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<tr>
<td>Select 6 credit hours, to be chosen from a list of courses approved by the state board for licensure.</td>
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¹ Prerequisite for CPSY 5593.
² Prerequisite for CPSY 5683/5693.
³ Prerequisite for either REMS 5373 or EPSY 5783.

• Nine (9) credit hours may be transferred from other recognized graduate programs. Tulsa students may transfer up to fifteen (15) credit hours from the University of Oklahoma-Tulsa campus.
• The last eight (8) hours must be taken at Oklahoma State University and taken for resident credit.
• As least 24 credit hours must be in 5000 level courses or above. (Students who choose to write a master’s thesis for 6 credit hours must take at least 22 credit hours of 5000 level courses.) 4000 level courses taken for graduate credit will not be approved by the Oklahoma licensing board for professional counselors.
• A minimum overall grade point average of 3.00 is required in all academic coursework.
• A grade of B or better must be earned in CPSY 5473, 5553, 5593, and 5683/5693. Students who earn a grade below a B in any of these courses will be required to repeat the course or may be suspended from the program. Students will only be allowed to repeat a course one time to earn a higher grade.

General Graduate College Requirements
• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of “C” is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements
Plan I (coursework with thesis)
• A minimum of 30 credit hours
  • A minimum of 24 coursework credit hours comprised of:
    • 6 research or creative component credit hours
    • 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  • 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)
• A minimum of 32 credit hours
  • A maximum of 3 credit hours of research or creative component
  • A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  • A minimum of 21 credit hours at the 5000- or 6000-level

Counseling: Mental Health Counseling Requirements
• Complete a minimum of 60 graduate credit hours of coursework for the Community Counseling Option and 57 hours of coursework for the School Counseling Option.
Counseling: School Counseling, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Thesis Option

**Total Hours:** 63 Hours

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<td>Comprehensive School Counseling Programs</td>
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1. Prerequisite for CPSY 5593.

### Non-Thesis Option

**Total Hours:** 57 Hours

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<td>Statistical Methods in Education</td>
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1. Prerequisite for CPSY 5593.

### Counseling: School Counseling Requirements

- Complete a minimum of 60 graduate credit hours of coursework for the Community Counseling Option and 57 hours of coursework for the School Counseling Option.
- Nine (9) credit hours may be transferred from other recognized graduate programs. Tulsa students may transfer up to fifteen (15) credit hours from the University of Oklahoma-Tulsa campus.
- The last eight (8) hours must be taken at Oklahoma State University and taken for resident credit.
- As least 24 credit hours must be in 5000 level courses or above. (Students who choose to write a master's thesis for 6 credit hours must take at least 22 credit hours of 5000 level courses.) 4000 level courses taken for graduate credit will not be approved by the Oklahoma licensing board for professional counselors.
- A minimum overall grade point average of 3.00 is required in all academic coursework.
- A grade of B or better must be earned in CPSY 5473, 5553, 5593, and 5683/5693. Students who earn a grade below a B in any of these courses will be required to repeat the course or may be suspended.
from the program. Students will only be allowed to repeat a course one time to earn a higher grade.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Creative Writing, MFA

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 42 Hours

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<td>ENGL 5723</td>
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<td>ENGL 5763</td>
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<td><strong>Graduate-Level Workshops</strong></td>
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<td>ENGL 5740 Seminar in Poetry Writing</td>
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<td>ENGL 6130 Studies in Fiction Writing</td>
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<td>ENGL 6140 Studies in Poetry Writing</td>
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<td>ENGL 6160 Studies in Creative Nonfiction</td>
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<td><strong>Graduate-Level Literature</strong></td>
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<td>Select six hours</td>
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<td></td>
<td><strong>Electives</strong></td>
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<td>Select nine hours from creative writing, literature, methods course for teaching assistants, or other areas of language and culture</td>
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**Other Degree Requirements**

- **Creative Writing Requirements:** As the defining focus of work toward the MFA degree, creative writing coursework makes up the majority of credit hours, in a combination of ENGL 5730: Seminar in Fiction Writing, ENGL 5740: Seminar in Poetry Writing, ENGL 6130: Studies in Fiction Writing, ENGL 6140: Studies in Poetry Writing, ENGL 6160: Studies in Creative Nonfiction, ENGL 5723: Craft and Forms of Poetry Writing or ENGL 5763: Craft and Forms of Fiction Writing, as well as thesis hours.
- **Literature Coursework Requirement:** MFA students are required to take six hours of literature coursework at the 5000- or 6000-level.
- **Electives:** Students choose the remaining hours of coursework in consultation with their advisory committees. Course selection should take into account the student’s thesis genre, artistic interests, and academic and professional goals. For instance, students interested in going on to PhD work at Oklahoma State University upon completion of the MFA would normally include courses to assist in preparing them for the first-year exam for PhD students.
- **Required Hours at 5000/6000 Level:** All MFA students must complete their coursework at the 5000/6000 level.

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
## Design, Housing & Merchandising: Apparel Design and Production, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Research Thesis Option

**Total Hours:** 30 Hours

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<td>Research Developments in Design, Housing and Merchandising</td>
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<td>DHM 5000</td>
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**Electives**

Select from any of the following (9 credits of which must be in DHM):

- DHM 4573 Sustainable Design for Apparel and Interiors
- DHM 5113 Theories of Creative Process in Design and Merchandising
- DHM 5213 Product Design, Production and Promotional Strategies for Apparel and Interior Design Industries
- DHM 5233 Design Evaluation
- DHM 5303 Sociological, Psychological and Economic Aspects of Consumer Behavior
- DHM 5343 Constructed Environment and Human Behavior
- DHM 5440 Career Internship
- DHM 5463
- DHM 5533 Theory and Design of Functional Apparel
- STAT 5013 Statistics for Experimenters I

**Hours Subtotal**

|                |                                                 | 9     |

**Total Hours**

|                |                                                 | 30    |

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Graduate College Masters Degree Requirements

#### Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

#### Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level

### Design Thesis Option

**Total Hours:** 30 Hours

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<td>Theories of Creative Process in Design and Merchandising</td>
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**Electives**

Select from any of the following (6 credits of which must be in DHM):

- DHM 4573 Sustainable Design for Apparel and Interiors
- DHM 5113 Theories of Creative Process in Design and Merchandising
- DHM 5213 Product Design, Production and Promotional Strategies for Apparel and Interior Design Industries
- DHM 5233 Design Evaluation
- DHM 5303 Sociological, Psychological and Economic Aspects of Consumer Behavior
- DHM 5343 Constructed Environment and Human Behavior
- DHM 5440 Career Internship
- DHM 5463
- DHM 5533 Theory and Design of Functional Apparel
- STAT 5013 Statistics for Experimenters I

**Hours Subtotal**

|                |                                                 | 9     |

**Total Hours**

|                |                                                 | 30    |
Design, Housing & Merchandising: Interior Design, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Research Thesis Option
Total Hours: 30 Hours

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Other Requirements (Non-Core)

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<tr>
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<td>DHM 5343</td>
<td>Constructed Environment and Human Behavior</td>
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<td>DHM 5353</td>
<td>Graduate Interior Design Studio</td>
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Electives
Choose 6 hours from the following:

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<th>Code</th>
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<td>DHM 5463</td>
<td>Career Internship</td>
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Total Hours: 30

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Design, Housing & Merchandising: Merchandising, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 30 Hours

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<tr>
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<td>Constructed Environment and Human Behavior</td>
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<td>DHM 5653</td>
<td>Merchandising Trends, Practices and Theories in Apparel and Interior Industries</td>
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<td>DHM 5663</td>
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<td>DHM 6403</td>
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<td>Or appropriate related courses outside of DHM, such as gerontology, hospitality, business, etc.</td>
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General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Design, Housing & Merchandising: Retail Merchandising Leadership, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 36 Hours

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<td>Historical and Contemporary Issues in Trade</td>
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<td>Professional Advancement in Merchandising</td>
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General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
**Economics, MS**

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours: 33 Hours**

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**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
# Educational Leadership Studies: College Student Development, MS

## Requirements for Students Matriculating in or before Academic Year 2019-2020
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 36 Hours

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<td>Legal Issues in Student Affairs</td>
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<td>Leadership Theory and Ethical Decision Making in Higher Education</td>
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<td>HESA 6243</td>
<td>Internship in Higher Education and Student Affairs I</td>
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<td>HESA 6253</td>
<td>Internship in Higher Education and Student Affairs II</td>
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1 And other courses approved by graduate advisory committee.

## General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

## Additional Graduate College Masters Degree Requirements

### Plan I (coursework with thesis)
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

### Plan II (coursework without thesis)
- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
# Educational Leadership Studies: Higher Education, MS

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 36 Hours

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<td>HESA 5813</td>
<td>Leadership Theory and Ethical Decision Making in Higher Education</td>
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<td>Foundations of Higher Education</td>
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<td>Critical Issues in Higher Education and Student Affairs</td>
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<td>HESA 6243</td>
<td>Internship in Higher Education and Student Affairs I</td>
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1 And other courses approved by graduate advisory committee.

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- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

### Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Educational Leadership Studies: School Administration, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 36 Hours

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<td>Developing Educational Organizations</td>
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<td>Education Law</td>
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<td>EDLE 5473</td>
<td>Supervision of Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 5883</td>
<td>Field Studies Internship I</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 5893</td>
<td>Field Studies Intern II</td>
<td>3</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

Research and Inquiry

Select 6 hours from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
<td>3</td>
</tr>
<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 5913</td>
<td>Introduction to Qualitative Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>Hours Subtotal</td>
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<td>6</td>
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</tbody>
</table>

Option Electives

Select 6 hours from the following:

(Alternate courses may be approved by the student’s advisor)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIED 5053</td>
<td>Curriculum Issues</td>
<td>3</td>
</tr>
<tr>
<td>CIED 5623</td>
<td>Multicultural and Diversity Issues in Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 5883</td>
<td>Educational Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 5873</td>
<td>Culture, Society and Education</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 5990</td>
<td>Problems and Issues in Social Foundations</td>
<td>3</td>
</tr>
<tr>
<td>SPED 5633</td>
<td>Behavior Characteristics of Exceptional Individuals</td>
<td>3</td>
</tr>
<tr>
<td>SPED 5993</td>
<td>Culturally Responsive Teaching in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>REMS 5373</td>
<td>Educational Measurements</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5103</td>
<td>Advanced Computing Applications in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5720</td>
<td>Educ Workshop</td>
<td>3</td>
</tr>
<tr>
<td>Hours Subtotal</td>
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<td>6</td>
</tr>
</tbody>
</table>

Required Creative Component: Portfolio

The Portfolio, designed and completed by Candidates to exhibit competency in the ELCC Standards, serves as the required Creative Component for the MS degree in School Administration; satisfactory completion of the Portfolio is required for degree completion and recommendation for certification.

Total Hours 36

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Educational Psychology: Educational Psychology, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option

Total Hours: 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>Degree Core</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 6 hours from the following:</td>
<td>6</td>
</tr>
<tr>
<td>EPSY 5103</td>
<td>Human Development in Psychology</td>
<td></td>
</tr>
<tr>
<td>EPSY 5463</td>
<td>Psychology of Learning</td>
<td></td>
</tr>
<tr>
<td>EPSY 5553</td>
<td>Motivation in Educational Contexts</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Research and Measurement</strong></td>
<td></td>
</tr>
<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
<td>3</td>
</tr>
<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Program Core</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 3 hours from EPSY 5103, EPSY 5463, EPSY 5553, whichever was not used as part of Degree Core:</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select 15 hours from the following:</td>
<td>15</td>
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<tr>
<td>EPSY 5183</td>
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<td></td>
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<tr>
<td>EPSY 5320</td>
<td>Seminar in Educational and School Psychology</td>
<td></td>
</tr>
<tr>
<td>EPSY 5403</td>
<td>Issues in Adolescent Development</td>
<td></td>
</tr>
<tr>
<td>EPSY 5473</td>
<td>Psychology of Adult Learning</td>
<td></td>
</tr>
<tr>
<td>EPSY 5603</td>
<td>Developmental Issues in Instruction</td>
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</tr>
<tr>
<td>EPSY 5663</td>
<td>Creativity for Teachers</td>
<td></td>
</tr>
<tr>
<td>EPSY 5963</td>
<td>Developing Resources to Support Educational Programs</td>
<td></td>
</tr>
<tr>
<td>EPSY 5983</td>
<td>Instructional Effectiveness in Higher Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td>18</td>
</tr>
<tr>
<td></td>
<td><strong>Creative Component</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 6 hours of electives from the emphasis area with the development of a Creative Component. Related elective coursework is determined by the student with committee members.</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td>36</td>
</tr>
</tbody>
</table>

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
# Educational Psychology: Research, Evaluation, Measurement and Statistics, MS

## Requirements for Students Matriculating in or before Academic Year 2019-2020

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

## Thesis Option

**Total Hours:** 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inquiry Core</strong></td>
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</tr>
<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
<td>3</td>
</tr>
<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
<td>3</td>
</tr>
<tr>
<td>REMS 5373</td>
<td>Educational Measurements</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6003</td>
<td>Analyses of Variance</td>
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</tr>
<tr>
<td>REMS 6013</td>
<td>Multiple Regression Analysis in Behavioral Studies</td>
<td>3</td>
</tr>
<tr>
<td>REMS 6373</td>
<td>Program Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>SCFD 5913</td>
<td>Introduction to Qualitative Inquiry</td>
<td>3</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td><strong>21</strong></td>
<td></td>
</tr>
</tbody>
</table>

| **Educational Psychology Degree Core**                     |        |
| Select 6 hours from the following:                         |       |
| EPSY 5103 | Human Development in Psychology                      | 6     |
| EPSY 5213 |                                                    |       |
| EPSY 5463 | Psychology of Learning                               |       |
| **Hours Subtotal**                                        | **6**  |

| **Inquiry Elective**                                      |        |
| Select 3 hours from the following:                        |       |
| REMS 5373 | Educational Measurements                             | 3     |
| REMS 5963 | Computer Applications in Nonparametric Data Analyses |       |
| REMS 6033 | Factor Analysis in Behavioral Research               |       |
| REMS 6663 | Applied Multivariate Research in Behavioral Studies  |       |
| REMS 6673 | Item Response Theory                                 |       |
| REMS 6683 | Multilevel Modeling Methods in Education            |       |
| REMS 6693 | Structural Equation Modeling for Behavioral and Educational Research | |
| **Hours Subtotal**                                        | **3**  |

| **Comprehensive Exams**                                   |        |
| Upon completion of coursework and having an approved dissertation proposal, students must pass a qualifying examination. | |

| **Report with Electives**                                  |        |
| Select one of the following options:                      |       |
| Option 1 - 2 hours of thesis plus 4 hours or related electives |       |
| Option 2 - Development of a Creative Component with Related Elective coursework (elective options are specified within the curriculum requirements for each program). | |
| **Hours Subtotal**                                        | **6**  |

| **Total Hours**                                           | **36** |

## General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

## Report Option

**Total Hours:** 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMS 5000</td>
<td>Master's Thesis</td>
<td>6</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>
Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

• A minimum of 30 credit hours
  • A minimum of 24 coursework credit hours comprised of:
    • 6 research or creative component credit hours
    • 21 in-residence credit hours (maximum of 9 transfer hours with “B” or better)
    • 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

• A minimum of 32 credit hours
  • A maximum of 3 credit hours of research or creative component
  • A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with “B” or better)
  • A minimum of 21 credit hours at the 5000- or 6000-level
Educational Psychology: School Psychometrics, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 37 Hours

<table>
<thead>
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<th>Code</th>
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<tbody>
<tr>
<td>EPSY 5023</td>
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<tr>
<td>EPSY 5113</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>EPSY 5103</td>
<td>Human Development in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5910</td>
<td>Educational Field Experiences</td>
<td>2</td>
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<tr>
<td>EPSY 5793</td>
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<td>3</td>
</tr>
<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 6313</td>
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<tr>
<td>EPSY 5803</td>
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<td>EPSY 5210</td>
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<td>EPSY 6333</td>
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<tr>
<td>EPSY 5000</td>
<td>Master's Thesis</td>
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</table>

Total Hours 37

Formal Report Option
Total Hours: 37 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPSY 5023</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>EPSY 5113</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>EPSY 5103</td>
<td>Human Development in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 5910</td>
<td>Educational Field Experiences</td>
<td>2</td>
</tr>
<tr>
<td>EPSY 5793</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 6313</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>EPSY 5803</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>EPSY 5210</td>
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<td>2</td>
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<td>EPSY 6333</td>
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</tr>
<tr>
<td>EPSY 5000</td>
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<tr>
<td>Select 4 hours of electives</td>
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</tbody>
</table>

Formal Report also required
Total Hours 37

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Educational Technology: Educational Technology, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Core</td>
<td></td>
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</tr>
<tr>
<td>EDTC 5103</td>
<td>Advanced Computing Applications in Education</td>
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</tr>
<tr>
<td>EDTC 5203</td>
<td>Foundations of Educational Technologies</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5753</td>
<td>Introduction to Instructional Design</td>
<td>3</td>
</tr>
<tr>
<td>LBSC 5613</td>
<td>Library Networks and Databases</td>
<td>3</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Research and Inquiry</td>
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<td></td>
</tr>
<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
<td>3</td>
</tr>
<tr>
<td>Hours Subtotal</td>
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<tr>
<td>Option - Educational Technology</td>
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<tr>
<td>EDTC 5153</td>
<td>Computer-Based Instruction Development</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5403</td>
<td>Creativity and Innovation in Educational Technology</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5503</td>
<td>Facilitating Online Learning</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5053</td>
<td>Learning in a Digital Age</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5113</td>
<td>Digital Media Production for Instruction</td>
<td>3</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Electives or Thesis</td>
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</tr>
<tr>
<td>Select 6 hours</td>
<td>6</td>
<td></td>
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<tr>
<td>Suggested Courses</td>
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</tr>
<tr>
<td>EDTC 5303</td>
<td>Digital Games and Simulations in the Classroom</td>
<td></td>
</tr>
<tr>
<td>CIED 5183</td>
<td>Media Literacy Across the Curriculum</td>
<td></td>
</tr>
<tr>
<td>EPSY 5463</td>
<td>Psychology of Learning</td>
<td></td>
</tr>
<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
<td></td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

1 These four courses count toward the Graduate Certificate in Online Teaching. It is necessary to apply separately for the certificate in addition to the M.S. in Ed Tech. See edtech.okstate.edu/gradcert.

2 If a substitution is approved for this course, you must complete RCR modules and send printed certificate to the COE Graduate Studies office.

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
# Educational Technology: School Library Media, MS

## Requirements for Students Matriculating in or before Academic Year 2019-2020
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDTC 5203</td>
<td>Foundations of Educational Technologies ¹</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5103</td>
<td>Advanced Computing Applications in Education ¹</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5753</td>
<td>Introduction to Instructional Design ¹</td>
<td>3</td>
</tr>
<tr>
<td>LBSC 5613</td>
<td>Library Networks and Databases</td>
<td>3</td>
</tr>
</tbody>
</table>

**Hours Subtotal:** 12

**Research and Inquiry Requirement**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology ¹</td>
<td>3</td>
</tr>
</tbody>
</table>

(If a substitution is approved for this course, you must complete RCR modules and send printed certificate to the COE Graduate Studies office.)

**Hours Subtotal:** 3

**Option Area - School Library Media**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>LBSC 5113</td>
<td>Selection and Organization of Informational and Educational Resources</td>
<td>3</td>
</tr>
<tr>
<td>LBSC 5823</td>
<td>Administration of School Library Media and Technology Programs</td>
<td>3</td>
</tr>
<tr>
<td>CIED 5353</td>
<td>Literature for Children, Adolescents and Adults</td>
<td>3</td>
</tr>
<tr>
<td>CIED 5443</td>
<td>Teaching Reading with Literature</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 5113</td>
<td>Digital Media Production for Instruction ¹</td>
<td>3</td>
</tr>
</tbody>
</table>

**Hours Subtotal:** 15

**Electives**

Select 6 hours from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EDTC 5303</td>
<td>Digital Games and Simulations in the Classroom ¹</td>
<td></td>
</tr>
<tr>
<td>EDTC 5403</td>
<td>Creativity and Innovation in Educational Technology ¹</td>
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</tr>
</tbody>
</table>

**Other (consult your advisor for permission to substitute classes)**

**Hours Subtotal:** 6

**Total Hours:** 36

¹ Taught online.

## Additional Graduate College Masters Degree Requirements

### Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

### Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level

## General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Electrical Engineering, MEN

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 33 Hours

<table>
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<th>Title</th>
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<tr>
<td></td>
<td><strong>ECEN Graduate Level Courses</strong></td>
<td></td>
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<tr>
<td></td>
<td>Select 21 hours of 5000-level or higher courses. May include up to 3 hours of ECEN 5070 with approval of the student's graduate advisory committee.</td>
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<tr>
<td></td>
<td><strong>Technical Electives Approved for Graduate Credit</strong></td>
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<tr>
<td></td>
<td>Select 3 hours of 4000-level or above (outside department courses) with approval of the student's graduate advisory committee.</td>
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<tr>
<td></td>
<td><strong>ECEN Course Approved for Graduate Credit</strong></td>
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<td>Approved ECEN 4000-level or above</td>
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<tr>
<td></td>
<td><strong>Additional Courses</strong></td>
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</tr>
<tr>
<td></td>
<td>Must be approved for graduate credit. May include non-ECEN graduate-level courses with approval of the student's graduate advisory committee.</td>
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</table>

Additional Electrical Engineering Requirements

- ENGL 4893 for INTL Grad (3 credit hours) cannot be used toward the degree.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Electrical Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 30 Hours

<table>
<thead>
<tr>
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<th>Hours</th>
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<tr>
<td></td>
<td>ECEN Graduate Level Courses</td>
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<tr>
<td></td>
<td>Select 18 hours of 5000-level or higher courses. May NOT include ECEN 5000, ECEN 5030 or ECEN 5070.</td>
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<td></td>
<td>Technical Graduate Level Electives</td>
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<td>Select 3 hours of 4000-level or above (outside department courses)</td>
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<td>Thesis</td>
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<td>ECEN 5000</td>
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<td></td>
<td>Other ECEN Graduate Level Courses</td>
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<td></td>
<td>ECEN 5070 Directed Studies</td>
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<td></td>
<td>Or other graduate level ECEN courses</td>
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<td>Total Hours</td>
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</table>

1 Students pursuing the Electrical Engineering, MS, have two options to choose from - Control Systems, MS; and Optics and Photonics, MS. A plan of study for the chosen option will be set up with student's advisor.

Additional Electrical Engineering Requirements

- ENGL 4893 for INTL Grad (3 credit hours) cannot be used toward the degree.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
# Engineering and Technology Management, MS

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 32 Hours

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<td>ETM 5111</td>
<td>Introduction to Strategy, Technology and Integration</td>
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<td>ETM 5511</td>
<td>Capstone Preparation</td>
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<td>ETM 5133</td>
<td>Capstone to Strategy, Technology and Integration</td>
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<td>ETM 5143</td>
<td>Strategic Decision Analysis for Engineering and Technology Managers</td>
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<td>ETM 5241</td>
<td>Strategic Project Management</td>
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<td>ETM 5291</td>
<td>Failure Mode and Effects Analysis in Design</td>
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<td>Leadership Strategies for Technical Professionals</td>
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<td>ETM 5351</td>
<td>Planning Technical Projects</td>
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<td>ETM 5371</td>
<td>Ethics for Practicing Engineers</td>
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<td>ETM 5391</td>
<td>New Product Introduction and Commercialization</td>
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<td>Engineering Economic Analysis</td>
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<td>ETM 5461</td>
<td>Intellectual Property Management</td>
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<td>ETM 5481</td>
<td>Sustainable Enterprise Strategies</td>
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<td>ETM 5531</td>
<td>Contract Law in Engineering and Technology</td>
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<td>ETM 5153</td>
<td>Foundations of Engineering Management</td>
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<td>ETM 5163</td>
<td>Business Innovation and Technology</td>
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<td>ETM 5253</td>
<td>Engineering Problem Solving and Decision-Making</td>
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<td>ETM 5283</td>
<td>Strategic Planning</td>
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<td>ETM 5943</td>
<td>Lean Sigma Implementation</td>
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<tr>
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<td>Managing the Engineering and Technical Function</td>
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<td>MGMT 5113</td>
<td>Management and Organization Theory</td>
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<td>MGMT 5533</td>
<td>Leadership Challenges</td>
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<td>MKTG 5133</td>
<td>Marketing Management</td>
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<tr>
<td>SOC 5813</td>
<td>Myths and Realities of Organizational Change</td>
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**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Engineering Technology: Fire Safety and Explosion Protection, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Thesis Option

**Total Hours:** 30 Hours

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<thead>
<tr>
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</tr>
<tr>
<td>POLS 5013</td>
<td>Quantitative Methods</td>
<td>3</td>
</tr>
<tr>
<td>or GENT 5013</td>
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<tr>
<td>IEM 5603</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>or GENT 5023</td>
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<tr>
<td>GENT 5033</td>
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<td>3</td>
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<tr>
<td>FSEP 5113</td>
<td>Fire and Explosion Hazard Recognition</td>
<td>3</td>
</tr>
<tr>
<td>FSEP 5133</td>
<td>Principles of Process Safety</td>
<td>3</td>
</tr>
<tr>
<td>FSEP 5143</td>
<td>Structural Design for Fire and Life Safety</td>
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<tr>
<td><strong>Hours Subtotal</strong></td>
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<tr>
<td>FSEP 5123</td>
<td>Fire and Explosion Detection and Mitigation</td>
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<tr>
<td>FSEP 5153</td>
<td>Critical Infrastructure Vulnerability and Risk</td>
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<tr>
<td>FSEP 5163</td>
<td>Principles of Industrial, Physical and Building Security</td>
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<tr>
<td>FSEP 5990</td>
<td>Special Topics</td>
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<tr>
<td>FPST 4143</td>
<td>Industrial Ventilation and Smoke Control</td>
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<tr>
<td>FPST 4383</td>
<td>Fire and Evacuation Modeling</td>
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</tr>
<tr>
<td>ETM 5153</td>
<td>Foundations of Engineering Management</td>
<td></td>
</tr>
<tr>
<td>ETM 5221</td>
<td>Engineering Teaming</td>
<td></td>
</tr>
<tr>
<td>ETM 5291</td>
<td>Failure Mode and Effects Analysis in Design</td>
<td></td>
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<tr>
<td>ETM 5341</td>
<td>Leadership Strategies for Technical Professionals</td>
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<td>ETM 5371</td>
<td>Ethics for Practicing Engineers</td>
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<td>ETM 5411</td>
<td>Engineering Economic Analysis</td>
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<td>IEM 5143</td>
<td>Reliability and Maintainability</td>
<td></td>
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<td>IEM 5990</td>
<td>Special Topics in Industrial Engineering and Management</td>
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<td>ENGR 5133</td>
<td>Advanced Environmental Law for Technical Professionals</td>
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<tr>
<td>POLS 5303</td>
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<tr>
<td>FRNS 5123</td>
<td>Fire Dynamics in Forensic Investigations</td>
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<tr>
<td>FRNS 5143</td>
<td>Methods in Fire and Explosion Investigation NFPA 921/1033</td>
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<td>FRNS 5163</td>
<td>Advanced Fire Dynamics</td>
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<td>FRNS 5173</td>
<td>Advanced Explosion Investigation</td>
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<td>FRNS 5183</td>
<td>Computer Fire Modeling</td>
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</table>

| **Master’s Thesis** | FSEP 5000 | Master’s Thesis | 6 |

Each M.S. candidate must prepare a written thesis and defend it before a thesis committee of at least three faculty members (minimum two from the FPST program). The written document must satisfy the requirements of the Graduate College for format and structure. The thesis defense consists of a twenty-minute oral presentation, followed by questions from the committee.

| **Hours Subtotal** | 6 |

### Non-Thesis Option

**Total Hours:** 32 Hours

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<tr>
<td>POLS 5013</td>
<td>Quantitative Methods</td>
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</tr>
<tr>
<td>or GENT 5013</td>
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<td></td>
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<tr>
<td>IEM 5603</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>or GENT 5023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GENT 5033</td>
<td></td>
<td>3</td>
</tr>
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<td>FSEP 5113</td>
<td>Fire and Explosion Hazard Recognition</td>
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<tr>
<td>FSEP 5133</td>
<td>Principles of Process Safety</td>
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<table>
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<td>FSEP 5153</td>
<td>Critical Infrastructure Vulnerability and Risk</td>
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<td>FSEP 5163</td>
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<tr>
<td>FSEP 5990</td>
<td>Special Topics</td>
<td></td>
</tr>
<tr>
<td>FPST 4143</td>
<td>Industrial Ventilation and Smoke Control</td>
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<td>FPST 4383</td>
<td>Fire and Evacuation Modeling</td>
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<td>ETM 5153</td>
<td>Foundations of Engineering Management</td>
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<td>ETM 5221</td>
<td>Engineering Teaming</td>
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<td>Failure Mode and Effects Analysis in Design</td>
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<td>Ethics for Practicing Engineers</td>
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<td>ETM 5411</td>
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<td>Special Topics in Industrial Engineering and Management</td>
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<td>Advanced Environmental Law for Technical Professionals</td>
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<td>POLS 5303</td>
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<td>FRNS 5123</td>
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<td>FRNS 5163</td>
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<td>FRNS 5183</td>
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**Creative Component/Report**
The FSEP 5990 course is used for a creative component. A report (a "mini-thesis") must be submitted, prepared in the style of an M.S. thesis, but not submitted for Graduate College approval.

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<thead>
<tr>
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<tr>
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**General Graduate College Requirements**
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**
- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
English, MA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 30 Hours

<table>
<thead>
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<tr>
<td>ENGL 5013</td>
<td>Introduction to Graduate Studies</td>
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<td>ENGL 5363</td>
<td>Critical Approaches to Screen Studies: Theory and History</td>
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Select 18 additional hours of ENGL courses

Hours Subtotal 24

Thesis

ENGL 5000

Hours Subtotal 6

Total Hours 30

General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of "C" is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

• A minimum of 30 credit hours
  • A minimum of 24 coursework credit hours comprised of:
    • 6 research or creative component credit hours
    • 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    • 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

• A minimum of 32 credit hours
  • A maximum of 3 credit hours of research or creative component
  • A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  • A minimum of 21 credit hours at the 5000- or 6000-level
## Thesis Option

**Total Hours:** 30 Hours

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<td>ENGL 5593</td>
<td>Seminar in Style and Editing</td>
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<tr>
<td>ENGL 5553</td>
<td>Studies in Visual Rhetoric and Design</td>
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<td>ENGL 5523</td>
<td>Genres in Professional Writing</td>
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<tr>
<td>ENGL 5340</td>
<td>Studies in Discourse Analysis</td>
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<tr>
<td>ENGL 5533</td>
<td>Studies in the History of Rhetoric</td>
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### Non-Thesis Option

**Total Hours:** 34 Hours

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<tr>
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<tr>
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<td>Studies in Visual Rhetoric and Design</td>
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<td>ENGL 5523</td>
<td>Genres in Professional Writing</td>
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</table>

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

• A minimum of 30 credit hours
  • A minimum of 24 coursework credit hours comprised of:
    • 6 research or creative component credit hours
    • 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    • 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

• A minimum of 32 credit hours
  • A maximum of 3 credit hours of research or creative component
  • A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  • A minimum of 21 credit hours at the 5000- or 6000-level
## Requirements for Students Matriculating in or before Academic Year 2019-2020.

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Thesis Option

**Total Hours:** 30 Hours

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<td>Approaches to Language Acquisition</td>
<td>3</td>
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<td>ENGL 5130</td>
<td>Studies in English Grammar</td>
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<td>ENGL 5143</td>
<td>Descriptive Linguistics</td>
<td>3</td>
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<tr>
<td><strong>Hours Subtotal</strong></td>
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<td>ENGL 4093</td>
<td>Language in America</td>
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<td>ENGL 5133</td>
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1 Courses other than those listed may be taken as electives if approved by the advisory committee.

### Non-Thesis Option

**Total Hours:** 34 Hours

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<tr>
<th>Code</th>
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</tr>
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<td><strong>Hours Subtotal</strong></td>
<td><strong>18</strong></td>
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<td><strong>Language and Linguistics</strong></td>
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<tr>
<td>ENGL 4003</td>
<td>History of the English Language</td>
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1 Courses other than those listed may be taken as electives if approved by the advisory committee.
General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College MS
Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (Maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000 or 6000 level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (Maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000 or 6000 level
Entomology and Plant Pathology: Entomology, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 30 Hours

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<td>Core Requirements</td>
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<tr>
<td>ENTO 5870</td>
<td>Scientific Presentations (Both fall and spring semesters - 1 credit hour each)</td>
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<td>or PLP 5870</td>
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<td>or PLP 5623</td>
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<tr>
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<tr>
<td>or PLP 5524</td>
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<tr>
<td>ENTO 5000</td>
<td>Master's Research and Thesis</td>
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<tr>
<td>or PLP 5000</td>
<td>Research</td>
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Exactly 6 graduate credit hours total must be listed on the Plan of Study (more than 6 credit hours completed will appear on final transcripts, not on the Plan of Study).

Hours Subtotal 15

Discipline Requirements

Entomology - 15 hours

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<th>Core</th>
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<td>Insect Biology and Classification</td>
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<td>ENTO 5003</td>
<td>Insect Biochemistry</td>
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<tr>
<td>ENTO 5044</td>
<td>Insect Morphology and Physiology</td>
</tr>
</tbody>
</table>

Plus any additional courses to complete the graduate program and Plan of Study (7-8 hours)

Hours Subtotal 15

Total Hours 30

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
    - 21 credit hours at the 5000- or 6000-level
Entomology and Plant Pathology: Plant Pathology, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 30 Hours

<table>
<thead>
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<th>Title</th>
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<td>Scientific Presentations</td>
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<td>or PLP 5623</td>
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<td>ENTO 5000</td>
<td>Master's Research and Thesis</td>
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<tr>
<td>or PLP 5000</td>
<td>Research</td>
<td></td>
</tr>
</tbody>
</table>

Exactly 6 graduate credit hours total must be listed on the Plan of Study (more than 6 credit hours completed will appear on final transcripts, not on the Plan of Study).

Hours Subtotal 15

Discipline Requirements

Plant Pathology - 15 credit hours 15

PLP 5343 Principles of Plant Pathology (Required if student has NOT completed an Introductory PLP course.)

Core - select at least 2 courses from the following:

<table>
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<tr>
<td>PLP 5003</td>
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<td>PLP 5012/PLP 5013</td>
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<tr>
<td>PLP 5104</td>
<td>Mycology</td>
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<tr>
<td>PLP 5304</td>
<td>Phytobacteriology</td>
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</table>

Plus additional courses to complete the graduate program Plan of Study (6-10 hours)

Hours Subtotal 15

Total Hours 30

1 Plant Pathology majors must take both lab and lecture (counts as one core course). Non-PLP majors may take PLP 5012 lab only, or PLP 5013 lecture only, or both lab and lecture.

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Entrepreneurship, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 33 Hours

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<td>Entrepreneurship and Venture Management</td>
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<td>EEE 5223</td>
<td>Entrepreneurial Marketing</td>
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<td>EEE 5333</td>
<td>Launching a Business: The First 100 Days</td>
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<td>EEE 5663</td>
<td>Imagination in Entrepreneurship</td>
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<td>EEE 5993</td>
<td>Preparing Effective Business Plans</td>
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<td>FIN 5013</td>
<td>Business Finance</td>
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<td>MGMT 5113</td>
<td>Management and Organization Theory</td>
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<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>Electives</td>
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</tr>
<tr>
<td>EEE 5133</td>
<td>Dilemmas and Debates in Entrepreneurship</td>
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<tr>
<td>EEE 5200</td>
<td>Special Topics in Entrepreneurship</td>
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<td>EEE 5213</td>
<td>Entrepreneurship in Science and Technology</td>
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<tr>
<td>EEE 5263</td>
<td>Corporate Entrepreneurship</td>
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<td>Social Entrepreneurship</td>
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<tr>
<td>EEE 5513</td>
<td>Growing Small and Family Ventures</td>
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<td>EEE 5703</td>
<td>Project Management for Entrepreneurship</td>
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<tr>
<td>EEE 5713</td>
<td>Native American Entrepreneurship</td>
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<tr>
<td>EEE 5803</td>
<td>Operating an Entrepreneurial Firm</td>
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<td></td>
<td>Total Hours</td>
<td>33</td>
</tr>
</tbody>
</table>

1 Appropriate substitutes, such as other upper-division Spears School of Business courses or upper-division courses from other colleges, can be made on a case-by-case basis.

2 Involvement in an eligible study abroad program or the Riata Internship may fulfill a portion of the elective requirements.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
Environmental Science, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option

Total Hours: 30 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENVR 5303</td>
<td>Issues in Environmental Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>ENVR 5123</td>
<td>Environmental Problem Analysis</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select an approved 3-hour Natural or Physical Science course.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select an approved 3-hour skills course.</td>
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</tr>
<tr>
<td></td>
<td>Select 12 approved hours to complete degree requirements.</td>
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<tr>
<td>Hours Subtotal</td>
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</table>

Research Requirement

Select 6 hours of Thesis | 6

Hours Subtotal

Total Hours | 30

Non-Thesis Option

Total Hours: 32 Hours

<table>
<thead>
<tr>
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<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVR 5303</td>
<td>Issues in Environmental Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>ENVR 5123</td>
<td>Environmental Problem Analysis</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select an approved 3-hour Natural or Physical Science course.</td>
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</tr>
<tr>
<td></td>
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Research Requirement

Select 2 credit hours of Thesis | 2

Hours Subtotal

Total Hours | 32

General Graduate College Requirements

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)
Environmental Science: Environmental Management Professional Science Masters, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 36 Hours

<table>
<thead>
<tr>
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<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENVR 5123</td>
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</tr>
<tr>
<td>ENVR 5533</td>
<td>Genres of Environmental Writing</td>
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<tr>
<td>ENVR 5303</td>
<td>Issues in Environmental Sustainability</td>
<td>3</td>
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<tr>
<td>ENVR 5503</td>
<td>Environmental Management Practicum</td>
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<td>ENVR 5510</td>
<td>Environmental Management Internship</td>
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</table>

Hours Subtotal 15

Electives
Select 21 hours of natural or physical science. 21

Examples of Elective Courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>ENVR 5313</td>
<td>Clean Air Act: Regulation, Compliance and Reporting</td>
</tr>
<tr>
<td>ENVR 5443</td>
<td>Hazardous Waste Regulations for Environmental Managers</td>
</tr>
<tr>
<td>ENVR 5453</td>
<td>Bioremediation for Environmental Managers</td>
</tr>
<tr>
<td>ENVR 5523</td>
<td>Industrial Ecology</td>
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<tr>
<td>ENVR 5543</td>
<td>Environmental Management Systems</td>
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<tr>
<td>ENVR 5573</td>
<td>Applied Standards for Environmental Managers</td>
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<tr>
<td>ENVR 5633</td>
<td>Physical Geology for Environmental Managers</td>
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<td>ENVR 5703</td>
<td>Chemical Aspects of Environmental Science I</td>
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<tr>
<td>ENVR 5713</td>
<td>Chemical Aspects of Environmental Science II</td>
</tr>
<tr>
<td>ENVR 5733</td>
<td>Environmental Site Assessment</td>
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<tr>
<td>ENVR 5743</td>
<td>Environmental Impact Assessment</td>
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<td>ENVR 5753</td>
<td>Environmental Site Remediation</td>
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<td>ENVR 5823</td>
<td>Watershed Management</td>
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<tr>
<td>ENVR 5853</td>
<td>Field Stream Assessment</td>
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</tbody>
</table>

Hours Subtotal 21

Total Hours 36

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

• A minimum of 30 credit hours
  • A minimum of 24 coursework credit hours comprised of:
    • 6 research or creative component credit hours
    • 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    • 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

• A minimum of 32 credit hours
  • A maximum of 3 credit hours of research or creative component
  • A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  • A minimum of 21 credit hours at the 5000- or 6000-level

General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of "C" is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
# Family and Consumer Sciences Education, MS

## Requirements for Students Matriculating in or before Academic Year 2019-2020.
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
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<tr>
<td><strong>Degree Core</strong></td>
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<tr>
<td><strong>Required Courses</strong></td>
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<td></td>
</tr>
<tr>
<td>HDFS 5823</td>
<td>History and Philosophy of Family and Consumer Sciences Education</td>
<td>3</td>
</tr>
<tr>
<td>HDFS 5833</td>
<td>Occupational Programs in Family and Consumer Sciences</td>
<td>3</td>
</tr>
<tr>
<td>HDFS 5843</td>
<td>Reading in the Content Areas of Family and Consumer Sciences Education</td>
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<tr>
<td>HDFS 5873</td>
<td>Technology in Family and Consumer Sciences Programs</td>
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<td>HDFS 5953</td>
<td>Research Experience in Family and Consumer Sciences</td>
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</tr>
<tr>
<td>HDFS 5963</td>
<td>Evaluation and Assessment in Family and Consumer Sciences Programs</td>
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</tr>
<tr>
<td>HDFS 5993</td>
<td>Special Topics in Family and Consumer Sciences Education: 4-H and FCCLA</td>
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<tr>
<td><strong>Choose One Specialization Course (3 Credit Hours)</strong></td>
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<tr>
<td>HDFS 5973</td>
<td>Administration of Family and Consumer Sciences Education Programs</td>
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<tr>
<td>HDFS 5983</td>
<td>Techniques of Supervision in Family and Consumer Sciences Programs</td>
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<tr>
<td><strong>Choose Three Electives (9 Credit Hours)</strong></td>
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<tr>
<td>HDFS 4913</td>
<td>Instructional Methods in Family and Consumer Sciences</td>
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<tr>
<td>HDFS 5110</td>
<td>Directed Study in HDFS (3 Hours Allowed)</td>
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<td>HDFS 5853</td>
<td>Adolescent Learners in Family and Consumer Sciences Programs</td>
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<td>HDFS 5863</td>
<td>Exceptional Learners in Family and Consumer Sciences Programs</td>
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<td>HDFS 5883</td>
<td>Family and Consumer Sciences in a Pluralistic Society: Foundations and Issues</td>
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<td>HDFS 5893</td>
<td>Addressing Family Issues and Public Policy Through Family and Consumer Sciences Education</td>
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<tr>
<td>HDFS 5943</td>
<td>Development of Instructional Materials for Family and Consumer Sciences Programs</td>
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<td><strong>Non-Thesis Project Requirement (3 Credit Hours)</strong></td>
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<td>HDFS 5160</td>
<td>Master's Creative Component</td>
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<tr>
<td><strong>Total Hours</strong></td>
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</table>

## General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted

## Additional Graduate College Masters Degree Requirements

### Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

### Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level

- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Family Financial Planning, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Degree Core</td>
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<tr>
<td></td>
<td>Required Courses</td>
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<tr>
<td>HS 5240</td>
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<td>HS 5303</td>
<td>Fundamentals of Family Financial Planning</td>
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<tr>
<td>HS 5333</td>
<td>Theories and Research in Family Financial Planning I</td>
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<td>HS 5353</td>
<td>Financial Counseling for Family Financial Planning</td>
<td>3</td>
</tr>
<tr>
<td>HS 5403</td>
<td>Estate Planning for Families ¹</td>
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</tr>
<tr>
<td>HS 5453</td>
<td>Retirement Planning, Employee Benefits and the Family ¹</td>
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<td>HS 5553</td>
<td>Insurance Planning for Families ¹</td>
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<tr>
<td>HS 5603</td>
<td>Investing for the Family's Future ¹</td>
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<td>HS 5653</td>
<td>Personal Income Tax for Family Financial Planning ¹</td>
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<td>HS 5803</td>
<td>Case Studies in Family Financial Planning ¹</td>
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</tr>
</tbody>
</table>

| Hours Subtotal | 30 |

| Electives      |       |
| Select six hours from the following: | 6 |
| DDM 5503       | Housing and Real Estate for Family Financial Planning |
| HS 5343        | Theories and Research in Family Financial Planning II |
| HS 5483        | Military Family Financial Issues                      |
| HS 5703        | Professional Practices in Family Financial Planning  |
| REMS 5953      | Statistical Methods in Education                      |

| Hours Subtotal | 6 |

Total Hours | 36 |

¹ Certificate program required courses.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level
Fire and Emergency Management Administration, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 33 Hours

<table>
<thead>
<tr>
<th>Code</th>
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<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Core Courses</td>
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<tr>
<td>FEMP 5113</td>
<td>Introduction to Fire Administration</td>
<td>3</td>
</tr>
<tr>
<td>FEMP 5123</td>
<td>Introduction to Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>FEMP 5013</td>
<td>Research Design</td>
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</tr>
<tr>
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<tr>
<td></td>
<td>Methods/Research</td>
<td></td>
</tr>
<tr>
<td>FEMP 5653</td>
<td>Hazard, Vulnerability, and Risk Analysis</td>
<td>3</td>
</tr>
<tr>
<td>or FEMP 5023</td>
<td>Quantitative Methods for Fire and Emergency Management I</td>
<td></td>
</tr>
<tr>
<td>or FEMP 6013</td>
<td>Qualitative Methods for Fire and Emergency Management</td>
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<tr>
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<tr>
<td></td>
<td>Administration</td>
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<td>Financial Administration for Fire and Emergency Management</td>
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<tr>
<td>or FEMP 5423</td>
<td>Labor Management for Fire and Emergency Management</td>
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</tr>
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<td></td>
<td>Hours Subtotal</td>
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<tr>
<td></td>
<td>Options</td>
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<tr>
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<tr>
<td></td>
<td>Emergency Management Option</td>
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<tr>
<td>FEMP 5213</td>
<td>Disaster Response</td>
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<tr>
<td>FEMP 5223</td>
<td>Preparedness and Planning</td>
<td></td>
</tr>
<tr>
<td>FEMP 5233</td>
<td>Disaster Recovery</td>
<td></td>
</tr>
<tr>
<td>FEMP 5243</td>
<td>Mitigation</td>
<td></td>
</tr>
<tr>
<td>FEMP 5820</td>
<td>Special Topics Seminar in Emergency Management</td>
<td></td>
</tr>
<tr>
<td>FEMP 6820</td>
<td>Advanced Special Topics Seminar in Emergency Management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fire Administration Option</td>
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</tr>
<tr>
<td>FEMP 5313</td>
<td>Political and Community Relations for Fire and Emergency Management</td>
<td></td>
</tr>
<tr>
<td>FEMP 5323</td>
<td>Leadership and Management for Fire and Emergency Management</td>
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<tr>
<td>FEMP 5333</td>
<td>Incident Command System</td>
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<td>FEMP 6413</td>
<td>Seminar Risk Theory and Management</td>
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<td>FEMP 5830</td>
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<td>Advanced Special Topics Seminar in Fire Administration</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Electives</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 or more of these courses or any of the courses listed in this curriculum not already taken. 6

FEMP 5613 Complex Emergencies
FEMP 5623 Emergency Management in the International Setting
FEMP 5633 Emergency Management and Public Policy in the United States
FEMP 5643 Politics of Disaster
FEMP 5810 Special Topics Seminar in Fire and Emergency Management
FEMP 6023 Quantitative Methods for Fire and Emergency Management II
FEMP 6103 Proseminar in Fire and Emergency Management
FEMP 6303 Populations at Risk
FEMP 6313 Comparative and International Dimensions of Emergency Management
FEMP 6323 Organizational Behavior in Disasters
FEMP 6840 Directed Readings in Fire and Emergency Management
FEMP 6850
POLS 5673 Understanding and Responding to Terrorism

Hours Subtotal | 6

Thesis
FEMP 5000 Thesis

Hours Subtotal | 6

Total Hours | 33

Non-Thesis Option
Total Hours: 33 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>Core Courses</td>
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</tr>
<tr>
<td>FEMP 5113</td>
<td>Introduction to Fire Administration</td>
<td>3</td>
</tr>
<tr>
<td>FEMP 5123</td>
<td>Introduction to Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>FEMP 5013</td>
<td>Research Design</td>
<td>3</td>
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<tr>
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<tr>
<td></td>
<td>Methods/Research</td>
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</tr>
<tr>
<td>FEMP 5653</td>
<td>Hazard, Vulnerability, and Risk Analysis</td>
<td>3</td>
</tr>
<tr>
<td>or FEMP 5023</td>
<td>Quantitative Methods for Fire and Emergency Management I</td>
<td></td>
</tr>
<tr>
<td>or FEMP 6013</td>
<td>Qualitative Methods for Fire and Emergency Management</td>
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<td>Hours Subtotal</td>
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<tr>
<td></td>
<td>Administration</td>
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</tr>
<tr>
<td>FEMP 5413</td>
<td>Financial Administration for Fire and Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>or FEMP 5423</td>
<td>Labor Management for Fire and Emergency Management</td>
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<tr>
<td></td>
<td>Options</td>
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<td>Select 6 hours from one of the following options:</td>
<td>6</td>
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<tr>
<td></td>
<td>Emergency Management Option</td>
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</tr>
<tr>
<td>FEMP 5213</td>
<td>Disaster Response</td>
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</tr>
<tr>
<td>FEMP 5223</td>
<td>Preparedness and Planning</td>
<td></td>
</tr>
<tr>
<td>FEMP 5233</td>
<td>Disaster Recovery</td>
<td></td>
</tr>
<tr>
<td>FEMP 5243</td>
<td>Mitigation</td>
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</tr>
<tr>
<td>FEMP 5820</td>
<td>Special Topics Seminar in Emergency Management</td>
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<tr>
<td>FEMP 6820</td>
<td>Advanced Special Topics Seminar in Emergency Management</td>
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<tr>
<td></td>
<td>Fire Administration Option</td>
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<tr>
<td>FEMP 5313</td>
<td>Political and Community Relations for Fire and Emergency Management</td>
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</tr>
<tr>
<td>FEMP 5323</td>
<td>Leadership and Management for Fire and Emergency Management</td>
<td></td>
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<tr>
<td>FEMP 5333</td>
<td>Incident Command System</td>
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<tr>
<td>FEMP 6413</td>
<td>Seminar Risk Theory and Management</td>
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<tr>
<td>FEMP 5830</td>
<td>Special Topics Seminar in Fire Administration</td>
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<td>FEMP 6810</td>
<td>Advanced Special Topics Seminar in Fire Administration</td>
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<td></td>
<td>Electives</td>
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Select 6 hours from one of the following options: 6

Emergency Management Option
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<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>FEMP 5213</td>
<td>Disaster Response</td>
</tr>
<tr>
<td>FEMP 5223</td>
<td>Preparedness and Planning</td>
</tr>
<tr>
<td>FEMP 5233</td>
<td>Disaster Recovery</td>
</tr>
<tr>
<td>FEMP 5243</td>
<td>Mitigation</td>
</tr>
<tr>
<td>FEMP 5820</td>
<td>Special Topics Seminar in Emergency Management</td>
</tr>
<tr>
<td>FEMP 6820</td>
<td>Advanced Special Topics Seminar in Emergency Management</td>
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</tbody>
</table>

**Fire Administration Option**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>FEMP 5313</td>
<td>Political and Community Relations for Fire and Emergency Management</td>
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<tr>
<td>FEMP 5323</td>
<td>Leadership and Management for Fire and Emergency Management</td>
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<td>FEMP 5333</td>
<td>Incident Command System</td>
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<td>FEMP 6413</td>
<td>Seminar Risk Theory and Management</td>
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<td>FEMP 5830</td>
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<tr>
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<td>Advanced Special Topics Seminar in Fire Administration</td>
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**Hours Subtotal**: 6

**Electives**

Select 3 or more of these courses or any of the courses listed in this curriculum not already taken.

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>FEMP 5613</td>
<td>Complex Emergencies</td>
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<tr>
<td>FEMP 5623</td>
<td>Emergency Management in the International Setting</td>
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<td>FEMP 5633</td>
<td>Emergency Management and Public Policy in the United States</td>
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<td>FEMP 5643</td>
<td>Politics of Disaster</td>
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<td>FEMP 6023</td>
<td>Quantitative Methods for Fire and Emergency Management II</td>
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<td>FEMP 6103</td>
<td>Proseminar in Fire and Emergency Management</td>
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<td>FEMP 6303</td>
<td>Populations at Risk</td>
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<td>FEMP 6313</td>
<td>Comparative and International Dimensions of Emergency Management</td>
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<td>Organizational Behavior in Disasters</td>
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<td>FEMP 6850</td>
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<tr>
<td>POLS 5673</td>
<td>Understanding and Responding to Terrorism</td>
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**Hours Subtotal**: 9

**Practicum**

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<tr>
<td>FEMP 5903</td>
<td>Practicum in Fire and Emergency Management Administration</td>
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**Hours Subtotal**: 3

**Total Hours**: 33

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Food Science, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Thesis Option**

Total Hours: 30 Hours

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<tr>
<td>FDSC 4153</td>
<td>Advanced Food Microbiology</td>
<td>3</td>
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<td>FDSC 4763</td>
<td>Analysis of Food Products</td>
<td>3</td>
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<tr>
<td>FDSC 5000</td>
<td>Master’s Research and Thesis</td>
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<td>Food Science Seminar</td>
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<td>FDSC 5373</td>
<td>Advanced Food Chemistry</td>
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<td>STAT 5013</td>
<td>Statistics for Experimenters I</td>
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**Electives**

Select 11 hours from the following:

- FDSC 4123 Principles of Food Engineering
- FDSC 4243 Researching Consumer Food Preferences
- FDSC 4253 Pre-Harvest Food Safety
- FDSC 4333 Processed Meat
- FDSC 5102 Ethics and Professionalism in Animal and Food Science
- FDSC 5113 Quality Control II
- FDSC 5120 Special Topics in Food Science
- FDSC 5143 Food Safety Modernization Act
- FDSC 5213 Advances in Meat Science
- FDSC 5233 Food Safety Audit Schemes
- FDSC 5333 Carcass Value Estimation Systems
- FDSC 5393 Issues in Food Science
- FDSC 5553 Interpreting Animal and Food Science Research

**Hours Subtotal** 11

**Total Hours** 30

**Formal Report Option**

Total Hours: 32 Hours

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<thead>
<tr>
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<tbody>
<tr>
<td><strong>Degree Core</strong></td>
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<tr>
<td>FDSC 4153</td>
<td>Advanced Food Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>FDSC 4763</td>
<td>Analysis of Food Products</td>
<td>3</td>
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<tr>
<td>FDSC 5000</td>
<td>Master’s Research and Thesis</td>
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</tr>
<tr>
<td>FDSC 5300</td>
<td>Food Science Seminar (offered for fixed credit, 1 credit hour, maximum of 3 credit hours)</td>
<td>3</td>
</tr>
<tr>
<td>FDSC 5373</td>
<td>Advanced Food Chemistry</td>
<td>3</td>
</tr>
<tr>
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<td>Statistics for Experimenters I</td>
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**Electives**

Select 15 hours from the following:

- FDSC 4123 Principles of Food Engineering

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
## Forensic Sciences, MS

### Requirements for Students Matriculating in or before Academic Year 2019-2020

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 39 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>FRNS 5063</td>
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<tr>
<td>FRNS 5613</td>
<td>Criminalistics and Evidence Analysis</td>
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<tr>
<td>FRNS 5653</td>
<td>The Law and Expert Evidence</td>
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<td>FRNS 5963</td>
<td>Forensic Statistics</td>
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**Electives**

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<td>Thesis Research &amp; Seminar</td>
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<td>FRNS 5013</td>
<td>Survey of Forensic Sciences</td>
</tr>
<tr>
<td>FRNS 5023</td>
<td>Questioned Document Examination</td>
</tr>
<tr>
<td>FRNS 5033</td>
<td>Theory and Practice of Forensic Handwriting Examination</td>
</tr>
<tr>
<td>FRNS 5043</td>
<td>Technical Aspects of Forensic Document Examination</td>
</tr>
<tr>
<td>FRNS 5053</td>
<td>The Historical Aspects of Forensic Document Examination</td>
</tr>
<tr>
<td>FRNS 5073</td>
<td>Quality Assurance in Forensic Science</td>
</tr>
<tr>
<td>FRNS 5083</td>
<td>Ethics in Forensic Leadership</td>
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<tr>
<td>FRNS 5090</td>
<td>Internship in Forensic Sciences</td>
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<tr>
<td>FRNS 5213</td>
<td>Molecular Biology for the Forensic Scientist</td>
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<tr>
<td>FRNS 5242</td>
<td>Population Genetics for the Forensic Scientist</td>
</tr>
<tr>
<td>FRNS 5282</td>
<td>Methods in Forensic Sciences</td>
</tr>
<tr>
<td>FRNS 5323</td>
<td>Forensic Microbiology</td>
</tr>
<tr>
<td>FRNS 5413</td>
<td>Forensic Pathology and Medicine</td>
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<td>FRNS 5422</td>
<td>Forensic Osteology and Anthropology</td>
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<td>FRNS 5513</td>
<td>Forensic Bioscience</td>
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<td>FRNS 5523</td>
<td>Forensic Toxicology</td>
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<td>Drug Toxicity</td>
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<td>FRNS 5543</td>
<td>Advanced Forensic Toxicology</td>
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<td>Advanced Criminalistics</td>
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<td>FRNS 5723</td>
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<td>FRNS 5743</td>
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<td>FRNS 5753</td>
<td>Criminal Profiling</td>
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<td>FRNS 5943</td>
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<td>FRNS 5960</td>
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<td>FRNS 5980</td>
<td>Non-Thesis Creative Component in Forensic Sciences</td>
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**Total Hours** 39

### Other Forensic Sciences Requirements

- 16 Hours of Professional Seminar
- Comprehensive Exam
- Moot Court Expert Testimony Experience

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Graduate College Masters Degree Requirements

#### Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

#### Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Forensic Sciences: Arson, Explosives, Firearms and Toolmarks Investigation, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 39 Hours

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tr>
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<td>FRNS 5613</td>
<td>Criminalistics and Evidence Analysis</td>
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<td>FRNS 5653</td>
<td>The Law and Expert Evidence</td>
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<td>FRNS 5963</td>
<td>Forensic Statistics</td>
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<td>FRNS 5980</td>
<td>Non-Thesis Creative Component in Forensic Sciences</td>
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Hours Subtotal: 15

Electives
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<td>FRNS 5073</td>
<td>Quality Assurance in Forensic Science</td>
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<td>FRNS 5093</td>
<td>Scientific Writing and Presentation Skills</td>
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<td>FRNS 5103</td>
<td>The Chemistry of Pyrotechnics</td>
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<td>FRNS 5113</td>
<td>The Chemistry of Explosives</td>
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<td>FRNS 5123</td>
<td>Fire Dynamics in Forensic Investigations</td>
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<td>FRNS 5133</td>
<td>Ordnance Identification and Recognition</td>
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<td>FRNS 5143</td>
<td>Methods in Fire and Explosion Investigation NFPA 921/1033</td>
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<td>FRNS 5153</td>
<td>Explosives Research, Testing and Evaluation Methods</td>
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<td>FRNS 5163</td>
<td>Advanced Fire Dynamics</td>
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<td>FRNS 5173</td>
<td>Advanced Explosion Investigation</td>
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<td>Destructive Devices/Explosives: Law and Regulations</td>
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<td>Intelligence for Forensic Investigators</td>
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<td>FRNS 5803</td>
<td>Circuit Exploitation of Destructive Devices</td>
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<td>Building Construction and Fire/Explosion Forensic Examination</td>
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<td>Forensic Examination of Fire Protection Systems</td>
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<td>Identification of Destructive Device Fuzing Systems</td>
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<td>FRNS 5843</td>
<td>Advanced Destructive Device Circuit Exploitation</td>
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<td>FRNS 5853</td>
<td>Electrical Theory and Failure Analysis in Forensic Fire Investigations</td>
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</table>
Forensic Sciences: Forensic Document Examination, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 39 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
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<td>FRNS 5023</td>
<td>Questioned Document Examination</td>
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<td>FRNS 5980</td>
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**Hours Subtotal** 30

**Electives**

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<td>FRNS 5083</td>
<td>Ethics in Forensic Leadership</td>
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<td>Molecular Biology for the Forensic Scientist</td>
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<td>FRNS 5282</td>
<td>Methods in Forensic Sciences</td>
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<tr>
<td>FRNS 5323</td>
<td>Forensic Microbiology</td>
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<td>FRNS 5413</td>
<td>Forensic Pathology and Medicine</td>
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<td>FRNS 5422</td>
<td>Forensic Osteology and Anthropology</td>
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<td>FRNS 5513</td>
<td>Forensic Bioscience</td>
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<td>FRNS 5523</td>
<td>Forensic Toxicology</td>
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<td>FRNS 5533</td>
<td>Drug Toxicity</td>
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<td>FRNS 5543</td>
<td>Advanced Forensic Toxicology</td>
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<td>Advanced Criminalistics</td>
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<td>Forensic Psychology</td>
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<td>Advanced Forensic Psychology</td>
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<td>FRNS 5733</td>
<td>Forensic Victimology</td>
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<td>FRNS 5743</td>
<td>Seminar in Forensic Psychology</td>
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<td>Criminal Profiling</td>
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<td>Forensic Management and Organizational Development</td>
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<tr>
<td>FRNS 5960</td>
<td>Forensic Problem Solving through Applied Research</td>
</tr>
<tr>
<td>FRNS 5963</td>
<td>Forensic Statistics</td>
</tr>
<tr>
<td>FRNS 5970</td>
<td>Directed Readings in Forensic Sciences</td>
</tr>
</tbody>
</table>

**Special Topics in Forensic Sciences**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRNS 5990</td>
<td>Special Topics in Forensic Sciences</td>
<td>9</td>
</tr>
</tbody>
</table>

Total Hours 39

Additional Forensic Sciences: Forensic Document Examination Requirements

- 16 hours of Professional Seminar
- Comprehensive Exam

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
## Forensic Sciences: Forensic Science Administration, MS

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 39 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>FRNS 5013</td>
<td>Survey of Forensic Sciences</td>
<td>3</td>
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<tr>
<td>FRNS 5063</td>
<td>Ethical Research and Scientific Writing</td>
<td>3</td>
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<tr>
<td>FRNS 5073</td>
<td>Quality Assurance in Forensic Science</td>
<td>3</td>
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<tr>
<td>FRNS 5083</td>
<td>Ethics in Forensic Leadership</td>
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<tr>
<td>FRNS 5213</td>
<td>Molecular Biology for the Forensic Scientist</td>
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<tr>
<td>FRNS 5413</td>
<td>Forensic Pathology and Medicine</td>
<td>3</td>
</tr>
<tr>
<td>FRNS 5613</td>
<td>Criminalistics and Evidence Analysis</td>
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</tr>
<tr>
<td>FRNS 5653</td>
<td>The Law and Expert Evidence</td>
<td>3</td>
</tr>
<tr>
<td>FRNS 5943</td>
<td>Forensic Management and Organizational Development</td>
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<tr>
<td>FRNS 5980</td>
<td>Non-Thesis Creative Component in Forensic Sciences</td>
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<tr>
<td>HCA 5023</td>
<td>Human Resources in Health Care and Public Administration</td>
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**Hours Subtotal** 33

**Electives**
Select 6 hours from the following:

<table>
<thead>
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<tbody>
<tr>
<td>FRNS 5000</td>
<td>Thesis Research &amp; Seminar</td>
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<tr>
<td>FRNS 5023</td>
<td>Questioned Document Examination</td>
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<tr>
<td>FRNS 5033</td>
<td>Theory and Practice of Forensic Handwriting Examination</td>
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<tr>
<td>FRNS 5043</td>
<td>Technical Aspects of Forensic Document Examination</td>
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<td>FRNS 5053</td>
<td>The Historical Aspects of Forensic Document Examination</td>
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<tr>
<td>FRNS 5090</td>
<td>Internship in Forensic Sciences</td>
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<tr>
<td>FRNS 5242</td>
<td>Population Genetics for the Forensic Scientist</td>
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<td>FRNS 5282</td>
<td>Methods in Forensic Sciences</td>
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<td>FRNS 5323</td>
<td>Forensic Microbiology</td>
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<tr>
<td>FRNS 5422</td>
<td>Forensic Osteology and Anthropology</td>
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<tr>
<td>FRNS 5513</td>
<td>Forensic Bioscience</td>
</tr>
<tr>
<td>FRNS 5523</td>
<td>Forensic Toxicology</td>
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<tr>
<td>FRNS 5533</td>
<td>Drug Toxicity</td>
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<td>FRNS 5543</td>
<td>Advanced Forensic Toxicology</td>
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<td>FRNS 5713</td>
<td>Forensic Psychology</td>
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<td>FRNS 5723</td>
<td>Advanced Forensic Psychology</td>
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<tr>
<td>FRNS 5733</td>
<td>Forensic Victimology</td>
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<tr>
<td>FRNS 5743</td>
<td>Seminar in Forensic Psychology</td>
</tr>
<tr>
<td>FRNS 5753</td>
<td>Criminal Profiling</td>
</tr>
<tr>
<td>FRNS 5960</td>
<td>Forensic Problem Solving through Applied Research</td>
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</table>

<table>
<thead>
<tr>
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<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>FRNS 5963</td>
<td>Forensic Statistics</td>
<td>6</td>
</tr>
<tr>
<td>FRNS 5970</td>
<td>Directed Readings in Forensic Sciences</td>
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</tr>
<tr>
<td>FRNS 5990</td>
<td>Special Topics in Forensic Sciences</td>
<td></td>
</tr>
</tbody>
</table>

**Hours Subtotal** 6

**Total Hours** 39

### Additional Forensic Sciences: Forensic Science Administration Requirements
- 16 Hours of Professional Seminar
- Comprehensive Exam

### General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Graduate College Masters Degree Requirements

#### Plan I (coursework with thesis)
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

#### Plan II (coursework without thesis)
- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
General Agriculture: Agribusiness, MAG

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Formal Report Option
Total Hours: 32 Hours

<table>
<thead>
<tr>
<th>Code</th>
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<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
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</tr>
<tr>
<td></td>
<td>Select a minimum of 12 hours in Agricultural Economics not including AGEC 5000 or AGEC 5010:</td>
<td>12</td>
</tr>
<tr>
<td>AGEC 5423</td>
<td>Agribusiness Management</td>
<td></td>
</tr>
<tr>
<td>or AGEC 4403</td>
<td>Advanced Farm and Ranch Management</td>
<td></td>
</tr>
<tr>
<td>AGEC 5603</td>
<td>Advanced Agricultural Finance</td>
<td></td>
</tr>
<tr>
<td>MGMT 5113</td>
<td>Management and Organization Theory</td>
<td></td>
</tr>
<tr>
<td>STAT 4043</td>
<td>Applied Regression Analysis</td>
<td></td>
</tr>
<tr>
<td>ECON 5113</td>
<td>Managerial Economics</td>
<td></td>
</tr>
<tr>
<td>or AGEC 5103</td>
<td>Mathematical Economics</td>
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</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
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<tr>
<td></td>
<td>Select 20 hours of electives.</td>
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<td>20</td>
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<td></td>
<td>Total Hours</td>
<td>32</td>
</tr>
</tbody>
</table>

1 Students with no background in accounting should take ACCT 5103. Students with strong skills in mathematics and statistics should take STAT 4043 in the fall instead of STAT 5013 and then take AGEC 5213 in the spring. The comprehensive final examination may be administered after the student has completed one year in the program.

2 Students who have had calculus should take AGEC 5103 instead of ECON 5113. Students with no upper-division training in microeconomics should take ECON 3113 before taking ECON 5113.

Creative Component Option
Total Hours: 36 Hours

<table>
<thead>
<tr>
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<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
<td></td>
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<tr>
<td></td>
<td>Select a minimum of 12 hours in Agricultural Economics not including AGEC 5000 or AGEC 5010:</td>
<td>12</td>
</tr>
<tr>
<td>AGEC 5423</td>
<td>Agribusiness Management</td>
<td></td>
</tr>
<tr>
<td>or AGEC 4403</td>
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<td></td>
</tr>
<tr>
<td>AGEC 5603</td>
<td>Advanced Agricultural Finance</td>
<td></td>
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<td>MGMT 5113</td>
<td>Management and Organization Theory</td>
<td></td>
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<tr>
<td>STAT 4043</td>
<td>Applied Regression Analysis</td>
<td></td>
</tr>
<tr>
<td>ECON 5113</td>
<td>Managerial Economics</td>
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<tr>
<td>or AGEC 5103</td>
<td>Mathematical Economics</td>
<td></td>
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<td></td>
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<td></td>
<td>Electives</td>
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<tr>
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<td>24</td>
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</table>

1 Students with no background in accounting should take ACCT 5103. Students with strong skills in mathematics and statistics should take STAT 4043 in the fall instead of STAT 5013 and then take AGEC 5213 in the spring. The comprehensive final examination may be administered after the student has completed one year in the program.

2 Students who have had calculus should take AGEC 5103 instead of ECON 5113. Students with no upper-division training in microeconomics should take ECON 3113 before taking ECON 5113.

Professional Internship Option
Total Hours: 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select a minimum of 12 hours in Agricultural Economics not including AGEC 5000 or AGEC 5010:</td>
<td>12</td>
</tr>
<tr>
<td>AGEC 5423</td>
<td>Agribusiness Management</td>
<td></td>
</tr>
<tr>
<td>or AGEC 4403</td>
<td>Advanced Farm and Ranch Management</td>
<td></td>
</tr>
<tr>
<td>AGEC 5603</td>
<td>Advanced Agricultural Finance</td>
<td></td>
</tr>
<tr>
<td>MGMT 5113</td>
<td>Management and Organization Theory</td>
<td></td>
</tr>
<tr>
<td>STAT 4043</td>
<td>Applied Regression Analysis</td>
<td></td>
</tr>
<tr>
<td>ECON 5113</td>
<td>Managerial Economics</td>
<td></td>
</tr>
<tr>
<td>or AGEC 5103</td>
<td>Mathematical Economics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
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<tr>
<td></td>
<td>Electives</td>
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<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Professional Internship</td>
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<td>AGEC 5010</td>
<td>Professional Experience in Agricultural Economics or Agribusiness</td>
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<tr>
<td></td>
<td>Hours Subtotal</td>
<td>6</td>
</tr>
</tbody>
</table>

1 Students with no background in accounting should take ACCT 5103. Students with strong skills in mathematics and statistics should take STAT 4043 in the fall instead of STAT 5013 and then take AGEC 5213 in the spring. The comprehensive final examination may be administered after the student has completed one year in the program.

2 Students who have had calculus should take AGEC 5103 instead of ECON 5113. Students with no upper-division training in microeconomics should take ECON 3113 before taking ECON 5113.

General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
General Agriculture: Agricultural Leadership, MAG

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 32 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
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<tr>
<td>AGED 5101</td>
<td>Leadership</td>
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<tr>
<td>AGLE 5303</td>
<td>Foundations of Leadership Theory</td>
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<td>AGLE 5353</td>
<td>Leadership in Agriculture</td>
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<td>AGLE 6203</td>
<td>Extension Program Development</td>
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<td>Hours Subtotal</td>
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| Electives                                      |       |
| Select 6 hours of AGED, AGLE or AGCM electives | 6     |
| Hours Subtotal                                 | 6     |

| Electives/Area of Emphasis                     |       |
| Select 16 hours                                | 16    |
| Hours Subtotal                                 | 16    |
| Total Hours                                    | 32    |

1 Area of emphasis to be developed with student’s committee.

Degree Requirement

- Totals must include a minimum of 21 hours of 5000 or higher credit and a maximum of 9 transfer credit hours.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
# Geography, MS

## Requirements for Students Matriculating in or before Academic Year 2019-2020

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 30 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>GEOG 5001</td>
<td>Professional Development in Geography</td>
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<tr>
<td>GEOG 5303</td>
<td>Geographic Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 5403</td>
<td>Current Geographic Research</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 5413</td>
<td>History and Philosophy of Geography</td>
<td>3</td>
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</table>

**Hours Subtotal:** 10

### Required Seminars

#### Group I Seminar (Human)

Select 3 hours from the following:

- GEOG 5140 Seminar in Cultural Geography
- GEOG 5150 Geography of Sport, Recreation and Leisure Seminar
- GEOG 5443 Sustainable Tourism and Geography
- GEOG 6110 Seminar in Cultural and Political Ecology
- GEOG 6120 Seminar in Urban Geography
- GEOG 6130 Seminar in Political Geography
- GEOG 6180 Seminar in Transportation Geography
- GEOG 6210 Seminar in Historical Geography

**Hours Subtotal:** 6

### Electives

Select 8 hours

**Hours Subtotal:** 8

### Thesis Hours

GEOG 5000 Thesis

**Hours Subtotal:** 6

**Total Hours:** 30

---

1 GEG 6110 cannot satisfy both Group I and Group II requirements simultaneously.

## General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

## Additional Graduate College Masters Degree Requirements

### Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

### Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
**Geology, MS**

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Thesis Option**

Total Hours: 30 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>GEOL 5243</td>
<td>Research Methods and Techniques in Geosciences</td>
<td>3</td>
</tr>
</tbody>
</table>

Select 21 hours of the following courses. Not to exceed 8 hours of GEOL 5990 "Advanced Studies in Geology" Maximum 9 hours can be transferred with "B" or better. Courses from other academic units can be taken with approval of MS student Research Committee. All courses are 3 hours.

- GEOL 5093 Quaternary Geology and Geochronology
- GEOL 5183 Paleontology of Depositional Sequences
- GEOL 5223 Advanced Methods in Structural Geology
- GEOL 5203
- GEOL 5213 Seismic Interpretation
- GEOL 5243 Research Methods and Techniques in Geosciences
- GEOL 5273 Depositional Systems
- GEOL 5283 Subsurface Geologic Methods
- GEOL 5353 Advanced Well Log Analysis
- GEOL 5363 Carbonate Depositional Systems
- GEOL 5383 Sequence Stratigraphy
- GEOL 5433 Isotope Geochemistry
- GEOL 5443
- GEOL 5453 Groundwater Modeling
- GEOL 5463 Physical Hydrogeology
- GEOL 5483 Integrated Petroleum Water Resources Management
- GEOL 5513 Marine Geology
- GEOL 5533 Organic Geochemistry
- GEOL 5543 Introduction to Exploration Seismology
- GEOL 5553
- GEOL 5573 Marine Biogeochemical Cycles
- GEOL 5603 Basin Evolution
- GEOL 5633 Exploration Prospect Evaluation
- GEOL 5753 Volcanology
- GEOL 5773 Planetary Geology
- GEOL 5990 Advanced Studies in Geology
- GEOL 5990 Plate Tectonics
- GEOL 5990 Spectral Signal Processing
- GEOL 5990 Seismic Data Processing
- GEOL 6103 Gravity and Magnetic Methods
- GEOL 6133 Unconventional Petroleum Reservoirs
- GEOL 6283 Geology of Shales
- GEOL 6303 Electrical and Electromagnetic Methods
- GEOL 6363 Carbonate Reservoir Characterization
- GEOL 6386 Sequence Stratigraphy of Shales

**Non-Thesis Option**

Total Hours: 33 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 5990</td>
<td>Advanced Studies in Geology</td>
<td>3</td>
</tr>
</tbody>
</table>

Select 30 hours of the following courses. Maximum 9 hours can be transferred. All courses are 3 hours.

- GEOL 5093 Quaternary Geology and Geochronology
- GEOL 5183 Paleontology of Depositional Sequences
- GEOL 5223 Advanced Methods in Structural Geology
- GEOL 5203
- GEOL 5213 Seismic Interpretation
- GEOL 5243 Research Methods and Techniques in Geosciences
- GEOL 5273 Depositional Systems
- GEOL 5283 Subsurface Geologic Methods
- GEOL 5353 Advanced Well Log Analysis
- GEOL 5363 Carbonate Depositional Systems
- GEOL 5383 Sequence Stratigraphy
- GEOL 5433 Isotope Geochemistry
- GEOL 5443
- GEOL 5453 Groundwater Modeling
- GEOL 5463 Physical Hydrogeology
- GEOL 5483 Integrated Petroleum Water Resources Management
- GEOL 5513 Marine Geology
- GEOL 5533 Organic Geochemistry
- GEOL 5543 Introduction to Exploration Seismology
- GEOL 5553
- GEOL 5573 Marine Biogeochemical Cycles
- GEOL 5603 Basin Evolution
- GEOL 5633 Exploration Prospect Evaluation
- GEOL 5753 Volcanology
- GEOL 5773 Planetary Geology
- GEOL 5990 Plate Tectonics
- GEOL 5990 Spectral Signal Processing
- GEOL 5990 Seismic Data Processing
- GEOL 6103 Gravity and Magnetic Methods
- GEOL 6133 Unconventional Petroleum Reservoirs
- GEOL 6283 Geology of Shales
- GEOL 6303 Electrical and Electromagnetic Methods
- GEOL 6363 Carbonate Reservoir Characterization
- GEOL 6386 Sequence Stratigraphy of Shales
**GEOL 6403 Biogeophysics**

<table>
<thead>
<tr>
<th>Hours Subtotal</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Total Hours</td>
<td>33</td>
</tr>
</tbody>
</table>

**General Graduate College Requirements**
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**
- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Global Health, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 32 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>HCA 5103</td>
<td>Introduction to Global Health</td>
<td>3</td>
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<tr>
<td>HCA 5143</td>
<td>Relief and Development in Global Health</td>
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</tr>
<tr>
<td>HCA 5153</td>
<td>International Health Systems</td>
<td>3</td>
</tr>
<tr>
<td>HCA 5173</td>
<td>Emerging Global Infectious Diseases</td>
<td>3</td>
</tr>
<tr>
<td>HCA 5183</td>
<td>Global Environmental and Occupational Health</td>
<td>3</td>
</tr>
<tr>
<td>HCA 5193</td>
<td>Health Aspects of Disasters</td>
<td>3</td>
</tr>
<tr>
<td>HCA 5273</td>
<td>Understanding Global Burden of Diseases</td>
<td>3</td>
</tr>
<tr>
<td>HCA 5020</td>
<td>Seminar in Global Health</td>
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<tr>
<td>HCA 5030</td>
<td>Problems and Issues in Global Health</td>
<td>3</td>
</tr>
<tr>
<td>HCA 5123</td>
<td>Survey of Research and Evaluation in Health Care</td>
<td>3</td>
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<tr>
<td>HCA 5052</td>
<td>Directed Readings in Health Care Administration</td>
<td>2</td>
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Hours Subtotal 32

Total Hours 32

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Global Studies, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 33 Hours

<table>
<thead>
<tr>
<th>Code</th>
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<th>Hours</th>
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<tr>
<td>GS 5013</td>
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<td>3</td>
</tr>
<tr>
<td>GS 5233</td>
<td>Global Competitive Environment</td>
<td>3</td>
</tr>
<tr>
<td>GS 5313</td>
<td>Global Communication and Public Diplomacy</td>
<td>3</td>
</tr>
<tr>
<td>GS 5413</td>
<td>Global Development</td>
<td>3</td>
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<tr>
<td>GS 5513</td>
<td>Global Crisis Management</td>
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</tbody>
</table>

Research Hours
GS 5133  Research Design and Methods for Global Studies  3

Hours Subtotal  18

Focus Area Requirements
Select 9 focus area hours  9
Select 6 Thesis hours  6

Hours Subtotal  15

Total Hours  33

Non-Thesis Option
Total Hours: 33 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS 5013</td>
<td>Contemporary Issues in Global Studies</td>
<td>3</td>
</tr>
<tr>
<td>GS 5233</td>
<td>Global Competitive Environment</td>
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<tr>
<td>GS 5413</td>
<td>Global Development</td>
<td>3</td>
</tr>
<tr>
<td>GS 5513</td>
<td>Global Crisis Management</td>
<td>3</td>
</tr>
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</table>

Research Hours
GS 5133  Research Design and Methods for Global Studies  3

Hours Subtotal  18

Focus Area Requirements
Select 12 focus area hours  12
Select 3 Creative Component hours  3

Hours Subtotal  15

Total Hours  33

General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)
- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
# Graphic Design, MFA

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 60 Hours

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td><strong>Core Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students are required to take three core graduate level studio courses—Graphic Design Studio; Motion Design Studio; and Interaction Design Studio—three times for a total of 27 credit hours. Faculty will provide students with different design projects for each time they take a Studio. Three (3) additional Studio credits may be taken depending on the student's Plan of Study (POS).</td>
<td>27</td>
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</tr>
<tr>
<td>ART 5420</td>
<td>Graduate Graphic Design Studio</td>
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<tr>
<td>ART 5450</td>
<td>Graduate Motion Design Studio</td>
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<tr>
<td>ART 5460</td>
<td>Graduate Interaction Design Studio</td>
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<tr>
<td><strong>Hours Subtotal</strong></td>
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<tr>
<td><strong>Graphic Design History</strong></td>
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<tr>
<td>ART 5423</td>
<td>Graduate Study in Graphic Design History</td>
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<tr>
<td><strong>Graphic Design Seminar</strong></td>
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<tr>
<td>ART 5440</td>
<td>Graduate Special Topics in Graphic Design</td>
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<tr>
<td><strong>Teaching Practicum</strong></td>
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<tr>
<td>ART 5413</td>
<td>Graduate Teaching Practicum in Graphic Design</td>
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<tr>
<td><strong>Thesis</strong></td>
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<tr>
<td>ART 5400</td>
<td>Graduate Study: Graphic Design Thesis (offered for variable credit, 1-3 credit hours, maximum of 9 credit hours)</td>
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<tr>
<td><strong>Art History</strong></td>
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<tr>
<td>Students will choose among the many graduate-level classes that are available in the Department of Art, Graphic Design and Art History, including Art 5920, Art History Seminar, Art 5613, Art Since 1960, Art 5833, History of Chinese Art, Art 5763, etc.</td>
<td></td>
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</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
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<td>18</td>
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<tr>
<td><strong>Electives</strong></td>
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<tr>
<td>Elective courses may include the following depending on the student's Plan of Study:</td>
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<tr>
<td>Three (3) to six (6) credit hours of Graduate Level Courses: in Department of Art, Graphic Design and Art History; College of Education; Department of Design, Housing and Merchandising; Department of Computer Science</td>
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</tr>
<tr>
<td>Three (3) to six (6) credit hours of Graphic Design internship</td>
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</tr>
<tr>
<td>ART 5410</td>
<td>Graduate Graphic Design Internship</td>
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<tr>
<td>Additional three (3) credit hours in Graduate Studio Class (Graphic Design, Motion Design and Interaction Design)</td>
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<td></td>
</tr>
<tr>
<td>ART 5420</td>
<td>Graduate Graphic Design Studio</td>
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</tr>
<tr>
<td>ART 5460</td>
<td>Graduate Interaction Design Studio</td>
<td></td>
</tr>
<tr>
<td>Three (3) hours of thesis or Studio credits</td>
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<tr>
<td><strong>Hours Subtotal</strong></td>
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<td><strong>Total Hours</strong></td>
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**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Health and Human Performance: Applied Exercise Science, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 36 Hours

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>LEIS 5023</td>
<td>Legal Aspects of Health, Physical Education and Leisure Services</td>
<td>3</td>
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<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
<td>3</td>
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<tr>
<td>REMS 5013 or HHP 5053</td>
<td>Research Design and Methodology</td>
<td>3</td>
</tr>
<tr>
<td>HHP 5523</td>
<td>Current Readings in Health</td>
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**Core Courses**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
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<td>Research Design and Methodology</td>
<td>3</td>
</tr>
<tr>
<td>HHP 5523</td>
<td>Current Readings in Health</td>
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**Hours Subtotal**

Total Hours: 12

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<tr>
<td>HHP 5853</td>
<td>Clin Ex Test &amp; Prescript</td>
<td>3</td>
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<tr>
<td>HHP 5873</td>
<td>Human Bioenergetics</td>
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**Required Courses**

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<tr>
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<tr>
<td>HHP 5853</td>
<td>Clin Ex Test &amp; Prescript</td>
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</tr>
<tr>
<td>HHP 5873</td>
<td>Human Bioenergetics</td>
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**Hours Subtotal**

Total Hours: 6

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<td>Clin Ex Test &amp; Prescript</td>
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<tr>
<td>HHP 5873</td>
<td>Human Bioenergetics</td>
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**Departmental Electives**

Select 12 hours from the following:

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<tr>
<td>HHP 5113</td>
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<tr>
<td>HHP 5733</td>
<td>Motor Learning</td>
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<tr>
<td>NCSI 5133</td>
<td>Advanced Nutrition for Exercise and Sport</td>
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<td>NSCI 5333</td>
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<tr>
<td>ZOOL 4215</td>
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<tr>
<td>HHP 5843</td>
<td>Quantitative Biomechanics and Kinesiology</td>
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**Hours Subtotal**

Total Hours: 12

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<tr>
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**Creative Component**

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<td>Field Problems in Health and Human Performance</td>
<td>3</td>
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</table>

**Total Hours**

Total Hours: 33

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
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**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Health and Human Performance: Health Promotions, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Thesis Option**

Total Hours: 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>LEIS 5023</td>
<td>Legal Aspects of Health, Physical Education and Leisure Services</td>
<td>3</td>
</tr>
<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
<td>3</td>
</tr>
<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology or HHP 5053</td>
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</tr>
<tr>
<td>HHP 5523</td>
<td>Current Readings in Health</td>
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**Hours Subtotal** 12

**Required Courses**

- HHP 5663 3
- HHP 5683 3
- HHP 5973 3
- HHP 5983 3

**Hours Subtotal** 12

**Departmental Electives**

Select 9 hours of the following:

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<tr>
<td>HHP 5453</td>
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<tr>
<td>HHP 5853</td>
<td>Clin Ex Test &amp; Prescript</td>
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<tr>
<td>HHP 5873</td>
<td>Human Bioenergetics</td>
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<td>HHP 5073</td>
<td>Psychological Aspects of Sport</td>
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**Hours Subtotal** 9

**Non-Thesis**

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</thead>
<tbody>
<tr>
<td>HHP 5000</td>
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</table>

**Hours Subtotal** 3

**Total Hours** 36

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
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**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
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    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Health and Human Performance: Physical Education, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option

Total Hours: 36 Hours

<table>
<thead>
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<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>LEIS 5023</td>
<td>Legal Aspects of Health, Physical Education and Leisure Services</td>
<td>3</td>
</tr>
<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
<td>3</td>
</tr>
<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
<td>3</td>
</tr>
<tr>
<td>or HHP 5053</td>
<td>Research Design in Leisure, Health and Human Performance</td>
<td></td>
</tr>
<tr>
<td>HHP 5523</td>
<td>Current Readings in Health</td>
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<td>HHP 5723</td>
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<td>HHP 5883</td>
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Departmental Electives

Select 12 hours of the following:

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<tbody>
<tr>
<td>HHP 5073</td>
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</tr>
<tr>
<td>HHP 5733</td>
<td>Motor Learning</td>
</tr>
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<td>HHP 5763</td>
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<td>HHP 5833</td>
<td></td>
</tr>
<tr>
<td>HHP 5873</td>
<td>Human Bioenergetics</td>
</tr>
<tr>
<td>CIED 5043</td>
<td>Issues in Teaching</td>
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<tr>
<td>EPSY 5663</td>
<td>Creativity for Teachers</td>
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Non-Thesis

<table>
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<tr>
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<tbody>
<tr>
<td>HHP 5030</td>
<td>Field Problems in Health and Human Performance</td>
</tr>
<tr>
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</tbody>
</table>

Total Hours: 36

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
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Additional Graduate College Masters Degree Requirements

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- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Health Care Administration, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 32 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>HCA 5013</td>
<td>Survey of Health Care Administration</td>
<td>3</td>
</tr>
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<td>HCA 5033</td>
<td>Legal Issues in Health Care Administration</td>
<td>3</td>
</tr>
<tr>
<td>HCA 5093</td>
<td>Leadership Methods and Styles in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HCA 5123</td>
<td>Survey of Research and Evaluation in Health Care</td>
<td>3</td>
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Hours Subtotal: 12

Optional Electives

Select 20 hours from the following:

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>HCA 5010</td>
<td>Special Topics in Health Care Administration (Clinical Operations Internship)</td>
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<tr>
<td>HCA 5010</td>
<td>Special Topics in Health Care Administration</td>
</tr>
<tr>
<td>HCA 5023</td>
<td>Human Resources in Health Care and Public Administration</td>
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<tr>
<td>HCA 5043</td>
<td>Organizational Leadership and Development in Health Care</td>
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<tr>
<td>HCA 5063</td>
<td>Health Care Compliance</td>
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<tr>
<td>HCA 5052</td>
<td>Directed Readings in Health Care Administration</td>
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<tr>
<td>HCA 5083</td>
<td>The Financial Structure of Health Care Organizations</td>
</tr>
<tr>
<td>HCA 5103</td>
<td>Introduction to Global Health</td>
</tr>
<tr>
<td>HCA 5113</td>
<td>Entrepreneurship and the Health Sciences</td>
</tr>
<tr>
<td>HCA 5133</td>
<td>Health Care Informatics</td>
</tr>
<tr>
<td>HCA 5143</td>
<td>Relief and Development in Global Health</td>
</tr>
<tr>
<td>HCA 5153</td>
<td>International Health Systems</td>
</tr>
<tr>
<td>HCA 5163</td>
<td>Healthcare Accounting and Auditing</td>
</tr>
<tr>
<td>HCA 5173</td>
<td>Emerging Global Infectious Diseases</td>
</tr>
<tr>
<td>HCA 5193</td>
<td>Health Aspects of Disasters</td>
</tr>
<tr>
<td>HCA 5213</td>
<td>Advanced Cases in Healthcare Finance</td>
</tr>
<tr>
<td>HCA 5223</td>
<td>Ethics in Healthcare</td>
</tr>
<tr>
<td>HCA 5233</td>
<td>Advanced Leadership Methods and Styles in Healthcare</td>
</tr>
<tr>
<td>HCA 5263</td>
<td>Patient Safety, Quality Measurement &amp; Improvement</td>
</tr>
<tr>
<td>HCA 5990</td>
<td>Internship in Health Care Administration</td>
</tr>
</tbody>
</table>

Hours Subtotal: 20

Total Hours: 32

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
## History, MA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Plan I

**Total Hours:** 30 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td><strong>Required Courses</strong></td>
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</tr>
<tr>
<td>Select 12 hours in a major field.</td>
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</tr>
<tr>
<td>Select 9 hours from a minor field.</td>
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<tr>
<td><strong>Methods</strong></td>
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<tr>
<td>HIST 5023 Historical Methods</td>
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<tr>
<td>HIST 5000 Thesis</td>
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<tr>
<td><strong>Hours Subtotal</strong></td>
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### Plan II: Public History

**Total Hours:** 36 Hours

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<tr>
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<tbody>
<tr>
<td><strong>Required Courses</strong></td>
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<tr>
<td>HIST 5053 Museum Studies or HIST 5063 Historic Preservation</td>
<td>3</td>
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<tr>
<td>Select minimum of 9 hours of Seminar courses</td>
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<tr>
<td>Select courses per Plan of Study to complete degree requirements.</td>
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<td><strong>Hours Subtotal</strong></td>
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<tr>
<td><strong>Thesis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIST 5000 Thesis</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
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<td><strong>Total Hours</strong></td>
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### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level
Horticulture, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 30 Hours

<table>
<thead>
<tr>
<th>Code</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>Courses</td>
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<tr>
<td>HORT 5020</td>
<td>Graduate Seminar</td>
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<tr>
<td></td>
<td>Select 3 hours of STAT at 5000-level or above</td>
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<td>Select a minimum of 16 hours of additional HORT or related field (Plant Science, Soil Science, Plant Biology, or NREM)</td>
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<td>Select 4 hours of HORT or related field</td>
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<td><strong>Hours Subtotal</strong></td>
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<tr>
<td>Thesis</td>
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<tr>
<td>HORT 5000</td>
<td>Master's Research and Thesis</td>
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<td></td>
<td><strong>Hours Subtotal</strong></td>
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<tr>
<td></td>
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Formal Report Option
Total Hours: 36 Hours

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<tbody>
<tr>
<td>Courses</td>
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<tr>
<td></td>
<td>Select 28-34 hours (depending on whether 2 or 8 hours is taken in HORT 5110):</td>
<td>28-34</td>
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<tr>
<td></td>
<td>3 hours of STAT in Undergraduate or Graduate transcript.</td>
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</tr>
<tr>
<td></td>
<td>HORT 5020 (1 Hour)</td>
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<tr>
<td></td>
<td>Select minimum of 16 hours of additional HORT or related field</td>
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<tr>
<td></td>
<td>Select 8 to 14 hours from HORT or related field.</td>
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<td></td>
<td><strong>Hours Subtotal</strong></td>
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<tr>
<td>Thesis</td>
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<tr>
<td>HORT 5110</td>
<td>Advanced Horticultural Problems</td>
<td>2-8</td>
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<td></td>
<td><strong>Hours Subtotal</strong></td>
<td><strong>2-8</strong></td>
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<td><strong>Total Hours</strong></td>
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General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements
Plan I (coursework with thesis)
## Hospitality and Tourism Management, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Thesis Option

**Total Hours:** 32 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>Required Courses</td>
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<tr>
<td>HTM 5112</td>
<td>Hospitality and Tourism Graduate Education and Research</td>
<td>2</td>
</tr>
<tr>
<td>HTM 5413</td>
<td>Hospitality Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>or HTM 5323</td>
<td>Hospitality and Tourism Financial Management</td>
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</tr>
<tr>
<td>or HTM 5423</td>
<td>Hospitality and Tourism Marketing Management</td>
<td></td>
</tr>
<tr>
<td>HTM 5513</td>
<td>Hospitality Strategic Management</td>
<td>3</td>
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<tr>
<td>HTM 5813</td>
<td>Research Methods in Hospitality and Tourism Administration</td>
<td>3</td>
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<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
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<tr>
<td>or STAT 5013</td>
<td>Statistics for Experimenters I</td>
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<tr>
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<td>14</td>
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<tr>
<td>Select 12 hours, 6 of which need to be HTM</td>
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<tr>
<td><strong>Hospitality and Tourism Management</strong></td>
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<tr>
<td>HTM 5243</td>
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<tr>
<td>HTM 5313</td>
<td>Hospitality and Tourism Information Technology</td>
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</tr>
<tr>
<td>HTM 5613</td>
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<tr>
<td>HTM 5680</td>
<td>Seminar in Food Service Management</td>
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<tr>
<td>HTM 5780</td>
<td>Seminar in Lodging Management</td>
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<tr>
<td>HTM 5813</td>
<td>Research Methods in Hospitality and Tourism Administration</td>
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<td>HTM 5850</td>
<td>Special Topics in the Hospitality Industry</td>
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<tr>
<td>(Recommended Outside Elective Courses)</td>
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<tr>
<td><strong>Accounting and Finance</strong></td>
<td></td>
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</tr>
<tr>
<td>ACCT 4503</td>
<td>Auditing and Assurance Services *</td>
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</tr>
<tr>
<td>ACCT 5103</td>
<td>Seminar in Contemporary Accounting Theory I</td>
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</tr>
<tr>
<td>ACCT 5123</td>
<td>Enterprise Resource Planning</td>
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</tr>
<tr>
<td>ACCT 5183</td>
<td>MBA Financial Reporting</td>
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<td>ACCT 5233</td>
<td>Valuation and Advanced Cost Management</td>
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<td>ACCT 5283</td>
<td>MBA Managerial Accounting</td>
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<td>ACCT 5603</td>
<td>Accounting-based Information Systems</td>
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<tr>
<td><strong>Entrepreneurship</strong></td>
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<tr>
<td>EEE 5223</td>
<td>Entrepreneurial Marketing</td>
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<tr>
<td>EEE 5263</td>
<td>Corporate Entrepreneurship</td>
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<tr>
<td>EEE 5313</td>
<td>Emerging Enterprise Consulting</td>
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<td>EEE 5663</td>
<td>Imagination in Entrepreneurship</td>
<td></td>
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<tr>
<td><strong>Human Resources</strong></td>
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<tr>
<td>HRAE 5433</td>
<td>Human Resource Development</td>
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<td>HTM 5000</td>
<td>Master’s Thesis</td>
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### Non-Thesis Option

**Total Hours:** 32 Hours

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</tr>
<tr>
<td>HTM 5112</td>
<td>Hospitality and Tourism Graduate Education and Research</td>
<td>2</td>
</tr>
<tr>
<td>HTM 5323</td>
<td>Hospitality and Tourism Financial Management</td>
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<tr>
<td>HTM 5413</td>
<td>Hospitality Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>HTM 5513</td>
<td>Hospitality Strategic Management</td>
<td>3</td>
</tr>
<tr>
<td>HTM 5513</td>
<td>Hospitality Strategic Management</td>
<td>3</td>
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<tr>
<td>BADM 5513</td>
<td>Fundamentals of Business Analytics</td>
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</tr>
<tr>
<td>HTM 5423</td>
<td>Hospitality and Tourism Marketing Management</td>
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<td>Select 15 hours, 9 of which must be HTM.</td>
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<td>15</td>
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<tr>
<td>HTM 5243</td>
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</tr>
<tr>
<td>HTM 5313</td>
<td>Hospitality and Tourism Information Technology</td>
<td></td>
</tr>
</tbody>
</table>
HTM 5613  Seminar in Food Service Management
HTM 5680  Seminar in Lodging Management
HTM 5780  Research Methods in Hospitality and Tourism Administration
HTM 5850  Special Topics in the Hospitality Industry

(Recommended Outside Elective Courses)

Accounting and Finance
ACCT 4503  Auditing and Assurance Services *
ACCT 5103  Seminar in Contemporary Accounting Theory I
ACCT 5123  Enterprise Resource Planning
ACCT 5183  MBA Financial Reporting
ACCT 5233  Valuation and Advanced Cost Management
ACCT 5283  MBA Managerial Accounting
ACCT 5603  Accounting-based Information Systems

Entrepreneurship
EEE 5223  Entrepreneurial Marketing
EEE 5263  Corporate Entrepreneurship
EEE 5313  Emerging Enterprise Consulting
EEE 5663  Imagination in Entrepreneurship

Human Resources
HRAE 5433
HRAE 5533  Human Resource Development
HRAE 6533

Management
MGMT 4083  Corporate and Social Responsibility *
MGMT 5113  Management and Organization Theory
MGMT 5123  Contemporary Management Topics
MGMT 5223  Seminar in Human Resource Management
MGMT 5313  Project Management
MGMT 5533  Leadership Challenges

Marketing
MKTG 5133  Marketing Management
MKTG 5213  Services Marketing
MKTG 5223  Entrepreneurial Marketing
MKTG 5553  International Marketing Strategy
MKTG 5613  Seminar in Consumer Behavior

Information and Technology
MSIS 4363  Advanced Application Development *
MSIS 4373  Advanced Topics in Management Information Systems *
MSIS 4523  Data Communication Systems *
MSIS 5133  Advanced Web Based Application Development
MSIS 5623  Information and Network Technology Management
MSIS 5633  Predictive Analytics Technologies

Hospitality and Tourism Management Requirements

- 50% of coursework must be in Hospitality and Tourism Management (HTM).
- No fewer than 27 semester hours of 5000-level courses.
- A student can only take a maximum of 3 credit hours of independent study (HTM 5870).
- All coursework must be approved by the committee.
- A Hospitality Internship is required of all students (can be waived with appropriate industry experience by graduate admission committee).
- Students may transfer a maximum of nine graduate credit hours with a grade of "B" or better to OSU with the approval of their advisory committee and the Dean of the Graduate College.
- All requirements must be completed within 7 years. No course on plan of study may be more than 10 years old at the time of graduation.
- None of the leveling credit hours can be included in the plan of study.
- If students take a HTM 4000-level course with a * as part of the plan of study, students must fill out a contract with the instructor for extra assignments.
- If students take a HTM 4000-level course with a * as the leveling requirement, students do not need to fill out a contract with the instructor for extra assignments.
- Students entering the MS degree program must have a BS/BA degree in hospitality and tourism management or a related field and relevant work experience. Prerequisite courses will be required for students with other degrees and limited professional experience.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Human Development and Family Science: Applied Human Services, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 33 Hours

<table>
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<tr>
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<tr>
<td>HDFS 5213</td>
<td>Lifespan Development</td>
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</tr>
<tr>
<td>HDFS 5513</td>
<td>Issues in Family Science</td>
<td>3</td>
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</table>

**Topics in Human Development and Family Science**
Select 6 credit hours in HDFS to be selected from the following 6 courses or approved by advisor:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>HDFS 5153</td>
<td>Policy in Human Development and Family Science</td>
<td></td>
</tr>
<tr>
<td>HDFS 5273</td>
<td>Parent Education</td>
<td></td>
</tr>
<tr>
<td>HDFS 5283</td>
<td>Developmental Disabilities</td>
<td></td>
</tr>
<tr>
<td>HDFS 5493</td>
<td>Aging and Families</td>
<td></td>
</tr>
<tr>
<td>HDFS 5563</td>
<td>Community and Family Research Methods and Statistics</td>
<td></td>
</tr>
</tbody>
</table>

**Research Methods and Statistics**
HDFS 5173 | Program Design, Implementation, and Evaluation in Human Development and Family Science | 3

**Practicum and Creative Component**
HDFS 5163 | Master's Capstone in HDFS                | 3

Hours Subtotal: 18

**Electives**
Students work with their advisor to choose at least one elective. 3

Hours Subtotal: 3

**Other Requirements**

**Specialization Coursework**
Specialization choices include: Infant Mental Health; Developmental Disabilities; Gerontology; Nonprofit Management

**Infant Mental Health**
HDFS 5233 | Infant Mental Health                        |       |
HDFS 5243 | Infant and Early Childhood Development and Attachment |       |
HDFS 5343 | Developmental Assessment and Interventions   |       |
HDFS 5193 | Reflective Practice                         |       |

**Developmental Disabilities**
HDFS 5283 | Developmental Disabilities                   |       |
HDFS 5623 | Systems Theory and Applications to the Family |       |
HDFS 5653 | Systemic Approaches to Psychopathology and Psychopharmacology |       |
HDFS 5193 | Reflective Practice                         |       |

**Gerontology**
Core Requirements
HDFS 5423 | Research Perspectives in Gerontology        |       |

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>HDFS 5433</td>
<td>Theories of Aging</td>
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</table>
Select six hours of the following:

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<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>HDFS 5413</td>
<td>Adult Development and Aging</td>
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</tr>
<tr>
<td>HDFS 5483</td>
<td>Aging Network Seminar</td>
<td></td>
</tr>
<tr>
<td>HDFS 5493</td>
<td>Aging and Families</td>
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**Nonprofit Management (graduate certificate offered from Spears School of Business)**

<table>
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<th>Code</th>
<th>Title</th>
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<tr>
<td>MGMT 5093</td>
<td>Management of Nonprofit Organizations</td>
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<tr>
<td>MGMT 5163</td>
<td>Fundraising for Nonprofit Organizations</td>
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Select 6 hours of electives from Business:

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<tr>
<td>MGMT 5031</td>
<td>Leading Organizational Change</td>
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<tr>
<td>MGMT 5051</td>
<td>Creating Ethical Work Places</td>
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<tr>
<td>MGMT 5061</td>
<td>Managing Confrontations</td>
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<tr>
<td>MGMT 5083</td>
<td>Corporate and Social Responsibility</td>
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<tr>
<td>MGMT 5533</td>
<td>Leadership Challenges</td>
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<tr>
<td>MGMT 5563</td>
<td>Crisis in Organizations</td>
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<tr>
<td>EEE 5403</td>
<td>Social Entrepreneurship</td>
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Hours Subtotal: 12

Total Hours: 33

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Human Development and Family Science: Developmental and Family Sciences, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 30-32 Hours

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<tr>
<td></td>
<td><em>Theoretical Foundations in Human Development and Family Science</em></td>
<td></td>
</tr>
<tr>
<td>HDFS 5213</td>
<td>Lifespan Development</td>
<td>3</td>
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<tr>
<td>HDFS 5513</td>
<td>Issues in Family Science</td>
<td>3</td>
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<tr>
<td></td>
<td><em>Topics in Human Development and Family Science</em></td>
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<tr>
<td>Select 6 credit hours in HDFS from the following courses or approved by advisor:</td>
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<tr>
<td>HDFS 5153</td>
<td>Policy in Human Development and Family Science</td>
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<tr>
<td>HDFS 5273</td>
<td>Parent Education</td>
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<td>HDFS 5283</td>
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<td>HDFS 5493</td>
<td>Aging and Families</td>
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<tr>
<td>HDFS 5563</td>
<td>Community and Family</td>
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<tr>
<td></td>
<td><em>Research Methods and Statistics</em></td>
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<tr>
<td>HDFS 5173</td>
<td>Program Design, Implementation, and Evaluation in Human Development and Family Science</td>
<td>3</td>
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<tr>
<td>HDFS 5133</td>
<td>Research Methods in HDFS II</td>
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<td>Select 6 hours to be selected from the following courses and approved by advisor:</td>
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<tr>
<td>STAT 5013</td>
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<td>STAT 5063</td>
<td>Multivariate Methods</td>
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**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
### Human Development and Family Science: Early Childhood Education, MS

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

#### Thesis Option

**Total Hours: 30 Hours**

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<td>HDFS 5513</td>
<td>Issues in Family Science</td>
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</tr>
<tr>
<td>HDFS 5323</td>
<td>Issues in Early Childhood</td>
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</tr>
<tr>
<td>HDFS 5333</td>
<td>Early Childhood Education History and Theory</td>
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<tr>
<td>HDFS 5343</td>
<td>Developmental Assessment and Interventions</td>
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<tr>
<td>HDFS 5363</td>
<td>Early Childhood Development and Education</td>
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<td><strong>Individual Research or Creative Project (Requires MS Advisory Committee Approval)</strong></td>
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<tr>
<td>HDFS 5133</td>
<td>Research Methods in HDFS II</td>
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<tr>
<td>or REMS 5953</td>
<td>Statistical Methods in Education</td>
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<td>HDFS 5000</td>
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#### Non-Thesis Option

**Total Hours: 32 Hours**

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<td>Program Design, Implementation, and Evaluation in Human Development and Family Science</td>
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<td>HDFS 5213</td>
<td>Lifespan Development</td>
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<td>HDFS 5513</td>
<td>Issues in Family Science</td>
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<td>HDFS 5323</td>
<td>Issues in Early Childhood</td>
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<tr>
<td>HDFS 5333</td>
<td>Early Childhood Education History and Theory</td>
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<td>HDFS 5343</td>
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<td>HDFS 5363</td>
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<td><strong>Hours Subtotal</strong></td>
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<tr>
<td><strong>Electives in HDFS or related areas</strong></td>
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<td>HDFS 5160</td>
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### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

### Additional Graduate College Masters Degree Requirements

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Human Development and Family Science: Family and Community Services, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 36 Hours

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<td><strong>Required Courses</strong></td>
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<tr>
<td>HDFS 5173</td>
<td>Program Design, Implementation, and Evaluation in Human Development and Family Science</td>
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<tr>
<td>HDFS 5213</td>
<td>Lifespan Development</td>
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<tr>
<td>HDFS 5223</td>
<td>Resilience in Individuals and Families</td>
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<tr>
<td>HDFS 5443</td>
<td>Interpersonal Relationships</td>
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<td>HDFS 5543</td>
<td>Coping with Family Crises</td>
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<tr>
<td>HDFS 5553</td>
<td>Perspectives on Parenting and Parent Education</td>
<td>3</td>
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<tr>
<td>HDFS 5713</td>
<td>Individual and Family Resource Management</td>
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<tr>
<td>HDFS 5753</td>
<td>Leadership and Management of Community Service Programs</td>
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<tr>
<td>HDFS 5913</td>
<td>Foundations and Principles of Family and Community Services</td>
<td>3</td>
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<td>HDFS 5923</td>
<td>Dynamics of Family Interaction</td>
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**Hours Subtotal** 30

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<th><strong>Outside Electives</strong></th>
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**Hours Subtotal** 3

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<td>Master's Creative Component</td>
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**Hours Subtotal** 3

Total Hours 36

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
    - 21 credit hours at the 5000- or 6000-level
Human Development and Family Science: Gerontology (Internet-Based Program), MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 36 Hours

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<td>HDFS 5400</td>
<td>Professional Seminar in Gerontology</td>
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<td>HDFS 5403</td>
<td>Perspectives in Gerontology</td>
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<td>HDFS 5413</td>
<td>Adult Development and Aging</td>
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<td>HDFS 5493</td>
<td>Aging and Families</td>
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<tr>
<td>HS 5533</td>
<td>Economics of Aging and Public Policy</td>
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<td>HS 5543</td>
<td>Environments and Aging</td>
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<td>HS 5633</td>
<td>Program Evaluation and Research Methods in Gerontology</td>
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<tr>
<td>NSCI 5323</td>
<td>Nutrition and Physical Activity in Aging</td>
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Hours Subtotal: 30

Electives

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<tr>
<td>HDFS 5110</td>
<td>Directed Study in HDFS (or other designated elective)</td>
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Hours Subtotal: 6

Total Hours: 36

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at the 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Human Development and Family Science: Marriage and Family Therapy, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 63 Hours

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<tr>
<td>HDFS 5613</td>
<td>Theoretical Models of Marriage and Family Therapy</td>
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<td>HDFS 5623</td>
<td>Systems Theory and Applications to the Family</td>
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<td><strong>AREA II. Clinical Practice</strong></td>
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<td>HDFS 5603</td>
<td>Pre-Practicum in Marriage and Family Therapy: Counseling Skills</td>
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<tr>
<td>HDFS 5633</td>
<td>Couples Treatment in Marriage and Family Therapy</td>
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<td>HDFS 5643</td>
<td>Child and Adolescent Treatment in Marriage and Family Therapy</td>
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<td>HDFS 5653</td>
<td>Systemic Approaches to Psychopathology and Psychopharmacology</td>
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<td><strong>AREA III. Individual Development and Family Relations</strong></td>
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<td>HDFS 5213</td>
<td>Lifespan Development</td>
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<tr>
<td>HDFS 5513</td>
<td>Issues in Family Science</td>
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<td>HDFS 5543</td>
<td>Coping with Family Crises</td>
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<td>HDFS 5583</td>
<td>Intimate Relationships and Sexuality across the Lifespan</td>
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<td><strong>AREA IV. Professional Identity and Ethics</strong></td>
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<td>HDFS 5663</td>
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<td></td>
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<td>(Students will be continuously enrolled in practicum from their 2nd to their 7th semester. Students will continue to enroll in practicum after their 7th semester if needed until they complete the 500 client contact hours requirement and until they develop expected program competencies.)</td>
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Hours Subtotal 54

Non-Thesis Option
Total Hours: 63 Hours

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<td>Systems Theory and Applications to the Family</td>
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<td>Couples Treatment in Marriage and Family Therapy</td>
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<td>HDFS 5653</td>
<td>Systemic Approaches to Psychopathology and Psychopharmacology</td>
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<td><strong>AREA III. Individual Development and Family Relations</strong></td>
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<td>HDFS 5543</td>
<td>Coping with Family Crises</td>
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<td>HDFS 5583</td>
<td>Intimate Relationships and Sexuality across the Lifespan</td>
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<td><strong>AREA IV. Professional Identity and Ethics</strong></td>
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Total Hours 63

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

• A minimum of 30 credit hours
  • A minimum of 24 coursework credit hours comprised of:
    • 6 research or creative component credit hours
    • 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    • 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

• A minimum of 32 credit hours
  • A maximum of 3 credit hours of research or creative component
  • A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  • A minimum of 21 credit hours at the 5000- or 6000-level
# Industrial Engineering and Management, MS

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

## Thesis Option
**Total Hours: 30 Hours**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Track Core</strong></td>
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</tr>
<tr>
<td></td>
<td>Select 12 approved hours.</td>
<td>12</td>
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<tr>
<td></td>
<td>Select 6 hours of track supporting courses.</td>
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</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
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<tr>
<td></td>
<td><strong>Thesis</strong></td>
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</tr>
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<td></td>
<td>IEM 5000 Master's Research and Thesis</td>
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<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
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<tr>
<td></td>
<td>Select 6 hours of graduate courses approved by the advisory committee.</td>
<td>6</td>
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<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
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## Non-Thesis Option
**Total Hours: 33 Hours**

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<tr>
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</tr>
<tr>
<td></td>
<td><strong>Track Core Courses</strong></td>
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</tr>
<tr>
<td></td>
<td>Select 12 approved hours.</td>
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</tr>
<tr>
<td></td>
<td>Select 12 hours of track-supporting courses.</td>
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<td></td>
<td><strong>Hours Subtotal</strong></td>
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<tr>
<td></td>
<td><strong>Electives</strong></td>
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</tr>
<tr>
<td></td>
<td>Select one of the three options</td>
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<tr>
<td></td>
<td><strong>Coursework Only Option (9 hours)</strong></td>
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<tr>
<td></td>
<td>Select 9 hours of graduate courses approved by the advisory committee.</td>
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</tr>
<tr>
<td></td>
<td><strong>Independent Study Option (9 hours)</strong></td>
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</tr>
<tr>
<td></td>
<td>Select 6 hours of graduate courses approved by the advisory committee.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IEM 5350 Industrial Engineering Problems</td>
<td></td>
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<tr>
<td></td>
<td><strong>Internship/Practicum Option (9 hours)</strong></td>
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</tr>
<tr>
<td></td>
<td>Select 3 to 6 hours of IEM 5020 and/or IEM 5030.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IEM 5020 Graduate Engineering Practicum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IEM 5030 Engineering Practice</td>
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<tr>
<td></td>
<td>Select 3-6 hours from graduate courses approved by the advisory committee.</td>
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</tr>
<tr>
<td></td>
<td><strong>Hours Subtotal</strong></td>
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</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td>33</td>
</tr>
</tbody>
</table>

## General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

## Additional Graduate College Masters Degree Requirements

### Plan I (coursework with thesis)
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

### Plan II (coursework without thesis)
- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Information Assurance, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 32-33 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Degree Core</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSIS 5213</td>
<td>Information Assurance Management</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 5233</td>
<td>Applied Information Systems Security</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 5243</td>
<td>Information Technology Forensics</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 5253</td>
<td>Advanced System Certification and Accreditation</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 5263</td>
<td>Information Assurance Offense</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 5273</td>
<td>Legal and Ethical Issues in Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 5283</td>
<td>Secure Information Systems Administration</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 5293</td>
<td>Information Assurance Capstone</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 5713</td>
<td>Scripting Essentials</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 5773</td>
<td>The Upper Layers of Telecommunications Systems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

| **Electives**                                 |                                                 |       |
| 5000-level electives in business or other appropriate disciplines | 2     |
| **Hours Subtotal**                            |                                                 | 2     |
| **Total Hours**                               |                                                 | 32    |

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Integrative Biology, MS
Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
<td></td>
</tr>
<tr>
<td>Select 24 hours of 5000-level courses or seminars, not including BIOL 5000.</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Seminar Courses</td>
<td></td>
</tr>
<tr>
<td>Select a minimum of 2 seminar classes</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thesis</td>
<td></td>
</tr>
<tr>
<td>BIOL 5000</td>
<td>Research for Master’s Thesis</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>36</td>
</tr>
</tbody>
</table>

1 Select a minimum of 15 hours of 5000-level courses or seminars, not including BIOL 5000 from one of the following prefixes: BIOL, MICR, PBIO, NREM, PSYC, ANSI, GEOG, GEOL, RES, ITOX, VBSC, VMED, ENTO, STAT, SMED, REMS, BIOC, MATH, ENVR, CHEM, BIOM, AGEC, AGED, NSCI, PLP, PLNT, HS, HDFS

Formal Report Option
Total Hours: 32 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
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</tr>
<tr>
<td>Select a minimum of 28 hours of 5000-level courses or seminars, not including BIOL 5000.</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Seminar Courses</td>
<td></td>
</tr>
<tr>
<td>Select a minimum of two seminar classes.</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Report</td>
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</tr>
<tr>
<td>2 hours of formal report</td>
<td>2</td>
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<tr>
<td></td>
<td>Hours Subtotal</td>
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<tr>
<td></td>
<td>Total Hours</td>
<td>32</td>
</tr>
</tbody>
</table>

1 Select a minimum of 15 hours of 5000-level courses or seminars, not including BIOL 5000 from one of the following prefixes: BIOL, MICR, PBIO, NREM, PSYC, ANSI, GEOG, GEOL, RES, ITOX, VBSC, VMED, ENTO, STAT, SMED, REMS, BIOC, MATH, ENVR, CHEM, BIOM, AGEC, AGED, NSCI, PLP, PLNT, HS, HDFS

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with “B” or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)
- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with “B” or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level

General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Interdisciplinary Studies, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 30 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thesis</td>
<td>6 Hours of Thesis</td>
<td>6</td>
</tr>
<tr>
<td>Other Requirements</td>
<td>Select 24 hours based on plan of study.</td>
<td>24</td>
</tr>
</tbody>
</table>

Total Hours: 30

Non-Thesis Option
Total Hours: 32 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Coursework</td>
<td>Select no more than 3 hours of research with a grade of &quot;SR.&quot;</td>
<td>1-3</td>
</tr>
<tr>
<td>Select courses based on plan of study</td>
<td>29-31</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 32

Interdisciplinary Studies, MS, Requirements

The Master of Science in Interdisciplinary Studies is for students who wish to increase their competence in a particular thematic area by taking a series of courses in several disciplines. This multidisciplinary approach provides educational opportunities leading to a variety of careers. The Master of Science in Interdisciplinary Studies requires a minimum of two separate fields of study. The advisory committee will assist the student in formulating the Plan of Study.

Admission Requirements.

An undergraduate grade-point average of 3.00 is required for unqualified admission. Students with a grade-point average between 2.50 and 3.00 may be admitted on a probationary basis.

Applications to the program should include:

1. a cover letter indicating the personal goals and professional objectives to be obtained from the program;
2. transcripts from all schools previously attended;
3. three letters of recommendation from persons who can describe abilities, interest, and motivation as a student;
4. a proposed course of study with an endorsement from an OSU faculty adviser.

Particular courses are not specified for the degree; the advisory committee can assist in selecting appropriate courses. The course of study must include at least 21 credit hours at the graduate level (5000 or above). Up to nine graduate hours can be transferred from a regionally-accredited graduate program with consent of the advisory committee. The student chooses one of master's degree plans:

1. a 30-hour plan, including a six-hour research thesis;
2. a 32-hour plan, which may include no more than three hours of research with a grade of "SR." May include a culminating experience (e.g., final report, internship, practicum, comprehensive exam, and portfolio or capstone project)

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
International Agriculture, MAG

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Creative Component Option
Total Hours: 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coursework</td>
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</tr>
<tr>
<td></td>
<td>Select 30 Hours of approved coursework to complete Plan of Study requirements</td>
<td>30</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>30</td>
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<tr>
<td></td>
<td>International Experience</td>
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</tr>
<tr>
<td></td>
<td>Select 6 hours</td>
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</tr>
<tr>
<td>Hours Subtotal</td>
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<tr>
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Professional Internship Option
Total Hours: 36 Hours

<table>
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</thead>
<tbody>
<tr>
<td></td>
<td>Coursework</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 30 Hours of approved coursework to complete Plan of Study requirements</td>
<td>30</td>
</tr>
<tr>
<td>Hours Subtotal</td>
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<td>30</td>
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<tr>
<td></td>
<td>Professional Internship</td>
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<tr>
<td></td>
<td>Select 6 hours</td>
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<td>Hours Subtotal</td>
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<td>6</td>
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<tr>
<td>Choose Focus Area</td>
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<tr>
<td>Total Hours</td>
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</tbody>
</table>

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)
International Agriculture, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 30 Hours

<table>
<thead>
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<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Coursework</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 24 approved hours to complete the graduate Plan of Study</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
<td>24</td>
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<tr>
<td></td>
<td>Thesis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 6 hours</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
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</tr>
<tr>
<td></td>
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Creative Component Option
Total Hours: 32 Hours

<table>
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<th>Code</th>
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</thead>
<tbody>
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<td></td>
<td>Coursework</td>
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</tr>
<tr>
<td></td>
<td>Select 26 approved hours to complete the graduate Plan of Study</td>
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<td></td>
<td>Chosen Focus Area</td>
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<tr>
<td></td>
<td>Select 1 Quantitative/Qualitative Course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Research Methodology Course</td>
<td></td>
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<tr>
<td></td>
<td>Select 6 hours for an International Experience</td>
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</tr>
<tr>
<td></td>
<td>Hours Subtotal</td>
<td>32</td>
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<tr>
<td></td>
<td>Total Hours</td>
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</tr>
</tbody>
</table>

General Graduate College Requirements

- A minimum of 32 credit hours
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)
Leisure Studies, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Research and Inquiry</strong></td>
<td></td>
</tr>
<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
<td>3</td>
</tr>
<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Core Courses</strong></td>
<td></td>
</tr>
<tr>
<td>LEIS 5023</td>
<td>Legal Aspects of Health, Physical Education and Leisure Services</td>
<td>3</td>
</tr>
<tr>
<td>LEIS 5413</td>
<td>Organization and Administration of Leisure Services</td>
<td>3</td>
</tr>
<tr>
<td>LEIS 5433</td>
<td>Current Issues in Leisure Services</td>
<td>3</td>
</tr>
<tr>
<td>LEIS 5443</td>
<td>Social Foundations of Leisure Services</td>
<td>3</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Cognate</strong></td>
<td></td>
</tr>
<tr>
<td>Select 12 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals:</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>RMRT 4453</td>
<td>Outdoor Education</td>
<td></td>
</tr>
<tr>
<td>RMRT 4463</td>
<td>Areas and Facilities In Leisure Services</td>
<td></td>
</tr>
<tr>
<td>RMRT 4473</td>
<td>Recreation In the Natural Environment</td>
<td></td>
</tr>
<tr>
<td>RMRT 4493</td>
<td>Administration of Leisure Services</td>
<td></td>
</tr>
<tr>
<td>RMRT 4553</td>
<td>Tourism in Recreation Settings</td>
<td></td>
</tr>
<tr>
<td>RMRT 4563</td>
<td>Entrepreneurial Recreation Management</td>
<td></td>
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<tr>
<td>RMRT 4943</td>
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Non-Thesis Option
Total Hours: 36 Hours

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<td><strong>Research and Inquiry</strong></td>
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<td>Research Design and Methodology</td>
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<tr>
<td>LEIS 5023</td>
<td>Legal Aspects of Health, Physical Education and Leisure Services</td>
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<tr>
<td>LEIS 5413</td>
<td>Organization and Administration of Leisure Services</td>
<td>3</td>
</tr>
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<td>LEIS 5433</td>
<td>Current Issues in Leisure Services</td>
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<td>LEIS 5443</td>
<td>Social Foundations of Leisure Services</td>
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<td>RMRT 4463</td>
<td>Areas and Facilities In Leisure Services</td>
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<td>RMRT 4493</td>
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<td>RMRT 4553</td>
<td>Tourism in Recreation Settings</td>
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<td>RMRT 4563</td>
<td>Entrepreneurial Recreation Management</td>
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<tr>
<td>Total Hours</td>
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General Graduate College Requirements
• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of "C" is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements
Plan I (coursework with thesis)
• A minimum of 30 credit hours
  • A minimum of 24 coursework credit hours comprised of:
    • 6 research or creative component credit hours
    • 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    • 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

• A minimum of 32 credit hours
  • A maximum of 3 credit hours of research or creative component
  • A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  • A minimum of 21 credit hours at the 5000- or 6000-level
Management Information Systems, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 34 Hours

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td>Degree Core Required Courses</td>
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<tr>
<td>MSIS 5223</td>
<td>Programming for Data Science and Analytics</td>
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<td>MSIS 5503</td>
<td>Statistics for Data Science</td>
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<tr>
<td>MSIS 5600</td>
<td>Special Projects in Business Information Systems (Not required for part-time students)</td>
<td>1</td>
</tr>
<tr>
<td>MSIS 5623</td>
<td>Information and Network Technology Management</td>
<td>3</td>
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<td>MSIS 5643</td>
<td>Advanced Database Management</td>
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<td>MSIS 5663</td>
<td>Data Warehousing</td>
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<td>MSIS 5673</td>
<td>Descriptive Analytics and Visualization</td>
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<td>Practicum in Management Information Systems (Part-time students can replace with alternative 5000-level course)</td>
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Hours Subtotal 22

Electives 1
Select 12 Hours of Electives 12

Suggested Electives

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<td>Information Systems Project Management</td>
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<td>MSIS 5123</td>
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<td>MSIS 5133</td>
<td>Advanced Web Based Application Development</td>
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<td>Information Assurance Management</td>
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<td>MSIS 5243</td>
<td>Information Technology Forensics</td>
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<td>MSIS 5273</td>
<td>Legal and Ethical Issues in Information Technology</td>
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<td>MSIS 5303</td>
<td>Prescriptive Analytics</td>
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<td>MSIS 5633</td>
<td>Predictive Analytics Technologies</td>
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<td>MSIS 5683</td>
<td>Big Data Advanced Analytics Technologies</td>
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<tr>
<td>MSIS 5950</td>
<td>Advanced Practicum</td>
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</table>

Hours Subtotal 12

Total Hours 34

1 Appropriate substitutes, such as other upper-division Spears School of Business courses or upper-division courses from other colleges, can be made on a case-by-case basis.

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted

- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Management Information Systems: Application Development, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 31 Hours

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<thead>
<tr>
<th>Code</th>
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<tr>
<td>MSIS 5223</td>
<td>Programming for Data Science and Analytics</td>
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<td>Special Projects in Business Information Systems (Not required for part-time students)</td>
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Hours Subtotal: 22

Electives

Select 9 hours from the following:

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<td>Advanced Web Based Application Development</td>
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Hours Subtotal: 9

Total Hours: 31

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Management Information Systems:  
Data Science, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 34 Hours

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<th>Hours</th>
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**Total Hours** 34

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
# Mass Communications, MS

## Requirements for Students Matriculating in or before Academic Year 2019-2020

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

## Thesis Option

**Total Hours:** 31 Hours

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<td>Introduction to Graduate Study in Mass Communications</td>
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<td>MC 5113</td>
<td>Methods of Research in Mass Communication</td>
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<td>MC 5333</td>
<td>Media Theory</td>
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<td>MC 5733</td>
<td>Responsibility in Mass Communication</td>
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**Concentration**

Select one of the following tracks: 15

*Brand Communication*

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<td>MC 5223</td>
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<td>MC 5933</td>
<td>Theories of Persuasion</td>
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<td>MC 5770</td>
<td>Seminar in Communication Media</td>
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<tr>
<td>MC 5613</td>
<td>Storytellers Studio</td>
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<td>MC 5030</td>
<td>Independent Study in Mass Communication</td>
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<td>Advanced Practicum or Internship in Mass Communication</td>
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<td>MC 5753</td>
<td>Media And Elections</td>
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**Hours Subtotal** 15

**Thesis**

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**Total Hours** 31

1 An advanced research course is required for thesis track.

## Non-Thesis Option

**Total Hours:** 32 Hours

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**Concentration**

Select one of the following tracks: 15

*Brand Communication*

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<td>MC 5020</td>
<td>Advanced Practicum or Internship in Mass Communication</td>
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<tr>
<td>MC 5143</td>
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## Global Communications

- MC 5223 Mass Communication Research Analysis and Interpretation 1
- MC 5933 Theories of Persuasion
- MC 5770 Seminar in Communication Media
- MC 5613 Storytellers Studio
- MC 5030 Independent Study in Mass Communication
- MC 5020 Advanced Practicum or Internship in Mass Communication
- MC 5520 Specialized Strategic Communications Applications
- MC 5853 Strategic Communication Management
- MC 5603 Integrated Marketing Communication
- MC 5383 Media Relations


<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>MC 5753</td>
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<td>Sports Communication</td>
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<td>Mass Communication Research Analysis and Interpretation</td>
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<td>MC 5883</td>
<td>Advanced Media Management</td>
</tr>
<tr>
<td>MC 5383</td>
<td>Media Relations</td>
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<tr>
<td>MC 5143</td>
<td>Diversity In Sports Media</td>
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<tr>
<td>Global Communication</td>
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</tr>
<tr>
<td>MC 5223</td>
<td>Mass Communication Research Analysis and Interpretation</td>
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<tr>
<td>MC 5933</td>
<td>Theories of Persuasion</td>
</tr>
<tr>
<td>MC 5770</td>
<td>Seminar in Communication Media</td>
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<tr>
<td>MC 5613</td>
<td>Storytellers Studio</td>
</tr>
<tr>
<td>MC 5030</td>
<td>Independent Study in Mass Communication</td>
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<tr>
<td>MC 5020</td>
<td>Advanced Practicum or Internship in Mass Communication</td>
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<td>MC 5253</td>
<td>International Mass Communication</td>
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<td>MC 5540</td>
<td>Specialized Multimedia Journalism Applications</td>
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<td>MC 5753</td>
<td>Media And Elections</td>
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<td>MC 5163</td>
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<td>MC 5773</td>
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<td>MC Elective</td>
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<tr>
<td>Other graduate-level elective (6 hours max)</td>
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| Hours Subtotal | 15 |

**Non-Thesis Options**

Select from the following options: 7

* Creative Component
  * MC 5010 Capstone Project or Creative Component (4 hours)
  * MC Elective (3 hours)

* Practicum
  * MC 5020 Advanced Practicum (6 hours)

* Formal Report (1 hour)
* Study Abroad
  * MC 5030 Independent Study Abroad (6 hours)
  * Formal Report (1 hour)

| Hours Subtotal | 7 |

**Total Hours** 32

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
# Materials Science and Engineering, MS

## Requirements for Students Matriculating in or before Academic Year 2019-2020

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

---

## Thesis Option

**Total Hours:** 30 Hours

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<td>MSE 5033</td>
<td>Composite Materials</td>
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<td>MSE 5083</td>
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**Hours Subtotal:** 15

### Electives

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<td>MSE 5063</td>
<td>Biomedical Materials</td>
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<td>MSE 5073</td>
<td>Tissue Engineering</td>
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<td>MSE 5103</td>
<td>Electrical and Optical Properties of Ceramics</td>
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<td>3</td>
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<td>MSE 5133</td>
<td>Solid Oxide Fuel Cells</td>
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<td>Batteries and Supercapacitors for Energy Storage</td>
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<td>Crystal Physics and Materials Properties</td>
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<td>MSE 5200</td>
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<td>Additive Manufacturing: Materials, Methods and Applications</td>
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<td>MSE 5583</td>
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**Chemical Engineering**

<table>
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**Electrical and Computer Engineering**

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<td>Advanced Microelectronic Fabrication</td>
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**Mechanical and Aerospace Engineering**

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<tr>
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**Hours Subtotal:** 9

### Thesis Research

6 hours of MSE 5000

**Hours Subtotal:** 6

**Total Hours:** 30

---

## Non-Thesis Option

**Total Hours:** 35 Hours

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<tr>
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<tbody>
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**Hours Subtotal:** 15

### Electives

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<tr>
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<tbody>
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</tr>
<tr>
<td>ECEN 6843</td>
<td>Advanced Microelectronic Fabrication</td>
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</tbody>
</table>

**Mechanical and Aerospace Engineering**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAE 5133</td>
<td>Mechanical Behavior of Materials</td>
</tr>
</tbody>
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**Hours Subtotal:** 9

**Thesis Research**

6 hours of MSE 5000

**Hours Subtotal:** 6

**Total Hours:** 35
General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Mathematics, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 33 Hours

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<tr>
<th>Code</th>
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<tr>
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<tr>
<td>MATH 5543 Numerical Analysis for Differential Equations</td>
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<td>MATH 4513 Numerical Analysis</td>
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<td>MATH 4553 Introduction to Optimization</td>
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<td>MATH 5213 Fourier Analysis and Wavelets</td>
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<td>MATH 5233 Partial Differential Equations</td>
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<td>MATH 5243 Ordinary Differential Equations</td>
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<td>MATH 5253 Advanced Ordinary Differential Equations</td>
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<td>MATH 5543</td>
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<td>MATH 5580 Case Studies in Applied Mathematics</td>
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Additional Graduate Courses
Electives
Select 12 hours of electives (no more than 6 hours can be outside MATH, STAT or CS). 12

Thesis/Report
MATH 5000 Master's Research and Thesis (3-6 hours in combination with electives) 3

Hours Subtotal 15
Total Hours 33

General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements
Plan I (coursework with thesis)
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)
- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Mechanical and Aerospace Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 30 Hours

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Creative Component Option
Total Hours: 35 Hours

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General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level
# Microbiology, Cell and Molecular Biology, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

## Thesis Option

**Total Hours:** 30 Hours

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<td>Non-zero ending BIOC courses at the 5000-level or above</td>
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**Hours Subtotal:** 21

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<tbody>
<tr>
<td>MICR 5000</td>
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**Hours Subtotal:** 6

**Total Hours:** 30

## Non-Thesis Option

**Total Hours:** 32 Hours

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<td>MICR 6163</td>
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**Hours Subtotal:** 21

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<tr>
<td>Non-zero ending MICR courses at the 5000-level</td>
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<tr>
<td>Non-zero ending BIOC courses at the 5000-level or above</td>
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**Hours Subtotal:** 9

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<tbody>
<tr>
<td>MICR 5000</td>
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## General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

## Additional Graduate College Masters Degree Requirements

### Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

### Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Music: Applied Music, MM

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 32 Hours

<table>
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<tr>
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<td>MUSI 5733</td>
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<td>MUSI 5842</td>
<td>Music Repertory</td>
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<td>Introduction to Graduate Studies in Music</td>
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<td>Seminar in Music History</td>
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General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
Music: Conducting, MM

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 32 Hours

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<tr>
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<td>Advanced Studies in Conducting I</td>
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<td><strong>Electives</strong></td>
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All students in the Applied Music Track will complete 3 hours in Elective Courses in Music. Other courses may be counted as elective credits with the approval of the Graduate Coordinator. 1

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| Total Hours | 32 |

1 Admission to all ensembles is by audition.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Natural Resource Ecology and Management, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 30 Hours

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1 Total hours for thesis option could reach maximum of 36.

Non-Thesis Option
Total Hours: 32 Hours

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General Graduate College Requirements

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- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
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  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
Nutritional Sciences: Dietetics (Internet-Based Program), MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 36 Hours

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<td>NSCI 5123</td>
<td>Research Methods in Nutritional Sciences</td>
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<td>Macronutrients in Human Nutrition</td>
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<td>NSCI 5043</td>
<td>Micronutrients in Human Nutrition</td>
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<td>NSCI 5843</td>
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<td>NSCI 5053</td>
<td>Functional Foods for Chronic Disease Prevention</td>
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<td>NSCI 5103</td>
<td>Grant Writing for the Professional</td>
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<td>NSCI 5133</td>
<td>Advanced Nutrition for Exercise and Sport</td>
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<td>NSCI 5203</td>
<td>Nutrition in Wellness</td>
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<td>NSCI 5213</td>
<td>Entrepreneurship in Food Service and Dietetics</td>
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<td>NSCI 6223</td>
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<td>NSCI 6643</td>
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**General Graduate College Requirements**
- A minimum Grade-Point-Average of 3.00 is required
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- No courses utilizing the Pass-No Pass grading system are permitted
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- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**
- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
# Nutritional Sciences: Nutrition, MS

## Requirements for Students Matriculating in or before Academic Year 2019-2020

Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Thesis Hours

**Total Hours:** 30 Hours

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<td>Master's Seminar in Nutritional Sciences</td>
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**Electives**

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<td>Maternal and Child Nutrition</td>
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<td>Dietary and Herbal Supplements</td>
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<td>Obesity Prevention Across the Lifespan</td>
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<td>NSCI 5553</td>
<td>Global Nutrition and Food Security</td>
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<td>Advanced Laboratory Techniques in Nutritional Sciences</td>
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**Other Requirements**

Professional Seminar 1

**Total Hours** 30

### Non-Thesis Option

**Total Hours:** 34 Hours

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**Electives**

Select 17 hours of the following: 17

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<td>NSCI 5313</td>
<td>Dietary and Herbal Supplements</td>
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<td>NSCI 5443</td>
<td>Nutrigenomics and Nutrigenetics</td>
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<td>NSCI 5543</td>
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| Hours Subtotal | 17 |

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| Hours Subtotal | 1 |

| Total Hours | 34 |

**General Graduate College Requirements**
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
**Petroleum Engineering, MS**

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 30 Hours

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**Electives**

Graduate-approved elective (PETE or other) courses, selected by the student with approval of the student's advisor. 15

**Suggested Elective Courses**

*Petroleum Engineering (PETE) Courses*
- PETE 5303 Petroleum Geomechanics
- PETE 5343 Advanced Reservoir Engineering
- PETE 5363 Petroleum Economics and Investments
- PETE 5413 Advanced Well Design and Operational Analysis
- PETE 5513 Directional Drilling
- PETE 5613 Advanced Well Completions

*Mathematics (MATH) and Statistics (STAT) Courses*
- 5000-level advanced mathematics courses as approved by advisor
- 5000-level advanced statistics courses as approved by advisor

*Other courses*
- Any 4000-level course in PETE, MATH and STAT must be pre-approved by advisor as part of the plan of study.

**Hours Subtotal** 15

**Total Hours 30**

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
Philosophy, MA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Thesis Option**
Total Hours: 30 Hours

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**Formal Report Option**
Total Hours: 32 Hours

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**Creative Component Option**
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**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
# Physician Assistant Studies, MS

**Requirements for Students Matriculating in or before Academic Year 2019-2020**. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours**: 128 Hours

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<td>Structure and Function of the Human Respiratory System</td>
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**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
# Physics, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

## Thesis Option

**Total Hours:** 30 Hours

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<td>PHYS 5413</td>
<td>Classical Mechanics</td>
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<td>PHYS 5453</td>
<td>Methods of Theoretical Physics</td>
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<td>PHYS 5613</td>
<td>Quantum Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Electives

Select 9 hours from PHYS, MATH or an allied field in consultation with student’s advisor.

| Hours Subtotal | 9 |

### Thesis

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 5000</td>
<td>Master’s Thesis Research or Report</td>
<td>6</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>6</strong></td>
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</table>

**Total Hours:** 30

## Report Option

**Total Hours:** 32 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 5113</td>
<td>Statistical Thermodynamics and Kinetic Theory</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5313</td>
<td>Electromagnetic Theory</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5413</td>
<td>Classical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5453</td>
<td>Methods of Theoretical Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5613</td>
<td>Quantum Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Electives

Select 15 hours from PHYS or a related field in consultation with student’s advisor.

| Hours Subtotal | 15 |

### Non-Thesis

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 5000</td>
<td>Master’s Thesis Research or Report (Report)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td><strong>2</strong></td>
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**Total Hours:** 32

# General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted

### Additional Graduate College Masters Degree Requirements

#### Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

#### Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
## Physics: Optics and Photonics, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

### Thesis Option
Total Hours: 30 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 5453</td>
<td>Methods of Theoretical Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5613</td>
<td>Quantum Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>Select 9 hours of Photonics core courses from the following with advisor approval:</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>PHYS 5123</td>
<td>Geometrical Optics</td>
<td></td>
</tr>
<tr>
<td>PHYS 5163</td>
<td>Lasers</td>
<td></td>
</tr>
<tr>
<td>PHYS 5303</td>
<td>Physical Optics</td>
<td></td>
</tr>
<tr>
<td>ECEN 4843</td>
<td>Design of Lasers and Systems</td>
<td></td>
</tr>
<tr>
<td>ECEN 5833</td>
<td>Fiber-Optic Communication Systems</td>
<td></td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td>15</td>
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</tr>
<tr>
<td><strong>Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 9 hours from the two groups of electives with a minin of one course and a maximum of two from Group I. Courses at the graduate level from other departments may be substituted for electives in Group II with Physics Department permission, but alternate courses must have a strong connection to optics and photonics.</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td><strong>Group I</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 4813</td>
<td>Electromagnetic Radiation</td>
<td></td>
</tr>
<tr>
<td>PHYS 5313</td>
<td>Electromagnetic Theory</td>
<td></td>
</tr>
<tr>
<td>PHYS 6713</td>
<td>Advanced Electromagnetic Radiation</td>
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</tr>
<tr>
<td>ECEN 5613</td>
<td>Electromagnetic Theory</td>
<td></td>
</tr>
<tr>
<td><strong>Group II</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 5133</td>
<td>Laser Spectroscopy</td>
<td></td>
</tr>
<tr>
<td>PHYS 5663</td>
<td>Solid State Physics I</td>
<td></td>
</tr>
<tr>
<td>PHYS 6313</td>
<td>Quantum Mechanics II</td>
<td></td>
</tr>
<tr>
<td>PHYS 6413</td>
<td>Nonlinear Optics</td>
<td></td>
</tr>
<tr>
<td>PHYS 6423</td>
<td>Quantum Optics</td>
<td></td>
</tr>
<tr>
<td>ECEN 4823</td>
<td>Design of Optical Systems</td>
<td></td>
</tr>
<tr>
<td>ECEN 5843</td>
<td>Microelectronic Fabrication</td>
<td></td>
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<tr>
<td>ECEN 5853</td>
<td>Ultrafast Optoelectronics</td>
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<tr>
<td>ECEN 5793</td>
<td>Digital Image Processing</td>
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</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
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</tr>
<tr>
<td><strong>Thesis/Research</strong></td>
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<tr>
<td>Select 6 hours (or more) of supervised research with submission of an approved thesis.</td>
<td>6</td>
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</tr>
<tr>
<td>PHYS 5000</td>
<td>Master's Thesis Research or Report (Or equivalent)</td>
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<tr>
<td><strong>Hours Subtotal</strong></td>
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</tr>
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### Non-Thesis Option
Total Hours: 32 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 5453</td>
<td>Methods of Theoretical Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5613</td>
<td>Quantum Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>Select 9 hours of Photonics core courses from the following with advisor approval:</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>PHYS 5123</td>
<td>Geometrical Optics</td>
<td></td>
</tr>
<tr>
<td>PHYS 5163</td>
<td>Lasers</td>
<td></td>
</tr>
<tr>
<td>PHYS 5303</td>
<td>Physical Optics</td>
<td></td>
</tr>
<tr>
<td>ECEN 4843</td>
<td>Design of Lasers and Systems</td>
<td></td>
</tr>
<tr>
<td>ECEN 5833</td>
<td>Fiber-Optic Communication Systems</td>
<td></td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td><strong>Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 9 hours from the two groups of electives with a minin of one course and a maximum of two from Group I. Courses at the graduate level from other departments may be substituted for electives in Group II with Physics Department permission, but alternate courses must have a strong connection to optics and photonics.</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td><strong>Group I</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 4813</td>
<td>Electromagnetic Radiation</td>
<td></td>
</tr>
<tr>
<td>PHYS 5313</td>
<td>Electromagnetic Theory</td>
<td></td>
</tr>
<tr>
<td>PHYS 6713</td>
<td>Advanced Electromagnetic Radiation</td>
<td></td>
</tr>
<tr>
<td>ECEN 5613</td>
<td>Electromagnetic Theory</td>
<td></td>
</tr>
<tr>
<td><strong>Group II</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 5133</td>
<td>Laser Spectroscopy</td>
<td></td>
</tr>
<tr>
<td>PHYS 5663</td>
<td>Solid State Physics I</td>
<td></td>
</tr>
<tr>
<td>PHYS 6313</td>
<td>Quantum Mechanics II</td>
<td></td>
</tr>
<tr>
<td>PHYS 6413</td>
<td>Nonlinear Optics</td>
<td></td>
</tr>
<tr>
<td>PHYS 6423</td>
<td>Quantum Optics</td>
<td></td>
</tr>
<tr>
<td>ECEN 4823</td>
<td>Design of Optical Systems</td>
<td></td>
</tr>
<tr>
<td>ECEN 5843</td>
<td>Microelectronic Fabrication</td>
<td></td>
</tr>
<tr>
<td>ECEN 5853</td>
<td>Ultrafast Optoelectronics</td>
<td></td>
</tr>
<tr>
<td>ECEN 5793</td>
<td>Digital Image Processing</td>
<td></td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td><strong>Additional Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 6 hours of advanced courses at the graduate level.</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Report</strong></td>
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<td></td>
</tr>
<tr>
<td>Students must complete a two-credit hour report.</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>32</td>
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</tr>
</tbody>
</table>

### General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
## Plant and Soil Sciences, MS

### Requirements for Students Matriculating in or before Academic Year 2019-2020.
Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 30 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Course Requirements</strong></td>
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<tr>
<td></td>
<td>Select 24 hours from the following:</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>A minimum of 15 hours of 5000-level or higher courses that include:</td>
<td></td>
</tr>
<tr>
<td>PLNT 5020</td>
<td>Graduate Seminar</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>SOIL 5020  Graduate Seminar</td>
<td></td>
</tr>
<tr>
<td>SOIL 5131</td>
<td>Professional Development Colloquium in Plant and Soil Sciences</td>
<td></td>
</tr>
<tr>
<td>PLNT 5110</td>
<td>Problems and Special Study</td>
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<tr>
<td></td>
<td>Select 9 hours of MATH (including 3 hours of STAT):</td>
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</tr>
<tr>
<td></td>
<td>No more than 9 credit hours of 3000- or 4000-level coursework</td>
<td></td>
</tr>
<tr>
<td></td>
<td>approved for graduate credit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recommended courses at the discretion of the graduate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>committee that students emphasizing soil science should complete 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of the 5 courses listed below (or equivalent) during their</td>
<td></td>
</tr>
<tr>
<td></td>
<td>undergraduate or graduate programs:</td>
<td></td>
</tr>
<tr>
<td>SOIL 3433</td>
<td>Soil Genesis, Morphology, and Classification</td>
<td></td>
</tr>
<tr>
<td>SOIL 4234</td>
<td>Soil Nutrient Management</td>
<td></td>
</tr>
<tr>
<td>SOIL 4893</td>
<td>Soil Chemistry and Environmental Quality</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>SOIL 5223  Soil Chemical Processes and Impact on Environmental</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality</td>
<td></td>
</tr>
<tr>
<td>SOIL 4683</td>
<td>Soil, Water, and Weather</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>SOIL 5683  Soil Physics Theory</td>
<td></td>
</tr>
<tr>
<td>SOIL 4483</td>
<td>Soil Microbiology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A student may take a maximum of 3 research credit hours.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research hours are to be taken to document student effort in areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>not associated with the students thesis. All students must</td>
<td></td>
</tr>
<tr>
<td></td>
<td>indicate on their Plan of Study whether or not their research</td>
<td></td>
</tr>
<tr>
<td></td>
<td>will involve human subjects. If human subjects are to be used,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>approval must be received from the Institutional Research Board</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(IRB) prior to the beginning of the research.</td>
<td></td>
</tr>
<tr>
<td>PLNT 5230</td>
<td>Research</td>
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<tr>
<td>or</td>
<td>SOIL 5230  Research</td>
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</tr>
<tr>
<td>Hours Subtotal</td>
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<tr>
<td></td>
<td><strong>Thesis</strong></td>
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</tr>
<tr>
<td>PLNT 5000</td>
<td>Master's Thesis</td>
<td>6</td>
</tr>
<tr>
<td>or</td>
<td>SOIL 5000  Master's Thesis</td>
<td></td>
</tr>
<tr>
<td>Hours Subtotal</td>
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<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td>30</td>
</tr>
</tbody>
</table>

### Additional Graduate College Masters Degree Requirements

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
**Plant Biology, MS**

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours: 30 Hours**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PBIO 5110</td>
<td>Special Topics in Plant Biology</td>
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</tr>
<tr>
<td>PBIO 5850</td>
<td>Plant Biology Seminar (offered for fixed credit, 1 credit hour, maximum of 6 credit hours)</td>
<td>2</td>
</tr>
<tr>
<td>PBIO 5000</td>
<td>Master's Thesis</td>
<td>6</td>
</tr>
<tr>
<td>Hours Subtotal</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

**Electives**

At least 3 graduate courses totaling 9 credit hours at the 5000 level or higher and remaining hours at 5000 level or higher from BIOC, BIOL, CHEM, CS, ENVIR, GENE, GEOG, GEOL, MATH, MICR, PBIO, PHYS, PLNT, NREM, STAT

| Hours Subtotal | 21 |
| Hours Subtotal | 21 |
| Total Hours    | 30 |

**Additional Plant Biology Requirements**

- Research Proposal Defense
- Teaching one semester as a Teaching Assistant

**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Political Science, MA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option

Total Hours: 33 Hours

<table>
<thead>
<tr>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>POLS 5013</td>
<td>Quantitative Methods</td>
<td>3</td>
</tr>
<tr>
<td>POLS 5103</td>
<td>Research Design</td>
<td>3</td>
</tr>
<tr>
<td>POLS 5203</td>
<td>ProSeminar in International Relations</td>
<td>3</td>
</tr>
<tr>
<td>POLS 5403</td>
<td>ProSeminar in Comparative Politics</td>
<td>3</td>
</tr>
<tr>
<td>POLS 5703</td>
<td>ProSeminar in American Politics</td>
<td>3</td>
</tr>
<tr>
<td>POLS 5000</td>
<td>Thesis</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Hours: 21

Electives

Select two advanced topics courses (e.g., POLS 5710, POLS 5210, POLS 5410) or equivalent. Must be in two separate subfields.

Any two graduate-level courses.

Total Hours: 12

Total Hours: 33

Creative Component Option

Total Hours: 33 Hours

<table>
<thead>
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<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>POLS 5013</td>
<td>Quantitative Methods</td>
<td>3</td>
</tr>
<tr>
<td>POLS 5103</td>
<td>Research Design</td>
<td>3</td>
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<tr>
<td>POLS 5203</td>
<td>ProSeminar in International Relations</td>
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</tr>
<tr>
<td>POLS 5403</td>
<td>ProSeminar in Comparative Politics</td>
<td>3</td>
</tr>
<tr>
<td>POLS 5703</td>
<td>ProSeminar in American Politics</td>
<td>3</td>
</tr>
<tr>
<td>POLS 5000</td>
<td>Thesis</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 18

Electives

Select two advanced topics courses (e.g., POLS 5710, POLS 5210, POLS 5410) or equivalent. Must be in two separate subfields.

Any three graduate-level courses.

Total Hours: 15

Total Hours: 33

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
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Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
# Public Health: Rural and Underserved Populations, MPH

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

## Thesis Option

Total Hours: 42 Hours

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<td>REMS 5953</td>
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<tr>
<td>HLTH 5323</td>
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<td>Environmental Health</td>
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<tr>
<td>HCA 5013</td>
<td>Survey of Health Care Administration</td>
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<tr>
<td>MC 5953</td>
<td>Strategic Health Communications Campaigns</td>
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<tr>
<td>or AGCM 5403</td>
<td>Public Relations Campaigns in Agricultural Sciences and Natural Resources</td>
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**Guided Electives**

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<td>Nutrition and Physical Activity in Aging</td>
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<td>Sexuality and Health</td>
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<td>NSCI 5453</td>
<td>Nutrition and Health Disparities</td>
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<td>NSCI 5553</td>
<td>Global Nutrition and Food Security</td>
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<td>HDFS 5153</td>
<td>Policy in Human Development and Family Science</td>
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<td>HDFS 5403</td>
<td>Perspectives in Gerontology</td>
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<td>HDFS 5493</td>
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<td>HDFS 5523</td>
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**Thesis**

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## Public Health Practicum

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<td>Survey of Health Care Administration</td>
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<td>or AGCM 5403</td>
<td>Public Relations Campaigns in Agricultural Sciences and Natural Resources</td>
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**Guided Electives**

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**Hours Subtotal**

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</table>
General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Quantitative Financial Economics, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 33 Hours

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Total Hours 33

General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)
- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
### Social Foundations of Education, MA

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 36 Hours

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**General Graduate College Requirements**

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

**Additional Graduate College Masters Degree Requirements**

**Plan I (coursework with thesis)**

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**
Sociology, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 31 Hours

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Non-Thesis Option
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General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of “C” is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

• A minimum of 30 credit hours
  • A minimum of 24 coursework credit hours comprised of:
    • 6 research or creative component credit hours
    • 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    • 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

• A minimum of 32 credit hours
  • A maximum of 3 credit hours of research or creative component
  • A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  • A minimum of 21 credit hours at the 5000- or 6000-level
Statistics, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option
Total Hours: 36 Hours

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<td>STAT 5223</td>
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<td>STAT 5303</td>
<td>Experimental Designs</td>
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<td>STAT 5323</td>
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**Hours Subtotal**: 30

**Thesis**
Select 6 hours

**Hours Subtotal**: 6

**Total Hours**: 36

1 The following courses will NOT be allowed to count toward this outside course: AGEC 5103, BAE 5513, ECON 4213, IEM 5003, IEM 5133, PSYC 5303, PSYC 5313, REMS 5013, REMS 5953, REMS 6003, REMS 6013.

Creative Component
Total Hours: 36 Hours

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**Hours Subtotal**: 30

**Select 6 hours of approved coursework to include a Creative Component**

**Hours Subtotal**: 6

**Total Hours**: 36

1 The following courses will NOT be allowed to count toward this outside course: AGEC 5103, BAE 5513, ECON 4213, IEM 5003, IEM 5133, PSYC 5303, PSYC 5313, REMS 5013, REMS 5953, REMS 6003, REMS 6013.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)
• A minimum of 32 credit hours
  • A maximum of 3 credit hours of research or creative component
  • A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  • A minimum of 21 credit hours at the 5000- or 6000-level
Teaching: Elementary, MATT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 39 Hours

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<td>CIED 5343</td>
<td>Teaching Linguistically and Culturally Diverse Learners</td>
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<td>SPED 5633</td>
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<td>CIED 4362</td>
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<td>Reading Processes and Practices GR 1-8</td>
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<td>Formative Literacy Assessment GR 1-8</td>
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<td>Teaching Mathematics at the Intermediate Level</td>
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<td>Mathematics Education: Theory and Practice(Grade 1-4)</td>
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General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)
Teaching: Secondary Mathematics, MATT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 34 Hours

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<td>SMED 4053</td>
<td>Teaching Geometry in the Secondary School</td>
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<td>Knowing and Learning in Mathematics and Science</td>
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<td>Classroom Interactions in Mathematics and Science</td>
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General Graduate College Requirements

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)
Teaching: Secondary Science, MATT

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 34 Hours

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General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
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Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
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    - 21 credit hours at the 5000- or 6000-level
### Thesis Option

**Total Hours:** 36 Hours

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<td>Educational Advocacy and Leadership</td>
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<td><strong>Research and Inquiry</strong></td>
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<td>REMS 5953</td>
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### Creative Component Option

**Total Hours:** 36 Hours

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<tr>
<td>CIED 5043</td>
<td>Issues in Teaching</td>
<td>3</td>
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<tr>
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<tr>
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<td>CIED 5173</td>
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<td>CIED 5183</td>
<td>Media Literacy Across the Curriculum</td>
<td></td>
</tr>
<tr>
<td>CIED 5313</td>
<td>Curriculum of the Elementary School</td>
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</tr>
<tr>
<td>CIED 5623</td>
<td>Multicultural and Diversity Issues in Curriculum</td>
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<tr>
<td>CIED 5723</td>
<td>Gender and Curriculum</td>
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<tr>
<td>CIED 5730</td>
<td>Seminar in Education</td>
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<tr>
<td>CIED 5803</td>
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<tr>
<td>SCFD 5883</td>
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<tr>
<td>OSU Writing Project OR other courses with Advisor's approval</td>
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<td>Courses with Advisor's approval</td>
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<tr>
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<tr>
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</table>

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements
Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Teaching, Learning and Leadership: Elementary/Middle/Secondary Ed/ K-12 Ed, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>CIED 5053</td>
<td>Curriculum Issues</td>
<td>3</td>
</tr>
<tr>
<td>CIED 5813</td>
<td>Educational Advocacy and Leadership</td>
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**Research Requirement**
Select two courses; or select one research course and ensure three courses found in the common or program core that are designated with an asterisk (*) are selected.

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<thead>
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<tr>
<td>SCFD 5913</td>
<td>Introduction to Qualitative Inquiry (OR)</td>
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<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology (OR)</td>
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</tr>
<tr>
<td>CIED 5073</td>
<td>Pedagogical Research (OR)</td>
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</tr>
<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
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**Program Core**
Select 3 hours from the following:

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<td>Multicultural and Diversity Issues in Curriculum</td>
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<td>CIED 5663</td>
<td>Integrating Teaching in the Secondary School</td>
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<td>SPED 5993</td>
<td>Culturally Responsive Teaching in Special Education</td>
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**Areas of Emphasis**
In consultation with an adviser, select 18-21 hours from the following:

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<tr>
<td>CIED 5350</td>
<td>The Visual Arts in the Curriculum</td>
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<td>CIED 5153</td>
<td>Advanced Studies in Children’s Literature</td>
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<tr>
<td>CIED 5353</td>
<td>Literature for Children, Adolescents and Adults</td>
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<tr>
<td>CIED 5443</td>
<td>Teaching Reading with Literature</td>
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<tr>
<td>CIED 4313</td>
<td>Young Adult Literature</td>
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<tr>
<td>CIED 5173</td>
<td>Kindergarten-Primary Curriculum</td>
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<td>CIED 5313</td>
<td>Curriculum of the Elementary School</td>
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<td>CIED 5183</td>
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<td>CIED 5353</td>
<td>Literature for Children, Adolescents and Adults</td>
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<td>CIED 5433</td>
<td>Reading and Writing in the Content Areas</td>
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<td>CIED 5463</td>
<td>Reading Assessment and Instruction</td>
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<tr>
<td>CIED 5473</td>
<td>Reading &amp; Writing Difficulties</td>
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<td>CIED 5483</td>
<td>Literacy and Technology Across the Curriculum</td>
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<td>CIED 5553</td>
<td>Literacy Leadership and Coaching</td>
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<td>CIED 5733</td>
<td>History of Reading</td>
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<td>CIED 4813</td>
<td>Introduction to First and Second Language Acquisition for Teachers</td>
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<tr>
<td>CIED 4823</td>
<td>Foreign Language Instruction, Curriculum, and Assessment: Grades PK-12</td>
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<tr>
<td>CIED 5423</td>
<td>Literacy Instruction in Primary Grades</td>
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<tr>
<td>CIED 5523</td>
<td>Practicum in Reading Instruction</td>
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<tr>
<td>CIED 5893</td>
<td>Reading Processes and Practices GR 1-8</td>
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<td>SMED 5050</td>
<td>Seminar in Integrated Mathematics and Science Applications</td>
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<td>SMED 5253</td>
<td>Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions</td>
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<tr>
<td>SMED 5263</td>
<td>Assessment and Evaluation in School Mathematics</td>
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<td>SMED 5270</td>
<td>Practicum in School Mathematics</td>
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<tr>
<td>SMED 5273</td>
<td>Number Concepts and Assessment at the Elementary Level (PK-6)</td>
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<tr>
<td>SMED 5283</td>
<td>Problem-Centered Learning in Mathematics</td>
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</tr>
<tr>
<td>SMED 5293</td>
<td>Teaching and Learning Mathematics in Technology</td>
<td></td>
</tr>
<tr>
<td>SMED 5913</td>
<td>Teaching Geometry and Spatial Visualization</td>
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</tr>
<tr>
<td>SMED 5923</td>
<td>Teaching Algebra and Mathematical Tasks</td>
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<tr>
<td>SMED 5933</td>
<td>Teaching Data and Probability in Schools</td>
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<tr>
<td>SMED 5943</td>
<td>Mathematics Leadership and Coaching</td>
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<tr>
<td>SMED 4613</td>
<td>Teaching the Nature of Science Through an Inquiry Approach</td>
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<td>SMED 4713</td>
<td>Teaching and Learning Science in the Secondary School</td>
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<tr>
<td>SMED 5193</td>
<td>Inquiry and Problem-Based Learning in Science Education</td>
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<tr>
<td>SMED 5223</td>
<td>Teaching Science in the Schools</td>
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<td>SMED 5050</td>
<td>Seminar in Integrated Mathematics and Science Applications</td>
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<tr>
<td>SMED 5243</td>
<td>Environmental Education in the Curriculum</td>
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<td>SMED 5280</td>
<td>Workshop in Science Education</td>
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<tr>
<td>SMED 5313</td>
<td>Introduction to K-12 Engineering Education</td>
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<tr>
<td>SMED 5323</td>
<td>Technology for the K-12 STEM Educator</td>
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<tr>
<td>SMED 5333</td>
<td>Developing Informal and Formal STEM Programs in Schools</td>
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<td>CIED 4713</td>
<td>Teaching and Learning in the Secondary School</td>
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<td>CIED 5323</td>
<td>Teaching Social Studies in the Schools</td>
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<tr>
<td>SPED 5623</td>
<td>Characteristics of Students with Mild/ Moderate Disabilities</td>
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<tr>
<td>SPED 5743</td>
<td>Planning, Compliance and Current Practices</td>
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<td>SPED 5883</td>
<td>Classroom and Behavior Management</td>
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</tr>
<tr>
<td>SPED 5993</td>
<td>Culturally Responsive Teaching in Special Education</td>
<td></td>
</tr>
</tbody>
</table>
General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
# Teaching, Learning and Leadership: Gifted and Talented Education, MS

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
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<td>Degree Core</td>
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<tr>
<td>CIED 5053</td>
<td>Curriculum Issues</td>
<td>3</td>
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<tr>
<td>CIED 5813</td>
<td>Educational Advocacy and Leadership</td>
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<td>GTED 5063</td>
<td>Introduction to Gifted and Talented Education</td>
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<tr>
<td>GTED 5163</td>
<td>Counseling Techniques for Teachers of Gifted and Talented Students</td>
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<tr>
<td>GTED 5363</td>
<td>Differentiating Curriculum for Gifted Learners</td>
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<td>GTED 5620</td>
<td>Practicum with Exceptional Learners</td>
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<td>Teaching Methods and Techniques for Gifted Education</td>
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<td>GTED 5863</td>
<td>Developing Programs for the Gifted and Talented</td>
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<td>GTED 5993</td>
<td>Identification and Behavioral Characteristics of the Gifted and Talented</td>
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<tr>
<td>Select 3 hours from the following:</td>
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<tr>
<td>CIED 5073</td>
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<tr>
<td>REMS 5013</td>
<td>Research Design and Methodology</td>
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<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
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<tr>
<td>SCFD 5913</td>
<td>Introduction to Qualitative Inquiry</td>
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</tr>
</tbody>
</table>

**Hours Subtotal:** 30

### Electives

Select 6 hours from any discipline in consultation with your advisory committee.

**Hours Subtotal:** 6

**Total Hours:** 36

### General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
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### Additional Graduate College Masters Degree Requirements

#### Plan I (coursework with thesis)

- A minimum of 30 credit hours
- A minimum of 24 coursework credit hours comprised of:
  - 6 research or creative component credit hours
  - 21 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level

#### Plan II (coursework without thesis)

- A minimum of 32 credit hours
- A maximum of 3 credit hours of research or creative component
- A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
- A minimum of 21 credit hours at the 5000- or 6000-level
Teaching, Learning and Leadership: Mathematics/Science Education, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CIED 5053</td>
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<td>Educational Advocacy and Leadership</td>
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Research Requirement
Select 6 hours from the following: 6

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<th>Title</th>
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<tr>
<td>MATH 5913</td>
<td>Introduction to Research in Mathematics Education</td>
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<td>REMS 5013</td>
<td>Research Design and Methodology</td>
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<tr>
<td>REMS 5953</td>
<td>Statistical Methods in Education</td>
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</tr>
<tr>
<td>STAT 5013</td>
<td>Statistics for Experimenters I</td>
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</tr>
<tr>
<td>SCFD 5913</td>
<td>Introduction to Qualitative Inquiry</td>
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<td><strong>Hours Subtotal</strong></td>
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</table>

Program Core
SMED 5750 | Seminar in Mathematics Education              | 3     |
| SMED 5193 | Inquiry and Problem-Based Learning in Science Education | 3     |
| or SMED 5283 | Problem-Centered Learning in Mathematics |       |
|         | **Hours Subtotal**                              | **6** |

Areas of Emphasis
Select 12 hours 12

<table>
<thead>
<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>SMED 5050</td>
<td>Seminar in Integrated Mathematics and Science Applications</td>
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<tr>
<td>SMED 5193</td>
<td>Inquiry and Problem-Based Learning in Science Education</td>
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</tr>
<tr>
<td>SMED 5223</td>
<td>Teaching Science in the Schools</td>
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<td>SMED 5243</td>
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<td>SMED 5253</td>
<td>Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions</td>
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<td>Assessment and Evaluation in School Mathematics</td>
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<tr>
<td>SMED 5273</td>
<td>Number Concepts and Assessment at the Elementary Level (PK-6)</td>
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<td>SMED 5280</td>
<td>Workshop in Science Education</td>
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<td>Problem-Centered Learning in Mathematics</td>
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<td>SMED 5293</td>
<td>Teaching and Learning Mathematics in Technology</td>
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<td>SMED 5313</td>
<td>Introduction to K12 Engineering Education</td>
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General Graduate College Requirements

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- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)

- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Teaching, Learning and Leadership: Reading and Literacy, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 36 Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<td><strong>Common Core</strong></td>
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<td>REMS 5013</td>
<td>Research Design and Methodology</td>
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<td>CIED 5073</td>
<td>Pedagogical Research</td>
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<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td><strong>Area of Emphasis (Reading Specialist Certification Program)</strong></td>
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<td>CIED 5143</td>
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<td>CIED 5153</td>
<td>Advanced Studies in Children's Literature</td>
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<td>CIED 5423</td>
<td>Literacy Instruction in Primary Grades</td>
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<td>CIED 5433</td>
<td>Reading and Writing in the Content Areas</td>
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</tr>
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<td>CIED 5463</td>
<td>Reading Assessment and Instruction</td>
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<tr>
<td>CIED 5523</td>
<td>Practicum in Reading Instruction</td>
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<tr>
<td>CIED 5553</td>
<td>Literacy Leadership and Coaching</td>
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<td>Select 6 hours</td>
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<td><strong>Hours Subtotal</strong></td>
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<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td>36</td>
</tr>
</tbody>
</table>

General Graduate College Requirements

• A minimum Grade-Point-Average of 3.00 is required
• A minimum Grade of "C" is required in all degree applicable courses
• No courses utilizing the Pass-No Pass grading system are permitted
• GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)

• A minimum of 32 credit hours
  • A maximum of 3 credit hours of research or creative component
  • A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  • A minimum of 21 credit hours at the 5000- or 6000-level

Plan II (coursework without thesis)
Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 36 Hours

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<th>Code</th>
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<td>SPED 5673 Improving Literacy Skills of Individuals with Disabilities</td>
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<td>SPED 5743 Planning, Compliance and Current Practices</td>
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<td>SPED 5150 Seminar in Special Education</td>
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<tr>
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<td>SPED 4723 Transition Into Adulthood for Individuals with Disabilities</td>
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<td>SPED 5123 Characteristics and Teaching Methods for Students with Autism Spectrum Disorders</td>
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<td>SPED 5620 Practicum with Exceptional Learners</td>
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<td>SPED 5623 Characteristics of Students with Mild/ Moderate Disabilities</td>
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<td>SPED 5783 Assessing Students with Disabilities</td>
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<td>SPED 5883 Classroom and Behavior Management</td>
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<td>SPED 5993 Culturally Responsive Teaching in Special Education</td>
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<td>EPSY 5463 Psychology of Learning</td>
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<td>EPSY 5793</td>
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<td></td>
<td>CIED 5143 Language Arts in the Curriculum</td>
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**Plan I (coursework with thesis)**
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

**Plan II (coursework without thesis)**
- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
# Teaching, Learning and Leadership: Workforce and Adult Education, MS

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

**Total Hours:** 36 Hours

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<tr>
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<td>CIED 5813</td>
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<td>AGED 5983</td>
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<td>Curriculum Planning in Workforce and Adult Education</td>
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<td>Advanced Instructional Procedures in Workforce and Adult Education</td>
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<td>WAED 5313</td>
<td>History, Principles, and Organization of Workforce Education</td>
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<td>CTED 4123</td>
<td>Coordinating Career and Technical Student Organizations and Activities</td>
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<td>CTED 4213</td>
<td>Safety, Organization and Management of Learning Facilities</td>
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<td>EDLE 5723</td>
<td>Education Law</td>
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<td>WAED 5000</td>
<td>Thesis or Report</td>
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<td>WAED 5010</td>
<td>Seminar</td>
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<td>WAED 5013</td>
<td>Characteristics of Adult Learners</td>
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<td>WAED 5113</td>
<td>Principles of Leadership in Workforce Education</td>
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<td>WAED 5123</td>
<td>Evaluation of Workforce and Adult Education Programs and Instruction</td>
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<td>WAED 5133</td>
<td>Internationalism, Globalization and Workforce Education</td>
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<td>WAED 5143</td>
<td>Organization and Administration of Adult Education</td>
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<td>WAED 5203</td>
<td>Foundations of Adult and Continuing Education</td>
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<td>WAED 5223</td>
<td>Program Planning for Workforce and Adult Educators</td>
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<td>WAED 5333</td>
<td>Administration and Supervision of Workforce Education Programs</td>
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<td>WAED 5340</td>
<td>Special Problems in Workforce Education</td>
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<td>WAED 5353</td>
<td>Instructional Strategies for Adults</td>
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<td>WAED 5423</td>
<td>Individualized Competency Based Instruction and Customized Training</td>
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<td>WAED 5703</td>
<td>Adult Learning in Diverse Settings</td>
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<td>WAED 5720</td>
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<td>WAED 5880</td>
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<td>WAED 5910</td>
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**Total Hours:** 36

## General Graduate College Requirements
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## Additional Graduate College Masters Degree Requirements

### Plan I (coursework with thesis)
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
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    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
  - 21 credit hours at 5000- or 6000-level

### Plan II (coursework without thesis)
- A minimum of 32 credit hours
  - A minimum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level
Theatre, MA

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Thesis Option

Total Hours: 30 Hours

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<td>TH 5113</td>
<td>Theatre History and Theory I</td>
<td>3</td>
</tr>
<tr>
<td>TH 5513</td>
<td>Theatre History and Theory II</td>
<td>3</td>
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<tr>
<td>TH 5313</td>
<td>Dramaturgy</td>
<td>3</td>
</tr>
<tr>
<td>TH 5600</td>
<td>Seminar in Dramatic Literature</td>
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Total Hours: 30

Electives

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<td>Seminar in Theatre</td>
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<td>TH 5500</td>
<td>Individual Theatre Projects</td>
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<td>TH 5953</td>
<td>Problems in Advanced Directing</td>
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<td>TH 5600</td>
<td>Seminar in Dramatic Literature</td>
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Total Hours: 18

Creative Component

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Total Hours: 3

General Graduate College Requirements

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  - 21 credit hours at 5000- or 6000-level

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  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level

Non-Thesis Option

Total Hours: 32 Hours

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Total Hours: 30

Electives

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</tr>
<tr>
<td>TH 5400</td>
<td>Seminar in Theatre</td>
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<tr>
<td>TH 5500</td>
<td>Individual Theatre Projects</td>
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<tr>
<td>TH 5953</td>
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Veterinary Biomedical Science, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (p. 1778).

Total Hours: 30 Hours

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<td>VBSC 5023</td>
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**Electives**

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**Total Hours**

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  - A maximum of 3 credit hours of research or creative component
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  - A minimum of 21 credit hours at the 5000- or 6000-level