## **GRADUATE COLLEGE**

### **College Administration**

Sheryl A. Tucker, PhD—Vice Provost and Dean Jean Van Delinder, PhD—Senior Associate Dean Matt Lovern, PhD—Associate Dean Carol Powers, PhD—Assistant Dean

### **Campus Address and Phone**

Address: 202 Whitehurst, Stillwater, OK 74078

**Admissions** 

Phone: 405-744-6368 Fax: 405-744-0355

Website: gradcollege.okstate.edu (http://gradcollege.okstate.edu)

E-mail: grad-i@okstate.edu (gradi@okstate.edu)

The OSU Graduate College - Developing the person, the scholar and the professional...

Graduate education at Oklahoma State University (OSU) is organized around the scholarly pursuit of new knowledge, both through didactic instruction and through independent and group research conducted utilizing the facilities and resources of a major research university. OSU's national and international reputation is grounded in the scholarly research and creative work performed by faculty and students under the auspices of OSU's graduate programs.

The first graduate degree was conferred by OSU in 1912, and the Graduate College was organized in 1929. OSU offers more than 200 graduate degree programs, including several interdisciplinary and joint-degree programs.

### 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, OSU Center for Health Sciences in Tulsa and OSU College of Veterinary Medicine in Stillwater. Professional degrees offered through the College of Veterinary Medicine and the Center for Health Sciences in Tulsa are not under the Graduate College. The Graduate College sets standards for admission to graduate standing and recommends to the Board of Regents those students who have completed work required for earning graduate degrees.

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, Graduate Council, 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 Council members participate 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. 17)" in "The University (p. 17)" 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. 75)" 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 advisor and/or graduate program coordinator.

### 2.0 Services for Graduate Students

For a complete list of University services, please visit the "Current Student" link on the "Resources" menu 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 is enrolled full time.

The GPSGA provides funds for graduate and professional student organizations and in collaboration with the Graduate College, 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 makes assistantship offers. 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 Office of the Bursar Payment Plan

OSU offers enrolled students a semester-based payment option, as an alternative to the traditional lump-sum payment method. This plan allows for University-billed expenses to be paid in regular monthly installment without a finance charges. The plan has a \$25 application fee and additional information can be found at https://bursar.okstate.edu/payment-option-plan (https://bursar.okstate.edu/payment-option-plan/).

#### 3.3 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 October 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).

#### 3.4 OSU Short-Term Emergency Loans.

In addition to potential federal loans that may be awarded, 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 (https://financialaid.okstate.edu/aid/loans/stl/).

#### 3.5 Graduate Assistantships.

OSU recognizes two types of graduate assistants for students enrolled in master's, specialist and doctoral degree programs. Graduate certificate seeking only 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 instruction process. A GTA may be assigned primary responsibilities in an extension, outreach or service role for which those responsibilities support the instructional mission of the University. GTAs may not be given duties to support faculty research or those primarily clerical in nature.

A Graduate Research Assistant (GRA) 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. 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.

#### 3.6 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 a 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 or 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.

#### 3.7 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 (https:// gradcollege.okstate.edu/resources/current-student-resources.html), 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.

#### 3.7.1 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 subsidized 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 subsidized single-person-coverage health insurance through OSU for the summer term.

The University subsidizes the student's coverage on a semester-bysemester basis. Students receiving the GTA/GRA insurance are required to pay the semester health fee. Information on the policy is available at OSU Human Resources http://hr.okstate.edu/student-health-plan (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 (http://hr.okstate.edu/student-health-plan/). The form must be submitted by the deadline to OSU Human Resources, Benefits Office 106J Whitehurst.

#### 3.8 Health Insurance for International Students.

The Oklahoma State University Board of Regents requires that all visaholding (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 a subsidized student health insurance policy.

# 3.9 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-exception type courses. The McNair Graduate Fellow Tuition Waiver Program is competitive and is not guaranteed, irrespective of the McNair application waiver received. Please contact the Graduate College (grad-i@okstate.edu (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 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 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.

#### 3.10 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. Please contact the Graduate College or grad-i@okstate.edu for specific requirements.

#### 3.11 Spouse/Partner Tuition Waivers.

A spouse/partner 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.

#### 3.12 Student Employment.

Career Services provides assistance to OSU students seeking parttime 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 college career consultants located in the respective disciplinary colleges. Services include resume and curriculum vitae development, written correspondence assistance, mock interviews and interview preparation, academic and non-academic job search assistance, workshops and career fairs.

### 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, 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 they complete 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 English proficiency test score which satisfies the University's or graduate program's minimum (see "International Student Admission" for minimum requirements).

#### 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 graduate 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 their overall GPA is 3.00 or higher for all courses on their bachelor's degree transcript and/or transcripts from their 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 nondegree seeking student advisor 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 they 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 advisor, 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 (including a 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's record 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 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 advisor in the Graduate College. Students should contact the Graduate College at 405-744-6368 or grad-academici@okstate.edu (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 English proficiency examinations. Applicants who present a TOEFL score of at least 79 iBT/550 PBT or a PTE academic test score of at least 53, 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 an English proficiency score or other tests above these levels, and applicants should contact the program for specific language 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, that additional testing on-campus 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 examination must have been taken within the last two years.

Applicants who present a TOEFL score of at least 61 IBT/500 PBT, but at less than 79 IBT/500 PBT or an IELTS Academic Stream of 6.0, or a PTE academic test score of 44 and who demonstrate unusual academic promise may be admitted to graduate study on a conditional status upon petition to the Graduate College by the graduate program.

Applicants with English proficiency a test scores of at least 61 iBT/500 PBT, but less than 79 iBT/550 PBT, an IELTS Academic Stream of 6.0 or PTE Academic test score of 44 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://global.okstate.edu/eli/about\_osu\_eli.html.

Applicants, who do not submit a test 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 successful completion of an approved 12 week ELI program as described above, the student will be eligible for admission to their graduate program and will be issued an I-20 by the Graduate College. 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) or graders are not required to comply with these provisions. See https:// gradcollege.okstate.edu/prospective-students/international-teachingassistant-test.html 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. Any new international teaching assistant (ITA) who submits a PTE or IELTS score are required to take the ITA test prior to being approved for instructional assignments. See https://gradcollege.okstate.edu/

prospective-students/international-teaching-assistant-test.html for specific policy requirements.

#### **5.0 Transfer of Graduate Credits**

Transfer credit for "non-aged" courses must be recommended by the graduate student's advisory committee through the submission of a Plan of Study, which requires approval by the dean of the Graduate College. See Section 7.0 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 graduate degrees may also be considered when a student was admitted to a medical professional program at an 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 they have completed a master's degree and if the courses are approved by their advisory committee. 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 in courses at OSU within the time frame specified in the 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 University resources (e.g., physical - laboratory, studios; electronic – library holdings; computing; human - faculty, staff). 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; 24 for the Physician Assistant Studies program) 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 (15 for the Physician Assistant Studies program) 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.

Degree-seeking graduate students must be enrolled in at least two credit 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 all of the following conditions:

- 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 Continuous 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 in 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 primarily enroll 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, advisor 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 nonenrollment
- Nonresident: \$1,900/semester (summer session excluded) of nonenrollment

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 reapplication process (e.g., new letters of recommendation and unexpired standardize test scores); availability of the same graduate advisor, 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 advisor 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 advisor. 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 Registrar's website or upon request to grad-i@okstate.edu.

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

- 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.
- 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.
- 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, advisor, 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 https:// gradcollege.okstate.edu/resources/current-student-resources.html 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 advisor'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 advisor. The graduate faculty advisor can provide information about required courses, course sequencing, and other information in order to select appropriate courses. The advisor 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 advisor 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 advisor 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 3.9), City Year Scholars (see section 3.10), International students on F-1 or J-1 visas and students on spousal/partner waivers (see Section 3.11).

# 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. 941)" 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 certificate or 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 degree 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 degrees, (degrees include undergraduate and 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, "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 advisor 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 advisors, 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. 941)" chapter of the Catalog.

#### 11.6 Pass-Fail Grading System.

Graduate students may take courses utilizing the Pass-Fail grading with the consent of their faculty advisors; 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, clinicals, seminar, special problems and student teaching. See section 6.7 "Grades and Grading" in the "University Academic Regulations (p. 941)" 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 it is determined the student is 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 "F", "NP", "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:

- Program Notice. The graduate program is notified and is encouraged to review the student's performance to determine if any program intervention is needed.
- Academic Probation. If a student's overall GPA drops below a 3.00, if a "F," "NP," or "UR" grade is earned, or if the dean of the Graduate College judges the student's overall academic performance so warrants then they are 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 3.00 or greater, earns a "P" or "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 "F", "NP," and/or "UR". or
  - 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 cancellation of any pre-enrollment for the upcoming semester.
- 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 they believe 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.

# 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 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.

#### 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. For example, it is not possible to earn both an M.S. degree in Electrical Engineering with an option in Control Systems and an M.S. degree in Electrical Engineering with an option in Optics and Photonics.

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 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

While graduate and professional students may simultaneously pursue more than one degree and/or certificate, pursuing a second Ph.D. degree is not allowed without preapproval of the dean of the Graduate College prior to the application for admission. Given Ph.D. degrees are research degrees, earning a second Ph.D. degree is highly unusual.

#### 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 may share 9 hours with the undergraduate degree, while a 45-hour master's degree may 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.

#### 11.17 Theses and Dissertations

All students theses and dissertations and derivatives of these works are considered Personal Works under Section 7.02 of OSU's IP Policy 1-0202, and the student will own the copyright unless otherwise provided by the IP Policy. The University, however, retains a non-exclusive, irrevocable, royalty-free license to reproduce, distribute, and publish the works for any purpose without appropriate attribution.

### 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 program 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 regulations that require review by the OSU Institutional Review Board (IRB). Approval to conduct the research must be obtained from the IRB before the research is started.

Failure to obtain IRB approval will result in the University's rejection of the thesis, dissertation, or formal report. While the Graduate College does not monitor degree capstone/creative components, this does not negate the student's responsibility to obtain IRB approval if human subjects are involved in that capstone/creative activity.

This section is meant to be informational only and does not contain a complete description of the IRB review process. All of the forms and guidance for completing the application are available on the IRB website https://research.okstate.edu/compliance/irb/forms.html.

### 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 advisor 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 they are 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 or return for the next ceremony on the fall. Although attendance is not compulsory, the University encourages all candidates for advanced degrees, including certificates, 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 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, located in North Hall 130. To schedule an appointment with an advisor or to learn more about a graduate program in Tulsa, call 918-594-8445 or email tulsa.gradinfo@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/programs#graduatedegrees.

# 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 dual degree s DO/MS and DO/PhD) forensic sciences (graduate certificates, MS and Ph.D.); health care administration (graduate certificates, MS, and dual-degrees MS HCA/MBA), global health (MS and dual-degree MS GH/MBA), medical sciences (graduate certificate), and physician assistant studies (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 accredited by the Commission on Accreditation of Athletic Training Education (CAATE) and offered on campus. 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. All degree programs are offered on campus.

#### 15.2.1 Medical Sciences.

The Graduate Certificate in Medical Sciences is an academic credential earned after completing a one-year program of focused study. It is designed to prepare students to become more qualified applicants to medical school, master's and doctoral programs; or serve as a standalone educational achievement to assist in career development.

#### 15.3 Forensic Sciences.

The graduate program in forensic sciences is interdisciplinary and reflects a broad range of disciplines. The School offers a graduate certificate, MS, and PhD degrees. The graduate certificate in forensic arson, explosive, firearms and toolmarks investigation is offered in a hybrid format, incorporating both on campus and online components. The master's degree program has non-thesis (forensic investigative sciences; arson, explosive, firearms and toolmarks investigation) and thesis (forensic biology/DNA; forensic chemistry/toxicology; forensic psychology) specializations. The master's degree specializations are offered on campus, hybrid and/or online. The PhD program is offered in a hybrid format. Admission to some degree programs in forensic science require specific professional qualifications.

#### 15.4 Health Care Administration.

The School of Health Care Administration trains leaders to guide hospitals, clinics, nursing homes and other health organizations. The MS is ideal for those who want to move into management or executive positions in health care and is offered online, on-campus and hybrid. Well-qualified applicants may be admitted to dual-degree program with the master of business administration (MBA).

The health care administration 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.

#### 15.4.1. Global Health.

The MS in global health is offered online and the curriculum is prescriptive in order to provide the student with adequate preparation to enter either a governmental, non-profit or academic career setting. The global health program requires students to take core courses in global health relief and development, international health systems, and emerging global infectious diseases along with a series of electives in global environment and occupational health, health aspects of disasters, and other problems and issues in global health. Well-qualified applicants may be admitted to the dual-degree program with the master of business administration (MBA).

#### 15.5 Physician Assistant Studies.

The M.S. in Physician Assistant Studies at the Center for Health Sciences recruits, educates and mentors a diverse group of students to increase competent and compassionate health care with an emphasis on increasing access to healthcare in rural and medically underserved Oklahoma.

The program places an importance on fostering collegial relationships among students within the Physician Assistant, Osteopathic Medical

and Athletic Training disciplines to provide professional, flexible,#team-based#health care.

The graduate program in physician assistant studies is designed for students to be eligible for certification as a Physician Assistant. The PA program has a directed curriculum of 124 hours. All students are required to be enrolled full-time. Students will spend 13 months in the didactic phase of education where they will receive traditional lectures as well as many hands-on experiences in laboratory and simulation settings. The second phase of training includes 15 months of clinical rotations. Students are required to have experiences in family, internal, and emergency medicine.

# 16.0 Interdisciplinary Graduate College Programs

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, PSM, PhD), Food Science (MS, PhD), Interdisciplinary Studies (MS), Global Studies (MS), and Public Health (MPH).

#### 16.1 Environmental Science.

Scott Stoodley, PhD—Director Ken Ede, PhD—Director, Professional Science in Environmental Management, OSU-Tulsa Kavina Eksteen—Program Coordinator

The Environmental Science Graduate Program (ESGP) is operated under the administration of the Graduate College at OSU. Due to its interdisciplinary nature, 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 Tulsa. Our program is one of the oldest programs in the nation having been founded back in 1977. ESGP graduates have gone on to have careers in every facet of the environmental field, including industry and academia.

The program has a non-thesis, industry-oriented, Professional Science Master's (PSM) degree in environmental management offered on the Tulsa campus. On the Stillwater campus, the program offers research-based master's and doctoral degrees. Students have 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 faculty mentor and advisory committee.

Our doctoral 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 128 faculty affiliated with ESGP at OSU and over 70 of these have served as faculty advisors.

#### 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. Students can also use their degree to pursue industry-specific job opportunities.

#### 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.

#### 16.1.3 Master of Science Degree.

To obtain an MS degree in environmental science, the student must complete a 30- or 33-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 advisor 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.

The PSM-MS option requires students to complete 33-credit hours. The core requirements include ENVR 5123 Environmental Problem Analysis; ENVR 5303 Issues in Environmental Sustainability; and ENVR 5510 Environmental Management Internship. The PSM-MS option offers a springboard to industry-specific job opportunities. 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 PSM-MS core curriculum requirements.

#### 16.1.4 Doctor of Philosophy Degree.

The PhD 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. 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 advisor 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:

- 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,

Three letters of recommendation discussing the student's potential for graduate work.

International students must also earn a TOEFL score of at least 90iBT/577PBT or PTE academic test score of at least 53, or IELTS academic stream score of at least 6.5 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 1 for fall enrollment, and October 15 for spring enrollment.

It is recommended that students identify an advisor 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 advisor, then a temporary advisor may be appointed. However, the student must identify a permanent advisor 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

Admission to either the MS or PhD 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 advisor 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 MS in Interdisciplinary Studies offers students the flexibility to create a program of study to fit background, experience and career goals. By stacking graduate certificates and/or other focused graduate coursework, students can tailor their degree to make the most of their education. The MS is for students who wish to increase their competence in a particular thematic area(s) 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:

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

Particular courses are not specified for the degree; the advisory committee can assist in selecting appropriate courses. 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. 30-hour plan, thesis, includes six-hours of research;
- 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 Public Health.

Jean Van Delinder, PhD-Interim Program Director

Charlie Love, MPH - Graduate Coordinator

The Master of Public Health (MPH) is an interdisciplinary degree program and 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.

#### 16.4.1 Admission Requirements.

Application for admission includes a statement of purpose defining professional goals and interest in public health, a resume, and three letters of reference.

# 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 a 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 OSU-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.

#### 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 standardized tests, 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. 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" (3.00) 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 postbachelor'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.

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" (3.00) 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 pursuit of graduate minors is not denoted on the academic transcript while in progress. Graduate students can file for minor completion in the semester that 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 with 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.

A student who holds 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 Residency 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 advisor, but must hold an OSU Graduate 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/resources/best-practices.html.

#### 19.6 Level of Courses Applied to Graduate Degree.

Graduate students must complete all semester credit hours at the 5000and 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 advisor 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 advisory committee and the student's graduate program coordinator, 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 advisor.

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

#### 19.10 Written Examinations.

Some graduate programs require a written examination covering the major and/or 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 https://gradcollege.okstate.edu/resources/current-student-resources.html. 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. All graduate students writing a thesis must attend a Thesis/Dissertation format and graduation review or webinar prior to submission of their final copy. The dates for the reviews are on the Graduate Calendar and a link to the webinar version is available on the Graduate College website.

It is strongly recommended that a graduate student submit complete copies of their 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 they submit 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 "Graduate College Calendar" for dates).

#### 19.12 Report.

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/resources/best-practices.html).

# 20.0 Specialist in Education (EdS) Degree Program

The Specialist in Education degree is conferred as an appropriate recognition of achievement as evidenced by the following:

- Successful professional performance in the area of the student's specialization.
- Satisfactory completion of a program of graduate study of approximately two academic years.
- Satisfactory performance on examinations designed to reveal the student's understanding of the field of specialization and its relation to other areas; and
- 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 Advisor.

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 advisor to the student. The temporary advisor 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 advisor, but must hold an OSU Graduate 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.

#### 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 advisor using the

online Plan of Study application. 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 advisory committee and graduate program. 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.

# 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. The Plan of Study 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 Advisor.

At the beginning of a student's doctoral program, the school head will designate a member of the Graduate Faculty to serve as temporary advisor to the student. The temporary advisor 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 advisor, but must hold an OSU Graduate Faculty appointment with doctoral chairing privileges, and have familiarity with the academic requirements of the degree sought. Each doctoral advisory 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/resources/best-practices.html.

The student should consult the members of the advisory committee frequently and keep them informed on the progress of their 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 advisory committee using the online Plan of Study application. 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. all courses taken at the 5000-6000 level.
- a minimum of 60 hours beyond the master's degree or 30 hours beyond the EdS, and
- 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 residency requirement that applies to all graduate programs, some may require a period of time in residence for students. Programs must inform students of any residency 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/or 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. Admission to candidacy should occur fairly early in the graduate degree program. 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 EdD degree. The dissertation has three principal functions:

- 1. training in research,
- 2. promoting professional growth, and
- 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 writing a dissertation 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:

- successfully completing a series of courses comprising a Plan of Study:
- 2. passing various examinations demonstrating academic competence;

- 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 Advisor.

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

#### 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 advisor, but must hold an OSU Graduate Faculty appointment with doctoral chairing privileges, and have familiarity with the academic requirements of the degree sought. Each doctoral advisory 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/resources/best-practices.html.

The student should consult the members of the advisory committee frequently keep them informed on the progress of their work.

#### **22.5 Preliminary Conference.**

As soon as the student is notified that an advisory committee has been approved, 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 advisory committee using the online Plan of Study application . 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. all courses taken at the 5000-6000 level,
- 2. a minimum of 60 hours, and
- 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, graduate program, 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 earning 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 graduate program.

#### 22.8 Residency Requirements.

A minimum of 30 credit hours must be taken at OSU. While the Graduate College does not have a specific residency 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, doctoral-level 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 (https://gradcollege.okstate.edu/resources/student-resources.html). 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 dissertation must attend a format and graduation review prior to submission of their final copy. The dates for the reviews are on the Graduate Calendar and a webinar version is also 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 advisory 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 Graduate Calendar 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.

## **Academic Calendar Graduate College Academic Calendar**

Refer also to the University Academic Calendar (p. 88).

#### 2022-2023

	Fall	Spring	Summer
Class work begins	Aug 22	Jan 17	May 22
Admission to doctoral candidacy for summer graduates due in Graduate College		February 3	
Admission to doctoral candidacy for fall graduates due in Graduate College			Jun 9
Thesis/ Dissertation Graduation Review: Attend in person review or watch the on-line tutorial	Oct 14	Mar 10	Jun 9

Last day to file a Graduation Clearance Form and a revised plan of study (if needed) and to Graduate College	Oct 21	Mar 24	Jun 13
Last day to file a Graduation Application* (formerly diploma application)	Nov 1	Apr 3	Jul 3
Admission to doctoral candidacy for spring graduates due in Graduate College	Nov 4		
Priority deadline to submit results of thesis/ dissertation oral defense form to Graduate College	Nov 11	Apr 14	Jul 14
Last day to submit results of thesis/ dissertation defense forms to Graduate College to meet semester graduation deadlines	Nov 18	Apr 21	Jul 21
Priority deadline for online submission of electronic dissertation or thesis, and paper submission of signature approval page	Nov 23	Apr 14	Jul 14
Last day to complete online submission of electronic dissertation or thesis, and paper submission of signature approval page	Dec 2	Apr 28	Jul 21
Term ends; Formal Reports, Creative Components due	Dec 16	May 12	Aug 4
Graduate Commencement	Dec 16	May 12	

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 Doctoral Degree Programs**

- · Agricultural Economics, PhD (p. 2796)
- Agricultural Education, Communications, and Leadership, PhD (p. 2797)
- · Animal Science, PhD (p. 2798)
- Applied Educational Studies: Aviation and Space Education, EdD (p. 2799)
- · Biochemistry and Molecular Biology, PhD (p. 2800)
- · Biomedical Sciences, PhD (p. 2801)
- · Biosystems Engineering, PhD (p. 2803)
- · Business Administration: Accounting, PhD (p. 2804)
- · Business Administration: Entrepreneurship, PhD (p. 2805)
- · Business Administration: Executive Research, PhD (p. 2806)
- · Business Administration: Finance, PhD (p. 2807)
- Business Administration: Hospitality and Tourism Management, PhD (p. 2808)
- Business Administration: Management Science and Information Systems, PhD (p. 2809)
- Business Administration: Management, PhD (p. 2810)
- · Business Administration: Marketing, PhD (p. 2811)
- Chemical Engineering, PhD (p. 2812)
- · Chemistry, PhD (p. 2813)
- · Civil Engineering, PhD (p. 2814)
- · Computer Science, PhD (p. 2815)
- · Counseling Psychology, PhD (p. 2816)
- · Crop Science, PhD (p. 2817)
- · Curriculum Studies: College Curriculum and Teaching, PhD (p. 2818)
- · Curriculum Studies: Curriculum and Leadership, PhD (p. 2819)
- Curriculum Studies: International and Peace Curriculum, PhD (p. 2820)
- · Economics, PhD (p. 2821)
- · Education: Educational Administration, EdS (p. 2822)
- · Education: Language, Literacy and Culture, PhD (p. 2823)
- · Education: Learning, Design and Technology, PhD (p. 2824)
- · Education: Mathematics Education, PhD (p. 2825)
- Education: School Psychology, EdS (p. 2826)
- Education: Science Education, PhD (p. 2827)
- · Education: Social Foundations of Education, PhD (p. 2828)
- · Education: Special Education, PhD (p. 2830)
- Education: Workforce and Adult Education, PhD (p. 2831)
- Educational Leadership and Policy Studies: Educational Administration, PhD (p. 2832)
- Educational Leadership and Policy Studies: Higher Education, PhD (p. 2833)
- · Educational Psychology: Educational Psychology, PhD (p. 2834)
- Educational Psychology: Research, Evaluation, Measurement and Statistics, PhD (p. 2835)
- · Electrical Engineering, PhD (p. 2836)

- English, PhD (p. 2837)
- · Entomology, PhD (p. 2838)
- · Environmental Science, PhD (p. 2839)
- · Fire and Emergency Management Administration, PhD (p. 2840)
- · Food Science, PhD (p. 2841)
- · Forensic Sciences, DFS (p. 2842)
- · Forensic Sciences, PhD (p. 2843)
- · Geography, PhD (p. 2845)
- · Geology, PhD (p. 2846)
- Health Care Administration, DHCA (p. 2847)
- Health, Leisure and Human Performance: Health and Human Performance, PhD (p. 2848)
- Health, Leisure and Human Performance: Leisure Studies, PhD (p. 2849)
- · History, PhD (p. 2851)
- · Human Development and Family Science, PhD (p. 2852)
- Human Sciences: Human Development and Family Science, PhD (p. 2853)
- Industrial Engineering and Management, PhD (p. 2854)
- · Integrative Biology, PhD (p. 2855)
- · Materials Science and Engineering, PhD (p. 2856)
- · Mathematics, PhD (p. 2858)
- · Mechanical and Aerospace Engineering, PhD (p. 2859)
- Mechanical and Aerospace Engineering: Unmanned Aerial Systems, PhD (p. 2860)
- · Microbiology, Cell and Molecular Biology, PhD (p. 2861)
- · Natural Resource Ecology and Management, PhD (p. 2862)
- Natural Resource Ecology and Management: Fisheries and Aquatic Ecology, PhD (p. 2863)
- Natural Resource Ecology and Management: Forest Resources, PhD (p. 2864)
- Natural Resource Ecology and Management: Rangeland Ecology and Management, PhD (p. 2865)
- Natural Resource Ecology and Management: Wildlife Ecology and Management, PhD (p. 2866)
- · Nutritional Sciences, PhD (p. 2867)
- · Petroleum Engineering, PhD (p. 2869)
- · Photonics, PhD (p. 2870)
- · Physics, PhD (p. 2872)
- Plant Biology, PhD (p. 2873)
- · Plant Pathology, PhD (p. 2874)
- · Psychology: Clinical, PhD (p. 2875)
- Psychology: Experimental Psychology, PhD (p. 2876)
- · School Administration, EdD (p. 2877)
- · School Psychology, EdS (p. 2878)
- · School Psychology, PhD (p. 2879)
- · Sociology, PhD (p. 2880)
- · Soil Science, PhD (p. 2881)
- · Statistics, PhD (p. 2882)

### **Graduate Certificates**

- Aging Studies, GCRT (p. 2884)
- · Aviation/Aerospace Administration, GCRT (p. 2885)

- · Big Data Analytics, GCRT (p. 2886)
- · Bioinformatics, GCRT (p. 2887)
- · Brand Communication, GCRT (p. 2888)
- · Building Level Leadership, GCRT (p. 2889)
- · Business Analytics and Data Science, GCRT (p. 2890)
- · Business Sustainability, GCRT (p. 2891)
- · Business, GCRT (p. 2892)
- · College Teaching, GCRT (p. 2893)
- · Comparative and International Education, GCRT (p. 2894)
- · Developmental Disabilities, GCRT (p. 2895)
- · Dietetics, GCRT (p. 2896)
- · District Level Leadership, GCRT (p. 2897)
- · Educational and Psychological Measurement, GCRT (p. 2898)
- · Effective Teaching in Elementary Schools, GCRT (p. 2899)
- Effective Teaching in Secondary Schools, GCRT (p. 2900)
- Elementary Mathematics Specialist, GCRT (p. 2901)
- · Engineering and Technology Management, GCRT (p. 2902)
- Entrepreneurship, GCRT (p. 2903)
- Environmental Science with Regulatory Certifications, GCRT (p. 2904)
- · Facilitating Career Development, GCRT (p. 2905)
- Family Financial Planning, GCRT (p. 2906)
- · Fashion Merchandising, GCRT (p. 2907)
- · Finance and Investment Banking, GCRT (p. 2908)
- Forensic Arson, Explosives, Firearms, and Toolmarks Investigation, GCRT (p. 2909)
- · Forensic Investigative Sciences, GCRT (p. 2910)
- · Forensic Psychology, GCRT (p. 2911)
- · Geographic Information Systems, GCRT (p. 2912)
- · Global Issues, GCRT (p. 2913)
- Grassland Management, GCRT (p. 2914)
- · Health Analytics, GCRT (p. 2915)
- · Health Care Administration, GCRT (p. 2916)
- · Health Care Administration: Finance, GCRT (p. 2917)
- · Health Care Administration: Global Health, GCRT (p. 2918)
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- · Hospitality and Tourism Analytics, GCRT (p. 2920)
- · Human Resource Management, GCRT (p. 2921)
- · Infant Mental Health, GCRT (p. 2922)
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- International Disaster and Emergency Management, GCRT (p. 2926)
- K-12 STEM Educator, GCRT (p. 2927)
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- Marketing Analytics, GCRT (p. 2929)
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- · Neuroscience, GCRT (p. 2932)
- Non-Profit Management, GCRT (p. 2933)
- Online Teaching, GCRT (p. 2934)
- · Program Evaluation, GCRT (p. 2935)

- Public Health in Rural and Underserved Communities, GCRT (p. 2936)
- · Recreation and Leisure Management, GCRT (p. 2937)
- · School Library Certification, GCRT (p. 2938)
- · Special Education, GCRT (p. 2939)
- Sport Communication, GCRT (p. 2940)
- Statistical Methods and Analyses in Educational and Behavioral Sciences, GCRT (p. 2941)
- · Substance Abuse Counseling, GCRT (p. 2942)
- · Supply Chain and Logistics, GCRT (p. 2943)
- · Teaching English to Speakers of Other Languages, GCRT (p. 2944)
- · Workforce and Adult Education, GCRT (p. 2945)

### **Master's Degree Programs**

- · Accounting: Corporate Finance, MS (p. 2948)
- · Accounting: Data Analytics & Systems, MS (p. 2949)
- · Accounting: Financial Reporting & Auditing, MS (p. 2950)
- · Accounting: Research Methods, MS (p. 2951)
- · Aging Studies, MS (p. 2952)
- · Agricultural Communications, MS (p. 2953)
- · Agricultural Economics, MS (p. 2954)
- · Agricultural Education and Leadership, MS (p. 2955)
- · Animal Science, MS (p. 2956)
- · Applied Statistics, MS (p. 2957)
- Art History, MA (p. 2958)
- Athletic Training, MAT (p. 2959)
- · Aviation and Space, MS (p. 2960)
- · Biochemistry and Molecular Biology, MS (p. 2961)
- · Biomedical Sciences, MS (p. 2962)
- Biosystems Engineering, MS (p. 2965)
- Business Administration, MBA (p. 2966)
- · Business Administration: Accounting, MBA (p. 2968)
- · Business Administration: Business Sustainability, MBA (p. 2969)
- · Business Administration: Data Science, MBA (p. 2970)
- · Business Administration: Economics, MBA (p. 2971)
- Business Administration: Energy Business, MBA (p. 2972)
- · Business Administration: Entrepreneurship, MBA (p. 2973)
- Business Administration: Finance Investment Banking, MBA (p. 2974)
- Business Administration: Global Marketing, MBA (p. 2975)
- Business Administration: Hospitality and Tourism Management, MBA (p. 2976)
- Business Administration: Human Resource Management, MBA (p. 2977)
- · Business Administration: Information Assurance, MBA (p. 2978)
- · Business Administration: Marketing Analytics, MBA (p. 2979)
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- Business Analytics and Data Science: Advanced Data Science, MS (p. 2982)
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- Business Analytics and Data Science: Marketing Analytics, MS (p. 2985)
- · Chemical Engineering, MS (p. 2986)
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- Counseling: School Counseling, MS (p. 2993)
- Design, Housing & Merchandising: Apparel Design and Production, MS (p. 2995)
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- Design, Housing & Merchandising: Merchandising, MS (p. 2998)
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- Dietetics, MS (p. 3000)
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- · Educational Leadership Studies: Higher Education, MS (p. 3003)
- Educational Leadership Studies: School Administration, MS (p. 3004)
- Educational Leadership Studies: Workforce and Adult Education, MS (p. 3005)
- · Educational Psychology, MS (p. 3006)
- Educational Psychology: Educational Psychology, MS (p. 3007)
- Educational Psychology: Research, Evaluation, Measurement and Statistics, MS (p. 3008)
- Educational Psychology: School Psychometrics, MS (p. 3009)
- Educational Technology: Educational Technology, MS (p. 3010)
- · Educational Technology: School Library Media, MS (p. 3011)
- · Electrical Engineering, MEN (p. 3012)
- · Electrical Engineering, MS (p. 3013)
- Engineering and Technology Management, MS (p. 3014)
- Engineering Technology: Fire Safety and Explosion Protection, MS (p. 3015)
- · Engineering Technology: Mechatronics & Robotics, MS (p. 3016)
- English, MA (p. 3018)
- English: Creative Writing, MFA (p. 3019)
- · English: Professional Writing, MA (p. 3020)
- English: Teaching English to Speakers of Other Languages, MA (p. 3022)
- · Entomology and Plant Pathology: Entomology, MS (p. 3024)
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- Forensic Sciences: Arson, Explosives, Firearms and Toolmarks Investigation, MS (p. 3037)
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- General Agriculture: Agricultural Leadership, MAG (p. 3042)
- · Geography, MS (p. 3043)
- Geology, MS (p. 3045)
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- Global Health, MS (p. 3049)
- · Global Studies, MS (p. 3050)
- Graphic Design, MFA (p. 3051)
- Health and Human Performance: Applied Exercise Science, MS (p. 3052)
- · Health and Human Performance: Health Promotion, MS (p. 3053)
- · Health and Human Performance: Physical Education, MS (p. 3054)
- Health Care Administration, MS (p. 3055)
- History, MA (p. 3056)
- · Horticulture, MS (p. 3057)
- · Hospitality and Tourism Management, MS (p. 3058)
- Human Development and Family Science: Aging Sciences, MS (p. 3060)
- Human Development and Family Science: Applied Human Services, MS (p. 3061)
- Human Development and Family Science: Developmental and Family Sciences, MS (p. 3062)
- Human Development and Family Science: Early Childhood Education, MS (p. 3063)
- Human Development and Family Science: Marriage and Family Therapy, MS (p. 3064)
- · Industrial Engineering and Management, MS (p. 3066)
- Industrial Engineering and Management: Operations Research and Analytics, MS (p. 3067)
- Industrial Engineering and Management: Supply Chain and Logistics, MS (p. 3068)
- · Integrative Biology, MS (p. 3069)
- · Interdisciplinary Studies, MS (p. 3070)
- International Agriculture, MAG (p. 3071)
- International Agriculture, MS (p. 3072)
- · Leisure Studies, MS (p. 3074)
- · Management Information Systems, MS (p. 3075)
- · Management Information Systems: Big Data Analytics, MS (p. 3076)
- · Management Information Systems: Cybersecurity, MS (p. 3077)
- Management Information Systems: Health Analytics, MS (p. 3078)
- · Mass Communications, MS (p. 3079)
- Materials Science and Engineering, MEN (http://catalog.okstate.edu/ graduate-college/masters-degrees/materials-science-engineeringmen/)
- · Materials Science and Engineering, MS (p. 3081)
- · Mathematics, MS (p. 3084)
- · Mechanical and Aerospace Engineering, MEN (p. 3086)
- · Mechanical and Aerospace Engineering, MS (p. 3087)
- Mechanical and Aerospace Engineering: Unmanned Aerial Systems, MS (p. 3088)

- · Microbiology, Cell and Molecular Biology, MS (p. 3089)
- · Music: Applied Music, MM (p. 3090)
- Music: Conducting, MM (p. 3091)
- · Music: Multiple Woodwinds, MM (p. 3092)
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- Natural Resource Ecology and Management: Fisheries and Aquatic Ecology, MS (p. 3094)
- Natural Resource Ecology and Management: Forest Resources, MS (p. 3095)
- Natural Resource Ecology and Management: Rangeland Ecology and Management, MS (p. 3096)
- Natural Resource Ecology and Management: Wildlife Ecology and Management, MS (p. 3097)
- · Nutritional Sciences: Dietetics Practice, MS (p. 3098)
- Nutritional Sciences: Dietetics Research, MS (p. 3099)
- · Nutritional Sciences: Nutrition, MS (p. 3101)
- · Peace, Conflict, and Security Studies, MA (p. 3103)
- · Petroleum Engineering, MS (p. 3104)
- Philosophy, MA (p. 3105)
- · Physician Assistant Studies, MS (p. 3106)
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- · Plant and Soil Sciences, MS (p. 3109)
- · Plant Biology, MS (p. 3110)
- · Politics and Policy Studies, MA (p. 3111)
- · Public Health, MPH (p. 3112)
- Public Health: Rural and Underserved Populations, MPH (p. 3113)
- Quantitative Finance, MS (p. 3115)
- · Social Foundations of Education, MA (p. 3116)
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- · Statistics, MS (p. 3118)
- Teaching, Learning and Leadership: Curriculum and Leadership Studies, MS (p. 3119)
- Teaching, Learning and Leadership: Gifted and Talented Education, MS (p. 3120)
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- Accounting: Financial Reporting & Auditing, MS (p. 2950)
- · Accounting: Research Methods, MS (p. 2951)

- · Aging Studies, GCRT (p. 2884)
- · Aging Studies, MS (p. 2952)
- · Agricultural Communications, MS (p. 2953)
- · Agricultural Economics, MS (p. 2954)
- Agricultural Economics, PhD (p. 2796)
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- Animal Science, MS (p. 2956)
- · Animal Science, PhD (p. 2798)
- Applied Educational Studies: Aviation and Space Education, EdD (p. 2799)
- · Applied Statistics, MS (p. 2957)
- · Art History, MA (p. 2958)
- Athletic Training, MAT (p. 2959)
- · Aviation and Space, MS (p. 2960)
- · Aviation/Aerospace Administration, GCRT (p. 2885)
- · Big Data Analytics, GCRT (p. 2886)
- · Biochemistry and Molecular Biology, MS (p. 2961)
- · Biochemistry and Molecular Biology, PhD (p. 2800)
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- · Biomedical Sciences, MS (p. 2962)
- · Biomedical Sciences, PhD (p. 2801)
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- Business Administration: Marketing Analytics, MBA (p. 2979)
- · Business Administration: Marketing, PhD (p. 2811)

- · Business Administration: Nonprofit Management, MBA (p. 2980)
- Business Analytics and Data Science, GCRT (p. 2890)
- · Business Analytics and Data Science, MS (p. 2981)
- Business Analytics and Data Science: Advanced Data Science, MS (p. 2982)
- Business Analytics and Data Science: Cybersecurity Analytics, MS (p. 2983)
- Business Analytics and Data Science: Health Analytics, MS (p. 2984)
- Business Analytics and Data Science: Marketing Analytics, MS (p. 2985)
- · Business Sustainability, GCRT (p. 2891)
- · Business, GCRT (p. 2892)
- · Chemical Engineering, MS (p. 2986)
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- Chemistry, PhD (p. 2813)
- · Civil Engineering, MS (p. 2988)
- · Civil Engineering, PhD (p. 2814)
- · College Teaching, GCRT (p. 2893)
- · Communication Sciences and Disorders, MS (p. 2989)
- · Comparative and International Education, GCRT (p. 2894)
- · Computer Science, MS (p. 2990)
- · Computer Science, PhD (p. 2815)
- · Counseling Psychology, PhD (p. 2816)
- · Counseling: Mental Health Counseling, MS (p. 2991)
- · Counseling: School Counseling, MS (p. 2993)
- · Crop Science, PhD (p. 2817)
- · Curriculum Studies: College Curriculum and Teaching, PhD (p. 2818)
- Curriculum Studies: Curriculum and Leadership, PhD (p. 2819)
- Curriculum Studies: International and Peace Curriculum, PhD (p. 2820)
- Design, Housing & Merchandising: Apparel Design and Production, MS (p. 2995)
- Design, Housing & Merchandising: Digital Design, MS (p. 2996)
- · Design, Housing & Merchandising: Interior Design, MS (p. 2997)
- Design, Housing & Merchandising: Merchandising, MS (p. 2998)
- Design, Housing & Merchandising: Retail Merchandising Leadership, MS (p. 2999)
- · Developmental Disabilities, GCRT (p. 2895)
- · Dietetics, GCRT (p. 2896)
- Dietetics, MS (p. 3000)
- · District Level Leadership, GCRT (p. 2897)
- Economics, MS (p. 3001)
- Economics, PhD (p. 2821)
- · Education: Educational Administration, EdS (p. 2822)
- · Education: Language, Literacy and Culture, PhD (p. 2823)
- · Education: Learning, Design and Technology, PhD (p. 2824)
- · Education: Mathematics Education, PhD (p. 2825)
- · Education: School Psychology, EdS (p. 2826)
- Education: Science Education, PhD (p. 2827)
- · Education: Social Foundations of Education, PhD (p. 2828)
- · Education: Special Education, PhD (p. 2830)
- · Education: Workforce and Adult Education, PhD (p. 2831)

- · Educational and Psychological Measurement, GCRT (p. 2898)
- Educational Leadership and Policy Studies: Educational Administration, PhD (p. 2832)
- Educational Leadership and Policy Studies: Higher Education, PhD (p. 2833)
- Educational Leadership Studies: College Student Development, MS (p. 3002)
- · Educational Leadership Studies: Higher Education, MS (p. 3003)
- · Educational Leadership Studies: School Administration, MS (p. 3004)
- Educational Leadership Studies: Workforce and Adult Education, MS (p. 3005)
- · Educational Psychology, MS (p. 3006)
- · Educational Psychology: Educational Psychology, MS (p. 3007)
- · Educational Psychology: Educational Psychology, PhD (p. 2834)
- Educational Psychology: Research, Evaluation, Measurement and Statistics, MS (p. 3008)
- Educational Psychology: Research, Evaluation, Measurement and Statistics, PhD (p. 2835)
- · Educational Psychology: School Psychometrics, MS (p. 3009)
- Educational Technology: Educational Technology, MS (p. 3010)
- Educational Technology: School Library Media, MS (p. 3011)
- Effective Teaching in Elementary Schools, GCRT (p. 2899)
- Effective Teaching in Secondary Schools, GCRT (p. 2900)
- Electrical Engineering, MEN (p. 3012)
- · Electrical Engineering, MS (p. 3013)
- Electrical Engineering, PhD (p. 2836)
- · Elementary Mathematics Specialist, GCRT (p. 2901)
- · Engineering and Technology Management, GCRT (p. 2902)
- Engineering and Technology Management, MS (p. 3014)
- Engineering Technology: Fire Safety and Explosion Protection, MS (p. 3015)
- Engineering Technology: Mechatronics & Robotics, MS (p. 3016)
- English, MA (p. 3018)
- English, PhD (p. 2837)
- English: Creative Writing, MFA (p. 3019)
- English: Professional Writing, MA (p. 3020)
- English: Teaching English to Speakers of Other Languages, MA (p. 3022)
- · Entomology and Plant Pathology: Entomology, MS (p. 3024)
- · Entomology and Plant Pathology. Plant Pathology, MS (p. 3025)
- Entomology, PhD (p. 2838)
- · Entrepreneurship, GCRT (p. 2903)
- · Entrepreneurship, MS (p. 3026)
- Environmental Science with Regulatory Certifications, GCRT (p. 2904)
- Environmental Science, MS (p. 3027)
- Environmental Science, PhD (p. 2839)
- Environmental Science: Environmental Management Professional Science Masters, MS (p. 3028)
- · Facilitating Career Development, GCRT (p. 2905)
- · Family and Community Services, MS (p. 3029)
- Family and Consumer Sciences Education, MS (p. 3030)
- · Family Financial Planning, GCRT (p. 2906)
- · Family Financial Planning, MS (p. 3031)

- · Fashion Merchandising, GCRT (p. 2907)
- · Finance and Investment Banking, GCRT (p. 2908)
- · Fire and Emergency Management Administration, MS (p. 3032)
- · Fire and Emergency Management Administration, PhD (p. 2840)
- Food Science, MS (p. 3034)
- · Food Science, PhD (p. 2841)
- Forensic Arson, Explosives, Firearms, and Toolmarks Investigation, GCRT (p. 2909)
- · Forensic Investigative Sciences, GCRT (p. 2910)
- · Forensic Psychology, GCRT (p. 2911)
- · Forensic Sciences, DFS (p. 2842)
- · Forensic Sciences, MS (p. 3035)
- · Forensic Sciences, PhD (p. 2843)
- Forensic Sciences: Arson, Explosives, Firearms and Toolmarks Investigation, MS (p. 3037)
- Forensic Sciences: Forensic Document Examination, MS (p. 3038)
- · Forensic Sciences: Forensic Science Administration, MS (p. 3039)
- General Agriculture: Agribusiness, MAG (p. 3040)
- · General Agriculture: Agricultural Leadership, MAG (p. 3042)
- · Geographic Information Systems, GCRT (p. 2912)
- · Geography, MS (p. 3043)
- · Geography, PhD (p. 2845)
- Geology, MS (p. 3045)
- · Geology, PhD (p. 2846)
- · Geoscience, MPSM (p. 3047)
- Global Health, MS (p. 3049)
- · Global Issues, GCRT (p. 2913)
- · Global Studies, MS (p. 3050)
- · Graphic Design, MFA (p. 3051)
- · Grassland Management, GCRT (p. 2914)
- · Health Analytics, GCRT (p. 2915)
- Health and Human Performance: Applied Exercise Science, MS (p. 3052)
- Health and Human Performance: Health Promotion, MS (p. 3053)
- · Health and Human Performance: Physical Education, MS (p. 3054)
- · Health Care Administration, DHCA (p. 2847)
- · Health Care Administration, GCRT (p. 2916)
- Health Care Administration, MS (p. 3055)
- Health Care Administration: Finance, GCRT (p. 2917)
- · Health Care Administration: Global Health, GCRT (p. 2918)
- Health, Leisure and Human Performance: Health and Human Performance, PhD (p. 2848)
- Health, Leisure and Human Performance: Leisure Studies, PhD (p. 2849)
- Hidden Student Populations, GCRT (p. 2919)
- · History, MA (p. 3056)
- · History, PhD (p. 2851)
- · Horticulture, MS (p. 3057)
- · Hospitality and Tourism Analytics, GCRT (p. 2920)
- · Hospitality and Tourism Management, MS (p. 3058)
- Human Development and Family Science, PhD (p. 2852)
- Human Development and Family Science: Aging Sciences, MS (p. 3060)

- Human Development and Family Science: Applied Human Services, MS (p. 3061)
- Human Development and Family Science: Developmental and Family Sciences, MS (p. 3062)
- Human Development and Family Science: Early Childhood Education, MS (p. 3063)
- Human Development and Family Science: Marriage and Family Therapy, MS (p. 3064)
- Human Resource Management, GCRT (p. 2921)
- Human Sciences: Human Development and Family Science, PhD (p. 2853)
- · Industrial Engineering and Management, MS (p. 3066)
- · Industrial Engineering and Management, PhD (p. 2854)
- Industrial Engineering and Management: Operations Research and Analytics, MS (p. 3067)
- Industrial Engineering and Management: Supply Chain and Logistics, MS (p. 3068)
- · Infant Mental Health, GCRT (p. 2922)
- · Information Assurance, GCRT (p. 2923)
- · Integrative Biology, MS (p. 3069)
- · Integrative Biology, PhD (p. 2855)
- · Integrative Design of Building Envelope, GCRT (p. 2924)
- · Interdisciplinary Studies, MS (p. 3070)
- · Interdisciplinary Toxicology, GCRT (p. 2925)
- · International Agriculture, MAG (p. 3071)
- · International Agriculture, MS (p. 3072)
- International Disaster and Emergency Management, GCRT (p. 2926)
- K-12 STEM Educator, GCRT (p. 2927)
- · Learning and Motivation, GCRT (p. 2928)
- · Leisure Studies, MS (p. 3074)
- · Management Information Systems, MS (p. 3075)
- · Management Information Systems: Big Data Analytics, MS (p. 3076)
- Management Information Systems: Cybersecurity, MS (p. 3077)
- Management Information Systems: Health Analytics, MS (p. 3078)
- · Marketing Analytics, GCRT (p. 2929)
- · Mass Communications, MS (p. 3079)
- Materials Science and Engineering, MEN (http://catalog.okstate.edu/ graduate-college/masters-degrees/materials-science-engineeringmen/)
- Materials Science and Engineering, MS (p. 3081)
- · Materials Science and Engineering, PhD (p. 2856)
- · Mathematics, MS (p. 3084)
- · Mathematics, PhD (p. 2858)
- Mechanical and Aerospace Engineering, MEN (p. 3086)
- Mechanical and Aerospace Engineering, MS (p. 3087)
- · Mechanical and Aerospace Engineering, PhD (p. 2859)
- Mechanical and Aerospace Engineering: Unmanned Aerial Systems, MS (p. 3088)
- Mechanical and Aerospace Engineering: Unmanned Aerial Systems, PhD (p. 2860)
- · Medical Sciences, GCRT (p. 2930)
- · Microbiology, Cell and Molecular Biology, MS (p. 3089)
- · Microbiology, Cell and Molecular Biology, PhD (p. 2861)
- · Museum and Curatorial Studies, GCRT (p. 2931)

- · Music: Applied Music, MM (p. 3090)
- · Music: Conducting, MM (p. 3091)
- · Music: Multiple Woodwinds, MM (p. 3092)
- · Natural Resource Ecology and Management, MS (p. 3093)
- · Natural Resource Ecology and Management, PhD (p. 2862)
- Natural Resource Ecology and Management: Fisheries and Aquatic Ecology, MS (p. 3094)
- Natural Resource Ecology and Management: Fisheries and Aquatic Ecology, PhD (p. 2863)
- Natural Resource Ecology and Management: Forest Resources, MS (p. 3095)
- Natural Resource Ecology and Management: Forest Resources, PhD (p. 2864)
- Natural Resource Ecology and Management: Rangeland Ecology and Management, MS (p. 3096)
- Natural Resource Ecology and Management: Rangeland Ecology and Management, PhD (p. 2865)
- Natural Resource Ecology and Management: Wildlife Ecology and Management, MS (p. 3097)
- Natural Resource Ecology and Management: Wildlife Ecology and Management, PhD (p. 2866)
- · Neuroscience, GCRT (p. 2932)
- · Non-Profit Management, GCRT (p. 2933)
- · Nutritional Sciences, PhD (p. 2867)
- · Nutritional Sciences: Dietetics Practice, MS (p. 3098)
- · Nutritional Sciences: Dietetics Research, MS (p. 3099)
- Nutritional Sciences: Nutrition, MS (p. 3101)
- · Online Teaching, GCRT (p. 2934)
- · Peace, Conflict, and Security Studies, MA (p. 3103)
- Petroleum Engineering, MS (p. 3104)
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- Philosophy, MA (p. 3105)
- · Photonics, PhD (p. 2870)
- · Physician Assistant Studies, MS (p. 3106)
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- · Plant and Soil Sciences, MS (p. 3109)
- · Plant Biology, MS (p. 3110)
- Plant Biology, PhD (p. 2873)
- · Plant Pathology, PhD (p. 2874)
- · Politics and Policy Studies, MA (p. 3111)
- · Program Evaluation, GCRT (p. 2935)
- Psychology: Clinical, PhD (p. 2875)
- Psychology: Experimental Psychology, PhD (p. 2876)
- Public Health in Rural and Underserved Communities, GCRT (p. 2936)
- Public Health, MPH (p. 3112)
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- Quantitative Finance, MS (p. 3115)
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- · School Administration, EdD (p. 2877)
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- · Social Foundations of Education, MA (p. 3116)
- Sociology, MS (p. 3117)
- · Sociology, PhD (p. 2880)
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- · Special Education, GCRT (p. 2939)
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- Statistics, MS (p. 3118)
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- Substance Abuse Counseling, GCRT (p. 2942)
- · Supply Chain and Logistics, GCRT (p. 2943)
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- Teaching, Learning and Leadership: Reading and Literacy, MS (p. 3124)
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### **Faculty**

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- Agricultural Education, Communications, and Leadership, PhD (p. 2797)
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- Natural Resource Ecology and Management: Forest Resources, PhD (p. 2864)
- Natural Resource Ecology and Management: Rangeland Ecology and Management, PhD (p. 2865)
- Natural Resource Ecology and Management: Wildlife Ecology and Management, PhD (p. 2866)
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- · Plant Pathology, PhD (p. 2874)
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- · Psychology: Experimental Psychology, PhD (p. 2876)
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- School Psychology, EdS (p. 2878)
- · School Psychology, PhD (p. 2879)
- · Sociology, PhD (p. 2880)
- · Soil Science, PhD (p. 2881)
- · Statistics, PhD (p. 2882)

## **Agricultural Economics, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours**: 60

Code	Title	Hours
Core Courses		
ECON 6023	Microeconomic Theory II	3
ECON 6043	Macroeconomic Theory II	3
AGEC 6213	Advanced Econometrics	3
STAT 5253	Mathematical Statistics I	3
STAT 5263	Mathematical Statistics II	3
AGEC 6403	Advanced Production Economics	3
AGEC 6303	Advanced Agricultural Marketing <sup>1</sup>	3
AGEC 5703	American Agricultural Policy	3
AGEC 6102	Teaching Practicum in Agricultural Economics	2
Hours Subtotal		26
Electives		
Select at least 10	hours of electives: <sup>2</sup>	10
AGEC 5203	Advanced Agricultural Prices	
AGEC 5233	Primary Data Analysis in Economic Research	
AGEC 5321	Agricultural Marketing and Economic Development	
AGEC 5331	Agricultural Marketing: Advanced Concepts	
AGEC 5403	Production Economics	
AGEC 5503	Economics of Natural and Environmental Resource Policy	
AGEC 5603	Advanced Agricultural Finance	
AGEC 5723	Plan & Pol Devlpmnt	
AGEC 6103	Advanced Applications of Mathematical Programming	
ECON 6623	Economic Development I	
ECON 6643	Economic Development II	
Hours Subtotal		10
Thesis		
Total thesis hours committee. <sup>2</sup>	based on advice of student's advisory	24
Hours Subtotal		24
Total Hours		60

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.

# Graduate College Doctor of Philosophy (PhD) Requirements

## Agricultural Education, Communications, and Leadership, PhD

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Courses		
AECL 5101	Orientation to Graduate Programs in Agricultural Education, Communications and Leadership	1
AGCM 5203	Theory and Practice in Agricultural Communications	3
AGED 5823	Advanced Methods of Teaching Agriculture	3
AGED 6103	History and Philosophical Foundations of Agricultural and Extension Education	3
AGLE 5303	Foundations of Leadership Theory	3
AECL 5863	Methods of Technological Change	3
AECL 6223	Program Evaluation in Agriculture and Extension	3
Hours Subtotal		19
Statistics and Resea	arch Courses	
AECL 5983	Social Sciences Research in Agricultural Sciences and Natural Resources	3
Select 9 hours from	the following:	9
REMS 5953	Statistical Methods in Education (or equivalent)	
STAT 5013	Statistics for Experimenters I	
REMS 6003	Analyses of Variance (or equivalent)	
STAT 5023	Statistics for Experimenters II	
REMS 6013	Multiple Regression Analysis in Behavioral Studies (or equivalent)	
Select one qualitativ	ve research methods course.	3
Specialization		
Select 11 hours.		11
Hours Subtotal		26
Dissertation Hours		
AECL 6000	Doctoral Dissertation in Agricultural Education, Communications and Leadership	15
Hours Subtotal	·	15
Total Hours		60

# Graduate College Doctor of Philosophy (PhD) Requirements

## **Animal Science, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Courses 1		
Select at least 15 ho	urs from below with approval of the advisory	15
committee and area	of specialization:	
ANSI 5102	Ethics and Professionalism in Animal and Food Science	
ANSI 5010	Special Problems	
ANSI 5113	Basic Reproductive Physiology	
ANSI 5123	Functional and Molecular Endocrinology	
ANSI 5213	Advances in Meat Science	
ANSI 5303	Advanced Animal Breeding	
ANSI 5313	Marker Assisted Selection in Livestock	
ANSI 5333	Carcass Value Estimation Systems	
ANSI 5553	Interpreting Animal and Food Science Research	
ANSI 5573	Techniques in Animal Molecular Biology	
ANSI 5613	Advanced Beef Production	
ANSI 5733	Advanced Ruminant Nutrition	
ANSI 5743	Rumenology	
ANSI 5753	Animal Nutrition Techniques and Laboratory Methods	
ANSI 5763	Advanced Nonruminant Nutrition	
ANSI 5773	Protein Nutrition	
ANSI 5783	Vitamin and Mineral Nutrition	
Food Science (FD	SC) 5000- and 6000-level courses	
Hours Subtotal	·	15
Electives 1		
	ther graduate courses with the approval of tee and area of specialization.	15
	te level classes in STAT, BIOC, MICR, BIOL, r other courses deemed appropriate by	
Hours Subtotal		15
Other Requirements	1	30
ANSI 6000	Doctoral Research and Dissertation (Offered for variable credit, 1-10 credit hours, maximum of 30 credit hours.)	
or FDSC 6000	Doctoral Research and Dissertation	
ANSI 6110	Seminar (Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.)	
Hours Subtotal		30
Total Hours		60

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

## **Animal Science Requirements**

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

# Graduate College Doctor of Philosophy (PhD) Requirements

# **Applied Educational Studies: Aviation and Space Education, EdD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 61

Code	Title	Hours
<b>Required Courses</b>		
AVED 5553	Aerospace Proposal and Procurement	3
AVED 5573	Aerospace Defense Acquisition	3
AVED 5593	Influencing Public Policy in the Aerospace Industry	3
AVED 6000	Doctoral Thesis	10
AVED 6103	Doctoral Seminar in Aerospace Education	3
AVED 6303	The Application of Qualitative Methods in Aviation Research	3
AVED 6313	Administration of Aviation Institutions	3
AVED 6413	Development of Air and Space Flight	3
AVED 6553	Foundations of Airline Executive Leadership	3
AVED 6613	Aviation Executive Development	3
AVED 6773	Applied Aviation and Space Research	3
Hours Subtotal		40
Electives		
Select 21 hours of	the following:	21
AVED 5453	Advanced Aviation Security	
AVED 5563	Aerospace Leadership and Management	
AVED 5773	Historical Significance of Aviation	
AVED 5823	Space Science	
AVED 5883	Aviation Economics	
AVED 5893	Aerospace Executive Decision Making	
AVED 5963	Airport Operations	
AVED 5973	Aerospace Law	
AVED 5993	Ethics in Aviation	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
SCFD 6113	Theoretical Foundations of Inquiry	
Hours Subtotal		21
<b>Total Hours</b>		61

# Graduate College Doctor of Education (EdD) Requirements

# **Biochemistry and Molecular Biology,** PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Core Cour	rses	
BIOC 5002	Research Compliance and Biochemistry Graduate Colloquium	2
BIOC 5112	Articulation of Research Logic	2
BIOC 5120	Biochemistry and Molecular Biology Graduate Research Colloquium	1
BIOC 5753	Biochemical Principles	3
BIOC 5753	Biochemical Principles	3
BIOC 5853	Molecular and Integrative Metabolism	3
BIOC 5930	Advanced Biochemical Techniques	3
BIOC 6110	Seminar <sup>2</sup>	2
BIOC 6740	Physical Biochemistry	3
Plus 4 advanced (6	000-level BIOC courses)	12
BIOC 6723	Signal Transduction	
BIOC 6733	Functional Genomics	
BIOC 6740	Physical Biochemistry	
BIOC 6753	Epigenetics	
BIOC 6763	Nucleic Acids and Protein Synthesis	
BIOC 6773	Protein Structure and Enzyme Function	
BIOC 6783	Biomembranes and Bioenergetics	
BIOC 6793	Plant Biochemistry	
Hours Subtotal		34
Electives		
Select 41 hours of t	the following:	41
BIOC 4723	Introduction to Bioinformatics	
BIOC 5102	Molecular Genetics	
BIOC 5824	Biochemical Laboratory Methods	
BIOC 6820	Selected Topics in Biochemistry (15 Hours Maximum)	
Hours Subtotal		41
Required Research		
BIOC 6000	Research	15
Hours Subtotal		15
Total Hours		90

1

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

2

Course to be taken 2 times at one credit each.

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

Code	Title	Hours
Required Core Cou	ırses	
Combined 45 hour 45 hours.	s of required core courses and electives to total	45
BIOC 5002	Research Compliance and Biochemistry Graduate Colloquium	
BIOC 5112	Articulation of Research Logic	
BIOC 5120	Biochemistry and Molecular Biology Graduate Research Colloquium (1 hour)	
	ses Listed Below as Required by the Student's duate Thesis Advisory Committee:	
BIOC 5723	Introduction to Bioinformatics	
BIOC 5753	Biochemical Principles	
BIOC 5853	Molecular and Integrative Metabolism	
BIOC 5930	Advanced Biochemical Techniques (10 credits maximum)	
BIOC 6110	Seminar	
BIOC 6723	Signal Transduction	
BIOC 6733	Functional Genomics	
BIOC 6740	Physical Biochemistry	
BIOC 6753	Epigenetics	
BIOC 6773	Protein Structure and Enzyme Function	
BIOC 6783	Biomembranes and Bioenergetics	
BIOC 6793	Plant Biochemistry	
Electives		
Select 15 hours m	inimum from the following:	
BIOC 4723	Introduction to Bioinformatics	
BIOC 5102	Molecular Genetics	
BIOC 5824	Biochemical Laboratory Methods	
BIOC 6820	Selected Topics in Biochemistry	
Hours Subtotal		45
Required Research	1	
BIOC 6000	Research	15
Hours Subtotal		15
Total Hours		60
1		

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.

# Graduate College Doctor of Philosophy (PhD) Requirements

## **Biomedical Sciences, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 60

Degree Core		
Required Courses		
Thirty hours from:		30
BIOM 6000	Research and Dissertation	
BIOM 6662	Research Ethics and Survival Skills for the Biomedical Sciences	2
BIOM 6922	Scientific Communication in Biomedical Sciences	2
Hours Subtotal		34
Optional Electives		
Select 26 hours fror	m the following:	26
BIOM 5010	Special Topics in Biomedical Sciences	
BIOM 5020	Biomedical Sciences Seminar	
BIOM 5116	Clinical Anatomy	
BIOM 5122	Introduction and Survey of Human	
BIOW 0122	Structure	
BIOM 5133	Neuroanatomy	
BIOM 5144	Histology and Development	
BIOM 5215	Medical Biochemistry	
BIOM 5316	Medical Microbiology and Immunology	
BIOM 5616	Graduate Biomedical Physiology	
BIOM 5621	Introduction to Translational Research	
BIOM 5631	Disease Research in Medicine	
BIOM 5641	Cornerstones of Vertebrate Paleontology	
BIOM 5653	Evolutionary Physiology	
BIOM 5663	Graduate Pharmacology	
BIOM 5672	Scientific Outreach Training for Graduate Students	
BIOM 5683	Chronic Inflammation and Cancer Development	
BIOM 5693	Principle Concepts of Cellular and Molecular Immunology	
BIOM 5703	Applied Multivariate and Evolutionary Analysis of Paleontological Data	
BIOM 5983	Principles of Neuroscience	
BIOM 5993	Principles of Neuroanatomy	
BIOM 6175	Molcular And Cellular Biology	
BIOM 6183	Cellular and Molecular Biology of Pain	
BIOM 6193	Paleommalogy	
BIOM 6214	Advanced Topics in Medical Biochemistry	
BIOM 6233	Enzyme Analysis	
BIOM 6243	Human Nutrition	
BIOM 6263	Techniques in Molecular Biology	
BIOM 6333	Immunology	
BIOM 6343	Microbial Physiology	

DIOM COEO	MalagulanVinalam
BIOM 6353 BIOM 6363	Molecular Virology
BIOM 6413	Immunobiology of Infectious Disease Graduate General Pathology and
	Laboratory Medicine
BIOM 6523	Cardiovascular Physiology and Pharmacology
BIOM 6543	Environmental Toxins in the Brain
BIOM 6583	Neuroinflammation
BIOM 6613	Environmental Physiology
BIOM 6643	Neurophysiology
BIOM 6653	Graduate Seminar In Signal Transduction
BIOM 6663	Neuroethology
BIOM 6673	Genomics
BIOM 6705	Advanced Gross Anatomy
BIOM 6723	Field Techniques in Vertebrate Paleontology
BIOM 6733	Human Microbiome in Health and Disease
BIOM 6743	Foundations in Medical Genetics, Molecular Biology and Development
BIOM 6752	Foundations in Medical Cell and Tissue Biology
BIOM 6762	Foundations in Medical Biochemistry
BIOM 6771	Foundations in Medical Pharmacology
BIOM 6781	Foundations in Medical Immunology
BIOM 6793	Foundations in Medical Microbiology
BIOM 6800	Critical Readings in Biomedical Sciences
BIOM 6810	Structure and Function of the Human Cardiovascular System
BIOM 6820	Structure and Function of the Human Gastrointestinal/Hepatic System
BIOM 6830	Biomedical Perspectives on Human Hematology
BIOM 6840	Structure and Function of the Human Musculoskeletal System
BIOM 6843	Vertebrate Osteology
BIOM 6850	Structure and Function of the Human Renal System
BIOM 6860	Structure and Function of the Human Reproductive Systems and Reproductive Biology
BIOM 6870	Structure and Function of the Human Respiratory System
BIOM 6880	Biomedical Perspectives on Psychiatry
BIOM 6810	Structure and Function of the Human Cardiovascular System
BIOM 6820	Structure and Function of the Human Gastrointestinal/Hepatic System
BIOM 6830	Biomedical Perspectives on Human Hematology
BIOM 6840	Structure and Function of the Human Musculoskeletal System
BIOM 6850	Structure and Function of the Human Renal System

Total Hours		60
Dissertation Defense		
Qualifying Exam		
Research Proposal		
Other Requirements		
Hours Subtotal		26
	in Neuropsychiatric Disorders	
BIOM 6962 BIOM 6972	Evolutionary Biomechanics Role of Nicotinic Acetylcholine Receptors	
BIOM 6952	Paleohistology Techniques	
BIOM 6943	Advanced Vertebrate Paleontology	
BIOM 6933	Cornerstones of Graduate Biomedical Sciences	
BIOM 6910	Structure and Function of the Human Nervous System	
BIOM 6900	Structure and Function of the Human Endocrine System	
BIOM 6880	Biomedical Perspectives on Psychiatry	
BIOM 6870	Structure and Function of the Human Respiratory System	
BIOM 6860	Structure and Function of the Human Reproductive Systems and Reproductive Biology	

# Graduate College Doctor of Philosophy (PhD) Requirements

#### **Biosystems Engineering, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 60

Code	Title	Hours
Required Courses		
BAE 5501	Seminar	1
BAE 6101	Teaching Practicum in Biosystems Engineering	1
Advanced Math (if ac program)	dvanced math was not completed in Master's	3
Hours Subtotal		5
Specialization and D	issertation	
Combination of Diss	ertation and Specialization to total 55 hours.	55
Core Courses (By Spe	cialty Area)	
Machine Systems	3	
BAE 5413	Advanced Data Acquisition and Control	
Environment and	Natural Resources	
BAE 6313	Stochastic Methods in Hydrology <sup>1</sup>	
BAE 6333	Fluvial Hydraulics <sup>2</sup>	
BAE 6343	Ground Water Contaminant Transport <sup>3</sup>	
BAE 6520	Problems in Soil and Water Engineering <sup>4</sup>	
Bioprocessing and	d Biotechnology	
BAE 5213	Renewable Energy Engineering	
BAE 5283	Advanced Bioprocess Engineering	
BAE 5413	Advanced Data Acquisition and Control	
CHE 5123	Advanced Chemical Reaction Engineering	
CHE 5373	Process Simulation	
CHE 5743	Chemical Engineering Process Modeling	
STAT 5303	Experimental Designs	
Research and Addition	•	
BAE 6000	Doctoral Research and Dissertation	
Hours Subtotal		55
Total Hours		60

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.

### Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2022-2023 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2766). Check the General

Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

#### **Business Administration: Accounting,** PhD

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Tiel.

**Total Hours:** 60

Code	Title	Hours
Research Methods		
ECON 5213	Introduction to Econometrics	3
ECON 6013	Microeconomic Theory I	3
or ECON 6013	Microeconomic Theory I	
STAT 5023	Statistics for Experimenters II	3
ECON 6323	Mathematical Economics I	3
or AGEC 5103	Mathematical Economics	
STAT 5013	Statistics for Experimenters I	3
STAT 5063	Statistical Machine Learning with R	3
Hours Subtotal		18
Dissertation Hours		
ACCT 6000	Doctoral Research and Thesis	15
Hours Subtotal		15
<b>Doctoral Seminars</b>		
ACCT 6703	Seminar in Accounting Research	3
ACCT 6110	Graduate Readings and Special Topics	3
	in Accounting (Behavioral Research in	
	Accounting)	
ACCT 6110	Graduate Readings and Special Topics	3
	in Accounting (Analytical and Empirical	
100T 6110	Research)	0
ACCT 6110	Graduate Readings and Special Topics in Accounting (Capital Markets Research)	3
Hours Subtotal	Accounting (Capital Markets nesearch)	12
Guided Electives		12
	and of the following tracks:	15
For Archival Research	one of the following tracks:	13
ACCT 6110	Graduate Readings and Special Topics in Accounting (Faculty-Guided Independent	
	Study)	
AGEC 5213	Econometric Methods	
AGEC 6213	Advanced Econometrics	
ECON 6213	Econometrics I	
ECON 6243	Econometrics II	
FIN 5243	Financial Markets	
FIN 6053	Financial Theory and Corporate Policy	
FIN 6660	Seminar in Finance	
STAT 5053	Time Series Analysis	
For Behavioral Researc		
ACCT 6110	Graduate Readings and Special Topics in	
	Accounting	
MGMT 6353	Advanced Methods in Management	
	Research	
REMS 6003	Analyses of Variance	

Total Hours		60
Hours Subtotal		15
STAT 5303	Experimental Designs	
STAT 5043	Sample Survey Designs	
STAT 5033	Nonparametric Methods	
OTAT FOOD	Name and an artist Mathematic	

#### Graduate College Doctor of Philosophy (PhD) Requirements

# **Business Administration: Entrepreneurship, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 60

**Total Hours** 

Code	Title	Hours
Required Course	es	
Statistics Seque	ence	
Select 42 hours,	per Plan of Study	42
Dissertation		
Select 18 hours	of Dissertation	18
<b>Doctoral Semina</b>	ars	
•	oclude department seminars in entrepreneurship iplines, a minor area.	
Suggested cour	ses:	
EEE 6343	Entrepreneurship Processes	
EEE 6200	Entrepreneurship Research Project	
EEE 6213	Entrepreneurship: Theory and History	
EEE 6263	Theoretical Foundations in Entrepreneurship	
EEE 6353	Advanced Research Methods in Entrepreneurship	
EEE 6363	Individual Theories in Entrepreneurship Research	
<b>Guided Electives</b>	S	
Hours in this se	ction to be determined by plan of study.	

### Graduate College Doctor of Philosophy (PhD) Requirements

60

## **Business Administration: Executive Research, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 60

Code	Title	Hours
Research Methods		
MGMT 6343	Contemporary Research in Management I	3
MGMT 6343	Contemporary Research in Management I	3
	(Contemporary Research in Management II)	
MGMT 6353	Advanced Methods in Management Research	3
MSIS 6100	Business Analytics	3
MSIS 6343	Advanced Methods in MSIS Research	3
MKTG 6413	Advanced Marketing Research	3
BADM 6713	Theory Building and Scientific Research in Business	3
Hours Subtotal		21
Dissertation		
MGMT 6363	Advanced Organization Theory	3
BADM 6000	Research and Thesis (Research and Thesis I)	5
BADM 6000	Research and Thesis (Research and Thesis II)	5
BADM 6000	Research and Thesis (Research and Thesis III)	5
Hours Subtotal		18
<b>Doctoral Seminars</b>		
BADM 6513	Org Science I: Micro Issues in Business (Advanced Organizational Behavior)	3
BADM 6523	Org Science II: Macro Issues in Business (Advanced Strategic Management)	3
MKTG 6100	Advanced Seminar in Marketing (Theory Building)	3
BADM 6100	Seminar in Business Administration	3
BADM 6723	Dissertation Design	3
Hours Subtotal		15
Guided Electives		
Select 6 hours of add	ditional courses required by the committee.	6
Hours Subtotal		6
Total Hours		60

### Graduate College Doctor of Philosophy (PhD) Requirements

### **Business Administration: Finance, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 69

Code	Title	Hours
Research Methods		
STAT 5253	Mathematical Statistics I	3
STAT 5263	Mathematical Statistics II	3
Select 9 hours from t	he following:	9
ACCT 6110	Graduate Readings and Special Topics in Accounting	
ACCT 6703	Seminar in Accounting Research	
STAT 5033	Nonparametric Methods	
STAT 5043	Sample Survey Designs	
STAT 5053	Time Series Analysis	
STAT 5063	Statistical Machine Learning with R	
STAT 5073	Categorical Data Analysis	
STAT 5123	Probability Theory	
STAT 5133	Stochastic Processes	
STAT 5213	Bayesian Analysis	
STAT 5513	Multivariate Analysis	
ECON 6010	Seminar in Economic Policy	
ECON 6033	Macroeconomic Theory I	
AGEC 6213	Advanced Econometrics	
Hours Subtotal		15
Dissertation Hours		
Select 15 hours of Th	nesis	15
Hours Subtotal		15
<b>Doctoral Seminars</b>		
FIN 6053	Financial Theory and Corporate Policy	3
FIN 6660	Seminar in Finance	5
FIN 6660	Seminar in Finance	5
FIN 6660	Seminar in Finance	5
FIN 5763	Derivative Securities and the Management of Financial Price Risk	3
FIN 5773	Financial Engineering	3
Hours Subtotal		24
<b>Guided Electives</b>		
Required: Economics		
ECON 5033	Macroeconomic Analysis	3
ECON 6013	Microeconomic Theory I	3
ECON 6323	Mathematical Economics I	3
ECON 6213	Econometrics I	3
ECON 6243	Econometrics II	3
Hours Subtotal		15
Total Hours		69

### Graduate College Doctor of Philosophy (PhD) Requirements

### **Business Administration: Hospitality and Tourism Management, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

HTM 6113 Hospitality and Tourism Education 3 HTM 6713 Contemporary Hospitality and Tourism 7 Theory HTM 6993 Advanced Hospitality and Tourism 8 Research Hours Subtotal 10 Electives (Specialization) Select 17 hours of approved 5000-level or above courses that fit 17 your specialization/focus. Hours Subtotal 17 Research Support Courses	Code	Title	Hours
HTM 6113 Hospitality and Tourism Education 3 HTM 6713 Contemporary Hospitality and Tourism Theory HTM 6993 Advanced Hospitality and Tourism Research  Hours Subtotal 10 Electives (Specialization) Select 17 hours of approved 5000-level or above courses that fit 17 your specialization/focus.  Hours Subtotal 17 Research Support Courses Select 18-30 hours. 18 Must Include: One Intermediate Statistics SOC 5243 Social Research Design SOC 5213 Techniques of Population Analysis STAT 5023 Statistics for Experimenters II STAT 5043 Sample Survey Designs STAT 5223 Statistical Inference STAT 5303 Experimental Designs STAT 5333 Theory of Linear Models II STAT 5333 Theory of Linear Models II STAT 5513 Multivariate Analysis REMS 5373 Educational Measurements REMS 6003 Analyses of Variance And One Advanced Statistics HDFS 6143 Structural Equation Modeling for HDFS Applications HDFS 6153 Multilevel Modeling for HDFS Applications MGMT 6553 Advanced Methods in Management Research III MSIS 6343 Advanced Methods in Management Research III MSIS 6343 Advanced Methods in MSIS Research MKTG 6913 Measurement and Experimental Design REMS 6013 Multiple Regression Analysis in Behavioral Studies REMS 6033 Factor Analysis in Behavioral Research STAT 5073 Categorical Data Analysis STAT 5033 Experimental Designs STAT 5033 Factor Analysis in Behavioral Research STAT 5073 Categorical Data Analysis STAT 5033 Experimental Designs STAT 5033 Factor Analysis in Behavioral Research STAT 5033 Factor Analysis in Behavioral Research STAT 5073 Categorical Data Analysis STAT 5033 Factor Analysis in Behavioral Research	Required Core Cou	ırses	
HTM 6713 Contemporary Hospitality and Tourism Theory HTM 6993 Advanced Hospitality and Tourism Research  Hours Subtotal 10  Electives (Specialization) Select 17 hours of approved 5000-level or above courses that fit your specialization/focus.  Hours Subtotal 17  Research Support Courses Select 18-30 hours. 18  Must Include: One Intermediate Statistics SOC 5243 Social Research Design SOC 5213 Techniques of Population Analysis STAT 5023 Statistics for Experimenters II STAT 5043 Sample Survey Designs STAT 5223 Statistical Inference STAT 5303 Experimental Designs STAT 5323 Theory of Linear Models I STAT 5333 Theory of Linear Models II STAT 5513 Multivariate Analysis REMS 5373 Educational Measurements REMS 6003 Analyses of Variance And One Advanced Statistics HDFS 6143 Structural Equation Modeling for HDFS Applications HDFS 6153 Multilevel Modeling for HDFS Applications MGMT 6553 Advanced Methods in Management Research III MSIS 6343 Advanced Methods in MSIS Research MKTG 6913 Measurement and Experimental Design REMS 6013 Multiple Regression Analysis in Behavioral STAT 5073 Categorical Data Analysis STAT 5303 Experimental Designs STAT 5513 Multivariate Analysis STAT 5513 Multivariate Analysis STAT 5513 Multivariate Analysis	HTM 6111		1
Theory  HTM 6993 Advanced Hospitality and Tourism Research  Hours Subtotal  Electives (Specialization)  Select 17 hours of approved 5000-level or above courses that fit your specialization/focus.  Hours Subtotal  T7  Research Support Courses  Select 18-30 hours.  Must Include:  One Intermediate Statistics  SOC 5243 Social Research Design  SOC 5213 Techniques of Population Analysis  STAT 5023 Statistics for Experimenters II  STAT 5043 Sample Survey Designs  STAT 5223 Statistical Inference  STAT 5303 Experimental Designs  STAT 5323 Theory of Linear Models I  STAT 5333 Theory of Linear Models II  STAT 5513 Multivariate Analysis  REMS 5373 Educational Measurements  REMS 6003 Analyses of Variance  And One Advanced Statistics  HDFS 6143 Structural Equation Modeling for HDFS Applications  MGMT 6553 Advanced Methods in Management Research III  MSIS 6343 Advanced Methods in MSIS Research  MKTG 6913 Measurement and Experimental Design  REMS 6013 Multiple Regression Analysis in Behavioral Studies  REMS 6033 Factor Analysis in Behavioral Research  STAT 5030 Experimental Designs  STAT 5073 Categorical Data Analysis  STAT 5033 Experimental Designs  STAT 5033 Factor Analysis in Behavioral Research  STAT 5033 Experimental Designs  STAT 5034 Experimental Designs  STAT 5035 Subtrivariate Analysis  STAT 5036 Experimental Designs  STAT 5037 Categorical Data Analysis  STAT 5033 Factor Analysis in Behavioral Research	HTM 6113	Hospitality and Tourism Education	3
Hours Subtotal  Electives (Specialization)  Select 17 hours of approved 5000-level or above courses that fit your specialization/focus.  Hours Subtotal  Research Support Courses  Select 18-30 hours.  Must Include:  One Intermediate Statistics  SOC 5243  Social Research Design  SOC 5213  Techniques of Population Analysis  STAT 5023  Statistics for Experimenters II  STAT 5043  Sample Survey Designs  STAT 5223  Statistical Inference  STAT 5303  Experimental Designs  STAT 5333  Theory of Linear Models II  STAT 5513  Multivariate Analysis  REMS 6003  Analyses of Variance  And One Advanced Statistics  HDFS 6143  Structural Equation Modeling for HDFS Applications  MGMT 6553  Advanced Methods in Management Research III  MSIS 6343  Advanced Methods in MSIS Research  MKTG 6913  Measurement and Experimental Design  REMS 6013  Multiple Regression Analysis in Behavioral Studies  REMS 6033  Factor Analysis in Behavioral Research  STAT 5073  Categorical Data Analysis  STAT 5033  STAT 5033  Theory of Linear Models II  STAT 5033  STAT 5033  Theory of Linear Models II  STAT 5033  STAT 5033  Theory of Linear Models II  STAT 5033  STAT 5033  Theory of Linear Models II  STAT 5033  STAT 5033  Theory of Linear Models II  STAT 5033  STAT 5033  Theory of Linear Models II  STAT 5033  STAT 5033  Theory of Linear Models II  STAT 5033  STAT 5033  Theory of Linear Models II  STAT 5031  STAT 5033  Theory of Linear Models II  STAT 5031  STAT 5033  Theory of Linear Models II  STAT 5033  STAT 5034  Multivariate Analysis  STAT 5035  STAT 5036  STAT 5036  STAT 5037  STAT 5037  STAT 5039  STAT 5039  STAT 5030  STAT 5030  STAT 5031  Multivariate Analysis  STAT 5031  Probability Theory	HTM 6713		3
Electives (Specialization)  Select 17 hours of approved 5000-level or above courses that fit your specialization/focus.  Hours Subtotal 17  Research Support Courses  Select 18-30 hours. 18  Must Include:  One Intermediate Statistics  SOC 5243 Social Research Design  SOC 5213 Techniques of Population Analysis  STAT 5023 Statistics for Experimenters II  STAT 5043 Sample Survey Designs  STAT 5223 Statistical Inference  STAT 5303 Experimental Designs  STAT 5303 Theory of Linear Models I  STAT 5513 Multivariate Analysis  REMS 5373 Educational Measurements  REMS 6003 Analyses of Variance  And One Advanced Statistics  HDFS 6143 Structural Equation Modeling for HDFS Applications  HDFS 6153 Multilevel Modeling for HDFS Applications  MGMT 6553 Advanced Methods in Management Research III  MSIS 6343 Advanced Methods in MSIS Research  MKTG 6913 Measurement and Experimental Design  REMS 6003 Factor Analysis in Behavioral Studies  REMS 6033 Factor Analysis in Behavioral Research  STAT 5073 Categorical Data Analysis  STAT 5303 Experimental Designs  STAT 5303 Factor Analysis in Behavioral Research  STAT 5303 Experimental Designs  STAT 5303 Experimental Designs  STAT 5303 Factor Analysis in Behavioral Research  STAT 5303 Experimental Designs  STAT 5303 Factor Analysis in Behavioral Research  STAT 5513 Multivariate Analysis  STAT 5513 Multivariate Analysis	HTM 6993		3
Select 17 hours of approved 5000-level or above courses that fit your specialization/focus.  Hours Subtotal 17  Research Support Courses  Select 18-30 hours. 18  Must Include: One Intermediate Statistics SOC 5243 Social Research Design SOC 5213 Techniques of Population Analysis STAT 5023 Statistics for Experimenters II STAT 5043 Sample Survey Designs STAT 5223 Statistical Inference STAT 5303 Experimental Designs STAT 5333 Theory of Linear Models I STAT 5513 Multivariate Analysis REMS 5373 Educational Measurements REMS 6003 Analyses of Variance And One Advanced Statistics HDFS 6143 Structural Equation Modeling for HDFS Applications HDFS 6153 Multilevel Modeling for HDFS Applications MGMT 6553 Advanced Methods in Management Research III MSIS 6343 Advanced Methods in MSIS Research MKTG 6913 Measurement and Experimental Design REMS 6013 Multiple Regression Analysis in Behavioral Studies REMS 603 Factor Analysis in Behavioral Research STAT 5073 Categorical Data Analysis STAT 5303 Experimental Designs STAT 5303 Experimental Designs STAT 5303 Experimental Designs STAT 5303 Experimental Designs STAT 5303 Factor Analysis in Behavioral Research STAT 5303 Experimental Designs STAT 5303 Factor Analysis in Behavioral Research STAT 5513 Multivariate Analysis STAT 5513 Multivariate Analysis STAT 5513 Multivariate Analysis	Hours Subtotal		10
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Select 18-30 hours. 18  Must Include: One Intermediate Statistics SOC 5243 Social Research Design SOC 5213 Techniques of Population Analysis STAT 5023 Statistics for Experimenters II STAT 5043 Sample Survey Designs STAT 5223 Statistical Inference STAT 5303 Experimental Designs STAT 5333 Theory of Linear Models I STAT 5333 Theory of Linear Models II STAT 5513 Multivariate Analysis REMS 5373 Educational Measurements REMS 6003 Analyses of Variance And One Advanced Statistics HDFS 6143 Structural Equation Modeling for HDFS Applications HDFS 6153 Multilevel Modeling for HDFS Applications MGMT 6553 Advanced Methods in Management Research III MSIS 6343 Advanced Methods in MSIS Research MKTG 6913 Measurement and Experimental Design REMS 6013 Multiple Regression Analysis in Behavioral Studies REMS 6033 Factor Analysis in Behavioral Research STAT 5073 Categorical Data Analysis STAT 5333 Theory of Linear Models II STAT 5513 Multivariate Analysis	Hours Subtotal		17
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SOC 5243 Social Research Design SOC 5213 Techniques of Population Analysis STAT 5023 Statistics for Experimenters II STAT 5043 Sample Survey Designs STAT 5223 Statistical Inference STAT 5303 Experimental Designs STAT 5323 Theory of Linear Models I STAT 5333 Theory of Linear Models II STAT 5513 Multivariate Analysis REMS 5373 Educational Measurements REMS 6003 Analyses of Variance And One Advanced Statistics HDFS 6143 Structural Equation Modeling for HDFS Applications HDFS 6153 Multilevel Modeling for HDFS Applications MGMT 6553 Advanced Methods in Management Research III MSIS 6343 Advanced Methods in MSIS Research MKTG 6913 Measurement and Experimental Design REMS 6013 Multiple Regression Analysis in Behavioral Studies REMS 6033 Factor Analysis in Behavioral Research STAT 5073 Categorical Data Analysis STAT 5333 Theory of Linear Models II STAT 5513 Multivariate Analysis STAT 5513 Multivariate Analysis	Must Include:		
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STAT 5223 Statistical Inference STAT 5303 Experimental Designs STAT 5323 Theory of Linear Models I STAT 5333 Theory of Linear Models II STAT 5513 Multivariate Analysis REMS 5373 Educational Measurements REMS 6003 Analyses of Variance And One Advanced Statistics HDFS 6143 Structural Equation Modeling for HDFS Applications HDFS 6153 Multilevel Modeling for HDFS Applications MGMT 6553 Advanced Methods in Management Research III MSIS 6343 Advanced Methods in MSIS Research MKTG 6913 Measurement and Experimental Design REMS 6013 Multiple Regression Analysis in Behavioral Studies REMS 6033 Factor Analysis in Behavioral Research STAT 5073 Categorical Data Analysis STAT 5303 Experimental Designs STAT 5333 Theory of Linear Models II STAT 5513 Multivariate Analysis STAT 513 Probability Theory	STAT 5023	Statistics for Experimenters II	
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HDFS 6143 Structural Equation Modeling for HDFS Applications HDFS 6153 Multilevel Modeling for HDFS Applications MGMT 6553 Advanced Methods in Management Research III MSIS 6343 Advanced Methods in MSIS Research MKTG 6913 Measurement and Experimental Design REMS 6013 Multiple Regression Analysis in Behavioral Studies REMS 6033 Factor Analysis in Behavioral Research STAT 5073 Categorical Data Analysis STAT 5303 Experimental Designs STAT 5333 Theory of Linear Models II STAT 5513 Multivariate Analysis STAT 6113 Probability Theory	REMS 6003	Analyses of Variance	
Applications  HDFS 6153 Multilevel Modeling for HDFS Applications  MGMT 6553 Advanced Methods in Management Research III  MSIS 6343 Advanced Methods in MSIS Research  MKTG 6913 Measurement and Experimental Design  REMS 6013 Multiple Regression Analysis in Behavioral Studies  REMS 6033 Factor Analysis in Behavioral Research  STAT 5073 Categorical Data Analysis  STAT 5303 Experimental Designs  STAT 5333 Theory of Linear Models II  STAT 5513 Multivariate Analysis  STAT 6113 Probability Theory	And One Advan	ced Statistics	
MGMT 6553 Advanced Methods in Management Research III  MSIS 6343 Advanced Methods in MSIS Research  MKTG 6913 Measurement and Experimental Design  REMS 6013 Multiple Regression Analysis in Behavioral Studies  REMS 6033 Factor Analysis in Behavioral Research  STAT 5073 Categorical Data Analysis  STAT 5303 Experimental Designs  STAT 5333 Theory of Linear Models II  STAT 5513 Multivariate Analysis  STAT 6113 Probability Theory	HDFS 6143		
Research III  MSIS 6343 Advanced Methods in MSIS Research  MKTG 6913 Measurement and Experimental Design  REMS 6013 Multiple Regression Analysis in Behavioral Studies  REMS 6033 Factor Analysis in Behavioral Research  STAT 5073 Categorical Data Analysis  STAT 5303 Experimental Designs  STAT 5333 Theory of Linear Models II  STAT 5513 Multivariate Analysis  STAT 6113 Probability Theory	HDFS 6153	Multilevel Modeling for HDFS Applications	
MKTG 6913 Measurement and Experimental Design REMS 6013 Multiple Regression Analysis in Behavioral Studies REMS 6033 Factor Analysis in Behavioral Research STAT 5073 Categorical Data Analysis STAT 5303 Experimental Designs STAT 5333 Theory of Linear Models II STAT 5513 Multivariate Analysis STAT 6113 Probability Theory	MGMT 6553		
REMS 6013 Multiple Regression Analysis in Behavioral Studies  REMS 6033 Factor Analysis in Behavioral Research  STAT 5073 Categorical Data Analysis  STAT 5303 Experimental Designs  STAT 5333 Theory of Linear Models II  STAT 5513 Multivariate Analysis  STAT 6113 Probability Theory	MSIS 6343	Advanced Methods in MSIS Research	
Studies  REMS 6033 Factor Analysis in Behavioral Research  STAT 5073 Categorical Data Analysis  STAT 5303 Experimental Designs  STAT 5333 Theory of Linear Models II  STAT 5513 Multivariate Analysis  STAT 6113 Probability Theory	MKTG 6913	Measurement and Experimental Design	
STAT 5073 Categorical Data Analysis STAT 5303 Experimental Designs STAT 5333 Theory of Linear Models II STAT 5513 Multivariate Analysis STAT 6113 Probability Theory	REMS 6013		
STAT 5303 Experimental Designs STAT 5333 Theory of Linear Models II STAT 5513 Multivariate Analysis STAT 6113 Probability Theory	REMS 6033	Factor Analysis in Behavioral Research	
STAT 5333 Theory of Linear Models II STAT 5513 Multivariate Analysis STAT 6113 Probability Theory	STAT 5073	Categorical Data Analysis	
STAT 5513 Multivariate Analysis STAT 6113 Probability Theory	STAT 5303		
STAT 6113 Probability Theory	STAT 5333	Theory of Linear Models II	
	STAT 5513	Multivariate Analysis	
STAT 6203 Large Sample Inference	STAT 6113	Probability Theory	
	STAT 6203	Large Sample Inference	

STAT 6223	Advanced Statistical Inference	
Hours Subtotal		18
Dissertation		
15 hours of disser	tation	15
Strongly encourag	jed:	
• •	nship in research and/or instruction (maximum ach intern program).	
Foreign or com	puter language skills.	
Hours Subtotal		15
Total Hours		60

#### Graduate College Doctor of Philosophy (PhD) Requirements

#### Business Administration: Management Science and Information Systems, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 60

Code	Title	Hours
Methods Courses		
Select 15 hours of ap	pproved courses.	15
Doctoral Seminar/Pr	acticum Courses	
Select 18 hours of ap from MSIS).	oproved courses (12 hours of which must be	18
Electives		
Select 6 hours of app	proved courses.	6
Colloquia		
Select 3 hours of Col	loquia	3
Dissertation		
Select 18 hours of di	ssertation.	18
Total Hours		60

# Graduate College Doctor of Philosophy (PhD) Requirements

# **Business Administration: Management, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 60

Code	Title	Hours
Research Methods		
MGMT 6353	Advanced Methods in Management Research	3
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6320	Doctoral Seminar in REMS	3
MGMT 6553	Advanced Methods in Management Research III	3
Hours Subtotal		15
Dissertation		
Select 18 hours of Dis	ssertation	18
Hours Subtotal		18
<b>Doctoral Seminars</b>		
MGMT 6313	Advanced Organizational Behavior	3
MGMT 6323	Advanced Strategic Management	3
MGMT 6333	MESO Organization Studies	3
MGMT 6343	Contemporary Research in Management I	3
Hours Subtotal		12
<b>Guided Electives</b>		
conjunction with a factorious student's specific into incoming student doe Business or an MBA, take one or more leve	k will be chosen by the student, in culty committee, to support the individual erests and/or needs. In cases where an es not have an undergraduate degree in it may be determined that s/he needs to ling courses in the functional areas of nting, Finance, Marketing, etc.).	15
Hours Subtotal		15
<b>Total Hours</b>		60

#### Additional Business Administration, PhD, Requirements

• Minimum grade of "B" required on all degree courses

#### Graduate College Doctor of Philosophy (PhD) Requirements

### **Business Administration: Marketing, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Research Methods	s	
MKTG 6413	Advanced Marketing Research	3
MKTG 6913	Measurement and Experimental Design	3
MKTG 6323	Seminar in Advanced Consumer Behavior	3
MKTG 6513	Seminar in Marketing Theory	3
MKTG 6683	Seminar in Marketing Strategy	3
Hours Subtotal		15
Electives		
27 hours of elective	/es	27
Required Electives		
MKTG 6100	Advanced Seminar in Marketing	
BADM 6100	Seminar in Business Administration	
MSIS 6343	Advanced Methods in MSIS Research	
Additional elect	tives chosen in consultation with advisor	
Dissertation		
Select 18 hours of	dissertation	18
Hours Subtotal		45
Total Hours		60

### Graduate College Doctor of Philosophy (PhD) Requirements

#### **Chemical Engineering, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 60 (Beyond the Bachelor's Degree)

Code	Title	Hours
Core Courses		
CHE 5123	Advanced Chemical Reaction Engineering	3
CHE 5213	Advanced Transport Phenomena	3
CHE 5743	Chemical Engineering Process Modeling	3
CHE 5843	Principles of Chemical Engineering Thermodynamics	3
CHE 5302	Introduction to Science and Engineering Research	2
Hours Subtotal		14
Seminar		
Seven hours from:		7
CHE 6010	Chemical Engineering Seminar	
Hours Subtotal		7
Electives		
• • • • • • • • • • • • • • • • • • • •	HE or other) courses, selected by the al of the student's advisory committee.	15
Suggested Elective Co	ourses	
CHE 5073	Tissue Engineering	
CHE 5133	Catalysis and Photocatalysis	
CHE 5283	Advanced Bioprocess Engineering	
CHE 5293	Advanced Biomedical Engineering	
CHE 5323	Electrochemical Engineering	
CHE 5373	Process Simulation	
CHE 5493	Molecular Modeling and Simulation	
CHE 5523	Colloid Processing	
CHE 5603	Membrane Separations	
CHE 5753	Applied Numerical Computing for Scientists and Engineers	
CHE 5273	Basic Physiology and Physiological System Analysis for Engineers	
Hours Subtotal		15
Thesis		
CHE 6000	Doctoral Thesis <sup>1</sup>	24
Hours Subtotal		24
Total Hours		60

**Total Hours:** 30 (Beyond the Master's Degree from Oklahoma State University, 60 hours on the Plan of Study)

Code	Title	Hours
Seminar		
Four hours from:		4
CHE 6010	Chemical Engineering Seminar	
Hours Subtotal		4
Electives		

	ved elective (CHE or other) courses, selected by a approval of the student's advisory committee.	9
Hours Subtotal		9
Thesis		
CHE 6000	Doctoral Thesis <sup>1</sup>	17
Hours Subtotal		17
Total Hours		30

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 15.

Total Hours: 42 (Beyond the Master's Degree, 60 hours on the Plan of  ${\rm Study})^2$ 

Code	Title	Hours
Core Courses		
CHE 5123	Advanced Chemical Reaction Engineering	3
CHE 5213	Advanced Transport Phenomena	3
CHE 5743	Chemical Engineering Process Modeling	3
CHE 5843	Principles of Chemical Engineering Thermodynamics	3
CHE 5302	Introduction to Science and Engineering Research	2
Hours Subtotal		14
Seminar		
Six hours from:		6
CHE 6010	Chemical Engineering Seminar	
Hours Subtotal		6
Electives		
• • • • • • • • • • • • • • • • • • • •	elective (CHE or other) courses, selected by proval of the student's advisory committee.	6
Hours Subtotal		6
Thesis		
Sixteen hours from:		16
CHE 6000	Doctoral Thesis	
Hours Subtotal		16
Total Hours		42

2

With at least 18 transfer credit hours, transfer credits must have grades of "B" or better, be less than ten years old at the time of the student's graduation, and approved by the Graduate Program Advisory Committee.

#### Graduate College Doctor of Philosophy (PhD) Requirements

#### **Chemistry, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 90

Code	Title	Hours
Core Courses		
CHEM 5001	Introduction to Chemistry Research	1
CHEM 5000	Thesis	6
CHEM 5011	Graduate Seminar	1
CHEM 6010	Research Seminar	7
CHEM 6011	Advanced Seminar	1
Hours Subtotal		16
Electives		
Select 20 hours fro	m the following:	20
CHEM 5053	Foundations of Physical Chemistry	
CHEM 5063	Foundations of Organic Chemistry	
CHEM 5073	Foundations of Analytical Chemistry	
CHEM 5263	Foundations of Inorganic Chemistry	
CHEM 5103	Physical and Chemical Separations	
CHEM 5223	Polymer Chemistry	
CHEM 5373	Spectrometric Identification of Organic Compounds	
CHEM 5443	Mechanism and Structure in Organic Chemistry	
CHEM 5563	Chemical Thermodynamics I	
CHEM 5963	Advanced Inorganic Chemistry	
CHEM 6103	Electroanalytical Chemistry	
CHEM 6223	Physical Polymer Science	
CHEM 6420	Special Topics in Organic Chemistry	
CHEM 6650	Selected Topics in Chemistry	
Hours Subtotal		20
Dissertation		
Fifty-four hours fro	m:	54
CHEM 6000	Doctoral Dissertation Research	
Hours Subtotal		54
Total Hours		90

### Graduate College Doctor of Philosophy (PhD) Requirements

#### **Civil Engineering, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Coursework		
Select 30 credit h	ours of approved 5000-level coursework.	30
Hours Subtotal		30
Thesis		
Thirty hours from	:	30
CIVE 6000	PhD Research Dissertation	
Hours Subtotal		30
Total Hours		60

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

Code	Title	Hours
Coursework		
Select 60 hours o	f approved 5000-level coursework.	60
Hours Subtotal		60
Thesis		
Thirty hours from	:	30
CIVE 6000	PhD Research Dissertation	
Hours Subtotal		30
Total Hours		90

### Graduate College Doctor of Philosophy (PhD) Requirements

#### **Computer Science, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 60** 

Code	Title	Hours
Core Requirements 1	, 2	
CS 5113	Computer Organization and Architecture	3
CS 5313	Formal Language Theory	3
CS 5323	Design and Implementation of Operating Systems II	3
CS 5413	Data Structures and Algorithm Analysis II	3
CS 5513	Numerical Computation	3
Hours Subtotal		15
Research Specializat	ion	
Select 12 hours from CS 6000.	one area of CS at the 6000 level, excluding	12
Hours Subtotal		12
Secondary Area of St	tudy	
	area of CS at the 6000 level, outside the n and excluding CS 6000.	6
Hours Subtotal		6
Electives 3, 4		
Select 6 hours of elec	ctive CS courses at the 5000-level or above.	6
Hours Subtotal		6
Other Requirements		
Twenty-one hours fro	om:	21
CS 6000	Doctoral Dissertation	
Hours Subtotal		21
Total Hours		60

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

1

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.

#### Graduate College Doctor of Philosophy (PhD) Requirements

Title

#### **Counseling Psychology, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Hours

Total Hours: 117

Code

Code	TITIE	Hours
General Psychology	/ Core	
History and Systems	s of Psychology	
FDEP 6133	History and Systems of Psychology	3
Biological Bases of I	Behavior	
EPSY 5320	Seminar in Educational Psychology <sup>1</sup>	3
or PSYC 6483	Neurobiological Psychology	
Cognitive/Affective I		
EPSY 6163	Emotion and Cognition	3
Social Bases of Beha	avior	
FDEP 5183	Theories of Social Psychology	3
or PSYC 6563	Advanced Social Psychology	
Individual Behavior	, 3,	
CPSY 6153	Personality Theories	3
EPSY 5103	Human Development in Psychology	3
CPSY 5563	Conceptualization and Diagnosis in	3
	Counseling	
or PSYC 5113	Psychopathology	
Psychogical Measur	ement and Assessment	
CPSY 5523	Assessment in Counseling	3
EPSY 5320	Seminar in Educational Psychology	3
CPSY 6123	Adult Personality Assessment	3
Hours Subtotal		30
Counseling Psycho	logy Core	
Theories and Interve	ntions	
CPSY 5553	Theories of Counseling	3
CPSY 6083	Principles of Counseling Psychology	3
CPSY 5453	Vocational and Career Information	3
CPSY 5583	Group Process	3
CPSY 6543	Clinical Supervision	3
CPSY 6553	Advanced Practice in Marital and Family	3
	Treatment	
Professionalism and	l Ethics	
CPSY 6053	Ethical and Legal Issues in Professional Psychology	3
Multicultural Counse	eling	
CPSY 5503	Multicultural Counseling	3
Supervised Practicul	m Experiences	
CPSY 5593	Counseling Practicum	3
CPSY 6413	Counseling Psychology Practicum I	3
CPSY 6423	Counseling Psychology Practicum II	3
CPSY 6433	Counseling Psychology Practicum III	3
CPSY 6443	Counseling Psychology Practicum IV	3
Doctoral Dissertation	n Hours (15 Minimum)	
Fifteen hours from:		15
CPSY 6000	Doctoral Dissertation	

Internship		
Six hours from:		6
CPSY 6560	Advanced Internship in Counseling	
Hours Subtotal		60
Research Core		
Statistics and Metho	ds of Research and Evaluation	
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Quantitative Statistic	s Core	
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6373	Program Evaluation	3
or REMS 6663	Applied Multivariate Research in Behavioral Studies	
or REMS 6023	Psychometric Theory	
Qualititative Research	h Core	
SCFD 5913	Introduction to Qualitative Inquiry	3
or SOC 5273	Qualitative Research Methods	
Hours Subtotal		18
Electives		
3 at 3 credits each		9
Hours Subtotal		9
Total Hours		117

#### Graduate College Doctor of Philosophy (PhD) Requirements

#### **Crop Science, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Course	es	
PLNT 5020	Graduate Seminar	1
SOIL 5131	Professional Development Colloquium in Plant and Soil Sciences	1
SOIL 5120	Teaching Practicum in Plant and Soil Sciences	1
Additional Cours	sework Hours	23
Hours Subtotal		26
Additional Cours	ework	
Required Minimu	um Thesis Credit Hours	15
Additional Minim	num Coursework or Thesis Credit Hours	19
Hours Subtotal		34
Total Hours		60

#### **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, dissertation 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.

#### Graduate College Doctor of Philosophy (PhD) Requirements

Code

# Curriculum Studies: College Curriculum and Teaching, PhD

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 63 (Beyond the Master's degree)

Title

Required Common Co	ore	
CIED 6033	Analysis of Teaching	3
CIED 6053	Advanced Curriculum Studies	3
CIED 6063	Curriculum History	3
CIED 6153	Curriculum of Nonviolence	3
Hours Subtotal		12
Research and Inquiry	,	
Research Inquiry Core		
CIED 6163	Advanced Research Strategies in Curriculum	3
Extended Inquiry		
Students select approach advisor and dissertat	opriate courses in consultation with their ion committee.	
Select 9 hours - exam	ples of courses are the following:	9
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
EDLE 6853	Research Traditions in Educational Leadership	
HESA 6853	Research Traditions in Higher Education and Student Affairs	
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 6113	Theoretical Foundations of Inquiry	
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	
Hours Subtotal		12

#### **Specialization**

Select 6-15 credit hours (Specialization and Cognate courses adding to 24 hours minimum).

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

HESA 6713	Effective Teaching in College and Universities
CIED 6133	Theory to Practice in Education
CIED 6073	Advanced Pedagogical Research

CIED 6183	Advanced Media Literacy Across the Curriculum
CIED 6040	Special Topics in College Curriculum and Teaching
HESA 6583	The Impact of College on Students and Society
HESA 6753	Historical Development of Higher Education
HESA 6843	The Academic Department
SCFD 6983	Diversity and Equity Issues in Education
SCFD 6883	Transforming Pedagogies

#### Cognate/Electives

Hours

Select 9-18 credit hours (Specialization and Cognate courses adding to 24 hours minimum).

Students select appropriate related courses according to their interests in consutation with their advisor and dissertation committee. These are to be graduate courses available at Oklahoma State University. Subject electives with the advisor's approval.

Hours Subtotal		24
Dissertation Res	search	
CIED 6000	Doctoral Dissertation	15
Total Hours		63

#### Graduate College Doctor of Philosophy (PhD) Requirements

# **Curriculum Studies: Curriculum and Leadership, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 63

Code	Title	Hours
Required Common Co	ore	
CIED 6033	Analysis of Teaching	3
CIED 6053	Advanced Curriculum Studies	3
CIED 6063	Curriculum History	3
CIED 6153	Curriculum of Nonviolence	3
Hours Subtotal		12
Research and Inquiry		
Research Inquiry Core		
CIED 6163	Advanced Research Strategies in Curriculum	3
Extended Inquiry		
Students select approaches advisor and dissertat	opriate courses in consultation with their ion committee.	
Select 9 hours - exam	ples of courses are the following:	9
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
EDLE 6853	Research Traditions in Educational Leadership	
HESA 6853	Research Traditions in Higher Education and Student Affairs	
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 6113	Theoretical Foundations of Inquiry	
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	
Hours Subtotal		12
Specialization		
Select 15 credit hours	S.	15
	opriate courses in consultation with their ion committee. Examples of courses are the	
CIED 6030	Contemporary Issues in Curriculum Studies	
CIED 6043	Curriculum Leadership	
CIED 6073	Advanced Pedagogical Research	
CIED 6133	Theory to Practice in Education	

CIED 6143	School Reform	
CIED 6183	Advanced Media Literacy Across the Curriculum	
LLCE 6683	Language, Literacy and Culture	
SCFD 6983	Diversity and Equity Issues in Education	
CIED 5123	Curriculum in the Secondary School	
CIED 5313	Curriculum of the Elementary School	
Cognate/Electives		
Select 9 credit hours		9
interests in consulta	opriate related courses according to their tion with their advisor and dissertation e to be graduate courses available at versity.	
Hours Subtotal		24
Dissertation Research	:h	
CIED 6000	Doctoral Dissertation	15
Hours Subtotal		15

#### Graduate College Doctor of Philosophy (PhD) Requirements

# **Curriculum Studies: International and Peace Curriculum, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 63

Code	Title	Hours
Required Common	Core	
CIED 6033	Analysis of Teaching	3
CIED 6053	Advanced Curriculum Studies	3
CIED 6063	Curriculum History	3
CIED 6153	Curriculum of Nonviolence	3
Hours Subtotal		12
Research and Inqu	iry	
Research Inquiry Co	ore	
CIED 6163	Advanced Research Strategies in Curriculum	3
Extended Inquiry		
Students select ap	propriate courses in consultation with their tation committee.	
Select 9 hours - ex	amples of courses are the following:	9
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
EDLE 6853	Research Traditions in Educational Leadership	
HESA 6853	Research Traditions in Higher Education and Student Affairs	
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 6113	Theoretical Foundations of Inquiry	
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	
Hours Subtotal		12
Specialization		
Select 15 credit ho	ours.	15
	propriate courses in consultation with their tation committee. Examples of courses are the	
CIED 6043	Curriculum Leadership	
CIED 6173	International Peace Curriculum Development	
CIED 6030	Contemporary Issues in Curriculum Studies	

CIED 600		h Doctoral Dissertation	15 <b>39</b>
CIED 600			15
	tion Researcl	h	
Disserta			
Hours S	ubtotal		
Oklahon	na State Univ	ersity.	
		e to be graduate courses available at	
		on with their advisor and dissertation	
		ppriate related courses according to their	
Select 9	credit hours.		9
Cognate	/Electives		
SOC	5493	Seminar in Environmental Justice	
		Movements	
SOC 5	5323	Seminar on Collective Behavior and Social	
PHIL	5343	Seminar in East and West Comparative Philosophy	
SOC		International Issues in Environmental Sociology	
SCFD	6983	Diversity and Equity Issues in Education	
HESA	6163	International Issues in Higher Education	
CPSY	6223	Beck's Cognitive Therapy	
CPSY	5503	Multicultural Counseling	
CIED	5723	Gender and Curriculum	
or	CIED 6040	Special Topics in College Curriculum and Tea	ching

1

CIED 6030 or CIED 6040 can be taken with advisor approval.

#### Graduate College Doctor of Philosophy (PhD) Requirements

#### **Economics, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 64

Code	Title	Hours
Degree Core		
Required Courses		
ECON 5033	Macroeconomic Analysis	3
ECON 5213	Introduction to Econometrics	3
ECON 6013	Microeconomic Theory I	3
ECON 6023	Microeconomic Theory II	3
ECON 6033	Macroeconomic Theory I	3
ECON 6043	Macroeconomic Theory II	3
ECON 6213	Econometrics I	3
ECON 6233	Time Series Econometrics	3
ECON 6243	Econometrics II	3
ECON 6323	Mathematical Economics I	3
ECON 6613	International Finance	3
ECON 6623	Economic Development I	3
ECON 6633	International Trade	3
ECON 6643	Economic Development II	3
ECON 6903	Regional Economic Analysis and Policy	3
ECON 6913	Urban Economics	3
Sixteen hours from:		16
ECON 6000	Research and Thesis	
Hours Subtotal		64
Other Requirements		
Microeconomic Theo	ry Prelim	
Macroeconomic The	ory Prelim	
Third-Year Paper		
Total Hours		64

### Graduate College Doctor of Philosophy (PhD) Requirements

# **Education: Educational Administration, EdS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 36 (Beyond the Master's Degree)

Code	Title	Hours
General EDLE Docto	ral Core	
EDLE 6483	School Leadership, Culture and Ethics	3
EDLE 6493	School Improvement/Reform	3
EDLE 6633	School Leadership and Community	3
	Collaboration	
Hours Subtotal		9
Emphasis Core		
EDLE 6453	Special Topics in Education Law	3
EDLE 6353	The Superintendency	3
EDLE 6363	Special Topics in School Finance Policy	3
EDLE 6423	The Politics of Education	3
or EDLE 6393	The Human Factor in Administering Schools	
EDLE 6603	Organizational Theory in Education	3
or EDLE 5953	<b>Developing Educational Organizations</b>	
Hours Subtotal		15
Research and Inquir	ту	
EDLE 6853	Research Traditions in Educational Leadership	3
SCFD 6123	Qualitative Research I	3
or REMS 6373	Program Evaluation	
Hours Subtotal		6
Fieldwork		
EDLE 6883	Internship in Education I	3
EDLE 6893	Internship in Education II	3
Hours Subtotal		6
Required Componer	nt: Portfolio <sup>1</sup>	
	ned and completed by Candidates to exhibit	
competency in the B	ELCC Standards, serves as the Required	
Component for the	Ed.S. degree in School Administration;	
	tion of the Portfolio is required for degree	
completion and reco	ommendation for certification.	
Total Hours		36

Designates prerequisites.

### **Graduate College Specialist in Education** (EdS) Requirements

# Education: Language, Literacy and Culture, PhD

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 69

Code	Title	Hours
Common Program Co	ore	
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
CIED 6503	Doctoral Seminar	3
Hours Subtotal		9
Research Methods		
Select 12 hours from	courses such as these:	12
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6023	Psychometric Theory	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 5963	Computer Applications in Nonparametric Data Analyses	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
Hours Subtotal		12
Language, Literacy a	nd Culture Option	
Select 24 hours from	the following:	24
CIED 5463	Reading Assessment and Instruction	
CIED 5473	Reading & Writing Difficulties	
CIED 5733	History of Reading	
CIED 5850	Directed Study	
CIED 6060	Advanced Special Topics in Literacy Education	
LLCE 6083	Seminar in Writing Pedagogy	
LLCE 6093	English Language Learners: Theory, Research, Policy and Practice	
LLCE 6193	21st Century Literacies: Theory, Research, and Practice	
CIED 6433	Seminar in Literacy	
LLCE 6513	Staff Development in Literacy Education	
LLCE 6653	Issues and Trends in Adolescent Literacy	
LLCE 6673	Theory and Research on Teaching Contemporary Children's and YA Literature	
LLCE 6683	Language, Literacy and Culture	
CIED 6880	Internship in Education (Internship for Teacher Educators)	

CIED 6880	Internship in Education (Internship in	
	Literacy Research Methodologies)	
Hours Subtotal		24
Independent Rese	arch	
CIED 6000	Doctoral Dissertation	15
Hours Subtotal		15
Electives/Cognate	•	
The doctoral advis	sory committee will work with individual	9
students to select	the most appropriate courses to enhance their	
knowledge within	their specializations.	
Hours Subtotal		9
Total Hours		69

### Graduate College Doctor of Philosophy (PhD) Requirements

# **Education: Learning, Design and Technology, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 69

Code	Title	Hours
Common Core		
(Plan to take these 1	st or 2nd semester)	
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
CIED 6503	Doctoral Seminar	3
Hours Subtotal		9
Research Courses		
Select 12 hours from	n the following:	12
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
SCFD 6123	Qualitative Research I	
SCFD 6193	Qualitative Research II	
CIED 6253	Designing and Conducting Mixed Methods Research	
CIED 6073	Advanced Pedagogical Research	
Hours Subtotal		12
Specialization		
Select 24 hours from	n the following:	24
EDTC 5203	Foundations of Educational Technologies	
EDTC 5503	Facilitating Online Learning	
EDTC 6153	Advanced Computer-Based Instructional Development	
EDTC 6333	Human Computer Interaction	
EDTC 6423	Trends and Issues in Educational Technology	
CIED 6183	Advanced Media Literacy Across the Curriculum	
EDTC 6613	Instructional Systems Design	
EDTC 6553	Media and Learning in Educational Technology	
EDTC 6283	Performance Improvement Technology	
EDTC 6850	Directed Reading	
EDTC 6880	Internship in Education	
EDTC 6910	Practicum	
Hours Subtotal		24
Cognate Area of Stu	dy	
	Certificate in Online Teaching can be used as oly through the Graduate College since this is .	
Select 9 hours from		9
EDTC 5053	Learning in a Digital Age	
EDTC 5103	Advanced Computing Applications in Education	

EDTC 5153	Computer-Based Instruction Development	
EDTC 5503	Facilitating Online Learning	
Hours Subtotal		9
Dissertation		
EDTC 6000	Doctoral Dissertation	15
Hours Subtotal		15
Total Hours		69

#### Graduate College Doctor of Philosophy (PhD) Requirements

#### **Education: Mathematics Education,** PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Common Program Co	re	
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
CIED 6503	Doctoral Seminar	3
Hours Subtotal		9
Extended Inquiry		
those listed below, she research method (i.e. Students should work	nours, selected from courses such as sould be comprised of the same type of , quantitative, qualitative, historical, etc.). It with their advisory committee to select the for their program of study.	12
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6023	Psychometric Theory	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 5963	Computer Applications in Nonparametric Data Analyses	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
MATH 5913	Introduction to Research in Mathematics Education	
MATH 6923	Research in Undergraduate Mathematics Education	
Hours Subtotal		12
Cognate Area		
	y committee will work with individual e most appropriate courses to enhance their ir specializations.	9
Hours Subtotal		9
Independent Researc	h	
CIED 6000	Doctoral Dissertation	15
Hours Subtotal		15
Specialization - Math	ematics Education	
Required Courses		
SMED 6223	Instruction and Learning in Science and Mathematics Education	3
SMED 6233	Affective Issues in Teaching Mathematics and Sciences	3

Н	ours Subtotal		24
	SMED 5943	Mathematics Leadership and Coaching	
	SMED 5933	Teaching Data and Probability in Schools	
	SMED 5923	Teaching Algebra and Mathematical Tasks	
	SMED 5913	Teaching Geometry and Spatial Visualization	
	SMED 5750	Seminar in Mathematics Education	
	SMED 5613	Effective Teaching of Mathematics in the Secondary School	
	SMED 5293	Teaching and Learning Mathematics in Technology	
	SMED 5283	Problem-Centered Learning in Mathematics	
	SMED 5273	Number Concepts and Assessment at the Elementary Level (PK-6)	
	SMED 5270	Practicum in School Mathematics	
	SMED 5263	Assessment and Evaluation in School Mathematics	
	SMED 5253	Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions	
	CIED 6850	Directed Reading	
	CIED 6910	Practicum	
	CIED 5850	Directed Study	
	elect 15 hours from	the following:	15
Fle	ective Courses	Ladeation	
SN	MED 6753	Research in Mathematics and Science	3

### Graduate College Doctor of Philosophy (PhD) Requirements

#### **Education: School Psychology, EdS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 83<sup>1</sup>

Code	Title	Hours
Required Courses		
SPSY 5023	Introduction to School Psychology	3
SPSY 5113	Developmental Psychopathology	3
EPSY 5103	Human Development in Psychology	3
REMS 5013	Research Design and Methodology	3
SPSY 5110	Observation and Participation Field Experience for School Psychology Majors	2
SPSY 5793	Individual Intellectual Assessment of Children and Youth	3
REMS 6003	Analyses of Variance	3
SPSY 5000	Master's Thesis <sup>1</sup>	2
SPSY 6313	Advanced Interventions for Increased Academic Achievement	3
SPSY 6143	Introduction to Developmental Psychopharmacology	3
SPSY 5803	Advanced Cognitive Assessment and Theory	3
FDEP 5493	Psychology of Learning and Behavior	3
SPSY 6333	Instructional Assessment and Consultation	3
SPSY 5853	Applied Behavior Analysis	3
SPSY 5210	Introductory Practicum in School Psychology	4
SPSY 5813	Parent and Family Intervention in School Psychology	3
SPSY 6343	Behavioral Assessment and Consultation	3
SPSY 6113	Behavioral and Personality Assessment of Children and Youth	3
FDEP 5183	Theories of Social Psychology	3
SPSY 6253	Single Case Designs in Behavior Analytic Settings	3
SPSY 5873	Applied Behavior Analysis II	3
SPSY 5510	Advanced Practicum in School Psychology	6
SPSY 6033	Introduction to Psychotherapy with Children and Adolescents	3
Creative Component		
SPSY 5503	Crisis Intervention and Emergency Action in School Settings	3
SPSY 5310	Practicum in Child and Adolescent Therapy	3
SPSY 6210	Specialist Internship in School Psychology	6
Total Hours		83

If formal report option is selected, then total hours for degree program increase by four.

### **Graduate College Specialist in Education** (EdS) Requirements

#### **Education: Science Education, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Common Program	Core	
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
CIED 6503	Doctoral Seminar	3
Hours Subtotal		9
Extended Inquiry		
those listed below, research method (i Students should w	e hours, selected from courses such as should be composed of the same type of .e., quantitative, qualitative, historical, etc.). ork with their advisory committee to select the irs for their program of study.	12
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6023	Psychometric Theory	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 5963	Computer Applications in Nonparametric Data Analyses	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
Hours Subtotal		12
Cognate Area		
students to select	ory committee will work with individual the most appropriate courses to enhance their heir specializations.	9
Hours Subtotal		9
Independent Resea	arch	
CIED 6000	Doctoral Dissertation	15
Hours Subtotal		15
Specialization - Sc	ience Education	
Required Courses		
SMED 6223	Instruction and Learning in Science and Mathematics Education	3
SMED 6233	Affective Issues in Teaching Mathematics and Sciences	3
SMED 6753	Research in Mathematics and Science Education	3
Electives		
Select 15 hours fro	m the following:	15
CIED 5850	Directed Study	

Total Hours		69
Hours Subtotal		24
SIVIED 0123	Teaching the Nature of Science in Secondary Science Education	
SMFD 6123		
SMED 5813	Assessment in Science Education	
SMED 5333	Developing Informal and Formal STEM Programs in Schools	
SMED 5323	Technology for the K-12 STEM Educator	
SMED 5313	Introduction to K-12 Engineering Education	
SMED 5280	Workshop in Science Education	
SMED 5243	Environmental Education in the Curriculum	
SMED 5223	Teaching Science in the Schools	
SMED 5193	Inquiry and Problem-Based Learning in Science Education	
SMED 5050	Seminar in Integrated Mathematics and Science Applications	
CIED 6910	Practicum	
CIED 6850	Directed Reading	
CIED 5850	Directed Study	
CIED 5720	Education Workshop	
CIED 6850	Directed Reading	
CIED 6910	Practicum	
	-	

#### Graduate College Doctor of Philosophy (PhD) Requirements

# **Education: Social Foundations of Education, PhD**

Title

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 69

SOC 6853

Code

Code	TITIE	Hours
Common Program	1 Core	
(Typically taken w	rithin the first 3 semesters)	
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
CIED 6503	Doctoral Seminar	3
Hours Subtotal		9
Research Courses		
course at 6000-lev courses require pr which will not cou level course (exclu	t least one qualitative and one quantitative vel. (Note: all 6000-level REMS quantitative rerequisites of REMS 5013 and REMS 5953, ant toward the 69 total hours). Only one 5000-uding REMS 5013 and REMS 5953) may count ed coursework in this category.	
Pending committee following:	ee approval, appropriate courses include the	12
CIED 6073	Advanced Pedagogical Research	
CIED 6163	Advanced Research Strategies in Curriculum	
CIED 6253	Designing and Conducting Mixed Methods Research	
EDLE 6910	Practicum (May only be taken the last term of coursework)	
HIST 5023	Historical Methods	
HIST 6023	Historiography	
REMS 6373	Program Evaluation	
REMS 6383	Program Evaluation II	
Quantitative Appr	oaches	
REMS 6003	Analyses of Variance <sup>1</sup>	
REMS 6013	Multiple Regression Analysis in Behavioral Studies <sup>2</sup>	
REMS 6663	Applied Multivariate Research in Behavioral Studies <sup>3</sup>	
STAT 5033	Nonparametric Methods	
STAT 5043	Sample Survey Designs	
<b>Qualitative Metho</b>	dologies	
GEOG 5423	Geographic Renderings in Qualitative Methods	
SCFD 5913	Introduction to Qualitative Inquiry	
SCFD 6123	Qualitative Research I	
SCFD 6163	Ethnography	
SCFD 6173	Visual Methodologies	
SCFD 6183	Narrative Research Methodologies	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
SUC 60E3	Saminar in Symbolic Interactionism	

Seminar in Symbolic Interactionism

Hours Subtotal		12
<b>Social Foundations C</b>	ore	
SCFD 5713, SCFD 588 Foundations: Philoso	st one 6000-level course (except for 33) from each of the four areas of Social phy of Education, History of Education,	24
Anthropology of Educ	ation, and Sociology of Education.	
SCFD 5023	The Comparative Approach: Theory, Method, and Practice	
SCFD 5123	History of Education	
SCFD 5713	Educational Philosophy <sup>4</sup>	
SCFD 5883	Educational Sociology <sup>4</sup>	
SCFD 6853	Anthropology of Education <sup>4</sup>	
SCFD 5873	Culture, Society and Education	
SCFD 5923	Popular Culture and Education	
SCFD 5990	Problems and Issues in Social Foundations	
SCFD 6023	Comparative Education	
SCFD 6443	Ethics and Moral Education	
SCFD 6850	Directed Reading	
SCFD 6883	Transforming Pedagogies	
SCFD 6630	Topics in Philosophy Education	
SCFD 6990	Seminar in Social Foundations	
Hours Subtotal		24
Cognate Area		
based on their researd advisor and dissertation. Oklahoma State Universelled Health and Aviation a can be, but are not line	t hours in a concentration or cognate area ch interest and in consultation with their ion committee. These areas are available at ersity, especially in the College of Education, and the College of Arts and Sciences. They nited to, the following areas:  Sociology; International Studies;	9
Comparative Education Education; Education Pedagogy; STEM Edu Inquiry; Research, Eva Special Education; Cu	on; Gender and Women's Studies; Higher al Administration; Educational Technology; cation; College Teaching; Qualitative aluation, Measurement, and Statistics; ırriculum Studies; Media and Culture	
Hours Subtotal		9
Independent Researc	h	
CIED 6000	Doctoral Dissertation	15
Hours Subtotal		15
Total Hours		69
1		
Requires REMS 5013	and REMS 5953 as prerequisites.	
Requires REMS 6003	as prerequisite.	
Requires REMS 6013	as prerequisite.	
4	E Administra	
Must take if no equiva	alent course has been taken in Master's progra	m.
<b>Education: S</b>	ocial Foundations of	

12

**Hours Subtotal** 

Hours

### **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.)

#### Graduate College Doctor of Philosophy (PhD) Requirements

#### **Education: Special Education, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 69

Code	Title	Hours
Required Core		
CIED 6503	Doctoral Seminar	3
SCFD 6113	Theoretical Foundations of Inquiry	3
SCFD 6983	Diversity and Equity Issues in Education	3
Hours Subtotal		9
Research		
	om the following (must include one ne qualitative course):	12
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6023	Psychometric Theory	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 5963	Computer Applications in Nonparametric Data Analyses	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
Hours Subtotal		12
Cognate or Elective	es with a Thematic Focus	
Select 9 hours		9
Hours Subtotal		9
Specialization		
Select 24 hours fro	m the following:	24
SPED 6183	Legal Aspects in Special Education	
SPED 6543	School and Interagency Collaboration	
SPED 6603	Current Trends and Issues in Special Education	
SPED 6743	Single Subject Design in Special Education	
SPED 6880	Internship in Education	
SPED 6850	Directed Reading	
SPED 5993	Culturally Responsive Teaching in Special Education	
SPSY 6333	Instructional Assessment and Consultation	
EPSY 6323	Psychological Consultation	
Hours Subtotal		24
Dissertation		
CIED 6000	Doctoral Dissertation	15

Hours Subtotal	15
Total Hours	69

### Graduate College Doctor of Philosophy (PhD) Requirements

# **Education: Workforce and Adult Education, PhD**

Title

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Hours

**Total Hours: 72** 

Code

Code	TITIE	Hours
Required Courses		
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
Hours Subtotal		6
Extended Inquiry		
Select 12 hours fro	om the following:	12
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
Other courses a	s appropriate and available	
Hours Subtotal		12
Specialization Stru	ucture (Core for WAED)	
WAED 6103	Philosophy of Workforce and Adult Education	3
WAED 6233	Managing Knowledge in Learning Organizations	3
CIED 6503	Doctoral Seminar	3
WAED 6353	Future of Technology, Work and Society	3
WAED 5010	Seminar	3
Hours Subtotal		15
Specialization Elec	ctives	
Select 15 hours fro		15
WAED 5123	Administration & Evaluation of Workforce and Adult Education	
WAED 5133	Internationalism, Globalization and Workforce Education	
WAED 5153	Curriculum Planning in Workforce and Adult Education	
WAED 5233	Advanced Instructional Procedures in Workforce and Adult Education	
WAED 5313	Overview of Workforce and Adult Education	
WAED 5333	Administration and Supervision of Workforce Education Programs	
WAED 5340	Special Problems in Workforce and Adult Education	
WAED 5423	Individualized Competency Based Instruction and Customized Training	
WAED 5720	Workshop	
WAED 5910	Developing and Analyzing Teaching Content	
WAED 6343	Financing Workforce and Adult Education	

WAED 6880	Doctoral Internship in Workforce and Adult Education	
Others by permis	sion of doctoral committee chair	
Hours Subtotal		15
Cognate Area		
the College of Eduthe College. Cour	orising a cognate area can come from inside ucation, Health and Aviation or from outside ses selected for the cognate need approval of mittee chair and must be 5000- and 6000-level	9
Hours Subtotal		9
Independent Rese	earch	
WAED 6000	Doctoral Dissertation	15
Hours Subtotal		15
Research and Sch	nolarship Preparation	

In additional to the requirements listed above for degree completion, students must have (a) presented at a professional conference and (b) submitted an article for refereed publication. Faculty will support and mentor candidates through these processes.

Total Hours 72

#### Graduate College Doctor of Philosophy (PhD) Requirements

Hours

# Educational Leadership and Policy Studies: Educational Administration, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Title

**Total Hours: 72** 

Code

Code	litle	Hours
General EDLE Doct	toral Core	
EDLE 6483	School Leadership, Culture and Ethics	3
EDLE 6493	School Improvement/Reform	3
EDLE 6603	Organizational Theory in Education	3
Hours Subtotal		9
Inquiry Core		
EDLE 6853	Research Traditions in Educational Leadership	3
SCFD 6123	Qualitative Research I	3
SCFD 6193	Qualitative Research II <sup>1</sup>	3
REMS 6003	Analyses of Variance <sup>1</sup>	3
Select 6 hours fror	n the following	6
REMS 6013	Multiple Regression Analysis in Behavioral Studies <sup>1</sup>	
REMS 6373	Program Evaluation <sup>1</sup>	
REMS 5373	Educational Measurements <sup>1</sup>	
Hours Subtotal		18
Option Area: Educa	ational Administration	
Required Core		
EDLE 6423	The Politics of Education	3
EDLE 6453	Special Topics in Education Law	3
EDLE 6363	Special Topics in School Finance Policy	3
Electives		
Select 9 hours fror	n the following:	9
EDLE 6003	Educational Ideas	
EDLE 6343	Problem Solving in School Administration	
EDLE 6353	The Superintendency	
EDLE 6393	The Human Factor in Administering Schools	
EDLE 6633	School Leadership and Community Collaboration	
EDLE 6650	Problems in Educational Administration (The Business Function)	
EDLE 6650	Problems in Educational Administration (Special Topics in Facilities)	
EDLE 6650	Problems in Educational Administration (Planning and Educational Change)	
REMS 5953	Statistical Methods in Education	
Hours Subtotal		18
Cognate or Electiv	es with a Thematic Focus	

Minimum of 15 hours	15
Total Hours	72
1	

Alternate research courses may be taken with committee approval.

#### Graduate College Doctor of Philosophy (PhD) Requirements

# **Educational Leadership and Policy Studies: Higher Education, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 63 (beyond the Master's degree)

Code

Title

Code	Title	Hours
Required Core		
HESA 6603	Organizational Theory and Administration of the Higher Education Organization	3
HESA 6823	Educational Leadership	3
Hours Subtotal	·	6
Inquiry Core		
HESA 6853	Research Traditions in Higher Education and Student Affairs	3
SCFD 6123	Qualitative Research I	3
REMS 5953	Statistical Methods in Education	3
REMS 6003	Analyses of Variance <sup>1</sup>	3
Select 3 hours from	the following:	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies <sup>1</sup>	
SCFD 6193	Qualitative Research II <sup>1</sup>	
Hours Subtotal		15
Higher Education Ad	dministration Option	
Required Core		
HESA 6233	Critical Issues in Higher Education and Student Affairs	3
HESA 6463	Higher Education Law	3
HESA 6553	Public Policy and Higher Education	3
HESA 6753	Historical Development of Higher Education	3
Elective or Cognate 2		
Select 9 hours from the doctoral commi	the following (or other courses approved by ttee): <sup>2</sup>	9
HESA 5343	Assessment Techniques for Higher Education and Student Affairs Professionals	
HESA 6163	International Issues in Higher Education	
HESA 6243	Internship in Higher Education and Student Affairs I	
HESA 6573	Institutional Research and Policy Analysis	
HESA 6583	The Impact of College on Students and Society	
HESA 6683	The U.S. Two-Year/Community College	
HESA 6703	Finance in Higher Education	
HESA 6713	Effective Teaching in College and Universities	
HESA 6733	Planning and Educational Change	
HESA 6833	College and University Presidency	
HESA 6843	The Academic Department	
HESA 6850	Directed Readings in Higher Education and Student Affairs	

SCFD 6983	Diversity and Equity Issues in Education	
Hours Subtotal		21
Independent Resea	rch/Dissertation	
Minimum of 21 hou	urs	21
HESA 6850	Directed Readings in Higher Education and Student Affairs	
HESA 6903	Dissertation Proposal Writing	
HESA 6000	Doctoral Dissertation (Minimum of 15 hours)	
Hours Subtotal		21
Total Hours		63

1

Hours

Denotes classes with prerequisites.

2

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

#### Graduate College Doctor of Philosophy (PhD) Requirements

# **Educational Psychology: Educational Psychology, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 69** 

Code	Title	Hours
Domain I - Research	and Inquiry	
Required Courses for	Domain I	
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
SCFD 6113	Theoretical Foundations of Inquiry	3
Other coursework reand Inquiry Domain:	commended for expertise in the Research	9
REMS 5063	Computer Applications in Nonparametric Data Analysis	
REMS 6023	Psychometric Theory	
REMS 6033	Factor Analysis in Behavioral Research	
SCFD 6123	Qualitative Research I	
SCFD 6193	Qualitative Research II	
REMS 6373	Program Evaluation	
REMS 6383	Program Evaluation II	
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	
CIED 6253	Designing and Conducting Mixed Methods Research	
Hours Subtotal		18
Domain II: Foundation	ons of Educational Psychology	
Required Courses		
EPSY 5001	Colloquium: Educational Psychology	1
EPSY 5320	Seminar in Educational Psychology	8
EPSY 6213	Advanced Educational Psychology	3
EPSY 6533	Human Motivation	3
Select at least three 6000-level):	courses from the following (two must be	9
EPSY 5403	Issues in Adolescent Development	
EPSY 5473	Psychology of Adult Learning	
EPSY 5603	Developmental Issues in Instruction	
EPSY 5663	Creativity for Teachers	
EPSY 5963	Developing Resources to Support Educational Programs	
EPSY 5983	Instructional Effectiveness in Higher Education	
EPSY 6043	Adult Development	
EPSY 6153	Advanced Research in Educational Psychology	

EPSY 6163	Emotion and Cognition	
EPSY 6443	Theories and Problems in Educational Psychology	
EPSY 6613	Instructional Systems Design	
SCFD 6983	Diversity and Equity Issues in Education	
Hours Subtotal		24
Area of Expertise Don	nain III:	
Select 12 hours		12
expertise based or and background. E from the other don evaluation in a spe students with dive ability; multicultura or aging learners; s many others.	elect 12 hours related to an area of a student career goals, expertise, interest xamples of areas of expertise may derive nains, such as measurement or program cific context; instructional development for rese needs; studies of gender, race, class, al issues in education; adult development social and emotional needs of children, and	
Hours Subtotal		12
Dissertation (Doctora	•	
EPSY 6000	Doctoral Dissertation	15
Hours Subtotal		15
Total Hours		69

#### Graduate College Doctor of Philosophy (PhD) Requirements

12

# Educational Psychology: Research, Evaluation, Measurement and Statistics, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 66 (Beyond the Master's Degree)

Code	Title	Hours
Inquiry Core <sup>1</sup>		
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6023	Psychometric Theory	3
REMS 6373	Program Evaluation	3
REMS 6663	Applied Multivariate Research in Behavioral Studies	3
SCFD 6113	Theoretical Foundations of Inquiry	3
SCFD 6123	Qualitative Research I	3
Hours Subtotal		21
<b>Educational Psycholo</b>	ogy Degree Core	
Select a minimum of	9 hours:	9
Human Development		
EPSY 5103	Human Development in Psychology	
EPSY 6043	Adult Development	
Learning and Cognition	η	
EPSY 5463	Psychology of Learning	
EPSY 6163	Emotion and Cognition	
EPSY 6533	Human Motivation	
Hours Subtotal		9
Research, Evaluation	, Measurement, and Statistics Specialization	
Select 12 hours from level:	the following, including 9 hours at 6000-	12
coursework may be f	an exhaustive list. Additional relevant ound in other departments: e.g., PSYC, STAT, atalog for applicable prerequisites.)	
REMS 5373	Educational Measurements	
REMS 5963	Computer Applications in Nonparametric Data Analyses	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6320	Doctoral Seminar in REMS	
REMS 6383	Program Evaluation II	
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	
REMS 6850	Directed Reading	
STAT 5043	Sample Survey Designs	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	

Cognate Area		
Select minimum of	9 hours:	9
develop and improvor methodological a	ected from one or two cognate areas to be knowledge and skills in a content and/ area. Following are some examples of I relative choices in coursework. This is not an	
Student Developmen	t and Higher Education	
EDLE 5953	Developing Educational Organizations	
Mathematical Science	ces	
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	
Institutional Research	ch	
STAT 5033	Nonparametric Methods	
Measurement and Co	ognitive Psychology	
PSYC 4813	Psychological Testing	
EPSY 5663	Creativity for Teachers	
EPSY 6533	Human Motivation	
EPSY 6163	Emotion and Cognition	
PSYC 5823	Cognitive Processes	
Hours Subtotal		9
<b>Qualifying Exams</b>		
Passing the exams	s a written and oral comprehensive exam. qualifies students for Admission to Doctoral y should move to the dissertation proposal	
Dissertation Hours		
REMS 6000	Doctoral Dissertation	15
Hours Subtotal		15
<b>Applied Experience</b>		
Each student will se	elect two suggested experiences.	
Total Hours		66
1		
REMS 5013 and RE	MS 5953 are required prerequisites.	
_	ollege Doctor of Philosophy	

**Hours Subtotal** 

#### Graduate College Doctor of Philosophy (PhD) Requirements

#### **Electrical Engineering, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
<b>Lecture Courses</b>		
	hat may include up to 6 credit hours of	33
ECEN 5070 or eq advisory commit	uivalent with approval of the student's graduate tee.	
Preliminary PhD	Research and Proposal	
ECEN 6050	Preliminary PhD Research and Proposal	3
PhD Seminar Ser	ies	
ECEN 6001	PhD Seminar Series	1
Dissertation Res	earch	
Thirty hours from	n:	30
ECEN 6000	Dissertation	
<b>Additional Cours</b>	es	
May include addi	tional lecture courses, Master's thesis	6
•	quivalent), and/or dissertation research hours as	
approved by the	student's graduate advisory committee.	
Total Hours		73

### Graduate College Doctor of Philosophy (PhD) Requirements

#### **English, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 60

Code	Title	Hours
Required Courses		
Core and Disserta	tion hours to total 60 hours.	60
Select 35-40 ho by advisor	ours of coursework, per plan of study approved	
Dissertation		
ENGL 6000	Doctoral Dissertation	
Total Hours		60

## Graduate College Doctor of Philosophy (PhD) Requirements

#### **Entomology, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Courses		
ENTO 5464	Insect Biology and Classification	4
ENTO 5003	Insect Biochemistry	3
ENTO 5044	Insect Morphology and Physiology	4
ENTO 5870	Scientific Presentations <sup>1</sup>	
Recommended Cours	es	
ENTO 5992	Career Skills and Professionalism for Scientists	
ENTO 5524	Integrated Management of Insect Pests and Pathogens	
ENTO 5623	Advanced Biotechnology Methods	
Plus additional appropriate Plan of Students	oved courses to complete the graduate dy	49
Total Hours		60

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

## Graduate College Doctor of Philosophy (PhD) Requirements

#### **Environmental Science, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 60

Code	Title	Hours
<b>Required Courses</b>		
Core Courses		
ENVR 5123	Environmental Problem Analysis	3
ENVR 5303	Issues in Environmental Sustainability	3
Select 3 approved	hours of Natural or Physical Science courses.	3
Select 6 approved	hours of skills courses.	6
Hours Subtotal		15
Electives		
Select 21-30 ap	pproved elective hours.	
Dissertation		
ENVR 6000	Doctoral Research for Dissertation (15-24 hours)	
Electives and Diss	sertation Combined 45 Hours	45
Total Hours		60

## Graduate College Doctor of Philosophy (PhD) Requirements

## Fire and Emergency Management Administration, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 60

Code	Title	Hours
Core Courses		
FEMP 5113	Introduction to Fire Administration	3
FEMP 5123	Introduction to Emergency Management	3
FEMP 6103	Proseminar in Fire and Emergency Management	3
FEMP 6323	Organizational Behavior in Disasters	3
FEMP 6413	Seminar Risk Theory and Management	3
Hours Subtotal		15
Methods/Research		
FEMP 5013	Research Design & Methodology	3
FEMP 5023	Quantitative Methods for Fire and Emergency Management I	3
FEMP 6013	Qualitative Methods for Fire and	3
	Emergency Management	
FEMP 6023	Quantitative Methods for Fire and	3
	Emergency Management II	
Hours Subtotal		12
Electives		
Select 18 hours from	the following: <sup>1</sup>	18
FEMP 5653	Hazard, Vulnerability, and Risk Analysis	
FEMP 5413	Financial Administration for Fire and Emergency Management	
FEMP 5423	Labor Management for Fire and Emergency Management	
FEMP 5213	Disaster Response	
FEMP 5223	Preparedness and Planning	
FEMP 5233	Disaster Recovery	
FEMP 5243	Mitigation	
FEMP 5313	Political and Community Relations for Fire and Emergency Management Administration	
FEMP 5323	Leadership and Management for Fire and Emergency Management	
FEMP 5333	Incident Command	
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 5820	Special Topics Seminar in Emergency Management	

FEMP 5830	Special Topics Seminar in Fire Administration	
FEMP 6303	Populations at Risk	
FEMP 6313	Comparative and International Dimensions of Emergency Management	
FEMP 6840	Directed Readings in Fire and Emergency Management	
FEMP 6820	Advanced Special Topics Seminar in Emergency Management	
FEMP 6810	Advanced Special Topics Seminar in Fire Administration	
POLS 5673	Understanding and Responding to Terrorism	
Hours Subtotal		18
Dissertation Hours		
Fifteen hours from:		15
FEMP 6000	Dissertation	
Hours Subtotal		15
Total Hours		60

1

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

#### Graduate College Doctor of Philosophy (PhD) Requirements

#### **Food Science, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Degree Core		
FDSC 4153	Advanced Food Microbiology	3
FDSC 4763	Analysis of Food Products	3
FDSC 5300	Food Science Seminar	1
FDSC 5373	Advanced Food Chemistry	3
STAT 5013	Statistics for Experimenters I	3
Thirty hours from:		30
FDSC 6000	Doctoral Research and Dissertation	
Hours Subtotal		43
Electives		
Select 16 hours from	the following:	16
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	Internal Audit and Advanced HACCP	
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		16
Other Requirements		
FDSC 5300	Food Science Seminar	1
Hours Subtotal		1
Total Hours		60

## Graduate College Doctor of Philosophy (PhD) Requirements

#### **Forensic Sciences, DFS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 60

Code	Title	Hours
Core Requirements		
FRNS 5013	Survey of Forensic Sciences	3
FRNS 5653	The Law and Expert Evidence	3
FRNS 5743	Forensic Science Seminar	3
FRNS 6800	Critical Readings in Forensic Sciences	3
FRNS 6990	Advanced Special Topics in Forensic Sciences	3
Hours Subtotal		15
Electives		
Select 45 hours from	the following per faculty advisor/pathway:	45
FRNS 5023	Questioned Document Examination	
FRNS 5033	Theory and Practice of Forensic	
	Handwriting Examination	
FRNS 5043	Technical Aspects of Forensic Document	
	Examination	
FRNS 5053	The Historical Aspects of Forensic	
	Document Examination	
FRNS 5063	Ethical Research and Scientific Writing	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences	
FRNS 5093	Scientific Writing and Presentation Skills	
FRNS 5103	The Chemistry of Pyrotechnics	
FRNS 5113	Essential Science for Explosive Operators	
FRNS 5123	Fire Dynamics in Forensic Investigations	
FRNS 5133	Ordnance Identification and Recognition	
FRNS 5143	Methods in Fire and Explosion Investigation NFPA 921/1033	
FRNS 5153	Explosives Research, Testing and Evaluation Methods	
FRNS 5173	Advanced Explosion Investigation	
FRNS 5183	Computer Fire Modeling	
FRNS 5183	Computer Fire Modeling	
FRNS 5193	Advanced Computer Fire Modeling	
FRNS 5213	Molecular Biology for the Forensic Scientist	
FRNS 5242	Population Genetics for the Forensic Scientist	
FRNS 5282	Methods in Forensic Sciences	
FRNS 5323	Forensic Microbiology	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5422	Forensic Osteology and Anthropology	
FRNS 5423	Blast Injuries and Effects	
FRNS 5433	Advanced Blast Injuries and Effects	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	

FRNS 5533	Drug Toxicity	
FRNS 5543	Advanced Forensic Toxicology	
FRNS 5613	Criminalistics and Evidence Analysis	
FRNS 5622	Crime Scene Laboratory and Moot Court Experience	
FRNS 5663	Destructive Devices/Explosives: Law and Regulations	
FRNS 5673	Intelligence for Forensic Investigators	
FRNS 5713	Forensic Psychology	
FRNS 5733	Forensic Victimology	
FRNS 5753	Criminal Behavioral Analysis	
FRNS 5803	Circuit Exploitation of Destructive Devices	
FRNS 5813	Building Construction and Fire/Explosion Forensic Examination	
FRNS 5823	Forensic Examination of Fire Protection Systems	
FRNS 5833	Identification of Destructive Device Fuzing Systems	
FRNS 5843	Advanced Destructive Device Circuit Exploitation	
FRNS 5853	Electrical Theory and Failure Analysis in Forensic Fire Investigations	
FRNS 5863	Advanced Electrical Theory and Failure Analysis in Forensic Fire Investigations	
FRNS 5873	Firearms and Toolmarks	
FRNS 5913	Forensic Accounting and Fraud Investigation	
FRNS 5943	Forensic Management and Organizational Development	
FRNS 5960	Forensic Problem Solving through Applied Research	
FRNS 5963	Forensic Statistics	
FRNS 5970	Directed Readings in Forensic Sciences	
FRNS 5980	Non-Thesis Creative Component in Forensic Sciences	
FRNS 5990	Special Topics in Forensic Sciences	
FRNS 6083	Advanced Forensic Statistics	
FRNS 6713	Applied Forensic Theory	
FRNS 6723	Research Design and Methods	
FRNS 6733	Juvenile Issues in Forensic Sciences	
Hours Subtotal		45
<b>Total Hours</b>		60

Learn more about Graduate College 2022-2023 Doctor of Forensic Sciences Degree Program Requirements (https://okstate-curr.courseleaf.com/graduate-college/). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

#### **Forensic Sciences, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 60

Code	Title	Hours
Degree Core		
FRNS 5743	Forensic Science Seminar	3
FRNS 6083	Advanced Forensic Statistics	3
FRNS 6723	Research Design and Methods	3
Per faculty advisor's	recommendation, six hours of directed	6
electives.		
Hours Subtotal		15
Dissertation <sup>1</sup>		
Fifteen to forty-five (		15-45
FRNS 6000	Doctoral Dissertation	
Hours Subtotal		15-45
Electives <sup>1</sup>		0-30
FRNS 5013	Survey of Forensic Sciences	
FRNS 5023	Questioned Document Examination	
FRNS 5033	Theory and Practice of Forensic Handwriting Examination	
FRNS 5043	Technical Aspects of Forensic Document Examination	
FRNS 5053	The Historical Aspects of Forensic Document Examination	
FRNS 5063	Ethical Research and Scientific Writing	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences	
FRNS 5093	Scientific Writing and Presentation Skills	
FRNS 5103	The Chemistry of Pyrotechnics	
FRNS 5113	Essential Science for Explosive Operators	
FRNS 5123	Fire Dynamics in Forensic Investigations	
FRNS 5133	Ordnance Identification and Recognition	
FRNS 5143	Methods in Fire and Explosion Investigation NFPA 921/1033	
FRNS 5153	Explosives Research, Testing and Evaluation Methods	
FRNS 5183	Computer Fire Modeling	
FRNS 5213	Molecular Biology for the Forensic Scientist	
FRNS 5242	Population Genetics for the Forensic Scientist	
FRNS 5282	Methods in Forensic Sciences	
FRNS 5323	Forensic Microbiology	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5422	Forensic Osteology and Anthropology	
FRNS 5423	Blast Injuries and Effects	
FRNS 5443	Interdisciplinary Post Blast Investigation	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	
	••	

FRNS 5533	Drug Toxicity
FRNS 5543	Advanced Forensic Toxicology
FRNS 5613	Criminalistics and Evidence Analysis
FRNS 5622	Crime Scene Laboratory and Moot Court Experience
FRNS 5653	The Law and Expert Evidence
FRNS 5663	Destructive Devices/Explosives: Law and Regulations
FRNS 5673	Intelligence for Forensic Investigators
FRNS 5683	Digital and Multimedia Evidence for Investigators
FRNS 5713	Forensic Psychology
FRNS 5723	Advanced Forensic Psychology
FRNS 5733	Forensic Victimology
FRNS 5753	Criminal Behavioral Analysis
FRNS 5803	Circuit Exploitation of Destructive Devices
FRNS 5813	Building Construction and Fire/Explosion Forensic Examination
FRNS 5823	Forensic Examination of Fire Protection Systems
FRNS 5833	Identification of Destructive Device Fuzing Systems
FRNS 5853	Electrical Theory and Failure Analysis in Forensic Fire Investigations
FRNS 5873	Firearms and Toolmarks
FRNS 5913	Forensic Accounting and Fraud Investigation
FRNS 5943	Forensic Management and Organizational Development
FRNS 5960	Forensic Problem Solving through Applied Research
FRNS 5963	Forensic Statistics
FRNS 5970	Directed Readings in Forensic Sciences
FRNS 5990	Special Topics in Forensic Sciences
FRNS 6083	Advanced Forensic Statistics
FRNS 6123	Advanced Fire Dynamics
FRNS 6173	Advanced Interdisciplinary Post Blast Investigation
FRNS 6183	Advanced Computer Fire Modeling
FRNS 6243	Historical Evolution of Forensic Genetics
FRNS 6423	Advanced Blast Injuries and Effects
FRNS 6513	Advanced Methods in Forensic Genetics
FRNS 6713	Applied Forensic Theory
FRNS 6723	Research Design and Methods
FRNS 6733	Juvenile Issues in Forensic Sciences
FRNS 6800	Critical Readings in Forensic Sciences
FRNS 6843	Advanced Destructive Device Circuit Exploitation
FRNS 6853	Advanced Electrical Theory and Failure Analysis in Forensic Fire Investigations
FRNS 6903	Advanced Forensic Examination of Firearms
FRNS 6923	RCIED - Advanced Analysis and Mitigation

FRNS 6990	Advanced Special Topics in Forensic Sciences	
Hours Subtotal		0-30
Total Hours		60

1

Elective hours based on hours needed to supplement less Dissertation hours

## Graduate College Doctor of Philosophy (PhD) Requirements

#### **Geography, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Geograp	hy Core <sup>1</sup>	
GEOG 5001	Professional Development in Geography	1
GEOG 5303	Geographic Analysis I	3
GEOG 5413	History and Philosophy of Geography	3
GEOG 5403	Current Geographic Research	3
GEOG 6313	Mixed Methods in Field Research	3
Hours Subtotal		13
Elective Coursewo	ork inside Geography	
Select 15-27 hours	s focused in cultural/historical geography,	
natural resource management, and geospatial technologies.		
Elective Coursewo	ork outside Geography	
Select 9-15 hours	of courses that complement the student's	
research track and	d align with the chosen specialty	
Dissertation (requ	ired minimum 15 hours) <sup>1</sup>	
GEOG 6000	Doctoral Dissertation Research	
Hours Subtotal		47
Total Hours		60
_		

Combined coursework and dissertation hours to total 60 hours.

## Graduate College Doctor of Philosophy (PhD) Requirements

#### Geology, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Courses		
GEOL 5243	Research Methods and Techniques in Geosciences	3
Two hours from:		2
GEOL 5300	Geology Colloquium	
Hours Subtotal		5
Additional coursewo	rk in GEOL	
Select 15 hours <sup>1</sup>		15
Hours Subtotal		15
Research and Disser	tation	
Select 40 hours <sup>2</sup>		40
Hours Subtotal		40
Total Hours		60

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 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
GEOL 5243	Research Methods and Techniques in Geosciences	3
Two hours from:		2
GEOL 5300	Geology Colloquium	
Hours Subtotal		5
Additional coursewo	ork in GEOL	
Select 35 hours <sup>1</sup>		35
Hours Subtotal		35
Research and Disse	rtation	
Select 50 hours <sup>2</sup>		50
Hours Subtotal		50
Total Hours		90

Up to 12 hours of coursework may be taken outside of GEOL.

At the discretion of the advisory committee, up to 20 hours of dissertation hours may be replaced by additional course hours.

## Graduate College Doctor of Philosophy (PhD) Requirements

#### **Health Care Administration, DHCA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 62

Code	Title	Hours
Core Courses		
HCA 6013	Dynamics of Healthcare Markets	3
HCA 6113	Healthcare Public Policy	3
HCA 6123	Advanced Clinical Operations Management	3
HCA 6223	Advanced Cases in Healthcare Leadership	3
HCA 6033	Contemporary Topics in Healthcare Leadership	3
HCA 6213	Cases in Healthcare Quality and Process Improvement	3
HCA 6053	Advanced Heathcare Law	3
HCA 6990	Graduate Seminar in Global Health	3
HCA 6913	Graduate Seminar-Healthcare Payor Organizations	3
HCA 6933	Graduate Seminar-Healthcare Organization Development	3
HCA 6923	Graduate Seminar-Graduate Medical Education Programs	3
Hours Subtotal		33
Electives		
HCA 5013	Survey of Health Care Administration	3
HCA 5093	Leadership Methods and Styles in Healthcare	3
HCA 5123	Survey of Research and Evaluation in Health Care	3
HCA 5033	Legal Issues in Health Care Administration	3
HCA 5052	Directed Readings in Health Care Administration	2
HCA 5063	Health Care Compliance	3
HCA 5043	Organizational Leadership and Development in Health Care	3
HCA 5023	Human Resources in Health Care and Public Administration	3
HCA 5083	The Financial Structure of Health Care Organizations	3
HCA 5223	Ethics in Healthcare	3
Hours Subtotal		29
Total Hours		62

Learn more about Graduate College 2022-2023 Doctor of Healthcare Administration (DHCA) Degree Program Requirements (https://okstate-curr.courseleaf.com/graduate-college/). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

#### Health, Leisure and Human Performance: Health and Human Performance, PhD

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Common Core		
3 hours Developme	nt of Curricula	
LEIS 6010	Independent Study in Leisure Studies	3
3 hours Organization	on/Leadership	
LEIS 6763	Management in Health, Leisure, and Human Performance Settings	3
3 hours Profession	al Ethics	
Professional Ethic	s course, per advisor approval	3
Hours Subtotal		9
Research Design a	and Statistics (Inquiry)	
Select 9 hours from	m the following:	9
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
STAT 5033	Nonparametric Methods	
STAT 5043	Sample Survey Designs	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
Hours Subtotal		9
Option Hours		
Select 27 approve	d hours	27
Hours Subtotal		27
Dissertation		
Select 15 hours		15
Hours Subtotal		15
Total Hours		60

## Graduate College Doctor of Philosophy (PhD) Requirements

2022-23

#### **Health, Leisure and Human** Performance: Leisure Studies, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0

**Total Hours: 60** 

Code	Title	Hours
Required Coursework	(	
RMRT 6013	Ethical and Professional Issues in RMRT Higher Education	3
RMRT 6453	Recreation Management and Recreational Therapy Behavior	3
Select 6 hours that m	nay include the following:	6
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
STAT 5033	Nonparametric Methods	
STAT 5043	Sample Survey Designs	
SCFD 6113	Theoretical Foundations of Inquiry	
Hours Subtotal		12

#### **Independent Study Opportunities**

Electives

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.

'		
RMRT 5020	Workshop in Recreation Management	
RMRT 5030	Field Problems in Recreation Management	
RMRT 6010	Independent Study in Recreation Management	
RMRT 6020	Recreation Management Research Colloquium	
Common Core		
HHP 6723	Curriculum Development in Health, Leisure and Human Performance	3
RMRT 6763	Management in Health, Human Performance, and Recreation Management & Recreational Therapy Setting	3
LEIS 6043	Ethical Issues in Health, Leisure, and Human Performance	3
Hours Subtotal		9
Dissertation		
Fifteen hours from:		15
RMRT 6000	Doctoral Dissertation in Recreation Management and/or Recreational Therapy	
Hours Subtotal		15

ENGL 0003	Academic English for Graduate Students	
	•	
ENGL 5693	Research Writing for International Graduate Students	
HHP 5073	Psychological Aspects of Sport	
Recreational Therap	py	
RMRT 5073	Recreational Therapy and Geriatrics	
RMRT 5483	Recreational Therapy for Persons with Physical Disabilities	
RMRT 5493	Recreational Therapy in Mental Health and Intellectual Disabilities	
CPSY 5173	Gerontological Counseling	
EPSY 5403	Issues in Adolescent Development	
EPSY 6043	Adult Development	
EPSY 6163	Emotion and Cognition	
HDFS 5283	Developmental Disabilities	
HDFS 5403	Perspectives in Gerontology	
HDFS 5411	Ethics and Aging	
Natural Resource R	ecreation Management	
RMRT 5403	Outdoor Recreation	
RMRT 6023	Special Topics in Recreation	
GEOL 5100	Problems in Hydrogeology	
POLS 5620	Seminar in Natural Resource Policy, Law and Administration	
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 Hospit	ality	
GEOG 4143	Geography of Travel and Tourism	
HTM 5233	Convention and Special Event Management	
HTM 5513	Hospitality and Tourism Strategic  Management	
HTM 6113	Hospitality and Tourism Education	
Higher Education	, ,	
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	
Research and Statis	·	
SOC 5213	Techniques of Population Analysis	
SOC 5273	Qualitative Research Methods	
SCFD 5913	Introduction to Qualitative Inquiry	
SCFD 5913 SCFD 6123	Qualitative Research I	
SCFD 6123 SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6190 SCFD 6193	Qualitative Research: Selected Methods  Oualitative Research II	
	••••	
STAT 5053	Time Series Analysis	

To	tal Hours		60
Н	ours Subtotal		24
		Development	
	HDFS 5253	Theory and Research: Social and Emotional	
	HDFS 5413	Aging in Human Development	
	HDFS 5213	Lifespan Development	
	PSYC 6563	Advanced Social Psychology	
	PSYC 6353	Psychology of Motivation	
	CPSY 5473	Basic Counseling Skills	
	CPSY 5583	Group Process	
	EPSY 6043	Adult Development	
	EPSY 5403	Issues in Adolescent Development	
	CPSY 5553	Theories of Counseling	
	EPSY 5103	Human Development in Psychology	
Co	ounseling and Humai	<u> </u>	
	SOC 5813	Myths and Realities of Organizational Change	
	SOC 5763	Contemporary Organizational Theory	
	SOC 5663	Seminar in Race and Ethnicity	
	POLS 5333	Seminar in Public Personnel Administration	
	POLS 5323	Urban Politics and Management	
	POLS 5313	Public Management	
	MBA 5261	Legal Issues in Business	
	MKTG 5613	Seminar in Consumer Behavior	
	MGMT 6313	Advanced Organizational Behavior	
	MGMT 5533	Leadership Challenges	
	MGMT 5213	Seminar in Organizational Behavior	
	MGMT 5113	Individual and Organizational Behavior	
	BCOM 5113	Seminar in Administrative Communication	
	EEE 5113	Entrepreneurship and Venture Management	
M		s and Entrepreneurship	
	STAT 5513	Multivariate Analysis	
	STAT 5333	Theory of Linear Models II	
	STAT 5323	Theory of Linear Models I	
	STAT 5223	Probability Theory Statistical Inference	
	STAT 5123		

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.

## Graduate College Doctor of Philosophy (PhD) Requirements

#### History, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 60

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Code	Title	Hours
Required Courses		
HIST 6023	Historiography	3
HIST 5021	Teaching History at the College Level	1
Hours Subtotal		4
Seminar		
Select 36 approved	hours, including 3 hours of research seminar.	36
Suggested Courses		
HIST 6100	Directed Readings in History <sup>1</sup>	
HIST 6130	Graduate Studies in History <sup>1</sup>	
Hours Subtotal		36
Thesis		
15 hours of Thesis		15
Hours Subtotal		15
<b>Additional Courses</b>		
Approved courses n	eeded to complete degree requirements.	5
Hours Subtotal		5
Total Hours		60

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

## Graduate College Doctor of Philosophy (PhD) Requirements

## **Human Development and Family Science, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Overall Grade-Point-Average: 3.0 cumulative GPA

**Total Hours:** 72

Code	Title	Hours
Core Courses		
Human Developmenta	l Science and Family Science	
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
Thesis Equivalence		
HDFS 5110	Directed Study in HDFS <sup>1</sup>	6
Core Research Metho	ods and Statistics Courses	
Research Methods		
HDFS 5123	Research Methods and Design in HDFS I	3
HDFS 6133	Advanced Research Methods in Human Development and Family Science	3
Statistics/Analytic		
9 hours		9
PSYC 5304	Quantitative Methods in Psychology I (or equivalent)	
PSYC 5314	Quantitative Methods in Psychology II (or equivalent)	
HDFS 6143	Structural Equation Modeling for HDFS Applications	
Specialization Course	es	
30 hours of Committee interest)	ee Designed Courses (to fit student's area of	30
Dissertation Researc	h	
Fifteen hours from:		15
HDFS 6000	Doctoral Dissertation	
Total Hours		72

6 hours 1st Year Research Project - can be waived if applicant has M.S.

## Graduate College Doctor of Philosophy (PhD) Requirements

6

#### Human Sciences: Human Development and Family Science, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code Title Hours

 Prerequisites: 3 hours of master's level research methods and 3 hours of master's level statistics, MS thesis or equivalent

Human Developme	ent and Family Science	
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
HDFS 6113	Professional Development in HDFS	3
HDFS 6123	Risk and Resilience in Human Development and Family Science	3
Electives		
Select 9 hours, at least 3 from outside of HDFS recommended) from the courses below:		9
HDFS 5513	Issues in Family Science	

from the courses below:		
HDFS 5513	Issues in Family Science	
HDFS 6283	Seminar in Human Development	
HDFS 6583	Seminar in Family Science	
Other courses in HDFS or related areas, subjective to committee approval		

#### **Specializations**

Select one of the following specializations:

	<b>3</b> .	
Human Developme	ent Specialization	
HDFS 5253	Theory and Research: Social and Emotional Development	
Family Science Sp	ecialization	
HDFS 6523	Advanced Family Theory	
Research Methods and Statistics		
HDFS Methods		
HDFS 6133	Advanced Research Methods in Human Development and Family Science	3
HDFS 6190	Research Internship	6
Select two courses from one of the following sequences (6-8		6-8

hours): 1	
Sequence 1 (2 of t	the following)
STAT 5023	Statistics for Experimenters II
STAT 5063	Statistical Machine Learning with R
STAT 5303	Experimental Designs
Sequence 2	
REMS 6003	Analyses of Variance
REMS 6013	Multiple Regression Analysis in Behavioral Studies
Sequence 3 <sup>1</sup>	
PSYC 5304	Quantitative Methods in Psychology I <sup>1</sup>
PSYC 5314	Quantitative Methods in Psychology II <sup>1</sup>
Tracks	

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

		,	
	Qualitative Track		
	HDFS 6143	Structural Equation Modeling for HDFS Applications	
	HDFS 6153	Multilevel Modeling for HDFS Applications	
	REMS 6663	Applied Multivariate Research in Behavioral Studies	
	REMS 6373	Program Evaluation	
	Qualitative Track		
	SCFD 6113	Theoretical Foundations of Inquiry	
	SCFD 6123	Qualitative Research I	
	SCFD 6193	Qualitative Research II	
	SOC 5273	Qualitative Research Methods	
D	issertation (minimu	m 15 hours)	
F	ifteen hours from:		15
	HDFS 6000	Doctoral Dissertation	
To	otal Hours <sup>1</sup>		60

Total hours for degree will be 62 for students choosing Sequence 3.

#### Graduate College Doctor of Philosophy (PhD) Requirements

## **Industrial Engineering and Management, PhD**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 60** 

Code	Title	Hours
Required Courses		
	courses eligible for graduate plan of study with advisory committee.	27
Eighteen hours from	n:	18
IEM 6000	Doctoral Research and Dissertation	
Hours Subtotal		45
Electives		
	EM graduate courses or research credits with advisory committee. <sup>1</sup>	12
Hours Subtotal		12
Dissertation		
IEM 6903	IEM Doctoral Seminar	3
Hours Subtotal		3
Total Hours		60

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

#### 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

#### Graduate College Doctor of Philosophy (PhD) Requirements

#### **Integrative Biology, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Seminar		
Select three h	ours of approved seminar	3
5000-level or	6000-level courses or seminars	
Select 25 app of Study	roved hours to complete the graduate program Plan	25
Dissertation		
Select 15 app of Study	roved hours to complete the graduate program Plan	15
<b>Additional Co</b>	urses	
Select a minir degree require	num of 17 approved additional hours to complete ements.	17
Total Hours		60

#### **Integrative Biology, PhD Requirements**

Comprehensive Exam

## Graduate College Doctor of Philosophy (PhD) Requirements

#### **Materials Science and Engineering, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 72 (Group I - Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
MSE 5013	Advanced Thermodynamics of Materials	3
MSE 5023	Diffusion and Kinetics	3
MSE 5043	Advanced Materials Characterization	3
MSE 6010	Materials Science and Engineering Seminar for PhD Students	0
Hours Subtotal		9
Electives		
and 6000-level cours of MSE, CHE, ECEN, o	ete 27 hours of MSE or other approved 5000- es offered at OSU from preselected list or MAE courses, or additional courses in ce per committee approval.	27
Hours Subtotal		27
Dissertation		
Thirty-six hours from	:	36
MSE 6000	Doctoral Dissertation	
Hours Subtotal		36
Total Hours		72

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

Code	Title	Hours
	Title	Hours
Required Courses		
Select from the follo	owing:	9
MSE 5013	Advanced Thermodynamics of Materials	
MSE 5023	Diffusion and Kinetics	
MSE 5043	Advanced Materials Characterization	
MSE 6010	Materials Science and Engineering Seminar for PhD Students	
Hours Subtotal		9
Electives		
Select 21 hours of 6 6000-level courses	elective MSE or other approved 5000- and offered at OSU.	21
•	l list of MSE, CHE, ECEN, or MAE courses, or s in engineering or science per committee	
Hours Subtotal		21
Dissertation		
Thirty hours from:		30
MSE 6000	Doctoral Dissertation	
Total Hours		60

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

ours

#### **Required Courses**

Group III student must meet the Required Course requirements of MSE 5000- and 6000-level courses offered at OSU. The student in this Group III should have already completed the three required courses for the PhD program during his/her MS degree in Materials Science and Engineering at OSU. If any of the remaining Required Courses were taken as an Elective by the student during his/her MS degree, they will not be required to take them again. However, if the student had not completed any of the remaining Required Courses during his/her MS degree in Materials Science and Engineering at OSU, the student must take them to complete the Required Course requirements for PhD degree in MSE at OSU.

Select from the following:

	3
MSE 5013	Advanced Thermodynamics of Materials
MSE 5023	Diffusion and Kinetics
MSE 5043	Advanced Materials Characterization
MSE 6010	Materials Science and Engineering Seminar for PhD Students

#### **Electives**

Group III student must complete a minimum of 15 hours and a maximum of 30 hours of required and elective coursework for his/her PhD degree in MSE at OSU. This includes the hours for any Required Courses taken after enrollment in the MSE PhD program at OSU. Elective Courses taken by the student at OSU which were used toward fulfilling his/her MS degree requirements in MSE at OSU, will not be considered toward his/her PhD degree in MSE. The student will be allowed to use a maximum of 15 hours of coursework toward his/her PhD degree in MSE at OSU, i.e., the hours for core courses for the MS degree program.

Dissertation		
Thirty to forty-five	e (30-45) hours from:	30-45
MSE 6000	Doctoral Dissertation	
Total Hours		60

### 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.

#### Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2022-2023 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2766). Check the General

Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

#### **Mathematics, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

	• ,	
Code	Title	Hours
Core Courses		
Select 15 hours from	n one of the following tracks:	15
Applied		
MATH 5023	Advanced Linear Algebra	
MATH 5143	Real Analysis I	
MATH 5283	Complex Analysis I	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5233	Partial Differential Equations	
Pure		
MATH 5023	Advanced Linear Algebra	
MATH 5143	Real Analysis I	
MATH 5283	Complex Analysis I	
MATH 5613	Algebra I	
MATH 5313	Geometric Topology	
Mathematics Educati	on	
MATH 5023	Advanced Linear Algebra	
Select 9 hours from	the following:	
MATH 5143	Real Analysis I	
MATH 5283	Complex Analysis I	
MATH 5613	Algebra I	
MATH 5313	Geometric Topology	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5233	Partial Differential Equations	
Select one of the fol	lowing:	
STAT 5023	Statistics for Experimenters II	
STAT 5063	Statistical Machine Learning with R	
Hours Subtotal		15
Additional Math Cou	rses	
Select 12 hours from	n track used for core courses.	12
Applied		
	core course requirements, every plan of study east 12 hours of graduate courses in the	

Pure

science).

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).

mathematical sciences (mathematics, statistics, or computer

#### Mathematics Education

MATH 5913	Introduction to Research in Mathematics Education
MATH 6923	Research in Undergraduate Mathematics Education

Select 6 hours from the following:

SCFD 6113	Theoretical Foundations of Inquiry	
SCFD 6123	Qualitative Research I	
EPSY 5463	Psychology of Learning	
REMS 5953	Statistical Methods in Education	
Hours Subtotal		12
<b>Preliminary Researc</b>	h Project	
MATH 6010	Advanced Seminar in Mathematics (Reading course with advisor)	3
MATH 6090	Doctoral Research Project	3
MATH 6090 Hours Subtotal	Doctoral Research Project	3 <b>6</b>
	,	
Hours Subtotal Additional Graduate	,	6
Hours Subtotal Additional Graduate	Courses	6
Hours Subtotal Additional Graduate Combination of elect	Courses tives and dissertation hours to total 27 hours.	6
Hours Subtotal Additional Graduate Combination of electives	Courses tives and dissertation hours to total 27 hours.	6
Hours Subtotal Additional Graduate Combination of electives Select 3-12 hours	Courses tives and dissertation hours to total 27 hours.	6
Hours Subtotal  Additional Graduate Combination of electives Select 3-12 hours Dissertation	Courses tives and dissertation hours to total 27 hours.	

### Graduate College Doctor of Philosophy (PhD) Requirements

#### **Mechanical and Aerospace Engineering, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Coursework		
Select 24 -30 hour the Master's degree	rs of 5000- and 6000-level coursework beyond ee.	24-30
Research		
24-30 hours from:		24-30
MAE 6000	Doctoral Dissertation	
Other Requiremen	ts	
MAE 6010	Advanced Study <sup>1</sup>	6
Total Hours		60

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

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

Code	Title	Hours
Coursework		
Select 48-54 hours the Bachelor's deg	s of 5000- and 6000-level coursework beyond gree.	48-54
Research		
30-36 hours from:		30-36
MAE 6000	Doctoral Dissertation	
Other Requiremen	its	
MAE 6010	Advanced Study <sup>1</sup>	6
Total Hours		90

## Graduate College Doctor of Philosophy (PhD) Requirements

#### Mechanical and Aerospace Engineering: Unmanned Aerial Systems, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 60** 

Code	Title	Hours
UAS Core Courses		
Select 12 hours from	the following:	12
MAE 5083	Engineering Acoustics	
MAE 5233	Advanced Fluid Dynamics I	
MAE 5313	Autopilot Design and Test	
MAE 5343	Advanced Aero Propulsion and Power	
MAE 5913	Advanced Aerodynamics	
MAE 5923	Guidance and Control of Aerospace Vehicles	
MAE 5943	Unsteady Aerodynamics and Aeroacoustics	
MAE 5963	Unmanned Aerial Systems Design and Analysis	
MAE 5973	Unmanned Aerial Systems Propulsion	
MAE 5983	Aircraft Certification and Test	
MAE 6313	Atmospheric Flight Control	
Hours Subtotal		12
MAE Electives 1		
Select 9 hours (Any N	MAE graduate-level course supporting UAS	9
	red with permission of the student's faculty	
advisory committee):		
Technical Electives		
, , ,	raduate-level course will be allowed with dent's faculty advisory committee):	9
Hours Subtotal		18
Research 1		
MAE 6010	Advanced Study <sup>1</sup>	6
Twenty-four hours fro	om:	24
MAE 6000	Doctoral Dissertation	
Hours Subtotal		30
Total Hours		60

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

### Graduate College Doctor of Philosophy (PhD) Requirements

## Microbiology, Cell and Molecular Biology, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Coursework	(	
Select 11 hours of Micourses (non-zero en	crobiology (MICR) 5000- or 6000-level ding).	11
Select 6 hours of any ending)	5000- or 6000-level courses (non-zero	6
MICR 5160	Seminar	1
Two hours from:		2
MICR 6120	Recent Advances in Microbiology	
Dissertation		
Forty hours from:		40
MICR 6000	Dissertation	
Hours Subtotal		60

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

Code	Title	Hours
Required Coursev	vork	
Select 14 hours of courses (non-zero	f Microbiology (MICR) 5000- or 6000-level ending).	14
Select 25 hours of ending)	f any 5000- or 6000-level courses (non-zero	25
Two hours from:		2
MICR 5160	Seminar	
Four hours from:		4
MICR 6120	Recent Advances in Microbiology	
Dissertation		
Forty-five hours fr	om:	45
MICR 6000	Dissertation	
Hours Subtotal		90

## Graduate College Doctor of Philosophy (PhD) Requirements

## Natural Resource Ecology and Management, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Courses		
	of 45 hours of approved 5000- or 6000-level or coved for graduate credit courses and one hour	45
Hours Subtotal		45
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 45 hours.)	15
Hours Subtotal		15
Total Hours		60

Combined courses plus dissertation must be between 60-66 total hours. Hours could reach a maximum of 66 total hours depending on the courses selected.

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

Code	Title	Hours
<b>Required Courses</b>		
	of 66 hours of approved 5000- or 6000-level pproved for graduate credit and one hour of	66
Hours Subtotal		66
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 48 hours.)	24
Hours Subtotal		24
Total Hours		90

2

Combined courses plus dissertation must be 90 total hours.

## Graduate College Doctor of Philosophy (PhD) Requirements

#### Natural Resource Ecology and Management: Fisheries and Aquatic Ecology, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
<b>Required Courses</b>		
	of 45 hours of approved 5000- or 6000-level or roved for graduate credit courses and one hour	45
Hours Subtotal		45
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 45 hours.)	15
Hours Subtotal		15
Total Hours		60

Combined courses plus dissertation must be between 60-66 total hours. Hours could reach a maximum of 66 total hours depending on the courses selected.

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

Code	Title	Hours
Required Courses	3	
	n of 66 hours of approved 5000- or 6000-level approved for graduate credit and one hour of	66
Hours Subtotal		66
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 48 hours.)	24
Hours Subtotal		24
Total Hours		90

Combined courses plus dissertation must be 90 total hours.

## Graduate College Doctor of Philosophy (PhD) Requirements

## Natural Resource Ecology and Management: Forest Resources, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Courses		
	of 45 hours of approved 5000- or 6000-level or oved for graduate credit courses and one hour	45
Hours Subtotal		45
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 45 hours.)	15
Hours Subtotal		15
Total Hours		60

Combined courses plus dissertation must be between 60-66 total hours. Hours could reach a maximum of 66 total hours depending on the courses selected.

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

Code	Title	Hours
<b>Required Courses</b>		
	of 66 hours of approved 5000- or 6000-level pproved for graduate credit and one hour of	66
Hours Subtotal		66
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 48 hours.)	24
Hours Subtotal		24
Total Hours		90

2

Combined courses plus dissertation must be 90 total hours.

## Graduate College Doctor of Philosophy (PhD) Requirements

#### Natural Resource Ecology and Management: Rangeland Ecology and Management, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
<b>Required Courses</b>		
	of 45 hours of approved 5000- or 6000-level or roved for graduate credit courses and one hour	45
Hours Subtotal		45
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 45 hours.)	15
Hours Subtotal		15
Total Hours		60

Combined courses plus dissertation must be between 60-66 total hours. Hours could reach a maximum of 66 total hours depending on the courses selected.

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

1

Code	Title	Hours
Required Courses		
	of 66 hours of approved 5000- or 6000-level pproved for graduate credit and one hour of	66
Hours Subtotal		66
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 48 hours.)	24
Hours Subtotal		24
Total Hours		90

Combined courses plus dissertation must be 90 total hours.

## Graduate College Doctor of Philosophy (PhD) Requirements

# Natural Resource Ecology and Management: Wildlife Ecology and Management, PhD

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
<b>Required Courses</b>		
	of 45 hours of approved 5000- or 6000-level or roved for graduate credit courses and one hour	45
Hours Subtotal		45
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 45 hours.)	15
Hours Subtotal		15
Total Hours		60

Combined courses plus dissertation must be between 60-66 total hours. Hours could reach a maximum of 66 total hours depending on the courses selected.

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

Code	Title	Hours
Required Courses		
	of 66 hours of approved 5000- or 6000-level pproved for graduate credit and one hour of	66
Hours Subtotal		66
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 48 hours.)	24
Hours Subtotal		24
Total Hours		90

Combined courses plus dissertation must be 90 total hours.

## Graduate College Doctor of Philosophy (PhD) Requirements

#### **Nutritional Sciences, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Degree Program Req	uirements	
Nutritional Sciences		
Required Core Cours	es	18-30
NSCI 5033	Macronutrients in Human Nutrition	
NSCI 5043	Micronutrients in Human Nutrition	
NSCI 6960	Seminar. Emerging Topics in Nutrition	
Select one of the foll	lowing:	
NSCI 6451	Advanced Grant Writing in Nutritional Sciences	
NSCI 5103	Grant Writing for the Professional	
GRAD 5890	Special Topics in Grantsmanship	
AGED 5203	Grant Seeking	
Or equivalent		
Suggested courses t	o complete required core: (p. 2867)	
Human Sciences		
Required Core Cours	es	3
HS 6993	Graduate Seminar in Human Sciences	
Research Support Cou	urses	
Required Core Cours	es	18-30
Select 3 hours from	the following:	
NSCI 6453	Advanced Research Methods in Nutritional Sciences	
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	
Or equivalent		
Select 3 hours from	the following	
STAT 5023	Statistics for Experimenters II	
STAT 5083	Statistics for Biomedical Researchers	
REMS 6003	Analyses of Variance	
Or equivalent		
courses in intermedi	credits of coursework should consist of ate and advanced statistics, advanced gy and advanced research methods:	
	s to complete coursework (courses from ritional Sciences core electives may not be	
Dissertation		
Required Core Requi	rement	15-30
NSCI 6000	Doctoral Dissertation	
Total Hours		60
	)	

#### **Suggested Courses and/or Electives**

Code	Title	Hours
NSCI 5023	Advanced Nutrition in the Pathophysiology	3
	of Chronic Disease	

NSCI 5133	Advanced Nutrition for Exercise and Sport	3
NSCI 5363	Maternal and Child Nutrition	3
NSCI 5373	Childhood Nutrition	3
NSCI 5393	Nutrition and Aging	3
NSCI 5543	Obesity Prevention Across the Lifespan	3
NSCI 5553	Global Nutrition and Food Security	3
NSCI 5563	Nutritional Assessment	3
NSCI 5613	Nutrition Education and Behavior Change	3
NSCI 5643	Advanced Medical Nutrition Therapy	3
NSCI 5713	Public Health Nutrition and Food Policy	3
NSCI 5743	Advanced Laboratory Techniques in Nutritional Sciences	3
NSCI 5870	Problems in Nutritional Science	1-4
NSCI 6033	Phytochemicals	3
NSCI 6870	Independent Study in Nutritional Sciences	1-3
BIOC 4113	Molecular Biology	3
BIOC 5102	Molecular Genetics	2
BIOC 5824	Biochemical Laboratory Methods	4
BIOC 6763	Nucleic Acids and Protein Synthesis	3
BIOC 6773	Protein Structure and Enzyme Function	3
BIOC 6783	Biomembranes and Bioenergetics	3
BIOL 4215	Mammalian Physiology	5
BIOL 5283	Endocrinology	3
CPSY 5173	Gerontological Counseling	3
CPSY 5473	Basic Counseling Skills	3
CPSY 5503	Multicultural Counseling	3
HDFS 5413	Aging in Human Development	3
HDFS 5423	Research Perspectives in Gerontology	3
HDFS 5433	Theories of Aging	3
HHP 5593		
HHP 5613		
HHP 5853	Clin Ex Test & Prescript	3
HHP 5873	Human Bioenergetics	3
HLTH 5113	Psychological Aspects of Health	3
HLTH 5323	General Epidemiology	3
HLTH 5453	Cultural Issues In Health	3
MGMT 5113	Individual and Organizational Behavior	3
REMS 5013	Research Design and Methodology	3
REMS 5963	Computer Applications in Nonparametric Data Analyses	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6033	Factor Analysis in Behavioral Research	3
REMS 6373	Program Evaluation	3
REMS 6663	Applied Multivariate Research in Behavioral Studies	3
SCFD 5873	Culture, Society and Education	3
SCFD 5913	Introduction to Qualitative Inquiry	3
SCFD 6123	Qualitative Research I	3
SCFD 6193	Qualitative Research II	3
SOC 5213	Techniques of Population Analysis	3
SOC 5273	Qualitative Research Methods	3
SOC 5333	Global Population and Social Problems	3
	,	

STAT 4043	Applied Regression Analysis	3
STAT 5033	Nonparametric Methods	3
STAT 5043	Sample Survey Designs	3
STAT 5053	Time Series Analysis	3
STAT 5063	Statistical Machine Learning with R	3
STAT 5073	Categorical Data Analysis	3
STAT 5091	Sas Programming	1
STAT 5303	Experimental Designs	3
VBSC 6120		

Total Hours: 80 (Beyond the Bachelor's Degree)

Code	Title	Hours
complete all requiren Sciences (Nutrition, t	nto the 80-credit PhD option will first ments for the MS degree in Nutritional chesis option). Students will earn the MS in upon successful completion of the thesis ts.	30
Students will then co	mplete a minimum of 50 credits beyond the	50
A minimum of 15 coursework (NSCI	and maximum of 30 credits of dissertation 6000)	
	um of 20 hours of coursework including ate course in NSCI that is not listed below. Il include:	
NSCI 6960	Seminar: Emerging Topics in Nutrition	
NSCI 6451	Advanced Grant Writing in Nutritional Sciences (or equivalent)	
HS 6993	Graduate Seminar in Human Sciences	
Three courses to d	develop an area of specialization	
Select one of the f	following:	
STAT 5023	Statistics for Experimenters II	
STAT 5083	Statistics for Biomedical Researchers	
REMS 6003	Analyses of Variance	
Or equivalent		
Total Hours		80

## Graduate College Doctor of Philosophy (PhD) Requirements

#### **Petroleum Engineering, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0

**Total Hours: 68** 

Code	Title	Hours
Degree Program Cor	re:	
PETE 5313	Advanced Drilling Modeling and Simulation	3
PETE 5333	Advanced Production and Flow Assurance	3
PETE 5373	Advanced Well Stimulation	3
PETE 6813	Research Methods in Petroleum Engineering	3
Hours Subtotal		12
Three hours from:		3
PETE 6010	Petroleum Engineering Seminar	
Degree Progrram Gu	iided Electives:	21
Petroleum Engineerin	ng (CEAT)	
PETE 5210	Special Topics in Petroleum Engineering	
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	
PETE 5990	Special Problems in Petroleum Engineering	
PETE 6110	Advanced Topics in Petroleum Engineering	
Chemical Engineering	g (CEAT)	
CHE 5123	Advanced Chemical Reaction Engineering	
CHE 5373	Process Simulation	
CHE 5733	Neural Networks	
CHE 5743	Chemical Engineering Process Modeling	
Geology (CAS)	3 3	
GEOL 5023	Petroleum Geology	
GEOL 5133	Structural Styles in Oil and Gas Exploration	
GEOL 5353	Advanced Well Log Analysis	
GEOL 5483	Petroleum Water Management	
GEOL 6133	Unconventional Petroleum Reservoirs	
GEOL 6283	Geology of Shales	
GEOL 6503	Rock Fractures	
Mathematics (CAS)		
MATH 5063	Calculus of Several Variables	
MATH 5023	Advanced Linear Algebra	
MATH 5233	Partial Differential Equations	
MATH 5263	Introduction to Partial Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	
MATH 5563	Finite Element Methods for Partial Differential Equations	
Statistics (CAS)		
3.3.1.01.00 (0/10)		

<b>Total Hours</b>		68
PETE 6000	Doctoral Thesis <sup>2</sup>	32
Hours Subtotal		24
MAE 5573	Continuum Mechanics	
MAE 5563	Finite Element Methods	
MAE 5253	Multiphase Flow	
MAE 5233	Advanced Fluid Dynamics I	
Mechanical Engineerir	ng (CEAT)	
STAT 5013	Statistics for Experimenters I	

A maximum of 3 credit hours of PETE 5990 may be counted toward the guided electives requirement.

6 hours of PETE 5000 may be substituted for PETE 6000 or 6 Hours of other coursework may be substituted for PETE 6000 at the discretion of Petroleum Graduate Coordinator.

#### **Graduate College Doctor of Philosophy** (PhD) Requirements

Code

#### **Photonics, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Title

Code	Title	Hours
Course Requirement	ts	
Select 3 hours from	Electromagnetics:	3
PHYS 5313	Electromagnetic Theory	
ECEN 5613	Electromagnetic Theory	
PHYS 4813	Electromagnetic Radiation	
Select 3 hours from	Lasers:	3
PHYS 5163	Lasers	
ECEN 4843	Design of Lasers and Systems	
Select 6 hours from	Optics:	6
ECEN 4823	Design of Optical Systems	
PHYS 3213	Optics	
PHYS 5123	Geometrical Optics	
or ECEN 5803	Geometrical Optics	
PHYS 5303	Physical Optics	
or ECEN 5823	Physical Optics	
Select 3 hours from	Quantum Mechanics:	3
PHYS 5613	Quantum Mechanics I	
PHYS 4513	Introductory Quantum Mechanics	
Spectroscopy, Quant	n Advanced Topics (Optoelectronics, tum and Nonlinear Optics, Solid State, Electromagnetics, Bio/Nano Photonics, and ry Courses	12
ECEN 5853	Ultrafast Optoelectronics	
PHYS 5133	Laser Spectroscopy	
PHYS 6413	Nonlinear Optics	
PHYS 6423	Quantum Optics	
PHYS 5663	Solid State Physics I	
PHYS 6243	Semiconductors I	
PHYS 4263	Introduction to Solid State Physics	
ECEN 5333	Semiconductor Devices	
ECEN 5833	Fiber-Optic Communication Systems	
PHYS 6713	Advanced Electromagnetic Radiation	
ECEN 5613	Electromagnetic Theory	
PHYS 4313	Molecular Biophysics <sup>2</sup>	
PHYS/ECEN 68X0	Photonics Lab courses: Topics Vary (Lab)	
ECEN 5843	Microelectronic Fabrication	
Select at least one a	dditional elective course.	3
Hours Subtotal		30
Dissertation <sup>1</sup>		
Thirty hours from:		30
PHYS 6000	Doctoral Dissertation Research	
Hours Subtotal		30
Total Hours		60

1

Combined Coursework and Dissertation to total 60 hours beyond the Master's Degree and 72 hours beyond the Bachelor's Degree.

2

Hours

For students pursuing the bio/nano photonics option, additional courses from departments other than ECEN and PHYS may be included.

Total Hours: 72 (Beyond the Bachelor's Degree)

Code	Title	Hours
Course Requirements	1	
Select 3 hours from Electromagnetics:		3
PHYS 5313	Electromagnetic Theory	
ECEN 5613	Electromagnetic Theory	
PHYS 4813	Electromagnetic Radiation	
Select 3 hours from L	asers:	3
PHYS 5163	Lasers	
ECEN 4843	Design of Lasers and Systems	
Select 6 hours from 0	Optics:	6
ECEN 4823	Design of Optical Systems	
PHYS 3213	Optics	
PHYS 5123	Geometrical Optics	
or ECEN 5803	Geometrical Optics	
PHYS 5303	Physical Optics	
or ECEN 5823	Physical Optics	
Select 3 hours from 0	Quantum Mechanics:	3
PHYS 5613	Quantum Mechanics I	
PHYS 4513	Introductory Quantum Mechanics	
Spectroscopy, Quanti	Advanced Topics (Optoelectronics, um and Nonlinear Optics, Solid State, Electromagnetics, Bio/Nano Photonics, and Courses	12
ECEN 5853	Ultrafast Optoelectronics	
PHYS 5133	Laser Spectroscopy	
PHYS 6413	Nonlinear Optics	
PHYS 6423	Quantum Optics	
PHYS 5663	Solid State Physics I	
PHYS 6243	Semiconductors I	
PHYS 4263	Introduction to Solid State Physics	
ECEN 5333	Semiconductor Devices	
ECEN 5833	Fiber-Optic Communication Systems	
PHYS 6713	Advanced Electromagnetic Radiation	
ECEN 5613	Electromagnetic Theory	
PHYS 4313	Molecular Biophysics <sup>2</sup>	
PHYS/ECEN 68X0	Photonics Lab courses: Topics Vary (Lab)	
ECEN 5843	Microelectronic Fabrication	
Select at least one ac	lditional elective course.	3
Hours Subtotal		30
Dissertation 1		
Forty-two hours from	:	42
PHYS 6000	Doctoral Dissertation Research	

Hours Subtotal	42
Total Hours	72

1

Combined Coursework and Dissertation to total 60 hours beyond the Master's Degree and 72 hours beyond the Bachelor's Degree.

2

For students pursuing the bio/nano photonics option, additional courses from departments other than ECEN and PHYS may be included.

## Graduate College Doctor of Philosophy (PhD) Requirements

1

#### Physics, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Courses		
PHYS 5113	Statistical Thermodynamics and Kinetic Theory	3
PHYS 5213	Statistical Mechanics	3
PHYS 5313	Electromagnetic Theory	3
PHYS 5413	Classical Mechanics	3
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3
PHYS 6313	Quantum Mechanics II	3
Hours Subtotal		21
Electives 1		
Select a minimum of level courses:	9 hours of Physics (PHYS) 5000- or 6000-	9
Hours Subtotal		9
Research		
Thirty hours from:		30
PHYS 6000	Doctoral Dissertation Research	
Hours Subtotal		30
Total Hours		60

Combined elective and research hours should total 39 hours.

Total Hours: 72 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
PHYS 5113	Statistical Thermodynamics and Kinetic Theory	3
PHYS 5213	Statistical Mechanics	3
PHYS 5313	Electromagnetic Theory	3
PHYS 5413	Classical Mechanics	3
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3
PHYS 6313	Quantum Mechanics II	3
Hours Subtotal		21
Electives <sup>2</sup>		
Select a minimum level courses:	of 9 hours of Physics (PHYS) 5000- or 6000-	9
Hours Subtotal		9
Research <sup>2</sup>		
Forty-two hours from:		42
PHYS 6000	Doctoral Dissertation Research	
Hours Subtotal		42
Total Hours		72

2

Combined elective and research hours should total 51 hours.

## Graduate College Doctor of Philosophy (PhD) Requirements

#### **Plant Biology, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Courses		
PBIO 5110	Special Topics in Plant Biology (Professional Development)	1
PBIO 6000	Doctoral Research	15
Two hours from:		2
PBIO 5850	Plant Biology Seminar	
Hours Subtotal		18
Electives		
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		42
Comprehensive Ex	ams Required	
Hours Subtotal		42
Total Hours		60

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

Code	Title	Hours
Required Courses		
PBIO 5110	Special Topics in Plant Biology (Professional Development)	1
PBIO 6000	Doctoral Research	15
Two hours from:		2
PBIO 5850	Plant Biology Seminar	
Hours Subtotal		18
Electives		
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		72
Comprehensive Ex	ams Required	
Hours Subtotal		72
Total Hours		90

#### Additional Plant Biology, PhD, Requirements

· Minimum grade of "B" in all courses

## Graduate College Doctor of Philosophy (PhD) Requirements

### **Plant Pathology, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Courses		
Introductory (one	is required if not previously taken)	
PLP 3343	Principles of Plant Pathology (Introductory - no graduate credit)	
PLP 5343	Principles of Plant Pathology	3
Hours Subtotal		3
Pathogens course	es	
PLP 5104	Mycology	4
PLP 5724	Physiology of Host-Pathogen Interactions	4
Hours Subtotal		8
Additional Pathog	jen courses	
Select 7-8 hours, o	depending on advisory committee decision.	7-8
PLP 5003	Plant Nematology	
PLP 5014	Plant Virology	
PLP 5304	Phytobacteriology	
Hours Subtotal		7-8
Concepts courses	,1	
Select 6-7 hours, o	depending on advisory committee decision.	6-7
PLP 5524	Integrated Management of Insect Pests and Pathogens	
PLP 5613	Host Plant Resistance	
PLP 6303	Soilborne Diseases of Plants	
Hours Subtotal		6-7
Professionalism		
PLP 5870	Scientific Presentations (Both fall and spring semesters - 1 credit hour each.)	2
•	mesters of PLP 5870 were previously completed TO-PLP master's degree program.	
Hours Subtotal		2
Recommended co	ourse:	
PLP 5992	Career Skills and Professionalism for Scientists	
Plus additional co	ourses to complete the graduate program and	32-34
Hours Subtotal		32-34
Total Hours		60

Completion of PLP 5524 or PLP 5613 is required for the degree program.

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

Code	Title	Hours
<b>Required Cours</b>	es	
Introductory (or	ne is required if not previously taken)	
PLP 3343	Principles of Plant Pathology (Introductory - no graduate credit)	

PLP 5343	Principles of Plant Pathology	3
Hours Subtotal	•	3
Pathogens courses		
PLP 5104	Mycology	4
PLP 5724	Physiology of Host-Pathogen Interactions	
Hours Subtotal		4
Additional Pathogen	courses	
Select 7-8 hours, depe	ending on advisory committee decision.	7-8
PLP 5003	Plant Nematology	
PLP 5014	Plant Virology	
PLP 5304	Phytobacteriology	
Hours Subtotal		7-8
Concepts courses 1		
Select 6-7 hours, depe	ending on advisory committee decision.	6-7
PLP 5524	Integrated Management of Insect Pests and Pathogens	
PLP 5613	Host Plant Resistance	
PLP 6303	Soilborne Diseases of Plants	
Hours Subtotal		6-7
Professionalism		
PLP 5870	Scientific Presentations (Both fall and spring semesters - 1 credit hour each.)	2
•	sters of PLP 5870 were previously completed PLP master's degree program.	
Hours Subtotal		2
Recommended cours	e:	
PLP 5992	Career Skills and Professionalism for Scientists	
Plus additional course Plan of Study.	es to complete the graduate program and	62-64
Hours Subtotal		62-64
Total Hours		90

Completion of PLP 5524 or PLP 5613 is required for the degree program.

### Graduate College Doctor of Philosophy (PhD) Requirements

### **Psychology: Clinical, PhD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 106 (Beyond the Bachelor's Degree)

Code	Title	Hours
Core Courses		
Select three courses:		9
PSYC 5823	Cognitive Processes	
PSYC 5813	Lifespan Cognitive Developmental Psychology	
PSYC 6483	Neurobiological Psychology	
PSYC 6253	Seminar in Human Development	
PSYC 6563	Advanced Social Psychology	
PSYC 6613	Experimental Learning Theories	
PSYC 5304	Quantitative Methods in Psychology I	4
PSYC 5314	Quantitative Methods in Psychology II	4
PSYC 6223	Research Design	3
PSYC 5660	Teaching Practicum	2
PSYC 5000	Thesis (minimum of 6 hours)	6
PSYC 6000	Dissertation (minimum of 15 hours)	15
3 Hours Quantitative	Requirement	3
3 Hours History Requirement		3
•	1493, outside course, or waived by CTC if najor or minor as undergraduate.	

Hours Subtotal		49
Clinical Core Requ	irements	
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 Evidence-Based Psychological Treatment	3
PSYC 6133	Ethnic and Cultural Diversity in Psychotherapy	3
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
Eighteen hours from:		18
PSYC 6640	Clinical Practicum	
Hours Subtotal		45
<b>Subspecialty Train</b>	ning	
Select 12 from one	e of the following subspecialties:	12
Adult Psychopatho	logy	
	ake four elective courses chosen in ith program advisor	
Clinical Child Psych	hology	
The following o	ourses 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.

Т	otal Hours		106
Н	lours Subtotal		12
	PSYC 6453	Pediatric Psychology	
	PSYC 6523	Family Treatment Methods	
	PSYC 6723	Child Diagnostic Methods	
	PSYC 6173	Child Psychopathology and Treatment	
	_	ses should be taken by students interested ychology subspecialty.	
P	Pediatric Psychology		
	PSYC 6143	The Psychology of Substance Abuse	
	PSYC 6443	Behavioral Medicine	
	in the Health Psyc	rses should be taken by students interested hology subspecialty. Student must take two courses, to be determined by the student isor.	
Н	lealth Psychology		
	PSYC 6723	Child Diagnostic Methods	
	PSYC 6173	Child Psychopathology and Treatment	

## Graduate College Doctor of Philosophy (PhD) Requirements

## Psychology: Experimental Psychology, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

PSYC 5304 Quantitative Methods in Psychology I PSYC 5314 Quantitative Methods in Psychology II PSYC 6223 Research Design PSYC 5660 Teaching Practicum PSYC 5000 Thesis PSYC 6000 Dissertation Select 3 hours in additional quantitative electives (within or outside department) 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 5913 Lifespan Social Developmental Psycho Hours Subtotal  Experimental Core Courses	Hours
PSYC 5314 Quantitative Methods in Psychology II PSYC 6223 Research Design PSYC 5660 Teaching Practicum PSYC 5000 Thesis PSYC 6000 Dissertation Select 3 hours in additional quantitative electives (within or outside department) 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 5913 Lifespan Social Developmental Psycho	
PSYC 523 Research Design PSYC 5060 Teaching Practicum PSYC 5000 Thesis PSYC 6000 Dissertation Select 3 hours in additional quantitative electives (within or outside department) 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 5913 Lifespan Social Developmental Psycho	4
PSYC 5660 Teaching Practicum PSYC 5000 Thesis PSYC 6000 Dissertation Select 3 hours in additional quantitative electives (within or outside department) 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 5913 Lifespan Social Developmental Psycho	4
PSYC 5000 Thesis PSYC 6000 Dissertation  Select 3 hours in additional quantitative electives (within or outside department)  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 5913 Lifespan Social Developmental Psycho	3
PSYC 6000 Dissertation Select 3 hours in additional quantitative electives (within or outside department) 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 5913 Lifespan Social Developmental Psycho	1-2
Select 3 hours in additional quantitative electives (within or outside department)  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 5913 Lifespan Social Developmental Psycho	6
outside department) 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 5913 Lifespan Social Developmental Psycho	15
PSYC 5823 Cognitive Processes PSYC 6483 Neurobiological Psychology PSYC 6563 Advanced Social Psychology PSYC 6613 Experimental Learning Theories PSYC 5913 Lifespan Social Developmental Psycho Hours Subtotal	3
PSYC 6483 Neurobiological Psychology PSYC 6563 Advanced Social Psychology PSYC 6613 Experimental Learning Theories PSYC 5913 Lifespan Social Developmental Psycho Hours Subtotal	9
PSYC 6563 Advanced Social Psychology PSYC 6613 Experimental Learning Theories PSYC 5913 Lifespan Social Developmental Psycho Hours Subtotal	
PSYC 6613 Experimental Learning Theories PSYC 5913 Lifespan Social Developmental Psycho Hours Subtotal	
PSYC 5913 Lifespan Social Developmental Psycho  Hours Subtotal	
Hours Subtotal	
	logy
Experimental Core Courses	45-46
Select 9 hours from the following:	9
Cognitive	
PSYC 4223 Decision Making and Problem Solving	
PSYC 5620 Seminar in Psychology (Stereotyping a Prejudice in Social Cognition)	nd
PSYC 5823 Cognitive Processes	
PSYC 6393 Language Development	
Comparative-Neurobiology	
PSYC 5620 Seminar in Psychology (Evolutionary Se Sciences)	ocial
PSYC 6483 Neurobiological Psychology	
PSYC 6583 Developmental Psychobiology	
PSYC 6613 Experimental Learning Theories	
Developmental Psychology	
PSYC 4243 Psychology of Aging	
PSYC 5813 Lifespan Cognitive Developmental Psychology	
PSYC 5913 Lifespan Social Developmental Psycho	logy
PSYC 6583 Developmental Psychobiology	
PSYC 6393 Language Development	
HDFS 5243 Infant and Early Childhood Developmer and Attachment	it
HDFS 5433 Theories of Aging	
HDFS 5583 Intimate Relationships and Sexuality across the Lifespan	
Social-Personality Track	
PSYC 4333 Personality	

PSYC 5620	Seminar in Psychology (Stereotyping and Prejudice in Social Cognition)	
PSYC 5620	Seminar in Psychology (Evolutionary Social Sciences)	
PSYC 5620	Seminar in Psychology	
PSYC 6393	Language Development	
PSYC 6563	Advanced Social Psychology	
Hours Subtotal		9
Additional Hours May	Be Taken From the Following:	
Hours needed to reac	h 80 hours	35-36
PSYC 5380	Research	
PSYC 6000	Dissertation	
Hours Subtotal		35-36
Total Hours		90

# Graduate College Doctor of Philosophy (PhD) Requirements

#### **School Administration, EdD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 64** 

Code	Title	Hours
Degree Core		
EDLE 6483	School Leadership, Culture and Ethics	3
EDLE 6493	School Improvement/Reform	3
EDLE 6633	School Leadership and Community Collaboration	3
Hours Subtotal		9
Research		
EDLE 6853	Research Traditions in Educational Leadership	3
Select 6 hours from t	he following:	6
SCFD 6123	Qualitative Research I	
SCFD 6193	Qualitative Research II <sup>1</sup>	
REMS 6003	Analyses of Variance <sup>1</sup>	
REMS 6013	Multiple Regression Analysis in Behavioral Studies <sup>1</sup>	
REMS 6373	Program Evaluation <sup>1</sup>	
REMS 5373	Educational Measurements <sup>1</sup>	
Hours Subtotal		9
Fieldwork		
EDLE 6883	Internship in Education I	3
EDLE 6893	Internship in Education II	3
EDLE 6910	Practicum	3
Hours Subtotal		9
Emphasis Core		
EDLE 6353	The Superintendency	3
EDLE 6363	Special Topics in School Finance Policy	3
EDLE 6423	The Politics of Education	3
EDLE 6453	Special Topics in Education Law	3
EDLE 6603	Organizational Theory in Education	3
Hours Subtotal		15
Cognate		
Select 12 hours		12
Suggested Courses:		
EDLE 6393	The Human Factor in Administering Schools	
EDLE 6710	Special Problems	
EDTC 5773	Instructional Systems Management	
REMS 6373	Program Evaluation	
Hours Subtotal		12
Dissertation		
10 hours required		10
Hours Subtotal		10

Note: Cognate and any additional courses must be approved by the student's committee.

Total Hours 64

Denotes classes with prerequisites.

### Graduate College Doctor of Education (EdD) Requirements

#### School Psychology, EdS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 85** 

Code	Title	Hours
Required Courses		
SPSY 5023	Introduction to School Psychology	3
SPSY 5113	Developmental Psychopathology	3
EPSY 5103	Human Development in Psychology	3
REMS 5013	Research Design and Methodology	3
SPSY 5110	Observation and Participation Field Experience for School Psychology Majors	2
SPSY 5793	Individual Intellectual Assessment of Children and Youth	3
REMS 6003	Analyses of Variance	3
SPSY 5000	Master's Thesis	2
SPSY 6313	Advanced Interventions for Increased Academic Achievement	3
SPSY 6143	Introduction to Developmental Psychopharmacology	3
SPSY 5803	Advanced Cognitive Assessment and Theory	3
FDEP 5493	Psychology of Learning and Behavior	3
SPSY 6333	Instructional Assessment and Consultation	3
SPSY 5853	Applied Behavior Analysis	3
SPSY 5210	Introductory Practicum in School Psychology	2
SPSY 5000	Master's Thesis	2
SPSY 5813	Parent and Family Intervention in School Psychology	3
SPSY 6343	Behavioral Assessment and Consultation	3
SPSY 6113	Behavioral and Personality Assessment of Children and Youth	3
SPSY 5210	Introductory Practicum in School Psychology	2
FDEP 5183	Theories of Social Psychology	3
SPSY 6253	Single Case Designs in Behavior Analytic Settings	3
SPSY 5873	Applied Behavior Analysis II	3
SPSY 5510	Advanced Practicum in School Psychology	3
SPSY 6033	Introduction to Psychotherapy with Children and Adolescents	3
SPSY 5510	Advanced Practicum in School Psychology	3
SPSY 5503	Crisis Intervention and Emergency Action in School Settings	3
SPSY 5310	Practicum in Child and Adolescent Therapy	3
SPSY 6210	Specialist Internship in School Psychology	3
SPSY 6210	Specialist Internship in School Psychology	3
Total Hours		85

## **Graduate College Specialist in Education** (EdS) Requirements

#### School Psychology, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 128

Code	Title	Hours
Core Courses		
Psychological and Edu	ıcation Foundations/Scientific	
Research and Data	Analysis	
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6663	Applied Multivariate Research in Behavioral Studies	3
EPSY 6153	Advanced Research in Educational Psychology	3
EPSY 5000	Master's Thesis <sup>1</sup>	2
EPSY 6000	Doctoral Dissertation	15
EPSY 6253	Single Case Designs in Behavior Analytic Settings	3
History and System	os	
EPSY 6133	History & Systems of Psychology	3
Social Aspects/Dive	ersity	
Select one of the follo	owing courses:	3
EPSY 5183	Theories of Social Psychology	
PSYC 6563	Advanced Social Psychology	
Biological Aspects	of Behavior	
EPSY 6143	Intro to Developmental Psychopharmacology	3
Select 3 hours from t	he following:	3
SPSY 6133	Biological Basis of Behavior	
PSYC 6483	Neurobiological Psychology	
Cognitive/Affective	Aspects of Behavior	
EPSY 5463	Psychology of Learning	3
Human Developme	nt/Individual Differences and Disabilities	
EPSY 5103	Human Development in Psychology	3
EPSY 5113	Child Psychopathology	3
Education Service Deli	ivery	
EDUC 5910	Educational Field Experiences	2
EPSY 6313	Advanced Interventions for Increased Academic Achievement	3
School Psychology Pro	ofessional Practice Skills	
School Psychology	Professional Standards	
EPSY 5023	Intro to School Psych Services	3
EPSY 6030	Doctoral Seminar. Ethics	3
Assessment for Interv	ention/Measurement	
EPSY 5793	Individual Intellectual Assessment of Children and Youth	3
EPSY 5803	Advanced Intellectual Assessment	3
EPSY 6113	Child Personality Assessment	3

Total Hours		128
Hours Subtotal		128
EPSY 6610	Doctoral Internship	2
EPSY 6610	Doctoral Internship	2
EPSY 6610	Doctoral Internship (1500-2000 hours)	2
EPSY 6310	Doctoral Practicum in School Psychology	2
EPSY 6310	Doctoral Practicum in School Psychology (400 hours)	2
EPSY 5510	Practicum in School Psychology	3
EPSY 5510	Practicum in School Psychology (600 hours)	3
EPSY 5310	Practicum in Child and Adolescent Therapy (120 hours)	3
EPSY 5210	Intro Practicum in School Psychometry	2
EPSY 5210	Intro Practicum in School Psychometry (120 hours)	2
EDUC 5910	Educational Field Experiences	2
Practicum/Interr	Treatment	
PSYC 6083	Principles of Evidence-Based Psychological	
CPSY 6553	Advanced Practice in Marital and Family Treatment	
CPSY 6313	Advanced Group Interventions	
CPSY 5320	Seminar in Counseling Psychology	
Choose at least on		3
EPSY 5813	Parent and Family Interventions in School Psychology	3
Direct Service/Ps EPSY 6033	sychotherapy Introduction to Psychotherapy with Children & Adolescents	3
	Settings	
EPSY 5503	Crisis Intervention & Emergency in School	3
EPSY 5873 EPSY 6343	Applied Behavioral Analysis II  Behavioral Assessment and Consultation	3
EPSY 5853	Applied Behavioral Analysis	3
EPSY 6333	Instructional Assessment and Consultation	3
	ntion/Intervention/Program Evaluation	

Total hours for degree could increase by four depending on whether student chooses thesis or non-thesis option.

### Graduate College Doctor of Philosophy (PhD) Requirements

1

### Sociology, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code Title	Hours
Core Coursework	
Sociological Theory	
Select 6 hours of approved coursework.	6
Research Methods/Statistics	
Select 15 hours of approved Research Methods/Statistics coursework.	15
Two Comprehensive Areas	
Select 12 hours from two approved comprehensive areas.	12
Hours Subtotal	33
Electives 1	
Select 39-42 hours, based on number of dissertation hours. 1	39-42
Hours Subtotal	39-42
Doctoral Thesis 1	
Select 15-18 hours, depending on elective hours. 1	15-18
Hours Subtotal	15-18
Pro-Seminar Pro-Seminar	
Select 1 hour of approved Pro-Seminar coursework.	1
Hours Subtotal	1
Total Hours	60

Combined elective and dissertation hours must total 57 hours.

Total Hours: 91 (Beyond the Bachelor's Degree)

Code	Title	Hours
Core Coursework		
Sociological Theory		
Select 6 hours of app	roved coursework.	6
Research Methods/Sta	ntistics	
Select 15 hours of ap coursework.	proved Research Methods/Statistics	15
Two Comprehensive A	Areas	
Select 12 hours from	two approved comprehensive areas.	12
Hours Subtotal		33
Electives <sup>1</sup>		
Select 39-42 hours, ba	ased on number of dissertation hours. <sup>1</sup>	39-42
Hours Subtotal		39-42
Doctoral Thesis 1		
Select 15-18 hours, de	epending on elective hours. <sup>1</sup>	15-18
Hours Subtotal		15-18
Pro-Seminar		
Select 1 hour of appro	oved Pro-Seminar coursework.	1
Hours Subtotal		1
Total Hours		91

Combined elective and dissertation hours must total 57 hours.

## Graduate College Doctor of Philosophy (PhD) Requirements

#### Soil Science, PhD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 60

Code	Title	Hours
Required Course	es	
SOIL 5020	Graduate Seminar	1
SOIL 5020	Graduate Seminar	1
SOIL 5131	Professional Development Colloquium in Plant and Soil Sciences	1
SOIL 5120	Teaching Practicum in Plant and Soil Sciences	1
Additional Cours	sework Hours	23
Hours Subtotal		27
Thesis and Elect	ives	
Required Minimu	um Thesis Credit Hours	15
Additional Minin	num Coursework or Thesis Credit Hours	18
Hours Subtotal		33
Total Hours		60

## Graduate College Doctor of Philosophy (PhD) Requirements

#### Statistics, PhD

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

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

Code	Title	Hours
Required Courses		
STAT 5123	Probability Theory	3
STAT 5223	Statistical Inference	3
STAT 5013	Statistics for Experimenters I	3
STAT 5023	Statistics for Experimenters II	3
STAT 5093	Statistical Computing	3
STAT 6113	Probability Theory	3
STAT 6203	Large Sample Inference	3
STAT 5303	Experimental Designs	3
STAT 5323	Theory of Linear Models I	3
STAT 5333	Theory of Linear Models II	3
STAT 5513	Multivariate Analysis	3
STAT 6223	Advanced Statistical Inference	3
STAT 6910	Special Problems	3
MATH 5043	Advanced Calculus I	3
MATH 5053	Advanced Calculus II	3
MATH 5143	Real Analysis I	3
Two hours from:		2
STAT 6010	Statistics Literature	
Hours Subtotal		50
Dissertation		
Dissertation Resear	ch	15
Electives		
Electives chosen in	consultation with advisor	25
Total Hours		90

## Graduate College Doctor of Philosophy (PhD) Requirements

#### **Graduate Certificates**

- · Aging Studies, GCRT (p. 2884)
- · Aviation/Aerospace Administration, GCRT (p. 2885)
- · Big Data Analytics, GCRT (p. 2886)
- · Bioinformatics, GCRT (p. 2887)
- · Brand Communication, GCRT (p. 2888)
- Building Level Leadership, GCRT (p. 2889)
- · Business Analytics and Data Science, GCRT (p. 2890)
- · Business Sustainability, GCRT (p. 2891)
- · Business, GCRT (p. 2892)
- · College Teaching, GCRT (p. 2893)
- · Comparative and International Education, GCRT (p. 2894)
- · Developmental Disabilities, GCRT (p. 2895)
- · Dietetics, GCRT (p. 2896)
- · District Level Leadership, GCRT (p. 2897)
- · Educational and Psychological Measurement, GCRT (p. 2898)
- · Effective Teaching in Elementary Schools, GCRT (p. 2899)
- Effective Teaching in Secondary Schools, GCRT (p. 2900)
- · Elementary Mathematics Specialist, GCRT (p. 2901)
- · Engineering and Technology Management, GCRT (p. 2902)
- · Entrepreneurship, GCRT (p. 2903)
- Environmental Science with Regulatory Certifications, GCRT (p. 2904)
- · Facilitating Career Development, GCRT (p. 2905)
- · Family Financial Planning, GCRT (p. 2906)
- Fashion Merchandising, GCRT (p. 2907)
- · Finance and Investment Banking, GCRT (p. 2908)
- Forensic Arson, Explosives, Firearms, and Toolmarks Investigation, GCRT (p. 2909)
- Forensic Investigative Sciences, GCRT (p. 2910)
- Forensic Psychology, GCRT (p. 2911)
- · Geographic Information Systems, GCRT (p. 2912)
- · Global Issues, GCRT (p. 2913)
- Grassland Management, GCRT (p. 2914)
- · Health Analytics, GCRT (p. 2915)
- · Health Care Administration, GCRT (p. 2916)
- · Health Care Administration: Finance, GCRT (p. 2917)
- · Health Care Administration: Global Health, GCRT (p. 2918)
- · Hidden Student Populations, GCRT (p. 2919)
- · Hospitality and Tourism Analytics, GCRT (p. 2920)
- Human Resource Management, GCRT (p. 2921)
- · Infant Mental Health, GCRT (p. 2922)
- Information Assurance, GCRT (p. 2923)
- · Integrative Design of Building Envelope, GCRT (p. 2924)
- Interdisciplinary Toxicology, GCRT (p. 2925)
- · International Disaster and Emergency Management, GCRT (p. 2926)
- K-12 STEM Educator, GCRT (p. 2927)
- · Learning and Motivation, GCRT (p. 2928)
- Marketing Analytics, GCRT (p. 2929)
- Medical Sciences, GCRT (p. 2930)
- · Museum and Curatorial Studies, GCRT (p. 2931)

- · Neuroscience, GCRT (p. 2932)
- · Non-Profit Management, GCRT (p. 2933)
- · Online Teaching, GCRT (p. 2934)
- · Program Evaluation, GCRT (p. 2935)
- Public Health in Rural and Underserved Communities, GCRT (p. 2936)
- · Recreation and Leisure Management, GCRT (p. 2937)
- · School Library Certification, GCRT (p. 2938)
- Special Education, GCRT (p. 2939)
- · Sport Communication, GCRT (p. 2940)
- Statistical Methods and Analyses in Educational and Behavioral Sciences, GCRT (p. 2941)
- · Substance Abuse Counseling, GCRT (p. 2942)
- · Supply Chain and Logistics, GCRT (p. 2943)
- · Teaching English to Speakers of Other Languages, GCRT (p. 2944)
- · Workforce and Adult Education, GCRT (p. 2945)

### **Aging Studies, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 15

Code	Title	Hours
Core Courses		
HDFS 5413	Aging in Human Development	3
HDFS 5403	Perspectives in Gerontology	3
Hours Subtotal		6
<b>Elective Courses</b>		
Select 9 hours from	n the following:	9
HS 5543	Environments and Aging	
HDFS 5493	Aging and Diverse Families	
NSCI 5323	Nutrition and Physical Activity in Aging	
HDFS 5203	Family Systems	
HS 5533	Economics of Aging and Public Policy	
HS 5633	Program Evaluation and Research Methods in Gerontology	
REMS 5953	Statistical Methods in Education	
HS 5240	Master's Creative Component (Practicum)	
HDFS 5110	Directed Study in HDFS	
HDFS 5400	Professional Seminar in Gerontology	
Hours Subtotal		9
Total Hours		15

## **Graduate College Certificate Requirements**

### **Aviation/Aerospace Administration, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
AVED 5593	Influencing Public Policy in the Aerospace Industry	3
AVED 5663	Issues in the Airline/Aerospace Industry	3
AVED 5773	Historical Significance of Aviation	3
AVED 6553	Foundations of Airline Executive Leadership	3
Total Hours		12

## **Graduate College Certificate Requirements**

### **Big Data Analytics, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Course	es	
CS 5433	Big Data Management	3
CS 5683	Big Data Analytics	3
CS 5783	Machine Learning	3
STAT 5023	Statistics for Experimenters II	3
Total Hours		12

## **Graduate College Certificate Requirements**

#### **Bioinformatics, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 16

Code	Title	Hours
Required Courses		
MICR 5203	Bioinformatics	3
BIOC 5930	Advanced Biochemical Techniques (Capstone Project)	1
Electives		
Select 12 hours from	n the following: <sup>1</sup>	12
Life Sciences Core		
BIOC 6733	Functional Genomics	
PBIO 5553	Molecular Phylogenectic Analysis	
ANSI 5010	Special Problems (Mapping and Marker Assisted Selection)	
PBIO 5110	Special Topics in Plant Biology (Phylogenomics)	
BIOC 5102	Molecular Genetics	
Statistics Core		
STAT 6013	Genetic Statistics	
STAT 5013	Statistics for Experimenters I	
STAT 5023	Statistics for Experimenters II	
STAT 5093	Statistical Computing	
STAT 4203	Mathematical Statistics I	
STAT 4213	Mathematical Statistics II	
Computer Science Co	pre	
CS 5423	Principles of Database Systems	
CS 5433	Big Data Management	
CS 5070	Seminar and Special Problems	
CS 4433	Introduction to Database Systems	
Math Core		
MATH 6590	Topics in Applied Mathematics	
Hours Subtotal		16
<b>Total Hours</b>		16

Select 3 hours from each discipline or more than one from various disciplines with Advisory Committee approval.

## **Graduate College Certificate Requirements**

#### **Brand Communication, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 15

Code	Title	Hours
<b>Required Courses</b>		
MC 5733	Responsibility in Mass Communication	3
MC 5283	Citizen Branding	3
Hours Subtotal		6
Electives		
Select 9 hours from	m the following:	9
MC 5253	International Mass Communication	
MC 5323	Nation Branding	
MC 5613	Storytellers Studio	
MC 5163	Mass Communication Law	
MC 5933	Theories of Persuasion	
MC 5383	Media Relations	
MC 5753	Media And Elections	
MC 5520	Specialized Strategic Communications Applications	
MC 5953	Strategic Health Communications Campaigns	
MC 5020	Advanced Practicum or Internship in Mass Communication	
MC 5113	Methods of Research in Mass Communication	
MKTG 5133	Marketing Management	
Hours Subtotal		9
Total Hours		15

### **Graduate College Certificate Requirements**

### **Building Level Leadership, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
<b>Required Courses</b>		
EDLE 5813	Leadership Theory and Ethical Decision Making	3
EDLE 5953	Developing Educational Organizations	3
Select 6 hours from	m the following:	6
EDLE 5253	The Principalship	
EDLE 5723	Education Law	
EDLE 5473	Supervision of Instruction	
EDLE 5893	Field Studies Intern II	
Hours Subtotal		12
Total Hours		12

## **Graduate College Certificate Requirements**

## **Business Analytics and Data Science, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
BAN 5733	Descriptive Business Analytics	3
BAN 5743	Predictive Business Analytics	3
Hours Subtotal		6
Electives		
Select 6 hours from t	he following:	6
BAN 5511	Web Analytics and Digital Marketing	
BAN 5521	GIS Applications in Marketing Analytics	
BAN 5551	Optimization Applications in Marketing Analytics	
BAN 5561	Customer Lifetime Value Models in Marketing	
BAN 5563	Strategic Marketing and Business Analytics	
BAN 5753	Advanced Business Analytics	
BAN 5763	Advanced Marketing Research Analytics	
MKTG 5243	Base SAS Programming for Database Marketing	
MKTG 5253	Advanced SAS Programming for Marketing Analytics	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5643	Advanced Database Management	
Other graduate co	urses as approved by the program director.	
Hours Subtotal		6
Total Hours		12

## **Graduate College Certificate Requirements**

### **Business Sustainability, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Core Cou	ırses	
MGMT 5033	Management of Sustainable Enterprises	3
MGMT 5083	Corporate and Social Responsibility	3
Hours Subtotal		6
Electives		
Select 6 hours from	n the following:	6
MGMT 5031	Leading Organizational Change	
MGMT 5051	Creating Ethical Work Places	
MGMT 5061	Managing Confrontations	
MGMT 5073	Management and Ethical Leadership	
MGMT 5093	Management of Nonprofit Organizations	
MGMT 5533	Leadership Challenges	
MGMT 5563	Crisis in Organizations	
EEE 5403	Social Entrepreneurship	
EEE 5603	Entrepreneurship Empowerment in South Africa	
Hours Subtotal		6
Total Hours		12

## **Graduate College Certificate Requirements**

### **Business, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 15

Code	Title	Hours
Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MKTG 5133	Marketing Management	3
ACCT 5183	MBA Financial Reporting	3
FIN 5013	Business Finance	3
Electives		
Select three hours	from the following:	3
ECON 5113	Managerial Economics	
MSIS 5303	Prescriptive Analytics	
EEE 5233	Ideation, Creativity & Innovation	
HTM 5263	Applied Revenue Management in Hospitality and Tourism Management	
Total Hours		15

## **Graduate College Certificate Requirements**

#### **College Teaching, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
<b>Required Courses</b>		
Select 3 hours from	n the following:	3
CIED 5073	Pedagogical Research (with practicum)	
CIED 6073	Advanced Pedagogical Research (with practicum)	
Hours Subtotal		3
Electives		
Select 9 hours from	n the following:	9
CIED 5043	Issues in Teaching	
CIED 5093	Curriculum Design	
CIED 5623	Multicultural and Diversity Issues in Curriculum	
CIED 5183	Media Literacy Across the Curriculum	
CIED 6033	Analysis of Teaching	
CIED 6133	Theory to Practice in Education	
EDTC 5503	Facilitating Online Learning	
HESA 6713	Effective Teaching in College and Universities	
HIST 5021	Teaching History at the College Level	
AGED 5813	College Teaching of Agriculture and Natural Resources	
AGED 5823	Advanced Methods of Teaching Agriculture	
EPSY 5473	Psychology of Adult Learning	
EPSY 5983	Instructional Effectiveness in Higher Education	
Hours Subtotal		9
Total Hours		12

## **Graduate College Certificate Requirements**

# Comparative and International Education, GCRT

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

**Total Hours** 

Code	Title	Hours
Requirements		
Select 12 hours from	the following:	12
ANTH 5243	Globalization and Culture	
EDLE 5813	Leadership Theory and Ethical Decision Making	
EDLE 5953	<b>Developing Educational Organizations</b>	
EDLE 6483	School Leadership, Culture and Ethics	
EDLE 6603	Organizational Theory in Education	
HESA 6163	International Issues in Higher Education	
SCFD 5023	The Comparative Approach: Theory, Method, and Practice	
SCFD 5873	Culture, Society and Education	
SCFD 6023	Comparative Education	
SOC 5223	Culture, History and World Systems	
SOC 5653	Gender and the Middle East	

## **Graduate College Certificate Requirements**

Learn more about Graduate College 2022-2023 Graduate Certificate Program Requirements (p. 2766). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

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### **Developmental Disabilities, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Core Course Requ	irements	
` _	ng students must begin with one of the when entering the graduate certificate	
HDFS 5083	Disabilities in the Family and Community Context	3
HDFS 5283	Developmental Disabilities	3
Specialization Co.	ursework	
Select two course	s from the following:	6
HDFS 5153	Policy in Human Development and Family Science	
HDFS 5193	Reflective Practice	
HDFS 5690	Marriage and Family Therapy Practicum	
HDFS 5623	Systems Theory and Applications to the Family	
HDFS 5653	Systemic Approaches to Psychopathology and Psychopharmacology	
Total Hours		12

## **Graduate College Certificate Requirements**

#### **Dietetics, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 18

Code	Title	Hours
Core Courses		
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	3
or REMS 5013	Research Design and Methodology	
NSCI 5033	Macronutrients in Human Nutrition	3
NSCI 5043	Micronutrients in Human Nutrition	3
NSCI 5643	Advanced Medical Nutrition Therapy	3
Hours Subtotal		12
Dietetic Internship	Practicum Courses	
NSCI 5412	Dietetic Internship Management Practicum	2
NSCI 5422	Dietetic Internship Clinical Practicum	2
NSCI 5432	Dietetic Internship Community Nutrition Practicum	2
Hours Subtotal		6
Total Hours		18

# **Graduate College Certificate Requirements**

### **District Level Leadership, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

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Code	Title	Hours
Required Courses		
EDLE 6873	Leading Schools with Data	3
EDLE 6633	School Leadership and Community Collaboration	3
Select 6 hours from t	he following: <sup>1</sup>	6
EDLE 6493	School Improvement/Reform	
EDLE 6483	School Leadership, Culture and Ethics	
EDLE 6853	Research Traditions in Educational Leadership	
EDLE 6353	The Superintendency	
EDLE 6453	Special Topics in Education Law	
EDLE 6363	Special Topics in School Finance Policy	
EDLE 6393	The Human Factor in Administering Schools	
EDLE 6893	Internship in Education II	
Total Hours		12

Other education courses may be approved by the certificate coordinator.

## **Graduate College Certificate Requirements**

### **Educational and Psychological Measurement, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Requirements		
REMS 5953	Statistical Methods in Education	3
Select 9 hours of th	ne following:	9
REMS 5373	Educational Measurements	
REMS 6023	Psychometric Theory	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6673	Item Response Theory	
Total Hours		12

## **Graduate College Certificate Requirements**

## **Effective Teaching in Elementary Schools, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 14** 

Code	Title	Hours
CIED 4362	Design and Management of the Elementary School Classroom	2
CIED 5323	Teaching Social Studies in the Schools	3
CIED 5893	Reading Processes and Practices GR 1-8	3
SMED 5013	Mathematics Education: Theory and Practice(Grade 1-4)	3
SMED 5083	Teaching Science in the Elementary School (Grades 1-8)	3
Total Hours		14

## **Graduate College Certificate Requirements**

## **Effective Teaching in Secondary Schools, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
	objectives, students who are already ncy certified would complete the following sework:	
CIED 5333	Effective Classroom Management for Secondary Schools	3
CIED 5363	Effective Teaching Strategies for the 6-12 Classroom	3
Select six hours from	the following:	6
CIED 5010	Practicum for Early Career Secondary Teachers	
CIED 5403	Teaching and Learning in the Secondary Schools: English Language Arts Methods	
CIED 5413	Teaching and Learning in the Secondary Schools: Social Studies Methods	
CIED 5143	Language Arts in the Curriculum	
CIED 5353	Literature for Children, Adolescents and Adults	
CIED 5433	Reading and Writing in the Content Areas	
CIED 5443	Teaching Reading with Literature	
CIED 5483	Literacy and Technology Across the Curriculum	
CIED 6653	Issues and Trends in Adolescent Literacy	
EDTC 5103	Advanced Computing Applications in Education	
SMED 5143	Methods for Teaching Secondary Science	
SMED 5153	Methods for Teaching Secondary Math	
SMED 5193	Inquiry and Problem-Based Learning in Science Education	
SMED 5223	Teaching Science in the Schools	
SMED 5280	Workshop in Science Education	
SMED 5813	Assessment in Science Education	
SMED 5253	Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions	
SMED 5923	Teaching Algebra and Mathematical Tasks	
SMED 5933	Teaching Data and Probability in Schools	
SMED 5913	Teaching Geometry and Spatial Visualization	

**Graduate College Certificate Requirements** 

**Total Hours** 

Learn more about Graduate College 2022-2023 Graduate Certificate Program Requirements (p. 2766). Check the General Graduate College

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academic regulations for minimal GPA, language proficiency and other general requirements.

### **Elementary Mathematics Specialist,** GCRT

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 18

Code	Title	Hours
Required Courses		
SMED 5253	Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions	3
SMED 5273	Number Concepts and Assessment at the Elementary Level (PK-6)	3
SMED 5913	Teaching Geometry and Spatial Visualization	3
SMED 5923	Teaching Algebra and Mathematical Tasks	3
SMED 5933	Teaching Data and Probability in Schools	3
SMED 5943	Mathematics Leadership and Coaching (includes a minimum of 30 hours of field experience)	3
Each of these cours standards.	ses are tied directly to the State EMS	
Total Hours		12

## **Graduate College Certificate Requirements**

## **Engineering and Technology Management, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Course		
ETM 5111	Introduction to Strategy, Technology and Integration	1
Elective Courses		
Select 11 hours of th	e following:	11
ETM 5221	Engineering Teaming	
ETM 5241	Strategic Project Management	
ETM 5291	Failure Mode and Effects Analysis in Design	
ETM 5341	Leadership Strategies for Technical Professionals	
ETM 5351	Planning Technical Projects	
ETM 5371	Ethics for Practicing Engineers	
ETM 5391	New Product Introduction and Commercialization	
ETM 5411	Engineering Economic Analysis	
ETM 5461	Intellectual Property Management	
ETM 5471	Introduction to System Safety	
ETM 5481	Sustainable Enterprise Strategies	
ETM 5531	Contract Law in Engineering and Technology	
ETM 5253	Engineering Problem Solving and Decision- Making	
ETM 5943	Lean Sigma Implementation	
ETM 5143	Strategic Decision Analysis for Engineering and Technology Managers	
ETM 5283	Strategic Planning	
ETM 5153	Foundations of Engineering Management	
ETM 5163	Business Innovation and Technology	
Total Hours		12

## **Graduate College Certificate Requirements**

#### **Entrepreneurship, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
EEE 5233	Ideation, Creativity & Innovation	3
EEE 5333	Launching a Business: The First 100 Days	3
Hours Subtotal		6
Electives		
Select 6 hours from t	he following:	6
EEE 5133	Dilemmas and Debates in Entrepreneurship	
EEE 5223	Entrepreneurial Marketing	
EEE 5263	Corporate Entrepreneurship	
EEE 5313	Emerging Enterprise Consulting	
EEE 5403	Social Entrepreneurship	
EEE 5513	Growing Small and Family Ventures	
EEE 5610	Advanced Entrepreneurship Practicum (Advanced Practicum CIE Scholar - special permission required)	
EEE 5653	Venture Capital	
EEE 5713	Native American Entrepreneurship	
EEE 5993	Preparing Effective Business Plans	
Hours Subtotal		6
Total Hours		12

## **Graduate College Certificate Requirements**

## **Environmental Science with Regulatory Certifications, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
ENVR 5593	Hazardous Waste Operations and Emergency Response: HAZWOPER	3
ENVR 5303	Issues in Environmental Sustainability	3
ENVR 5573	Applied Standards for Environmental Managers	3
ENVR 5583	Safety Aspects for Environmental Managers	3
Total Hours		12

## **Graduate College Certificate Requirements**

### **Facilitating Career Development, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Core		
HESA 5223	Career Development for College Students	3
HESA 5213	Student Development Theory	3
HESA 5320	Seminar in Student Development	3
Hours Subtotal		9
<b>Guided Electives</b>		
Choose one of the	following:	3
HESA 5463	Legal Issues in Student Affairs	
HESA 5813	Leadership and Development of Higher Education Organizations	
HESA 5343	Assessment Techniques for Higher Education and Student Affairs Professionals	
Hours Subtotal		3
Total Hours		12

## **Graduate College Certificate Requirements**

### **Family Financial Planning, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 18

Code	Title	Hours
Course Requirem	ents	
FFP 5403	Estate Planning for Families	3
FFP 5453	Retirement Planning, Employee Benefits and the Family	3
FFP 5553	Insurance Planning for Families	3
FFP 5603	Investing for the Family's Future	3
FFP 5653	Personal Income Tax for Family Financial Planning	3
FFP 5803	Case Studies in Family Financial Planning	3
Total Hours		18

## **Graduate College Certificate Requirements**

### **Fashion Merchandising, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Core Courses		
DHM 5303	Sociological, Psychological and Economic Aspects of Consumer Behavior	3
DHM 5623	Professional Advancement in Merchandising	3
DHM 5113	Theories of Creative Process in Design and Merchandising	3
<b>Elective Courses</b>		
Select 3 credit hou	urs from the following:	3
DHM 5643	Promotional Strategies in Merchandising	
DHM 6403	Merchandising Theory Application and Strategy Implementation	
Total Hours		12

# **Graduate College Certificate Requirements**

## Finance and Investment Banking, GCRT

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

A student may not have a grade lower than "C" and must maintain a grade-point-average of 3.0 over all courses applicable to this certificate. **Total Hours:** 15

Code	Title	Hours
Required Courses		
FIN 5013	Business Finance <sup>1</sup>	3
FIN 5053	Theory and Practice of Financial Management	3
FIN 5223	Investment Theory and Strategy	3
FIN 5343	Valuation and Financial Modeling	3
Select 1 course from	n the following:	3
FIN 5653	Bond Markets	
FIN 5550	Special Topics in Finance (Portfolio Management)	
FIN 5763	Derivative Securities and the Management of Financial Price Risk	
FIN 5363	Energy Finance	
FIN 5833	Student Managed Investment Fund	
FIN 5550	Special Topics in Finance (Securities Industry Essentials)	
FIN 5550	Special Topics in Finance (Computational Finance)	
Total Hours		15

If a student has taken the equivalent of FIN 5013, they need to take an extra elective.

### **Graduate College Certificate Requirements**

## Forensic Arson, Explosives, Firearms, and Toolmarks Investigation, GCRT

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Hours		
Degree Core		
Select 6 hours from t	the following:	6
FRNS 5013	Survey of Forensic Sciences	
FRNS 5063	Ethical Research and Scientific Writing	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5613	Criminalistics and Evidence Analysis	
FRNS 5653	The Law and Expert Evidence	
FRNS 5963	Forensic Statistics	
Hours Subtotal		6
Electives		
Select 6 hours from t	the following:	6
FRNS 5103	The Chemistry of Pyrotechnics	
FRNS 5113	Essential Science for Explosive Operators	
FRNS 5123	Fire Dynamics in Forensic Investigations	
FRNS 5133	Ordnance Identification and Recognition	
FRNS 5143	Methods in Fire and Explosion	
	Investigation NFPA 921/1033	
FRNS 5153	Explosives Research, Testing and Evaluation Methods	
FRNS 5183	Computer Fire Modeling	
FRNS 5423	Blast Injuries and Effects	
FRNS 5443	Interdisciplinary Post Blast Investigation	
FRNS 5663	Destructive Devices/Explosives: Law and Regulations	
FRNS 5673	Intelligence for Forensic Investigators	
FRNS 5683	Digital and Multimedia Evidence for Investigators	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5803	Circuit Exploitation of Destructive Devices	
FRNS 5813	Building Construction and Fire/Explosion Forensic Examination	
FRNS 5823	Forensic Examination of Fire Protection Systems	
FRNS 5833	Identification of Destructive Device Fuzing Systems	
FRNS 5853	Electrical Theory and Failure Analysis in Forensic Fire Investigations	
FRNS 5873	Firearms and Toolmarks	
FRNS 5990	Special Topics in Forensic Sciences (Forensic Evidence Processing for Post- Blast Investigations)	

To	otal Hours		12
Н	ours Subtotal		6
	FRNS 6853	Advanced Electrical Theory and Failure Analysis in Forensic Fire Investigations	
	FRNS 6843	Advanced Destructive Device Circuit Exploitation	
	FRNS 6423	Advanced Blast Injuries and Effects	
	FRNS 6183	Advanced Computer Fire Modeling	
	FRNS 6173	Advanced Interdisciplinary Post Blast Investigation	
	FRNS 6123	Advanced Fire Dynamics	
	FRNS 5990	(Forensic Examination of Toolmarks)  Special Topics in Forensic Sciences (Advanced Forensic Examination of Toolmarks)	
	FRNS 5990	Special Topics in Forensic Sciences	
	FRNS 5990	Special Topics in Forensic Sciences (Advanced Forensic Examination of Firearms)	
	FRNS 5990	Special Topics in Forensic Sciences (Forensic Examination of Firearms)	
	FRNS 5990	Special Topics in Forensic Sciences (Forensic Engineering for Investigators)	
	FRNS 5990	Special Topics in Forensic Sciences	
	FRNS 5990	Special Topics in Forensic Sciences (Introduction to Digital Evidence)	
	FRNS 5990	Special Topics in Forensic Sciences (Advanced Forensic Evidence Processing for Post-Blast Investigations)	

## Graduate College Certificate Requirements

### **Forensic Investigative Sciences, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Minimum GPA:** 3.0 in all courses applicable to the Graduate Certificate with no grade lower than a  $^{"}$ C"

**Total Hours: 12** 

Code	Title	Hours
Core Courses		
FRNS 5013	Survey of Forensic Sciences	3
FRNS 5613	Criminalistics and Evidence Analysis	3
<b>Guided Electives</b>		
FRNS 5970	Directed Readings in Forensic Sciences	3
FRNS 5990	Special Topics in Forensic Sciences	3
Total Hours		12

# **Graduate College Certificate Requirements**

#### **Forensic Psychology, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Minimum GPA: 3.00 in all courses

**Total Hours: 12** 

Code	Title	Hours
Core Requirements	s	
FRNS 5013	Survey of Forensic Sciences	3
FRNS 5613	Criminalistics and Evidence Analysis	3
FRNS 5713	Forensic Psychology	3
FRNS 5733	Forensic Victimology	3
Total Hours		12

### **Graduate College Certificate Requirements**

### **Geographic Information Systems, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 15

Code	Title	Hours
Core Courses		
Select three course	es from the following:	9
GEOG 5103	Fundamentals of Geographic Information Systems	
GEOG 5323	Geographic Information Systems: Resource Management Applications	
GEOG 5253	Geographic Information Systems: Socioeconomic Applications	
GEOG 5343	Advanced Geographic Information Systems: Resource Management Applications	
GEOG 5353	Advanced Geographic Information Systems: Socioeconomic Applications	
Hours Subtotal		9
Electives		
Select two courses	, each from a different category:	6
Category 1: Spatial	Analysis/GIS Programming	
GEOG 5383	Introduction to GIS Programming	
GEOG 5303	Geographic Analysis I	
GEOG 6303	Geographic Analysis II	
Category II: Spatial Representation	Data Collection, Management &	
GEOG 5263	Geospatial Applications for Unmanned Aerial Systems	
GEOG 5503	Applications of the Global Positioning System in Field Research	
GEOG 5333	Remote Sensing	
GEOG 6313	Mixed Methods in Field Research	
GEOG 6333	Advanced Remote Sensing	
Hours Subtotal		6
Total Hours		15

### **Graduate College Certificate Requirements**

#### **Global Issues, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 15

Code	Title	Hours
Core Courses		
Select nine hours f	-	9
GS 5013	Contemporary Issues in Global Studies	
GS 5213	Global Trade Economics	
GS 5223	Culture, History and World Systems	
GS 5233	Global Competitive Environment	
GS 5243	Trade and Investment Promotion	
GS 5313	Global Communication and Public Diplomacy	
GS 5323	Nation Branding	
GS 5333	Certified Global Business Professional	
GS 5343	Geopolitics of New Media	
GS 5513	Global Crisis Management	
GS 5523	Transnational Criminal Organizations and the War on Drugs	
GS 5533	Complex Emergencies	
GS 5543	International Dimensions of Fire and Emergency Management	
GS 5553	Global Poverty and Inequality	
Hours Subtotal		9
Electives		
•	ourses from one of the focus areas below or e courses listed above:	6
MKTG 5553		
AGEC 5343	International Marketing Strategy	
	International Agricultural Markets and Trade	
MGMT 5743	Intl Negotiations	
ECON 5603	Global Economics	
FIN 5213	International Business Finance	
EEE 5403	Social Entrepreneurship	
GS 5020	Independent Study	
GS 5070	Special Topics in Global Studies	
Other courses a	s approved by Director of MSGS program	
Public Diplomacy aı	nd Global Communication	
MC 5253	International Mass Communication	
GS 5043	Politics of the Global Economy	
GS 5223	Culture, History and World Systems	
SOC 5333	Global Population and Social Problems	
POLS 5673	Understanding and Responding to Terrorism	
POLS 5203	ProSeminar in International Relations	
AGCM 5503	Risk and Crisis Communication in Agricultural Sciences and Natural Resources	
GS 5020	Independent Study	

GS 5070	Special Topics in Global Studies	
Other courses as	approved by Director of MSGS program	
Global Leadership an	d Development	
AGED 5703	Cultural Competency for Working in Agricultural and Extension Education	
ANTH 5243	Globalization and Culture	
GEOG 5233	Human Dimensions of Global Environmental Change	
MGMT 5093	Management of Nonprofit Organizations	
NSCI 5553	Global Nutrition and Food Security	
SCFD 6023	Comparative Education	
EEE 5403	Social Entrepreneurship	
GS 5020	Independent Study	
GS 5070	Special Topics in Global Studies	
Other courses as	approved by Director of MSGS program	
Global Disaster and C	risis Management	
POLS 5673	Understanding and Responding to Terrorism	
FEMP 6313	Comparative and International Dimensions of Emergency Management	
FEMP 6303	Populations at Risk	
FEMP 5223	Preparedness and Planning	
AGCM 5503	Risk and Crisis Communication in Agricultural Sciences and Natural Resources	
SOC 6493	Sociology of Disaster	
NSCI 5553	Global Nutrition and Food Security	
GEOG 5233	Human Dimensions of Global Environmental Change	
GS 5020	Independent Study	
GS 5070	Special Topics in Global Studies	
Other courses as	approved by Director of MSGS program	
Hours Subtotal		6
Total Hours		15

### **Graduate College Certificate Requirements**

#### **Grassland Management, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
NREM 5713	Grassland Fire Ecology	3
NREM 5692	Grassland Monitoring and Assessment.	2
NREM 5682	GrassId Plant Identification	2
Hours Subtotal		7
<b>Elective Courses</b>		
Select 5 hours from	the following:	5
NREM 5693	Principles of Forage Quality and Evaluation to Ruminate	
NREM 5673	Rangeland Resources Watershed Management	
NREM 5033	Ecology of Invasive Species	
Hours Subtotal		5
Total Hours		12

### **Graduate College Certificate Requirements**

#### **Health Analytics, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
HCA 5013	Survey of Health Care Administration	3
MSIS 5673	Descriptive Analytics and Visualization	3
MSIS 5633	Predictive Analytics Technologies	3
Hours Subtotal		9
Electives		
Select 3 hours fro	m the following:	3
MSIS 5303	Prescriptive Analytics	
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5663	Data Warehousing	
MSIS 5683	Big Data Advanced Analytics Technologies	
Hours Subtotal		3
Total Hours		12

### **Graduate College Certificate Requirements**

#### **Health Care Administration, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
HCA 5013	Survey of Health Care Administration	3
HCA 5123	Survey of Research and Evaluation in Health Care	3
HCA 5033	Legal Issues in Health Care Administration	3
HCA 5063	Health Care Compliance	3
Total Hours		12

### **Graduate College Certificate Requirements**

### **Health Care Administration: Finance, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
HCA 5083	The Financial Structure of Health Care Organizations	3
HCA 5213	Advanced Cases in Healthcare Finance	3
HCA 5163	Healthcare Accounting and Auditing	3
HCA 5063	Health Care Compliance	3
Total Hours		12

### **Graduate College Certificate Requirements**

# **Health Care Administration: Global Health, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Total Hours		12
HCA 5173	Emerging Global Infectious Diseases	3
HCA 5153	International Health Systems	3
HCA 5143	Relief and Development in Global Health	3
HCA 5103	Introduction to Global Health	3
Code	Title	Hours

## **Graduate College Certificate Requirements**

#### **Hidden Student Populations, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 12** 

Code	Title	Hours
Required Courses		
HESA 5333	Introduction to Hidden Student Populations	3
HESA 5433	Practicum in Hidden Student Populations	3
Guided Electives		
Select 6 hours from the	ne following: <sup>1</sup>	6
HESA 5340	Hidden Student Populations (Group of one-hour courses, each with a focus on a specific hidden population - up to 6 credit hours)	
HESA 5213	Student Development Theory	
SCFD 6983	Diversity and Equity Issues in Education	
SCFD 5873	Culture, Society and Education	
SCFD 5990	Problems and Issues in Social Foundations	
SCFD 6990	Seminar in Social Foundations	
EPSY 5103	Human Development in Psychology	
EPSY 5463	Psychology of Learning	
EDLE 6633	School Leadership and Community Collaboration	
WAED 5013	Foundations and Characteristics of Adult Learning	
WAED 5203	Foundations of Adult and Continuing Education	
SPED 5633	Behavior Characteristics of Exceptional Individuals	
SPED 5993	Culturally Responsive Teaching in Special Education	
CIED 5623	Multicultural and Diversity Issues in Curriculum	
HDFS 5223	Resilience in Individuals and Families	
HDFS 5253	Theory and Research: Social and Emotional Development	
HDFS 5293	Human Development Theory	
HDFS 5543	Family Crisis and Trauma	
HDFS 5573	Adolescent in Family Context	
HDFS 5673	Family Dynamics of Addiction	
HDFS 5753	Leadership and Management of Community Service Programs	

**Total Hours** 

12

Students select interdisciplinary electives in areas across campus through consultation with their advisor and with consideration of their individual interests and leadership in their current and future educational spaces. Electives may come from the pre-approved list or submitted for faculty review and approval.

### **Graduate College Certificate Requirements**

### **Hospitality and Tourism Analytics, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
HTM 5503	Big Data Analytics in Hospitality and Tourism Management	3
HTM 5263	Applied Revenue Management in Hospitality and Tourism Management	3
Hours Subtotal		6
Electives		
Select 6 hours from	the following:	6
HTM 5323	Hospitality and Tourism Financial Management	
BAN 5511	Web Analytics and Digital Marketing	
BAN 5521	GIS Applications in Marketing Analytics	
MKTG 5733	Introduction to Marketing Analytics	
MKTG 5743	Advanced Marketing Analytics	
BADM 5513	Fundamentals of Business Analytics	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5623	Information and Network Technology Management	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5643	Advanced Database Management	
MGMT 5543	Human Resource Analytics	
Hours Subtotal		6
Total Hours		12

# **Graduate College Certificate Requirements**

#### **Human Resource Management, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 15

Code	Title	Hours
Required Courses	s	
MGMT 5133	Total Rewards	3
MGMT 5153	Talent Development	3
MGMT 5823	Talent Acquisition	3
MGMT 5543	Human Resource Analytics	3
LSB 5423	Employment Law	3
Total Hours		15

### **Graduate College Certificate Requirements**

#### **Infant Mental Health, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 15

Code	Title	Hours
Required Courses		
HDFS 5233	Infant Mental Health	3
HDFS 5243	Infant and Early Childhood Development and Attachment	3
HDFS 5193	Reflective Practice	3
HDFS 5343	Developmental Assessment and Interventions	3
HDFS 5513	Issues in Family Science	3
Total Hours		15

## **Graduate College Certificate Requirements**

#### **Information Assurance, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses	3	
MSIS 5203	Advanced Infrastructure Development	3
MSIS 5213	Information Assurance Management	3
Select 6 hours of	the following:	6
MSIS 5233	Applied Information Systems Security	
MSIS 5253	Advanced System Certification and Accreditation	
MSIS 5273	Legal and Ethical Issues in Information Technology	
MSIS 5713	Scripting Essentials	
Total Hours		12

### **Graduate College Certificate Requirements**

# **Integrative Design of Building Envelope, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

**Total Hours** 

Degree Core  ARCH 5003	Code	Title	Hours
Hours Subtotal   Selectives	Degree Core		
Electives  Select 9 hours of the following:  ARCH 5023 Masonry Design and Analysis  ARCH 5093 Real Estate Development  ARCH 5100 Special Topics in Architecture  ARCH 5133 Advanced Energy Issues in Architecture  ARCH 5263 Advanced Architecture Technology  Seminar  ARCH 5493 Entrepreneurship and Architecture  ARCH 6243 Structures: Analysis III  ARCH 6343 Structures: Steel III  ARCH 6543 Structures: Concrete III  CIVE 5113 Construction Business Management  CIVE 5193 BIM for Constructions  CIVE 5273 Concrete Durability  CIVE 5583 Advanced Construction Materials  CIVE 5873 Air Pollution Control Engineering  FSEP 5033 Risk Analysis  FSEP 5113 Fire and Explosion Hazard Recognition  FSEP 5133 Principles of Industrial and Process Safety  FSEP 5163 Building Electrical Systems  FRNS 5103 The Chemistry of Pyrotechnics  FRNS 5112  FRNS 5123 Fire Dynamics in Forensic Investigations  MSE 5033 Composite Materials  MSE 5033 Composite Materials  MSE 5033 Fundamentals of Materials Science  MSE 5174 Fundamentals of Photovoltaics  MSE 5223 Additive Manufacturing: Materials,  Methods and Applications  Other courses approved by advisor.	ARCH 5003	Integrative Design	3
Select 9 hours of the following:  ARCH 5023 Masonry Design and Analysis  ARCH 5093 Real Estate Development  ARCH 5100 Special Topics in Architecture  ARCH 5133 Advanced Energy Issues in Architecture  ARCH 5263 Advanced Architecture Technology  Seminar  ARCH 5493 Entrepreneurship and Architecture  ARCH 6243 Structures: Analysis III  ARCH 6343 Structures: Steel III  ARCH 6543 Structures: Concrete III  CIVE 5113 Construction Business Management  CIVE 5183 Construction Estimating  CIVE 5193 BIM for Constructions  CIVE 5273 Concrete Durability  CIVE 5583 Advanced Construction Materials  CIVE 5873 Air Pollution Control Engineering  FSEP 5033 Risk Analysis  FSEP 5113 Fire and Explosion Hazard Recognition  FSEP 5133 Principles of Industrial and Process Safety  FSEP 5143 Structural Design for Fire and Life Safety  FSEP 5163 Building Electrical Systems  FRNS 5103 The Chemistry of Pyrotechnics  FRNS 5112  FRNS 5123 Fire Dynamics in Forensic Investigations  MSE 5013 Advanced Thermodynamics of Materials  MSE 5033 Composite Materials  MSE 5033 Composite Materials  MSE 5033 Composite Materials  MSE 5033 Fundamentals of Materials Science  MSE 5174 Fundamentals of Photovoltaics  MSE 5223 Additive Manufacturing: Materials,  Methods and Applications  Other courses approved by advisor.	Hours Subtotal		3
ARCH 5023 Masonry Design and Analysis ARCH 5093 Real Estate Development ARCH 5100 Special Topics in Architecture ARCH 5133 Advanced Energy Issues in Architecture ARCH 5263 Advanced Architecture Technology Seminar ARCH 5493 Entrepreneurship and Architecture ARCH 6243 Structures: Analysis III ARCH 6343 Structures: Steel III ARCH 6543 Structures: Concrete III CIVE 5113 Construction Business Management CIVE 5183 Construction Estimating CIVE 5193 BIM for Constructions CIVE 5273 Concrete Durability CIVE 5583 Advanced Construction Materials CIVE 5873 Air Pollution Control Engineering FSEP 5033 Risk Analysis FSEP 5113 Fire and Explosion Hazard Recognition FSEP 5133 Principles of Industrial and Process Safety FSEP 5143 Structural Design for Fire and Life Safety FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5033 Composite Materials MSE 5033 Composite Materials MSE 5033 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, Methods and Applications Other courses approved by advisor.	Electives		
ARCH 5093 Real Estate Development ARCH 5100 Special Topics in Architecture ARCH 5133 Advanced Energy Issues in Architecture ARCH 5263 Advanced Architecture Technology Seminar ARCH 5493 Entrepreneurship and Architecture ARCH 6243 Structures: Analysis III ARCH 6343 Structures: Steel III ARCH 6543 Structures: Concrete III CIVE 5113 Construction Business Management CIVE 5183 Construction Estimating CIVE 5193 BIM for Constructions CIVE 5273 Concrete Durability CIVE 5583 Advanced Construction Materials CIVE 5873 Air Pollution Control Engineering FSEP 5033 Risk Analysis FSEP 5113 Fire and Explosion Hazard Recognition FSEP 5133 Principles of Industrial and Process Safety FSEP 5143 Structural Design for Fire and Life Safety FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5033 Composite Materials MSE 5033 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, Methods and Applications Other courses approved by advisor.	Select 9 hours of th	ne following:	9
ARCH 5100 Special Topics in Architecture ARCH 5133 Advanced Energy Issues in Architecture ARCH 5263 Advanced Architecture Technology Seminar ARCH 5493 Entrepreneurship and Architecture ARCH 6243 Structures: Analysis III ARCH 6343 Structures: Steel III ARCH 6543 Structures: Concrete III CIVE 5113 Construction Business Management CIVE 5183 Construction Estimating CIVE 5193 BIM for Constructions CIVE 5273 Concrete Durability CIVE 5583 Advanced Construction Materials CIVE 5873 Air Pollution Control Engineering FSEP 5033 Risk Analysis FSEP 5113 Fire and Explosion Hazard Recognition FSEP 5133 Principles of Industrial and Process Safety FSEP 5143 Structural Design for Fire and Life Safety FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5033 Composite Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, Methods and Applications Other courses approved by advisor.	ARCH 5023	Masonry Design and Analysis	
ARCH 5133 Advanced Energy Issues in Architecture  ARCH 5263 Advanced Architecture Technology Seminar  ARCH 5493 Entrepreneurship and Architecture  ARCH 6243 Structures: Analysis III  ARCH 6343 Structures: Steel III  ARCH 6543 Structures: Concrete III  CIVE 5113 Construction Business Management  CIVE 5183 Construction Estimating  CIVE 5193 BIM for Constructions  CIVE 5273 Concrete Durability  CIVE 5583 Advanced Construction Materials  CIVE 5873 Air Pollution Control Engineering  FSEP 5033 Risk Analysis  FSEP 5113 Fire and Explosion Hazard Recognition  FSEP 5133 Principles of Industrial and Process Safety  FSEP 5143 Structural Design for Fire and Life Safety  FSEP 5163 Building Electrical Systems  FRNS 5103 The Chemistry of Pyrotechnics  FRNS 5112  FRNS 5123 Fire Dynamics in Forensic Investigations  MSE 5013 Advanced Thermodynamics of Materials  MSE 5023 Diffusion and Kinetics  MSE 5033 Composite Materials  MSE 5033 Fundamentals of Materials Science  MSE 5074 Fundamentals of Photovoltaics  MSE 5223 Additive Manufacturing: Materials,  Methods and Applications  Other courses approved by advisor.	ARCH 5093	Real Estate Development	
ARCH 5263 Advanced Architecture Technology Seminar  ARCH 5493 Entrepreneurship and Architecture  ARCH 6243 Structures: Analysis III  ARCH 6343 Structures: Steel III  ARCH 6543 Structures: Concrete III  CIVE 5113 Construction Business Management  CIVE 5183 Construction Estimating  CIVE 5193 BIM for Constructions  CIVE 5273 Concrete Durability  CIVE 5583 Advanced Construction Materials  CIVE 5873 Air Pollution Control Engineering  FSEP 5033 Risk Analysis  FSEP 5113 Fire and Explosion Hazard Recognition  FSEP 5133 Principles of Industrial and Process Safety  FSEP 5143 Structural Design for Fire and Life Safety  FSEP 5163 Building Electrical Systems  FRNS 5103 The Chemistry of Pyrotechnics  FRNS 5112  FRNS 5123 Fire Dynamics in Forensic Investigations  MSE 5013 Advanced Thermodynamics of Materials  MSE 5023 Diffusion and Kinetics  MSE 5033 Composite Materials  MSE 5033 Fundamentals of Materials Science  MSE 5174 Fundamentals of Photovoltaics  MSE 5223 Additive Manufacturing: Materials,  Methods and Applications  Other courses approved by advisor.	ARCH 5100	Special Topics in Architecture	
Seminar  ARCH 5493 Entrepreneurship and Architecture  ARCH 6243 Structures: Analysis III  ARCH 6343 Structures: Steel III  ARCH 6543 Structures: Concrete III  CIVE 5113 Construction Business Management  CIVE 5183 Construction Estimating  CIVE 5193 BIM for Constructions  CIVE 5273 Concrete Durability  CIVE 5583 Advanced Construction Materials  CIVE 5873 Air Pollution Control Engineering  FSEP 5033 Risk Analysis  FSEP 5113 Fire and Explosion Hazard Recognition  FSEP 5133 Principles of Industrial and Process Safety  FSEP 5143 Structural Design for Fire and Life Safety  FSEP 5163 Building Electrical Systems  FRNS 5103 The Chemistry of Pyrotechnics  FRNS 5112  FRNS 5123 Fire Dynamics in Forensic Investigations  MSE 5013 Advanced Thermodynamics of Materials  MSE 5023 Diffusion and Kinetics  MSE 5033 Composite Materials  MSE 5053 Smart Materials  MSE 5093 Fundamentals of Materials Science  MSE 5174 Fundamentals of Photovoltaics  MSE 5223 Additive Manufacturing: Materials,  Methods and Applications  Other courses approved by advisor.	ARCH 5133	Advanced Energy Issues in Architecture	
ARCH 6243 Structures: Analysis III  ARCH 6343 Structures: Steel III  ARCH 6543 Structures: Concrete III  CIVE 5113 Construction Business Management  CIVE 5183 Construction Estimating  CIVE 5193 BIM for Constructions  CIVE 5273 Concrete Durability  CIVE 5583 Advanced Construction Materials  CIVE 5873 Air Pollution Control Engineering  FSEP 5033 Risk Analysis  FSEP 5113 Fire and Explosion Hazard Recognition  FSEP 5133 Principles of Industrial and Process Safety  FSEP 5143 Structural Design for Fire and Life Safety  FSEP 5163 Building Electrical Systems  FRNS 5103 The Chemistry of Pyrotechnics  FRNS 5112  FRNS 5123 Fire Dynamics in Forensic Investigations  MSE 5013 Advanced Thermodynamics of Materials  MSE 5023 Diffusion and Kinetics  MSE 5033 Composite Materials  MSE 5093 Fundamentals of Materials Science  MSE 5093 Fundamentals of Photovoltaics  MSE 5174 Fundamentals of Photovoltaics  MSE 5223 Additive Manufacturing: Materials,  Methods and Applications  Other courses approved by advisor.	ARCH 5263		
ARCH 6343 Structures: Steel III  ARCH 6543 Structures: Concrete III  CIVE 5113 Construction Business Management  CIVE 5183 Construction Estimating  CIVE 5193 BIM for Constructions  CIVE 5273 Concrete Durability  CIVE 5583 Advanced Construction Materials  CIVE 5873 Air Pollution Control Engineering  FSEP 5033 Risk Analysis  FSEP 5113 Fire and Explosion Hazard Recognition  FSEP 513 Principles of Industrial and Process Safety  FSEP 5143 Structural Design for Fire and Life Safety  FSEP 5163 Building Electrical Systems  FRNS 5103 The Chemistry of Pyrotechnics  FRNS 5112  FRNS 5123 Fire Dynamics in Forensic Investigations  MSE 5013 Advanced Thermodynamics of Materials  MSE 5023 Diffusion and Kinetics  MSE 5033 Composite Materials  MSE 5053 Smart Materials  MSE 5093 Fundamentals of Materials Science  MSE 5174 Fundamentals of Photovoltaics  MSE 5223 Additive Manufacturing: Materials,  Methods and Applications  Other courses approved by advisor.	ARCH 5493	Entrepreneurship and Architecture	
ARCH 6543 Structures: Concrete III CIVE 5113 Construction Business Management CIVE 5183 Construction Estimating CIVE 5193 BIM for Constructions CIVE 5273 Concrete Durability CIVE 5583 Advanced Construction Materials CIVE 5873 Air Pollution Control Engineering FSEP 5033 Risk Analysis FSEP 5113 Fire and Explosion Hazard Recognition FSEP 5133 Principles of Industrial and Process Safety FSEP 5143 Structural Design for Fire and Life Safety FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, Methods and Applications Other courses approved by advisor.	ARCH 6243	Structures: Analysis III	
CIVE 5113 Construction Business Management CIVE 5183 Construction Estimating CIVE 5193 BIM for Constructions CIVE 5273 Concrete Durability CIVE 5583 Advanced Construction Materials CIVE 5873 Air Pollution Control Engineering FSEP 5033 Risk Analysis FSEP 5113 Fire and Explosion Hazard Recognition FSEP 5133 Principles of Industrial and Process Safety FSEP 5143 Structural Design for Fire and Life Safety FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, Methods and Applications Other courses approved by advisor.	ARCH 6343	Structures: Steel III	
CIVE 5183 Construction Estimating CIVE 5193 BIM for Constructions CIVE 5273 Concrete Durability CIVE 5583 Advanced Construction Materials CIVE 5873 Air Pollution Control Engineering FSEP 5033 Risk Analysis FSEP 5113 Fire and Explosion Hazard Recognition FSEP 5133 Principles of Industrial and Process Safety FSEP 5143 Structural Design for Fire and Life Safety FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, Methods and Applications Other courses approved by advisor.	ARCH 6543	Structures: Concrete III	
CIVE 5193 BIM for Constructions CIVE 5273 Concrete Durability CIVE 5583 Advanced Construction Materials CIVE 5873 Air Pollution Control Engineering FSEP 5033 Risk Analysis FSEP 5113 Fire and Explosion Hazard Recognition FSEP 5133 Principles of Industrial and Process Safety FSEP 5143 Structural Design for Fire and Life Safety FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, MSE 5223 Methods and Applications Other courses approved by advisor.	CIVE 5113	Construction Business Management	
CIVE 5273 Concrete Durability CIVE 5583 Advanced Construction Materials CIVE 5873 Air Pollution Control Engineering FSEP 5033 Risk Analysis FSEP 5113 Fire and Explosion Hazard Recognition FSEP 5133 Principles of Industrial and Process Safety FSEP 5143 Structural Design for Fire and Life Safety FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, MSE 5223 Methods and Applications Other courses approved by advisor.	CIVE 5183	Construction Estimating	
CIVE 5583 Advanced Construction Materials CIVE 5873 Air Pollution Control Engineering FSEP 5033 Risk Analysis FSEP 5113 Fire and Explosion Hazard Recognition FSEP 5133 Principles of Industrial and Process Safety FSEP 5143 Structural Design for Fire and Life Safety FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, MSE 5223 Methods and Applications Other courses approved by advisor.	CIVE 5193	BIM for Constructions	
CIVE 5873 Air Pollution Control Engineering FSEP 5033 Risk Analysis FSEP 5113 Fire and Explosion Hazard Recognition FSEP 5133 Principles of Industrial and Process Safety FSEP 5143 Structural Design for Fire and Life Safety FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, MSE 5223 Methods and Applications Other courses approved by advisor.	CIVE 5273	Concrete Durability	
FSEP 5033 Risk Analysis  FSEP 5113 Fire and Explosion Hazard Recognition  FSEP 5133 Principles of Industrial and Process Safety  FSEP 5143 Structural Design for Fire and Life Safety  FSEP 5163 Building Electrical Systems  FRNS 5103 The Chemistry of Pyrotechnics  FRNS 5112  FRNS 5112  FRNS 5123 Fire Dynamics in Forensic Investigations  MSE 5013 Advanced Thermodynamics of Materials  MSE 5023 Diffusion and Kinetics  MSE 5033 Composite Materials  MSE 5053 Smart Materials  MSE 5093 Fundamentals of Materials Science  MSE 5174 Fundamentals of Photovoltaics  MSE 5223 Additive Manufacturing: Materials,  MSE 5223 Methods and Applications  Other courses approved by advisor.	CIVE 5583	Advanced Construction Materials	
FSEP 5113 Fire and Explosion Hazard Recognition FSEP 5133 Principles of Industrial and Process Safety FSEP 5143 Structural Design for Fire and Life Safety FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, MSE 5223 Methods and Applications Other courses approved by advisor.	CIVE 5873	Air Pollution Control Engineering	
FSEP 5133 Principles of Industrial and Process Safety FSEP 5143 Structural Design for Fire and Life Safety FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, MSE 5223 Methods and Applications Other courses approved by advisor.	FSEP 5033	Risk Analysis	
FSEP 5143 Structural Design for Fire and Life Safety FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, MSE 5223 Methods and Applications Other courses approved by advisor.	FSEP 5113	Fire and Explosion Hazard Recognition	
FSEP 5163 Building Electrical Systems FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, MSE 5223 Methods and Applications Other courses approved by advisor.	FSEP 5133	Principles of Industrial and Process Safety	
FRNS 5103 The Chemistry of Pyrotechnics FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, MSE 5223 Methods and Applications Other courses approved by advisor.	FSEP 5143	Structural Design for Fire and Life Safety	
FRNS 5112 FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, Methods and Applications Other courses approved by advisor.	FSEP 5163	Building Electrical Systems	
FRNS 5123 Fire Dynamics in Forensic Investigations MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, Methods and Applications Other courses approved by advisor.	FRNS 5103	The Chemistry of Pyrotechnics	
MSE 5013 Advanced Thermodynamics of Materials MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, Methods and Applications Other courses approved by advisor.	FRNS 5112		
MSE 5023 Diffusion and Kinetics MSE 5033 Composite Materials MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, Methods and Applications Other courses approved by advisor.	FRNS 5123	Fire Dynamics in Forensic Investigations	
MSE 5033 Composite Materials  MSE 5053 Smart Materials  MSE 5093 Fundamentals of Materials Science  MSE 5174 Fundamentals of Photovoltaics  MSE 5223 Additive Manufacturing: Materials,  Methods and Applications  Other courses approved by advisor.	MSE 5013	Advanced Thermodynamics of Materials	
MSE 5053 Smart Materials MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, Methods and Applications Other courses approved by advisor.	MSE 5023	Diffusion and Kinetics	
MSE 5093 Fundamentals of Materials Science MSE 5174 Fundamentals of Photovoltaics MSE 5223 Additive Manufacturing: Materials, Methods and Applications Other courses approved by advisor.	MSE 5033	Composite Materials	
MSE 5174 Fundamentals of Photovoltaics  MSE 5223 Additive Manufacturing: Materials,	MSE 5053	Smart Materials	
MSE 5223 Additive Manufacturing: Materials, Methods and Applications Other courses approved by advisor.	MSE 5093	Fundamentals of Materials Science	
Methods and Applications Other courses approved by advisor.	MSE 5174	Fundamentals of Photovoltaics	
11 - 1	MSE 5223	_	
Hours Subtotal 9	Other courses appr	roved by advisor.	
	Hours Subtotal		9

### **Graduate College Certificate Requirements**

#### **Interdisciplinary Toxicology, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Select 12 hours from at least two different participating departments/colleges:  Biomedical Sciences  BIOM 6543 Environmental Toxins in the Brain or ITOX 6543 Environmental Toxins of the Brain Biochemistry and Molecular Biology  BIOC 6820 Selected Topics in Biochemistry or ITOX 6820 Selected Topics in Biochemistry  Forensic Sciences  FRINS 5523 Forensic Toxicology or ITOX 5523 Forensic Toxicology  FRINS 5282 Methods in Forensic Sciences or ITOX 5282 Methods of Forensic Science  Microbiology  MICR 5203 Bioinformatics or ITOX 5203 Bioinformatics  Comparative Biomedical Sciences  CBSC 5103 Biochemical and Molecular Toxicology or ITOX 5103 Biochemical and Molecular Toxicology  CBSC 6213 Toxicology: From Molecules to Ecosystems  OR  ITOX 6213 Toxicology from Molecules to Ecosystems  CBSC 6223 Xenobiotic Disposition or ITOX 5203 Xenobiotic Disposition  OR ITOX 5801 Nonclinical Drug Development  OR ITOX 5802 Experimental Principles and Approaches or ITOX 5802 Experimental Principles and Approaches  CBSC 5902 Toxicology of Chemical Warfare and Chemical Terrorism  OR ITOX 5902 Toxicology of Chemical Warfare and Chemical Terrorism  OR ITOX 5030 Organismal Ecotoxicology  BIOL 5363 Principles of Toxicology  BIOL 5363 Principles of Toxicology  BIOL 5343 Population and Community Ecotoxicology  OR ITOX 5423 Techniques in Environmental Toxicology  OR ITOX 5423 Techniques in Environmental Toxicology  OR ITOX 5423 Techniques in Environmental Toxicology	Code	Title	Hours
departments/colleges: Biomedical Sciences BIOM 6543 Environmental Toxins in the Brain or ITOX 6543 Environmental Toxins of the Brain Biochemistry and Molecular Biology BIOC 6820 Selected Topics in Biochemistry or ITOX 6820 Selected Topics in Biochemistry Forensic Sciences FRNS 5523 Forensic Toxicology or ITOX 5523 Forensic Toxicology or ITOX 5523 Forensic Toxicology FRNS 5282 Methods in Forensic Sciences or ITOX 5282 Methods of Forensic Science Microbiology MICR 5203 Bioinformatics or ITOX 5203 Bioinformatics Or ITOX 5203 Biochemical and Molecular Toxicology or ITOX 5103 Biochemical and Molecular Toxicology Or ITOX 5103 Biochemical and Molecular Toxicology CBSC 6213 Toxicology: From Molecules to Ecosystems OR ITOX 6213 Toxicology from Molecules to Ecosystems OR ITOX 6213 Toxicology from Molecules to Ecosystems CBSC 6223 Xenobiotic Disposition or ITOX 6223 Xenobiotic Disposition Or ITOX 5801 Nonclinical Drug Development Or ITOX 5801 Nonclinical Drug Development Or ITOX 5802 Experimental Principles and Approaches CBSC 5802 Experimental Principles and Approaches CBSC 5902 Toxicology of Chemical Warfare and Chemical Terrorism or ITOX 5902 Toxicology of Chemical Warfare and Chemical Terrorism  Integrative Biology BIOL 5303 Organismal Ecotoxicology or ITOX 5303 Principles of Toxicology BIOL 5303 Principles of Toxicology or ITOX 5343 Population and Community Toxicology BIOL 5343 Population and Community Toxicology or ITOX 5343 Population and Community Toxicology BIOL 5423 Techniques in Environmental Toxicology or ITOX 5423 Techniques in Environmental Toxicology	Courses		
Biomedical Sciences  BIOM 6543 Environmental Toxins in the Brain or ITOX 6543 Environmental Toxins of the Brain Biochemistry and Molecular Biology  BIOC 6820 Selected Topics in Biochemistry or ITOX 6820 Selected Topics in Biochemistry  Forensic Sciences  FRNS 5523 Forensic Toxicology or ITOX 5523 Forensic Toxicology FRNS 5282 Methods in Forensic Sciences or ITOX 5282 Methods of Forensic Science  Microbiology  MICR 5203 Bioinformatics or ITOX 5203 Bioinformatics  Comparative Biomedical Sciences  CBSC 5103 Biochemical and Molecular Toxicology or ITOX 5103 Biochemical and Molecular Toxicology  CBSC 6213 Toxicology: From Molecules to Ecosystems  OR  ITOX 6213 Toxicology from Molecules to Ecosystems  CBSC 6223 Xenobiotic Disposition  OR ITOX 6213 Toxicology from Molecules to Ecosystems  CBSC 5801 Nonclinical Drug Development  Or ITOX 5801 Nonclinical Drug Development  CBSC 5802 Experimental Principles and Approaches  or ITOX 5802 Experimental Principles and Approaches  CBSC 5902 Toxicology of Chemical Warfare and Chemical Terrorism  or ITOX 5902 Toxicology of Chemical Warfare and Chemical Terrorism  or ITOX 5903 Organismal Ecotoxicology  or ITOX 5303 Organismal Ecotoxicology  BIOL 5303 Organismal Ecotoxicology  or ITOX 5303 Principles of Toxicology  BIOL 5304 Population and Community Ecotoxicology  or ITOX 5343 Population and Community Toxicology  BIOL 5423 Techniques in Environmental Toxicology  or ITOX 5423 Techniques in Environmental Toxicology	Select 12 hours from	at least two different participating	12
BIOM 6543 Environmental Toxins in the Brain or ITOX 6543 Environmental Toxins of the Brain Biochemistry and Molecular Biology  BIOC 6820 Selected Topics in Biochemistry or ITOX 6820 Selected Topics in Biochemistry Forensic Sciences  FRNS 5523 Forensic Toxicology or ITOX 5523 Forensic Toxicology FRNS 5282 Methods in Forensic Sciences or ITOX 5282 Methods of Forensic Science  Microbiology  MICR 5203 Bioinformatics or ITOX 5203 Bioinformatics Comparative Biomedical Sciences  CBSC 5103 Biochemical and Molecular Toxicology or ITOX 5103 Biochemical and Molecular Toxicology  OR  ITOX 6213 Toxicology: From Molecules to Ecosystems  OR  ITOX 6213 Toxicology from Molecules to Ecosystems  CBSC 6223 Xenobiotic Disposition or ITOX 6223 Xenobiotic Disposition  OR ITOX 5801 Nonclinical Drug Development or ITOX 5801 Experimental Principles and Approaches or ITOX 5802 Experimental Principles and Approaches  CBSC 5902 Toxicology of Chemical Warfare and Chemical Terrorism or ITOX 5902 Toxicology of Chemical Warfare and Chemical Terrorism  or ITOX 5903 Organismal Ecotoxicology or ITOX 5303 Principles of Toxicology  BIOL 5303 Principles of Toxicology  BIOL 5343 Population and Community Ecotoxicology or ITOX 5343 Population and Community Toxicology BIOL 5423 Techniques in Environmental Toxicology or ITOX 5423 Techniques in Environmental Toxicology	departments/college	es:	
Biochemistry and Molecular Biology  BIOC 6820 Selected Topics in Biochemistry or ITOX 6820 Selected Topics in Biochemistry Forensic Sciences  FRNS 5523 Forensic Toxicology or ITOX 5523 Forensic Toxicology FRNS 5524 Methods in Forensic Sciences  Microbiology MICR 5203 Bioinformatics or ITOX 5203 Biochemical and Molecular Toxicology or ITOX 5103 Biochemical and Molecular Toxicology Or ITOX 5103 Biochemical and Molecular Toxicology OR BIOC 6213 Toxicology: From Molecules to Ecosystems OR ITOX 6213 Toxicology from Molecules to Ecosystems OR ITOX 6213 Toxicology from Molecules to Ecosystems CBSC 6223 Xenobiotic Disposition or ITOX 6223 Xenobiotic Disposition  CBSC 5801 Nonclinical Drug Development or ITOX 5801 Nonclinical Drug Development Or ITOX 5802 Experimental Principles and Approaches Or ITOX 5802 Experimental Principles and Approaches CBSC 5902 Toxicology of Chemical Warfare and Chemical Terrorism or ITOX 5902 Toxicology of Chemical Warfare and Chemical Terrorism  Integrative Biology  BIOL 5303 Organismal Ecotoxicology or ITOX 5303 Organismal Ecotoxicology or ITOX 5363 Principles of Toxicology BIOL 5343 Population and Community Ecotoxicology or ITOX 5343 Population and Community Toxicology BIOL 5423 Techniques in Environmental Toxicology or ITOX 5423 Techniques in Environmental Toxicology	Biomedical Sciences		
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or ITOX 5902 Toxicology of Chemical Warfare and Chemical Terrorism  Integrative Biology  BIOL 5303 Organismal Ecotoxicology or ITOX 5303 Principles of Toxicology or ITOX 5363 Principles of Toxicology BIOL 5343 Population and Community Ecotoxicology or ITOX 5343 Population and Community Toxicology BIOL 5423 Techniques in Environmental Toxicology or ITOX 5423 Techniques in Environmental Toxicology	CBSC 5902	Toxicology of Chemical Warfare and	
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or ITOX 5343 Population and Community Toxicology BIOL 5423 Techniques in Environmental Toxicology or ITOX 5423 Techniques in Environmental Toxicology	or ITOX 5363	Principles of Toxicology	
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or ITOX 5423 Techniques in Environmental Toxicology	or ITOX 5343	Population and Community Toxicology	
	BIOL 5423	Techniques in Environmental Toxicology	
Hours Subtotal 12	or ITOX 5423	Techniques in Environmental Toxicology	
	Hours Subtotal		12

### **Graduate College Certificate Requirements**

# International Disaster and Emergency Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 18

Code	Title	Hours
Global Studies Core I	Requirements	
GS 5513	Global Crisis Management	3
GS 5013	Contemporary Issues in Global Studies	3
or GS 5110	Internship in Global Studies	
or GS 5200	Study Abroad	
Fire and Emergency I	Management Program Core Requirements	
FEMP 5623	Emergency Management in the International Setting	3
FEMP 6313	Comparative and International Dimensions of Emergency Management	3
Electives		
Select two courses a following:	nd six credit hours minimum from the	6
AGCM 5503	Risk and Crisis Communication in Agricultural Sciences and Natural Resources	
FEMP 5213	Disaster Response	
FEMP 5223	Preparedness and Planning	
FEMP 6303	Populations at Risk	
GS 5020	Independent Study	
GS 5070	Special Topics in Global Studies	
GS 5200	Study Abroad	
GS 5413	Global Development	
GS 5523	Transnational Criminal Organizations and the War on Drugs	
GS 5533	Complex Emergencies	
MGMT 5163	Fundraising for Nonprofit Organizations	
Total Hours		18

### **Graduate College Certificate Requirements**

#### K-12 STEM Educator, GCRT

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
SMED 5050	Seminar in Integrated Mathematics and Science Applications	3
SMED 5313	Introduction to K-12 Engineering Education	3
SMED 5323	Technology for the K-12 STEM Educator	3
SMED 5333	Developing Informal and Formal STEM Programs in Schools	3
coursework for the N	d also be used to satisfy specialization AS in Teaching, Learning, and Leadership with natics/Science Education degree.	
Total Hours		12

# **Graduate College Certificate Requirements**

#### **Learning and Motivation, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Coursew	rork	
EPSY 5103	Human Development in Psychology	3
EPSY 5463	Psychology of Learning	3
EPSY 5553	Motivation in Educational Contexts	3
Select one course	from the following:	3
EPSY 5473	Psychology of Adult Learning	
EPSY 5603	Developmental Issues in Instruction	
EPSY 5983	Instructional Effectiveness in Higher	
	Education	
Total Hours		12

### **Graduate College Certificate Requirements**

#### **Marketing Analytics, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
MKTG 5733	Introduction to Marketing Analytics	3
MKTG 5743	Advanced Marketing Analytics	3
Hours Subtotal		6
Electives		
Select 6 hours from t	he following:	6
BAN 5511	Web Analytics and Digital Marketing	
BAN 5521	GIS Applications in Marketing Analytics	
BAN 5551	Optimization Applications in Marketing Analytics	
BAN 5561	Customer Lifetime Value Models in Marketing	
BAN 5563	Strategic Marketing and Business Analytics	
MKTG 5243	Base SAS Programming for Database Marketing	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5303	Prescriptive Analytics	
Other graduate co	urses as approved by the program director	
Hours Subtotal		6
Total Hours		12

## **Graduate College Certificate Requirements**

#### **Medical Sciences, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 19

Code	Title	Hours
Required Courses		
BIOM 5122	Introduction and Survey of Human Structure	2
BIOM 5215	Medical Biochemistry	5
BIOM 5316	Medical Microbiology and Immunology	6
BIOM 5616	Graduate Biomedical Physiology	6
Total Hours		19

### **Graduate College Certificate Requirements**

### **Museum and Curatorial Studies,** GCRT

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 15

Code	Title	Hours
Core Courses		
HIST 5053	Museum Studies	3
ART 5810	Museum Studies Internship	3
or HIST 5030	Public History Internship	
Hours Subtotal		6
<b>Guided Electives</b>		
Select 6 hours of th	ne following: <sup>1</sup>	6
HIST 5033	Introduction to Public History	
HIST 5063	Historic Preservation	
HIST 5073	Digital Methods in History	
ART 5813	Museum Exhibition	
ART 5723	History of Museums and Collecting	
ART 5733	Museum Education	
Hours Subtotal		6
General Electives		
Select 3 hours of gr	raduate-level electives: <sup>2</sup>	3
Hours Subtotal		3
Total Hours		15

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.

### **Graduate College Certificate Requirements**

#### **Neuroscience, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Core Courses		
HHP 5063	Neuroanatomy	3
or BIOM 5993	Principles of Neuroanatomy	
PSYC 5073	Principles of Neuroscience	3
or BIOL 5073	Principles of Neuroscience	
or BIOM 5983	Principles of Neuroscience	
Electives		
Select six hours fro section):	m the following (select from appropriate	6
Stillwater and/or	Tulsa offerings	
BIOL 5293	Behavioral Neuroendocrinology	
CHEM 6303	Physical Organic Chemistry	
ECEN 5783	Medical Imaging	
HDFS 5213	Lifespan Development	
HDFS 5283	Developmental Disabilities	
HHP 5923	Readings in Neurophysiology	
HHP 5823	Applied Neuromuscular Physiology	
PSYC 5823	Cognitive Processes	
PSYC 6483	Neurobiological Psychology	
PSYC 6583	Developmental Psychobiology	
CHS/Tulsa offerir	ngs	
BIOM 6513	Neuropharmacology	
BIOM 6972	Role of Nicotinic Acetylcholine Receptors in Neuropsychiatric Disorders	
BIOM 6543	Environmental Toxins in the Brain	
BIOM 6583	Neuroinflammation	
BIOM 6663	Neuroethology	
BIOM 6010	Topics in Biomedical Sciences	
BIOM 6183	Cellular and Molecular Biology of Pain	
Total Hours		12

## **Graduate College Certificate Requirements**

#### **Non-Profit Management, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
MGMT 5093	Management of Nonprofit Organizations	3
MGMT 5163	Fundraising for Nonprofit Organizations	3
Hours Subtotal		6
Electives		
Select 6 hours from	n the following:	6
MGMT 5031	Leading Organizational Change	
MGMT 5051	Creating Ethical Work Places	
MGMT 5061	Managing Confrontations	
MGMT 5083	Corporate and Social Responsibility	
MGMT 5533	Leadership Challenges	
MGMT 5563	Crisis in Organizations	
MGMT 5713	Negotiation and Third-Party Dispute Resolution	
EEE 5403	Social Entrepreneurship	
EEE 5603	Entrepreneurship Empowerment in South Africa	
Hours Subtotal		6
Total Hours		12

### **Graduate College Certificate Requirements**

#### **Online Teaching, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
EDTC 5103	Advanced Computing Applications in Education	3
EDTC 5153	Computer-Based Instruction Development	3
OCED 5673	Principles and Practices of Distance Education	3
EDTC 5720	Educ Workshop	3
Hours Subtotal		12
Total Hours		12

## **Graduate College Certificate Requirements**

#### **Program Evaluation, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
REMS 5013	Research Design and Methodology	3
REMS 6373	Program Evaluation	3
REMS 6383	Program Evaluation II	3
Select 3 hours from the following:		3
SCFD 5913	Introduction to Qualitative Inquiry	
SCFD 6123	Qualitative Research I	
	s from related disciplines will be considered as by the student's advisory committee.	
Hours Subtotal		12
Total Hours		12

# **Graduate College Certificate Requirements**

# Public Health in Rural and Underserved Communities, GCRT

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 15

Code	Title	Hours
Required Courses		
REMS 5953	Statistical Methods in Education	3
HLTH 5323	General Epidemiology	3
HLTH 5133	Environmental Health	3
HCA 5013	Survey of Health Care Administration	3
MPH 5653	Foundations of Public Health Education and Promotion	3
Total Hours		15

# **Graduate College Certificate Requirements**

### **Recreation and Leisure Management, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required course:		
RMRT 5453	Recreation Management and Recreational Therapy Experiential Learning Lab	3
Choose one course fro	om each group:	
Elective course A		
Select one course:		3
RMRT 5030	Field Problems in Recreation Management	
RMRT 5423	Supervision of Recreation Management People and Programs	
Elective course B		
Select one course:		3
RMRT 5403	Outdoor Recreation	
RM 4463	Areas and Facilities in Recreation Management	
RM 4713	Campus Recreation, Intramurals, and Sport	
Elective course C		
Select one course:		3
RMRT 5020	Workshop in Recreation Management	
RMRT 5023	Legal Aspects of Recreation Management, Health, Physical Education, and Leisure Services	
RMRT 5030	Field Problems in Recreation Management	
RMRT 5413	Organization and Administration of Recreation and Leisure Services	
RM 4943	Grant Writing and Nonprofit Management	
Total Hours		12

### **Graduate College Certificate Requirements**

#### **School Library Certification, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 18

Code	Title	Hours
Required Courses		
LBSC 5113	Selection and Organization of Informational and Educational Resources	3
LBSC 5613	Library Networks and Databases	3
LBSC 5823	Administration of School Library Media and Technology Programs	3
CIED 5353	Literature for Children, Adolescents and Adults	3
CIED 5443	Teaching Reading with Literature	3
EDTC 5103	Advanced Computing Applications in Education	3
Total Hours		18

### **Graduate College Certificate Requirements**

#### **Special Education, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 18

Code	Title	Hours
Select six courses from the following:		18
SPED 5623	Characteristics of Students with Mild/ Moderate Disabilities	
SPED 5743	Planning, Compliance and Current Practices	
SPED 5883	Classroom and Behavior Management	
SPED 5673	Improving Literacy Skills of Individuals with Disabilities	
SPED 5993	Culturally Responsive Teaching in Special Education	
SPED 5783	Assessing Students with Disabilities	
SPED 4723	Transition Into Adulthood for Individuals with Disabilities	

#### **Admission Requirements**

<u>Admission</u> to the 18-hour Special Education Graduate Certificate Program will require the following:

- Successful completion of a bachelor's degree with a transcript documenting 3.0 or higher GPA in a Bachelors degree from an accredited institution
- · A written Statement of Goals
- · A resume/vita

**Total Hours** 

- · Passing score on the OGET
- A 3.00 GPA on graduate work completed before applying to the OSU SPED program

An applicant who does not meet criteria for admission can be considered for provisional/probational admission. Provisional admission will constitute that applicants may be accepted on a provisional admission, potentially requiring candidates to take additional coursework/leveling courses as a prerequisite to the listed graduate certificate courses. Candidates admitted on a provisional basis will be reviewed for full admission pending completion of prerequisite coursework, earning a minimum of a "B" grade in all prerequisite coursework. Candidates admitted on a probational basis will be reviewed for full admission pending completion of initial graduate certificate coursework with an average 3.0 GPA.

Students may transfer up to 3 credit hours of graduate level special education coursework to the graduate certificate from an accredited college/university (if taken within 3 years prior to 18-hour graduate certificate application). The courses must have been completed with a letter grade of a "B" or better. All transfer credits must be approved by the student's advisor and/or special education program coordinator.

Retention in the program requires students to maintain the Graduate College's requirement of a GPA of 3.0 to maintain good standing (see http://gradcollege.okstate.edu/current\_student/academic\_progress.html (https://nam04.safelinks.protection.outlook.com/?url=http

%3A%2F%2Fgradcollege.okstate.edu%2Fcurrent\_student %2Facademic\_progress.html&data=02%7C01%7Cjeff.packham %40okstate.edu

%7C07b161783a5043af181708d7a394db20%7C2a69c91de8494e34a230cdf8b27e1%2B0nCyscez8rReg7o0Gg%3D&reserved=0)).

Completion of the Graduate Certificate in Special Education requires completion of the coursework in good standing (GPA of B. or 3.0).

### **Graduate College Certificate Requirements**

18

#### **Sport Communication, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 15

Code	Title	Hours
Required Course	s	
MC 5733	Responsibility in Mass Communication	3
MC 5873		3
Hours Subtotal		6
Electives		
Select 9 hours fro	om the following:	9
MC 5253	International Mass Communication	
MC 5163	Mass Communication Law	
MC 5143	Diversity In Sports Media	
MC 5560	Specialized Sports Media Applications	
MC 5020	Advanced Practicum or Internship in Mass Communication	
MC 5113	Methods of Research in Mass Communication	
Hours Subtotal		9
Total Hours		15

# **Graduate College Certificate Requirements**

# Statistical Methods and Analyses in Educational and Behavioral Sciences, GCRT

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6663	Applied Multivariate Research in Behavioral Studies	3
REMS 6683	Multilevel Modeling Methods in Education	3
or REMS 6693	Structural Equation Modeling for Behavioral Educational Research	and
Total Hours		12

### **Graduate College Certificate Requirements**

#### **Substance Abuse Counseling, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 18

Code	Title	Hours
Required Core		
CPSY 5673	Substance Abuse Counseling	3
CPSY 5773	Substance Abuse Counseling Theories	3
CPSY 5783	Substance Abuse Psychopharmacology	3
HDFS 5673	Family Dynamics of Addiction	3
HDFS 5683	Spirituality and Aging	3
CPSY 5793	Substance Abuse Counseling Internship	3
Total Hours		18

### **Graduate College Certificate Requirements**

#### **Supply Chain and Logistics, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses	5	
IEM 5763	Supply Chain Strategy	3
IEM 5613	Integrated Manufacturing Control Systems	3
IEM 5633	Advanced Production and Inventory Control	3
IEM 5203	Facility Location, Warehousing and Transportation	3
Total Hours	Hansportation	12

### **Graduate College Certificate Requirements**

## **Teaching English to Speakers of Other Languages, GCRT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
ENGL 5130	Studies in English Grammar	3
ENGL 5243	Teaching English as a Second Language	3
ENGL 5333	Second Language Assessment	3
Hours Subtotal		9
Sample Elective C	ourses	
Select 3 hours fro	m the following:	3
ENGL 5120	Studies in Teaching English as a Second Language	
ENGL 5123	Approaches to Language Acquisition	
ENGL 5143	Descriptive Linguistics	
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 a non-degree seeking student.

# **Graduate College Certificate Requirements**

#### **Workforce and Adult Education, GCRT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 12

Code	Title	Hours
Required Courses		
WAED 5013	Foundations and Characteristics of Adult Learning	3
WAED 5123	Administration & Evaluation of Workforce and Adult Education	3
WAED 5313	Overview of Workforce and Adult Education	3
WAED 5353	Instructional Strategies for Adults	3
Total Hours		12

# **Graduate College Certificate Requirements**

### **Master's Degree Programs**

- · Accounting: Corporate Finance, MS (p. 2948)
- · Accounting: Data Analytics & Systems, MS (p. 2949)
- · Accounting: Financial Reporting & Auditing, MS (p. 2950)
- · Accounting: Research Methods, MS (p. 2951)
- · Aging Studies, MS (p. 2952)
- · Agricultural Communications, MS (p. 2953)
- · Agricultural Economics, MS (p. 2954)
- Agricultural Education and Leadership, MS (p. 2955)
- · Animal Science, MS (p. 2956)
- · Applied Statistics, MS (p. 2957)
- · Art History, MA (p. 2958)
- · Athletic Training, MAT (p. 2959)
- · Aviation and Space, MS (p. 2960)
- · Biochemistry and Molecular Biology, MS (p. 2961)
- · Biomedical Sciences, MS (p. 2962)
- · Biosystems Engineering, MS (p. 2965)
- · Business Administration, MBA (p. 2966)
- · Business Administration: Accounting, MBA (p. 2968)
- · Business Administration: Business Sustainability, MBA (p. 2969)
- · Business Administration: Data Science, MBA (p. 2970)
- · Business Administration: Economics, MBA (p. 2971)
- · Business Administration: Energy Business, MBA (p. 2972)
- · Business Administration: Entrepreneurship, MBA (p. 2973)
- Business Administration: Finance Investment Banking, MBA (p. 2974)
- · Business Administration: Global Marketing, MBA (p. 2975)
- Business Administration: Hospitality and Tourism Management, MBA (p. 2976)
- Business Administration: Human Resource Management, MBA (p. 2977)
- · Business Administration: Information Assurance, MBA (p. 2978)
- Business Administration: Marketing Analytics, MBA (p. 2979)
- Business Administration: Nonprofit Management, MBA (p. 2980)
- · Business Analytics and Data Science, MS (p. 2981)
- Business Analytics and Data Science: Advanced Data Science, MS (p. 2982)
- Business Analytics and Data Science: Cybersecurity Analytics, MS (p. 2983)
- Business Analytics and Data Science: Health Analytics, MS (p. 2984)
- Business Analytics and Data Science: Marketing Analytics, MS (p. 2985)
- Chemical Engineering, MS (p. 2986)
- · Chemistry, MS (p. 2987)
- · Civil Engineering, MS (p. 2988)
- · Communication Sciences and Disorders, MS (p. 2989)
- Computer Science, MS (p. 2990)
- Counseling: Mental Health Counseling, MS (p. 2991)
- · Counseling: School Counseling, MS (p. 2993)
- Design, Housing & Merchandising: Apparel Design and Production, MS (p. 2995)
- Design, Housing & Merchandising: Digital Design, MS (p. 2996)

- Design, Housing & Merchandising: Interior Design, MS (p. 2997)
- Design, Housing & Merchandising: Merchandising, MS (p. 2998)
- Design, Housing & Merchandising: Retail Merchandising Leadership, MS (p. 2999)
- Dietetics, MS (p. 3000)
- Economics, MS (p. 3001)
- Educational Leadership Studies: College Student Development, MS (p. 3002)
- · Educational Leadership Studies: Higher Education, MS (p. 3003)
- · Educational Leadership Studies: School Administration, MS (p. 3004)
- Educational Leadership Studies: Workforce and Adult Education, MS (p. 3005)
- · Educational Psychology, MS (p. 3006)
- Educational Psychology. Educational Psychology, MS (p. 3007)
- Educational Psychology: Research, Evaluation, Measurement and Statistics, MS (p. 3008)
- · Educational Psychology: School Psychometrics, MS (p. 3009)
- · Educational Technology: Educational Technology, MS (p. 3010)
- Educational Technology: School Library Media, MS (p. 3011)
- Electrical Engineering, MEN (p. 3012)
- · Electrical Engineering, MS (p. 3013)
- · Engineering and Technology Management, MS (p. 3014)
- Engineering Technology: Fire Safety and Explosion Protection, MS (p. 3015)
- · Engineering Technology: Mechatronics & Robotics, MS (p. 3016)
- English, MA (p. 3018)
- English: Creative Writing, MFA (p. 3019)
- English: Professional Writing, MA (p. 3020)
- English: Teaching English to Speakers of Other Languages, MA (p. 3022)
- Entomology and Plant Pathology: Entomology, MS (p. 3024)
- · Entomology and Plant Pathology: Plant Pathology, MS (p. 3025)
- · Entrepreneurship, MS (p. 3026)
- · Environmental Science, MS (p. 3027)
- Environmental Science: Environmental Management Professional Science Masters, MS (p. 3028)
- Family and Community Services, MS (p. 3029)
- Family and Consumer Sciences Education, MS (p. 3030)
- · Family Financial Planning, MS (p. 3031)
- Fire and Emergency Management Administration, MS (p. 3032)
- · Food Science, MS (p. 3034)
- Forensic Sciences, MS (p. 3035)
- Forensic Sciences: Arson, Explosives, Firearms and Toolmarks Investigation, MS (p. 3037)
- Forensic Sciences: Forensic Document Examination, MS (p. 3038)
- · Forensic Sciences: Forensic Science Administration, MS (p. 3039)
- General Agriculture: Agribusiness, MAG (p. 3040)
- · General Agriculture: Agricultural Leadership, MAG (p. 3042)
- · Geography, MS (p. 3043)
- Geology, MS (p. 3045)
- · Geoscience, MPSM (p. 3047)
- · Global Health, MS (p. 3049)
- · Global Studies, MS (p. 3050)

- · Graphic Design, MFA (p. 3051)
- Health and Human Performance: Applied Exercise Science, MS (p. 3052)
- · Health and Human Performance: Health Promotion, MS (p. 3053)
- · Health and Human Performance: Physical Education, MS (p. 3054)
- Health Care Administration, MS (p. 3055)
- · History, MA (p. 3056)
- · Horticulture, MS (p. 3057)
- Hospitality and Tourism Management, MS (p. 3058)
- Human Development and Family Science: Aging Sciences, MS (p. 3060)
- Human Development and Family Science: Applied Human Services, MS (p. 3061)
- Human Development and Family Science: Developmental and Family Sciences, MS (p. 3062)
- Human Development and Family Science: Early Childhood Education, MS (p. 3063)
- Human Development and Family Science: Marriage and Family Therapy, MS (p. 3064)
- · Industrial Engineering and Management, MS (p. 3066)
- Industrial Engineering and Management: Operations Research and Analytics, MS (p. 3067)
- Industrial Engineering and Management: Supply Chain and Logistics, MS (p. 3068)
- · Integrative Biology, MS (p. 3069)
- · Interdisciplinary Studies, MS (p. 3070)
- International Agriculture, MAG (p. 3071)
- International Agriculture, MS (p. 3072)
- · Leisure Studies, MS (p. 3074)
- Management Information Systems, MS (p. 3075)
- Management Information Systems: Big Data Analytics, MS (p. 3076)
- Management Information Systems: Cybersecurity, MS (p. 3077)
- · Management Information Systems: Health Analytics, MS (p. 3078)
- · Mass Communications, MS (p. 3079)
- Materials Science and Engineering, MEN (http://catalog.okstate.edu/ graduate-college/masters-degrees/materials-science-engineeringmen/)
- · Materials Science and Engineering, MS (p. 3081)
- · Mathematics, MS (p. 3084)
- · Mechanical and Aerospace Engineering, MEN (p. 3086)
- Mechanical and Aerospace Engineering, MS (p. 3087)
- Mechanical and Aerospace Engineering: Unmanned Aerial Systems, MS (p. 3088)
- Microbiology, Cell and Molecular Biology, MS (p. 3089)
- Music: Applied Music, MM (p. 3090)
- Music: Conducting, MM (p. 3091)
- · Music: Multiple Woodwinds, MM (p. 3092)
- · Natural Resource Ecology and Management, MS (p. 3093)
- Natural Resource Ecology and Management: Fisheries and Aquatic Ecology, MS (p. 3094)
- Natural Resource Ecology and Management: Forest Resources, MS (p. 3095)
- Natural Resource Ecology and Management: Rangeland Ecology and Management, MS (p. 3096)

- Natural Resource Ecology and Management: Wildlife Ecology and Management, MS (p. 3097)
- · Nutritional Sciences: Dietetics Practice, MS (p. 3098)
- · Nutritional Sciences: Dietetics Research, MS (p. 3099)
- · Nutritional Sciences: Nutrition, MS (p. 3101)
- · Peace, Conflict, and Security Studies, MA (p. 3103)
- · Petroleum Engineering, MS (p. 3104)
- · Philosophy, MA (p. 3105)
- · Physician Assistant Studies, MS (p. 3106)
- Physics, MS (p. 3107)
- · Physics: Optics and Photonics, MS (p. 3108)
- · Plant and Soil Sciences, MS (p. 3109)
- · Plant Biology, MS (p. 3110)
- · Politics and Policy Studies, MA (p. 3111)
- · Public Health, MPH (p. 3112)
- Public Health: Rural and Underserved Populations, MPH (p. 3113)
- Quantitative Finance, MS (p. 3115)
- · Social Foundations of Education, MA (p. 3116)
- · Sociology, MS (p. 3117)
- · Statistics, MS (p. 3118)
- Teaching, Learning and Leadership: Curriculum and Leadership Studies, MS (p. 3119)
- Teaching, Learning and Leadership: Gifted and Talented Education, MS (p. 3120)
- Teaching, Learning and Leadership: K-12 Education, MS (p. 3121)
- Teaching, Learning and Leadership: Mathematics/Science Education, MS (p. 3123)
- Teaching, Learning and Leadership: Reading and Literacy, MS (p. 3124)
- · Teaching, Learning and Leadership: Special Education, MS (p. 3125)
- Teaching, Learning and Leadership: Workforce and Adult Education, MS (p. 3126)
- · Teaching: Elementary, MATT (p. 3127)
- · Teaching: Secondary Mathematics, MATT (p. 3128)
- Teaching: Secondary Science, MATT (p. 3129)
- Theatre, MA (p. 3130)

### **Accounting: Corporate Finance, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 33

Code	Title	Hours
Core		
Summer		
ACCT 5093	Reimagine: Innovative Accounting and Analytics Mindset <sup>1</sup>	3
MSIS 5393	Advanced Spreadsheet Modeling <sup>2</sup>	3
Fall		
ACCT 5003	Advanced Federal Income Taxation	3
ACCT 5103	Seminar in Contemporary Accounting Theory I	3
ACCT 5113	Financial Accounting Research	3
Spring		
ACCT 5153	Financial Statement Analysis	3
Hours Subtotal		18
Options		
Fall		
FIN 5343	Valuation and Financial Modeling	3
Spring		
FIN 5003	Introduction to Energy Business <sup>2</sup>	3
or FIN 5363	Energy Finance	
FIN 5053	Theory and Practice of Financial Management <sup>2</sup>	3
ACCT 5603	Advanced Accounting-based Information Systems	3
Summer	•	
Choose ACCT 5994	or 3-hour elective from list <sup>3</sup>	3-4
ACCT 5994	CPA Review <sup>3, 4</sup>	
Or select 3 hours	from the list of electives. <sup>3</sup>	
Electives		
ACCT 5133	Oil and Gas Accounting	
ACCT 5503	Advanced Auditing	
ACCT 5833	Graduate Internship in Accounting <sup>5</sup>	
EEE 5233	Ideation, Creativity & Innovation	
FIN 5003	Introduction to Energy Business <sup>2</sup>	
FIN 5363	Energy Finance <sup>2</sup>	
MSIS 5253	Advanced System Certification and Accreditation <sup>2</sup>	
MSIS 5303	Prescriptive Analytics <sup>2</sup>	
MSIS 5600	Special Projects in Business Information Systems	
MSIS 5633	Predictive Analytics Technologies <sup>2</sup>	
MSIS 5673	Descriptive Analytics and Visualization <sup>2</sup>	
Select three hou	rs from the following:	
ACCT 5723	Expanding Accounting Horizons in the US	
ACCT 5763	International Accounting Abroad	
Non-ACCT Trave	l Course	

Hours Subtotal	15-16
Total Hours	33

Scholarships will be available to assist in covering the costs associated with travel for ACCT 5093.

2

Offered online.

3

If ACCT 5994 is selected, total hours for degree increase by one hour.

4

Elective may be taken in spring or summer semester.

5

Summer offering only. Cannot received credit at both the undergraduate and graduate level.

#### **Additional Requirements**

- · Other electives require approval from the MS Coordinator.
- Beginning with Summer 2020 the MS-Accounting program does not accommodate spring or fall internships although the department will work with individual students who have documented acceptance of an internship (as of September 15) to design alternatives.
- Students who have already taken ACCT 5003 for credit as ACCT 4033 or a course equivalent at another institution may substitute an elective for ACCT 5003. The elective must have an ACCT prefix if in the DAS of CF concentration.

### **Graduate College Master's Program Requirements**

# Accounting: Data Analytics & Systems, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 33

Code	Title	Hours
Core		
Summer		
ACCT 5093	Reimagine: Innovative Accounting and Analytics Mindset <sup>1</sup>	3
MSIS 5393	Advanced Spreadsheet Modeling <sup>2</sup>	3
Fall		
ACCT 5003	Advanced Federal Income Taxation	3
ACCT 5113	Financial Accounting Research	3
ACCT 5103	Seminar in Contemporary Accounting Theory I	3
Spring		
ACCT 5153	Financial Statement Analysis	3
Hours Subtotal		18
Options		
Fall		
MSIS 5633	Predictive Analytics Technologies <sup>2</sup>	3
Spring		
MSIS 5303	Prescriptive Analytics <sup>2</sup>	3
ACCT 5603	Advanced Accounting-based Information Systems	3
Select 3 hours from	m the list of electives below.	3
Summer		
Choose ACCT 599	4 or 3-hour elective from list <sup>3</sup>	3-4
ACCT 5994	CPA Review <sup>3, 4</sup>	
Or select 3 hou	rs from the list of electives. <sup>3</sup>	
Electives		
ACCT 5133	Oil and Gas Accounting	
ACCT 5503	Advanced Auditing	
ACCT 5833	Graduate Internship in Accounting <sup>4</sup>	
EEE 5233	Ideation, Creativity & Innovation	
FIN 5003	Introduction to Energy Business <sup>2</sup>	
FIN 5053	Theory and Practice of Financial Management <sup>2</sup>	
FIN 5363	Energy Finance <sup>2</sup>	
FIN 5343	Valuation and Financial Modeling	
MSIS 5253	Advanced System Certification and Accreditation <sup>2</sup>	
MSIS 5600	Special Projects in Business Information Systems	
MSIS 5673	Descriptive Analytics and Visualization <sup>2</sup>	
Select three ho	urs from the following:	
ACCT 5723	Expanding Accounting Horizons in the US	
ACCT 5763	International Accounting Abroad	
Non-ACCT Trav	el Course	

Hours Subtotal	15-16
Total Hours	33

1

Scholarships will be available to assist in covering the costs associated with travel for ACCT 5093.

2

Offered online.

3

If ACCT 5994 is selected, total hours for degree increase by one hour.

4

Elective may be taken in spring or summer semester.

5

Summer offering only. Cannot receive credit at both the undergraduate and graduate level.

#### **Additional Requirements**

- · Other electives require approval from the MS Coordinator.
- Beginning with Summer 2020 the MS-Accounting program does not accommodate spring or fall internships although the department will work with individual students who have documented acceptance of an internship (as of September 15) to design alternatives.
- Students who have already taken ACCT 5003 for credit as ACCT 4033 or a course equivalent at another institution may substitute an elective for ACCT 5003. The elective must have an ACCT prefix if in the DAS of CF concentration.

### **Graduate College Master's Program Requirements**

# **Accounting: Financial Reporting & Auditing, MS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 34** 

Code	Title	Hours
Core		
Summer		
ACCT 5093	Reimagine: Innovative Accounting and Analytics Mindset <sup>1</sup>	3
MSIS 5393	Advanced Spreadsheet Modeling <sup>2</sup>	3
Fall		
ACCT 5003	Advanced Federal Income Taxation	3
ACCT 5103	Seminar in Contemporary Accounting Theory I	3
ACCT 5113	Financial Accounting Research	3
Spring		
ACCT 5153	Financial Statement Analysis	3
Hours Subtotal		18
Options		
Fall		
ACCT 5133	Oil and Gas Accounting	3
Spring		
ACCT 5503	Advanced Auditing	3
ACCT 5603	Advanced Accounting-based Information Systems	3
Select 3 hours from	the list of electives below.	3
0		
Summer		
ACCT 5994	CPA Review	4
	CPA Review	16
ACCT 5994	CPA Review	
ACCT 5994 Hours Subtotal	CPA Review  Oil and Gas Accounting	
ACCT 5994 Hours Subtotal Electives		
ACCT 5994  Hours Subtotal  Electives  ACCT 5133	Oil and Gas Accounting	
ACCT 5994  Hours Subtotal  Electives  ACCT 5133  ACCT 5833	Oil and Gas Accounting Graduate Internship in Accounting <sup>3</sup>	
ACCT 5994  Hours Subtotal  Electives  ACCT 5133  ACCT 5833  EEE 5233	Oil and Gas Accounting Graduate Internship in Accounting <sup>3</sup> Ideation, Creativity & Innovation	
ACCT 5994  Hours Subtotal  Electives  ACCT 5133  ACCT 5833  EEE 5233  FIN 5003	Oil and Gas Accounting Graduate Internship in Accounting <sup>3</sup> Ideation, Creativity & Innovation Introduction to Energy Business <sup>2</sup> Theory and Practice of Financial	
ACCT 5994  Hours Subtotal  Electives  ACCT 5133  ACCT 5833  EEE 5233  FIN 5003  FIN 5053	Oil and Gas Accounting Graduate Internship in Accounting <sup>3</sup> Ideation, Creativity & Innovation Introduction to Energy Business <sup>2</sup> Theory and Practice of Financial Management <sup>2</sup>	
ACCT 5994  Hours Subtotal  Electives  ACCT 5133  ACCT 5833  EEE 5233  FIN 5003  FIN 5053  FIN 5053	Oil and Gas Accounting Graduate Internship in Accounting <sup>3</sup> Ideation, Creativity & Innovation Introduction to Energy Business <sup>2</sup> Theory and Practice of Financial Management <sup>2</sup> Energy Finance <sup>2</sup>	
ACCT 5994  Hours Subtotal  Electives  ACCT 5133  ACCT 5833  EEE 5233  FIN 5003  FIN 5053  FIN 5363  FIN 5343	Oil and Gas Accounting Graduate Internship in Accounting <sup>3</sup> Ideation, Creativity & Innovation Introduction to Energy Business <sup>2</sup> Theory and Practice of Financial Management <sup>2</sup> Energy Finance <sup>2</sup> Valuation and Financial Modeling Advanced System Certification and	
ACCT 5994  Hours Subtotal  Electives  ACCT 5133  ACCT 5833  EEE 5233  FIN 5003  FIN 5053  FIN 5363  FIN 5343  MSIS 5253	Oil and Gas Accounting Graduate Internship in Accounting <sup>3</sup> Ideation, Creativity & Innovation Introduction to Energy Business <sup>2</sup> Theory and Practice of Financial Management <sup>2</sup> Energy Finance <sup>2</sup> Valuation and Financial Modeling Advanced System Certification and Accreditation <sup>2</sup>	
ACCT 5994  Hours Subtotal  Electives  ACCT 5133  ACCT 5833  EEE 5233  FIN 5003  FIN 5053  FIN 5363  FIN 5343  MSIS 5253  MSIS 5303	Oil and Gas Accounting Graduate Internship in Accounting <sup>3</sup> Ideation, Creativity & Innovation Introduction to Energy Business <sup>2</sup> Theory and Practice of Financial Management <sup>2</sup> Energy Finance <sup>2</sup> Valuation and Financial Modeling Advanced System Certification and Accreditation <sup>2</sup> Prescriptive Analytics <sup>2</sup> Special Projects in Business Information	
ACCT 5994  Hours Subtotal  Electives  ACCT 5133  ACCT 5833  EEE 5233  FIN 5003  FIN 5053  FIN 5363  FIN 5343  MSIS 5253  MSIS 5303  MSIS 5600	Oil and Gas Accounting Graduate Internship in Accounting <sup>3</sup> Ideation, Creativity & Innovation Introduction to Energy Business <sup>2</sup> Theory and Practice of Financial Management <sup>2</sup> Energy Finance <sup>2</sup> Valuation and Financial Modeling Advanced System Certification and Accreditation <sup>2</sup> Prescriptive Analytics <sup>2</sup> Special Projects in Business Information Systems	
ACCT 5994  Hours Subtotal  Electives  ACCT 5133  ACCT 5833  EEE 5233  FIN 5003  FIN 5053  FIN 5363  FIN 5343  MSIS 5253  MSIS 5303  MSIS 5600  MSIS 5633  MSIS 5673	Oil and Gas Accounting Graduate Internship in Accounting <sup>3</sup> Ideation, Creativity & Innovation Introduction to Energy Business <sup>2</sup> Theory and Practice of Financial Management <sup>2</sup> Energy Finance <sup>2</sup> Valuation and Financial Modeling Advanced System Certification and Accreditation <sup>2</sup> Prescriptive Analytics <sup>2</sup> Special Projects in Business Information Systems Predictive Analytics Technologies <sup>2</sup>	
ACCT 5994  Hours Subtotal  Electives  ACCT 5133  ACCT 5833  EEE 5233  FIN 5003  FIN 5053  FIN 5363  FIN 5343  MSIS 5253  MSIS 5303  MSIS 5600  MSIS 5633  MSIS 5673	Oil and Gas Accounting Graduate Internship in Accounting <sup>3</sup> Ideation, Creativity & Innovation Introduction to Energy Business <sup>2</sup> Theory and Practice of Financial Management <sup>2</sup> Energy Finance <sup>2</sup> Valuation and Financial Modeling Advanced System Certification and Accreditation <sup>2</sup> Prescriptive Analytics <sup>2</sup> Special Projects in Business Information Systems Predictive Analytics Technologies <sup>2</sup> Descriptive Analytics and Visualization <sup>2</sup>	
ACCT 5994  Hours Subtotal  Electives	Oil and Gas Accounting Graduate Internship in Accounting <sup>3</sup> Ideation, Creativity & Innovation Introduction to Energy Business <sup>2</sup> Theory and Practice of Financial Management <sup>2</sup> Energy Finance <sup>2</sup> Valuation and Financial Modeling Advanced System Certification and Accreditation <sup>2</sup> Prescriptive Analytics <sup>2</sup> Special Projects in Business Information Systems Predictive Analytics Technologies <sup>2</sup> Descriptive Analytics and Visualization <sup>2</sup> s from the following:	

Hours Subtotal	0
Total Hours	34

1

Scholarships will be available to assist in covering the costs associated with travel for ACCT 5093.

2

Offered online.

3

Summer offering only. Cannot receive credit at both the undergraduate and graduate level.

#### **Additional Requirements**

- · Other electives require approval from the MS Coordinator.
- Beginning with Summer 2020 the MS-Accounting program does not accommodate spring or fall internships although the department will work with individual students who have documented acceptance of an internship (as of September 15) to design alternatives.
- Students who have already taken ACCT 5003 for credit as ACCT 4033 or a course equivalent at another institution may substitute an elective for ACCT 5003. The elective must have an ACCT prefix if in the DAS of CF concentration.

### **Graduate College Master's Program Requirements**

### **Accounting: Research Methods, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 33

Code	Title	Hours
Core Courses		
Summer		
ACCT 5093	Reimagine: Innovative Accounting and Analytics Mindset	3
MSIS 5393	Advanced Spreadsheet Modeling	3
Fall		
ACCT 5003	Advanced Federal Income Taxation	3
ACCT 5103	Seminar in Contemporary Accounting Theory I	3
ACCT 5113	Financial Accounting Research	3
or ACCT 5013	Tax Research	
Spring		
ACCT 5153	Financial Statement Analysis	3
Hours Subtotal		18
Option Requiremen	nts/Electives	
Select 3 hours of th	ne following:	3
ACCT 5503	Advanced Auditing	
ACCT 5603	Advanced Accounting-based Information Systems	
ACCT 5043	Partnership Taxation	
ACCT 5053	Corporate Taxation	
STAT 5013	Statistics for Experimenters I	3
Select 6 hours fron	n the following:	6
ECON 5213	Introduction to Econometrics	
STAT 5023	Statistics for Experimenters II	
STAT 5043	Sample Survey Designs	
STAT 5543	Applied Regression Analysis	
FIN 5223	Investment Theory and Strategy	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
AGEC 5213	Econometric Methods	
STAT 5193	SAS and R Programming	
Select 3 hours fron	n the following: <sup>1</sup>	3
ACCT 5994	CPA Review <sup>1</sup>	
ACCT 5133	Oil and Gas Accounting	
ACCT 5503	Advanced Auditing	
ACCT 5833	Graduate Internship in Accounting	
EEE 5233	Ideation, Creativity & Innovation	
FIN 5003	Introduction to Energy Business	
FIN 5363	Energy Finance	
MSIS 5253	Advanced System Certification and Accreditation	
MSIS 5303	Prescriptive Analytics	
MSIS 5600	Special Projects in Business Information Systems	

	ours Subtotal		33
Н	ours Subtotal		15
	Or any of hte STAT possible selections	ECON, REMS, FIN courses listed as s above.	
	FIN 5343	Valuation and Financial Modeling	
	FIN 5053	Theory and Practice of Financial Management	
	ACCT 5603	Advanced Accounting-based Information Systems	
	MSIS 5673	Descriptive Analytics and Visualization	
	MSIS 5633	Predictive Analytics Technologies	

If ACCT 5994 is taken, total hours for degree increase by one.

# **Graduate College Master's Program Requirements**

### **Aging Studies, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 36

Code	Title	Hours
Core Courses		
HDFS 5413	Aging in Human Development	3
HDFS 5493	Aging and Diverse Families	3
HS 5533	Economics of Aging and Public Policy	3
HS 5543	Environments and Aging	3
NSCI 5323	Nutrition and Physical Activity in Aging	3
HDFS 5403	Perspectives in Gerontology	3
HDFS 5400	Professional Seminar in Gerontology	3
HS 5633	Program Evaluation and Research Methods in Gerontology	3
REMS 5953	Statistical Methods in Education	3
<b>Guided Electives</b>		
Choose two cours	es from the following:	6
HDFS 5110	Directed Study in HDFS	
HDFS 5313	Creativity and Aging	
HDFS 5433	Theories of Aging	
HDFS 5463	Biological Principles of Aging	
HDFS 5593	Sexuality & Aging	
HDFS 5683	Spirituality and Aging	
<b>Creative Compone</b>	nt	
HDFS 5163	Master's Capstone in HDFS	3
Total Hours		36

# **Graduate College Master's Program Requirements**

### **Agricultural Communications, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Requirements		_
Research and Seminal	r	
AGCM 5000	Research and Thesis	6
Research Methods		
AECL 5983	Social Sciences Research in Agricultural Sciences and Natural Resources	3
Statistics		
REMS 5953	Statistical Methods in Education (or equivalent)	3
Other Required Course	es	
AGCM 5103	History and Philosophical Foundations of Agricultural Communications	3
AGCM 5203	Theory and Practice in Agricultural Communications	3
AECL 5863	Methods of Technological Change	3
or AECL 6223	Program Evaluation in Agriculture and Exte	nsion
Graduate Orientation		
AECL 5101	Orientation to Graduate Programs in Agricultural Education, Communications and Leadership	1
Hours Subtotal		22
Electives		
Select eight hours		8
technical agriculture,	oval, electives may be chosen from journalism, education or other areas; or as which most effectively achieve the I goals.	
Hours Subtotal		8
Total Hours		30

#### **Formal Report Option**

Total Hours: 32

Code	Title	Hours
Core Requirements		
Research and Semina	nr	
AGCM 5000	Research and Thesis	2
Research Methods		
AECL 5983	Social Sciences Research in Agricultural Sciences and Natural Resources	3
Statistics		
REMS 5953	Statistical Methods in Education	3
Other Required Cours	es	
AGCM 5103	History and Philosophical Foundations of Agricultural Communications	3

AGCM 5203	Theory and Practice in Agricultural Communications	3
AECL 5863	Methods of Technological Change	3
or AECL 6223	Program Evaluation in Agriculture and Exte	ension
Graduate Orientation		
AECL 5101	Orientation to Graduate Programs in Agricultural Education, Communications and Leadership	1
Hours Subtotal		18
Electives		
Select 14 hours		14
technical agriculture	oroval, electives may be chosen from e, journalism, education or other areas; or eas which most effectively achieve the al goals.	
Hours Subtotal		14
Total Hours		32

## 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.

### **Graduate College Master's Program Requirements**

### **Agricultural Economics, MS**

Title

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

**Core Requirements** 

Code

AGEC 5101	Research Methodology	1
AGEC 5103	Mathematical Economics	3
AGEC 5403	Production Economics	3
Choose six hours from	m the following: <sup>2</sup>	6
AGEC 5113	Applications of Mathematical Programming	
AGEC 5213	Econometric Methods	
STAT 5543	Applied Regression Analysis	
5000- or 6000-level (e	I hours in Agricultural Economics at the excluding AGEC 5000 and courses defined a to 4000-level courses) with a minimum of 3 r prices.	6
Hours Subtotal		19
Electives <sup>1</sup>		
Select 11 hours of ele	ectives	11
Suggested elective co	urses	
AGEC 5203	Advanced Agricultural Prices	
AGEC 5233	Primary Data Analysis in Economic Research	
AGEC 5321	Agricultural Marketing and Economic Development	
AGEC 5331	Agricultural Marketing: Advanced Concepts	
AGEC 5503	Economics of Natural and Environmental Resource Policy	
AGEC 5603	Advanced Agricultural Finance	
AGEC 5723	Plan & Pol Devlpmnt	
AGEC 5733	Food Import Demand and Trade Policy	
ACCT 5113	Financial Accounting Research	
LSB 5163	Legal Environment of Business	
ECON 5033	Macroeconomic Analysis	
ECON 5603	Global Economics	
FIN 5223	Investment Theory and Strategy	
FIN 5763	Derivative Securities and the Management	
FIN 3703	of Financial Price Risk	

A total of 21 credit hours at 5000- and 6000-level is required.

2

**Total Hours** 

These courses are preferred but ECON 6013 and ECON 6213 are allowed as substitutions.

### **Formal Report Option**

**Total Hours: 32** 

Hours

Code	Title	Hours
Core Requirements	s <sup>1</sup>	
AGEC 5101	Research Methodology	1
AGEC 5103	Mathematical Economics	3
AGEC 5403	Production Economics	3
Choose six hours f	rom the following: <sup>2</sup>	6
AGEC 5113	Applications of Mathematical Programming	
AGEC 5213	Econometric Methods	
STAT 5543	Applied Regression Analysis	
5000- or 6000-leve as mutually exclus hours in marketing	nal hours in Agricultural Economics at the I (excluding AGEC 5000 and courses defined live to 4000-level courses) with a minimum of 3 por prices.	6
Hours Subtotal		19
Electives <sup>1</sup>		
Select 11 hours of		11
Suggested elective		
AGEC 5203	Advanced Agricultural Prices	
AGEC 5233	Primary Data Analysis in Economic Research	
AGEC 5321	Agricultural Marketing and Economic Development	
AGEC 5331	Agricultural Marketing: Advanced Concepts	
AGEC 5503	Economics of Natural and Environmental Resource Policy	
AGEC 5603	Advanced Agricultural Finance	
AGEC 5723	Plan & Pol Devlpmnt	
AGEC 5733	Food Import Demand and Trade Policy	
ACCT 5113	Financial Accounting Research	
LSB 5163	Legal Environment of Business	
ECON 5033	Macroeconomic Analysis	
ECON 5603	Global Economics	
FIN 5223	Investment Theory and Strategy	
FIN 5763	Derivative Securities and the Management of Financial Price Risk	
Hours Subtotal		11
Formal Report		
Two hours		2
Hours Subtotal		2
Total Hours		32

## **Graduate College Master's Program Requirements**

# Agricultural Education and Leadership, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Requirements		
Research or Creative	Component	
AECL 5000	Master's Thesis/Report in Agricultural Education, Communications and Leadership	6
Research Methods		
AECL 5983	Social Sciences Research in Agricultural Sciences and Natural Resources	3
Statistics		
REMS 5953	Statistical Methods in Education (Or equivalent)	3
Agricultural Education	1	
Select six hours from	n the following:	6
AGED 5813	College Teaching of Agriculture and Natural Resources	
AGED 5823	Advanced Methods of Teaching Agriculture	
AECL 5863	Methods of Technological Change	
AGED 6103	History and Philosophical Foundations of Agricultural and Extension Education	
AECL 6223	Program Evaluation in Agriculture and Extension	
AGLE 5303	Foundations of Leadership Theory	
Graduate Orientation		
AECL 5101	Orientation to Graduate Programs in Agricultural Education, Communications and Leadership	1
Hours Subtotal		19
Electives		
Select 11 hours		11
Hours Subtotal		11
Total Hours		30

### **Formal Report Option**

Total Hours: 32

Code	Title	Hours
Core Requiremen	nts	
Research or Crea	tive Component	
AGED 5102	Creative Component in Agricultural Education	2
Research Method	ds	
AECL 5983	Social Sciences Research in Agricultural Sciences and Natural Resources	3

Statistics		
REMS 5953	Statistical Methods in Education (Or equivalent)	3
Agricultural Education	1	
Select 6 hours from t	the following:	6
AGED 5813	College Teaching of Agriculture and Natural Resources	
AGED 5823	Advanced Methods of Teaching Agriculture	
AECL 5863	Methods of Technological Change	
AGED 6103	History and Philosophical Foundations of Agricultural and Extension Education	
AECL 6223	Program Evaluation in Agriculture and Extension	
AGLE 5303	Foundations of Leadership Theory	
Graduate Orientation		
AECL 5101	Orientation to Graduate Programs in Agricultural Education, Communications and Leadership	1
Hours Subtotal		15
Electives		
Select 17 hours		17
Hours Subtotal	·	17
Total Hours	•	32

## **Graduate College Master's Program Requirements**

### **Animal Science, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Required Courses		
ANSI 5000	Master's Research and Thesis	6
Six hours from:		6
ANSI 5010	Special Problems	
Three hours from:		3
ANSI 5110	Seminar	
Hours Subtotal		15
Electives		
Select 15 hours of A	ANSI graduate courses with the approval of ittee.	15
Hours Subtotal		15
Total Hours		30

### **Formal Report Option**

Total Hours: 32

Code	Title	Hours
Required Courses		
ANSI 5000	Master's Research and Thesis	6
Six hours from:		6
ANSI 5010	Special Problems	
Three hours from:		3
ANSI 5110	Seminar	
Hours Subtotal		15
Electives		
Select 15 hours of A the advisory commit	NSI graduate courses with the approval of ttee.	15
Hours Subtotal		15
Research		
Two Hours		2
Hours Subtotal		2
Total Hours		32

## **Graduate College Master's Program Requirements**

### **Applied Statistics, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 32

Code	Title	Hours
Required Coursew	ork	
STAT 4043	Applied Regression Analysis	3
STAT 4203	Mathematical Statistics I	3
STAT 4213	Mathematical Statistics II	3
STAT 5013	Statistics for Experimenters I	3
STAT 5023	Statistics for Experimenters II	3
STAT 5063	Statistical Machine Learning with R	3
STAT 5193	SAS and R Programming	3
STAT 5303	Experimental Designs	3
STAT 5002	Applied Masters Creative Component	2
Outside Course		3
Hours Subtotal		29
Elective Coursewo	rk	
STAT 5033	Nonparametric Methods	
STAT 5043	Sample Survey Designs	
STAT 5053	Time Series Analysis	
STAT 5073	Categorical Data Analysis	
	be used as electives at the discretion of the and the graduate coordinator.	
possible incarnation	course can take many different forms. One on would be to require the students to find to analyze and provide written reports of these possible approach would be to provide the	3
Hours Subtotal		3
Total Hours		32

# **Graduate College Master's Program Requirements**

### **Art History, MA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30<sup>1</sup>

Code	Title	Hours
Graduate-level s	eminars	
ART 5920	Art History Graduate Seminar	6
Hours Subtotal		6
Other Requireme	ents	
ART 5013	Theory and Methods in Art History	3
Select 9 hours re geographic areas	lated to the student's curricular track or s.	9
Select 6 hours of the student's are	utside of the art history program but related to a of study.	6
Hours Subtotal		18
Thesis		
ART 5000 (Offered of 6 credit hours.)	ed for variable credit, 1-3 credit hours, maximum .)	6
Hours Subtotal		6
Total Hours		30

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<sup>2</sup>

Code	Title	Hours
Graduate-level semin	ars	
ART 5920	Art History Graduate Seminar	6
Hours Subtotal		6
Other Requirements		
ART 5013	Theory and Methods in Art History	3
Select 9 hours related geographic areas.	d to the student's curricular track or	9
Select 12 hours outsi the student's area of	de of the art history program but related to study.	12
Hours Subtotal		24
Thesis		
ART 5000 (Offered fo of 6 credit hours.)	r variable credit, 1-3 credit hours, maximum	6

Hours Subtotal	6
Total Hours	36

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.

### Graduate College Master's Program Requirements

### **Athletic Training, MAT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 59

Code	Title	Hours
Required Courses		_
MAT 5103	Emergency Management in Athletic Healthcare	3
MAT 5183	Injury Prevention and Management	3
MAT 5122	Clinical Anatomy for Athletic Training	2
MAT 5223	Therapeutic Modalities	3
MAT 5233	Clinical Evaluation and Diagnosis of the Lower Extremity	3
MAT 5243	Therapeutic Exercise of the Lower Extremity	3
MAT 5202	Athletic Training Practicum I	2
MAT 5315	Clinical Evaluation, Diagnosis, Pathology and Pharmacology of Non-Orthopedic Medical Conditions	5
MAT 5333	Clinical Evaluation and Diagnosis of the Upper Extremity	3
MAT 5343	Therapeutic Exercise of the Upper Extremity	3
MAT 5302	Athletic Training Practicum II	2
MAT 5412	Radiography Evaluation and Assessment	2
MAT 5402	Athletic Training Practicum III	2
MAT 5573	Athletic Healthcare Administration	3
MAT 5553	Research Evaluation and Application	3
MAT 5583	Psychosocial Strategies in Athletic Healthcare	3
MAT 5481	Advanced Athletic Training Techniques	1
MAT 5443	Clinical Diagnosis, Evaluation, and Therapeutic Exercise of the Head and Spine	3
MAT 5502	Athletic Training Practicum IV	2
MAT 5602	Athletic Training Practicum V	2
MAT 5000	Thesis Research & Seminar	6
Total Hours		59

#### **Non-Thesis Option**

Total Hours: 56

Code	Title	Hours
Required Courses		
MAT 5103	Emergency Management in Athletic Healthcare	3
MAT 5183	Injury Prevention and Management	3
MAT 5122	Clinical Anatomy for Athletic Training	2
MAT 5223	Therapeutic Modalities	3
MAT 5233	Clinical Evaluation and Diagnosis of the Lower Extremity	3

MAT 5243	Therapeutic Exercise of the Lower Extremity	3
MAT 5202	Athletic Training Practicum I	2
MAT 5315	Clinical Evaluation, Diagnosis, Pathology and Pharmacology of Non-Orthopedic Medical Conditions	5
MAT 5333	Clinical Evaluation and Diagnosis of the Upper Extremity	3
MAT 5343	Therapeutic Exercise of the Upper Extremity	3
MAT 5302	Athletic Training Practicum II	2
MAT 5412	Radiography Evaluation and Assessment	2
MAT 5402	Athletic Training Practicum III	2
MAT 5573	Athletic Healthcare Administration	3
MAT 5553	Research Evaluation and Application	3
MAT 5583	Psychosocial Strategies in Athletic Healthcare	3
MAT 5481	Advanced Athletic Training Techniques	1
MAT 5443	Clinical Diagnosis, Evaluation, and Therapeutic Exercise of the Head and Spine	3
MAT 5502	Athletic Training Practicum IV	2
MAT 5602	Athletic Training Practicum V	2
MAT 5000	Thesis Research & Seminar	3
Total Hours		56

## Additional Master of Athletic Training Requirements

- A minimum of "B" or higher required in all coursework.
- · Transfers not allowed in this program.

# **Graduate College Master's Program Requirements**

### **Aviation and Space, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 33

Code	Title	Hours
Required Courses		
AVED 5453	Advanced Aviation Security	3
AVED 5563	Aerospace Leadership and Management	3
AVED 5663	Issues in the Airline/Aerospace Industry	3
AVED 5773	Historical Significance of Aviation	3
AVED 5823	Space Science	3
AVED 5883	Aviation Economics	3
AVED 5893	Aerospace Executive Decision Making	3
AVED 5953	Labor Relations in Aviation and Aerospace	3
AVED 5963	Airport Operations	3
AVED 5973	Aerospace Law	3
AVED 5993	Ethics in Aviation	3
Total Hours		33

# **Graduate College Master's Program Requirements**

## **Biochemistry and Molecular Biology,** MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Title

Total Hours: 30

Code

passed.

Code	riue	Hours
Coursework		
Combination of core hours.	courses and other requirements to equal 24	24
Required Core Course	es	
BIOC 5002	Research Compliance and Biochemistry Graduate Colloquium	
BIOC 5112	Articulation of Research Logic	
BIOC 5120	Biochemistry and Molecular Biology Graduate Research Colloquium	
BIOC 5753	Biochemical Principles	
BIOC 5853	Molecular and Integrative Metabolism	
BIOC 5930	Advanced Biochemical Techniques	
BIOC 6110	Seminar	
Plus 2 Advanced	(Biochemistry 6000-level courses)	
BIOC 6723	Signal Transduction	
BIOC 6733	Functional Genomics	
BIOC 6740	Physical Biochemistry	
BIOC 6753	Epigenetics	
BIOC 6763	Nucleic Acids and Protein Synthesis	
BIOC 6773	Protein Structure and Enzyme Function	
BIOC 6783	Biomembranes and Bioenergetics	
BIOC 6793	Plant Biochemistry	
Electives		
BIOC 5723	Introduction to Bioinformatics	
BIOC 5102	Molecular Genetics	
BIOC 5824	Biochemical Laboratory Methods	
BIOC 5930	Advanced Biochemical Techniques	
BIOC 6820	Selected Topics in Biochemistry	
Other 6000-level BIO	C courses	
Other Graduate-level Advisory Committee	courses approved by the Graduate Thesis	
Additional Requireme	nts	

Hours Subtotal		24
Required Research		
BIOC 5000	Research	6
Hours Subtotal		6
Total Hours		30

The student's Graduate Committee must approve the written thesis and an oral exam on the context of the thesis must be

### **Non-Thesis Option**

**Total Hours: 32** 

Hours

Code	Title	Hours
Coursework		
Combination of conhours.	re courses and other requirements to equal 30	30
Core courses		
BIOC 5002	Research Compliance and Biochemistry Graduate Colloquium	
BIOC 5112	Articulation of Research Logic	
BIOC 5753	Biochemical Principles	
BIOC 5853	Molecular and Integrative Metabolism	
BIOC 5853	Molecular and Integrative Metabolism	
BIOC 6110	Seminar	
Plus 2 Advanced	d (Biochemistry 6000-level courses)	
BIOC 6723	Signal Transduction	
BIOC 6733	Functional Genomics	
BIOC 6740	Physical Biochemistry	
BIOC 6753	Epigenetics	
BIOC 6763	Nucleic Acids and Protein Synthesis	
BIOC 6773	Protein Structure and Enzyme Function	
BIOC 6783	Biomembranes and Bioenergetics	
BIOC 6793	Plant Biochemistry	
BIOC 6820	Selected Topics in Biochemistry	
Electives		
BIOC 5723	Introduction to Bioinformatics	
BIOC 5102	Molecular Genetics	
BIOC 5824	Biochemical Laboratory Methods	
Other 6000-level BI by the Graduate Co	OC courses (Graduate-level courses approved pordinator)	
Other Requirements	:	
The student's Grad	uate Committee must approve the written and	
oral reports and an	oral exam must be passed.	
Hours Subtotal		30
Required Research		
BIOC 5000	Research	2
Hours Subtotal		2
Total Hours		32

### **Graduate College Master's Program Requirements**

### **Biomedical Sciences, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Required Courses		
BIOM 5000	Research & Thesis	6
BIOM 5003	Statistics for Medical Residents	3
BIOM 6662	Research Ethics and Survival Skills for the Biomedical Sciences	2
BIOM 6922	Scientific Communication in Biomedical Sciences	2
Hours Subtotal		13
Optional Electives		
Select 17 hours from	the following:	17
BIOM 5010	Special Topics in Biomedical Sciences	
BIOM 5020	Biomedical Sciences Seminar	
BIOM 5116	Clinical Anatomy	
BIOM 5122	Introduction and Survey of Human Structure	
BIOM 5133	Neuroanatomy	
BIOM 5144	Histology and Development	
BIOM 5215	Medical Biochemistry	
BIOM 5316	Medical Microbiology and Immunology	
BIOM 5616	Graduate Biomedical Physiology	
BIOM 5621	Introduction to Translational Research	
BIOM 5631	Disease Research in Medicine	
BIOM 5641	Cornerstones of Vertebrate Paleontology	
BIOM 5653	Evolutionary Physiology	
BIOM 5663	Graduate Pharmacology	
BIOM 5672	Scientific Outreach Training for Graduate Students	
BIOM 5683	Chronic Inflammation and Cancer Development	
BIOM 5693	Principle Concepts of Cellular and Molecular Immunology	
BIOM 5703	Applied Multivariate and Evolutionary Analysis of Paleontological Data	
BIOM 5983	Principles of Neuroscience	
BIOM 5993	Principles of Neuroanatomy	
BIOM 6175	Molcular And Cellular Biology	
BIOM 6183	Cellular and Molecular Biology of Pain	
BIOM 6193	Paleommalogy	
BIOM 6214	Advanced Topics in Medical Biochemistry	
BIOM 6233	Enzyme Analysis	
BIOM 6243	Human Nutrition	
BIOM 6263	Techniques in Molecular Biology	
BIOM 6333	Immunology	
BIOM 6343	Microbial Physiology	

BIOM 6353	Molecular Virology
BIOM 6363	Immunobiology of Infectious Disease
BIOM 6413	Graduate General Pathology and Laboratory Medicine
BIOM 6523	Cardiovascular Physiology and Pharmacology
BIOM 6543	Environmental Toxins in the Brain
BIOM 6583	Neuroinflammation
BIOM 6613	Environmental Physiology
BIOM 6643	Neurophysiology
BIOM 6653	Graduate Seminar In Signal Transduction
BIOM 6663	Neuroethology
BIOM 6673	Genomics
BIOM 6705	Advanced Gross Anatomy
BIOM 6723	Field Techniques in Vertebrate
DIOM 6722	Paleontology Human Microbiome in Health and Disease
BIOM 6733 BIOM 6743	
DIUIVI 0743	Foundations in Medical Genetics, Molecular Biology and Development
BIOM 6752	Foundations in Medical Cell and Tissue Biology
BIOM 6762	Foundations in Medical Biochemistry
BIOM 6771	Foundations in Medical Pharmacology
BIOM 6781	Foundations in Medical Immunology
BIOM 6793	Foundations in Medical Microbiology
BIOM 6800	Critical Readings in Biomedical Sciences
BIOM 6810	Structure and Function of the Human Cardiovascular System
BIOM 6820	Structure and Function of the Human Gastrointestinal/Hepatic System
BIOM 6830	Biomedical Perspectives on Human Hematology
BIOM 6840	Structure and Function of the Human Musculoskeletal System
BIOM 6843	Vertebrate Osteology
BIOM 6850	Structure and Function of the Human Renal System
BIOM 6860	Structure and Function of the Human Reproductive Systems and Reproductive Biology
BIOM 6870	Structure and Function of the Human Respiratory System
BIOM 6880	Biomedical Perspectives on Psychiatry
BIOM 6900	Structure and Function of the Human Endocrine System
BIOM 6910	Structure and Function of the Human Nervous System
BIOM 6933	Cornerstones of Graduate Biomedical Sciences
BIOM 6943	Advanced Vertebrate Paleontology
BIOM 6952	Paleohistology Techniques
BIOM 6962	Evolutionary Biomechanics
BIOM 6972	Role of Nicotinic Acetylcholine Receptors
	in Neuropsychiatric Disorders

Hours Subtotal		17
Total Hours	;	30

### **Non-Thesis Option**

Total Hours: 32

Code	Title	Hours
Required Courses		
BIOM 5000	Research & Thesis	2
BIOM 5003	Statistics for Medical Residents	3
BIOM 6662	Research Ethics and Survival Skills for the	2
	Biomedical Sciences	
BIOM 6922	Scientific Communication in Biomedical Sciences	2
Hours Subtotal		9
<b>Optional Electives</b>		
Select 23 hours from	n the following:	23
BIOM 5010	Special Topics in Biomedical Sciences	
BIOM 5020	Biomedical Sciences Seminar	
BIOM 5116	Clinical Anatomy	
BIOM 5122	Introduction and Survey of Human Structure	
BIOM 5133	Neuroanatomy	
BIOM 5144	Histology and Development	
BIOM 5215	Medical Biochemistry	
BIOM 5316	Medical Microbiology and Immunology	
BIOM 5616	Graduate Biomedical Physiology	
BIOM 5621	Introduction to Translational Research	
BIOM 5631	Disease Research in Medicine	
BIOM 5641	Cornerstones of Vertebrate Paleontology	
BIOM 5653	Evolutionary Physiology	
BIOM 5663	Graduate Pharmacology	
BIOM 5672	Scientific Outreach Training for Graduate Students	
BIOM 5683	Chronic Inflammation and Cancer Development	
BIOM 5693	Principle Concepts of Cellular and Molecular Immunology	
BIOM 5703	Applied Multivariate and Evolutionary Analysis of Paleontological Data	
BIOM 5983	Principles of Neuroscience	
BIOM 5993	Principles of Neuroanatomy	
BIOM 6175	Molcular And Cellular Biology	
BIOM 6183	Cellular and Molecular Biology of Pain	
BIOM 6193	Paleommalogy	
BIOM 6214	Advanced Topics in Medical Biochemistry	
BIOM 6233	Enzyme Analysis	
BIOM 6243	Human Nutrition	
BIOM 6263	Techniques in Molecular Biology	
BIOM 6333	Immunology	
BIOM 6343	Microbial Physiology	
BIOM 6353	Molecular Virology	
BIOM 6363	Immunobiology of Infectious Disease	
	,	

T	otal Hours		32
_	ours Subtotal		23
		in Neuropsychiatric Disorders	
	BIOM 6972	Role of Nicotinic Acetylcholine Receptors	
	BIOM 6962	Evolutionary Biomechanics	
	BIOM 6952	Paleohistology Techniques	
	BIOM 6943	Advanced Vertebrate Paleontology	
	DIOW 0333	Sciences	
	BIOM 6933	Nervous System Cornerstones of Graduate Biomedical	
	BIOM 6910	Endocrine System Structure and Function of the Human	
	BIOM 6880 BIOM 6900	Biomedical Perspectives on Psychiatry Structure and Function of the Human	
	DIOM 6000	Respiratory System	
	BIOM 6870	Biology Structure and Function of the Human	
	BIOM 6860	Structure and Function of the Human Reproductive Systems and Reproductive	
	BIOM 6850	Structure and Function of the Human Renal System	
	BIOM 6843	Vertebrate Osteology	
		Musculoskeletal System	
	BIOM 6840	Hematology Structure and Function of the Human	
	BIOM 6830	Biomedical Perspectives on Human	
	BIOM 6820	Structure and Function of the Human Gastrointestinal/Hepatic System	
	BIOM 6810	Structure and Function of the Human Cardiovascular System	
	BIOM 6800	Critical Readings in Biomedical Sciences	
	BIOM 6793	Foundations in Medical Microbiology	
	BIOM 6781	Foundations in Medical Immunology	
	BIOM 6771	Foundations in Medical Pharmacology	
	BIOM 6762	Foundations in Medical Biochemistry	
	BIOM 6752	Foundations in Medical Cell and Tissue Biology	
	BIOM 6743	Foundations in Medical Genetics, Molecular Biology and Development	
	BIOM 6733	Human Microbiome in Health and Disease	
	BIOM 6723	Field Techniques in Vertebrate Paleontology	
	BIOM 6705	Advanced Gross Anatomy	
	BIOM 6673	Genomics	
	BIOM 6663	Neuroethology	
	BIOM 6653	Graduate Seminar In Signal Transduction	
	BIOM 6643	Neurophysiology	
	BIOM 6613	Environmental Physiology	
	BIOM 6583	Neuroinflammation	
	BIOM 6543	Environmental Toxins in the Brain	
	BIOM 6523	Cardiovascular Physiology and Pharmacology	
	BIOM 6413	Graduate General Pathology and Laboratory Medicine	

# **Graduate College Master's Program Requirements**

### **Biosystems Engineering, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Coursewor	k	
BAE 5501	Seminar	1
Select 23 approv	ved hours, based on Plan of Study	23
Hours Subtotal		24
Thesis		
BAE 5000	Master's Research and Thesis	6
Hours Subtotal		6
Total Hours		30

### **Non-Thesis Option**

Total Hours: 32

Code	Title	Hours
Core Coursewo	rk	
BAE 5501	Seminar	1
Select 31 approved hours, based on Plan of Study.		31
Hours Subtotal		32
Total Hours		32

# **Graduate College Master's Program Requirements**

### **Business Administration, MBA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 36 (33 for part-time and distance MBA students)

Code	Title	Hours
Degree Core - Requ	ired Courses	
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5100	Professional Development (Part 1) <sup>1</sup>	1
MBA 5100	Professional Development (Part 2) 1	1
MBA 5100	Professional Development (Case Consulting) <sup>1</sup>	1
MBA 5300	Current Business Topics (Ethics and Corporate Social Responsibility)	1
MBA 5400	Business Practicum (Descriptive Analytics)	1
MBA 5500	Interdisciplinary Inquiry in Business Administration (Project Management)	1
Hours Subtotal		27
Electives		
Select 9 hours from	the following:	9
EEE 5090	Study Abroad In Entrepreneurship	
EEE 5233	Ideation, Creativity & Innovation	
EEE 5123	Entrepreneurship and The Arts	
EEE 5133	Dilemmas and Debates in Entrepreneurship	
EEE 5200	Special Topics in Entrepreneurship	
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 5813	The Entrepreneur. Hero or Villain	
EEE 5903	Applied Innovation I	
FIN 5053	Theory and Practice of Financial Management	
FIN 5153	Corporate Financial Strategy	
FIN 5213	International Business Finance	
FIN 5223	Investment Theory and Strategy	
FIN 5243	Financial Markets	
FIN 5343	Valuation and Financial Modeling	
FIN 5363	Energy Finance	

FIN 5550	Special Topics in Finance
FIN 5763	Derivative Securities and the Management of Financial Price Risk
FIN 5833	Student Managed Investment Fund
FIN 5883	Quantitative Financial Applications
HTM 5233	Convention and Special Event Management
HTM 5263	Applied Revenue Management in Hospitality and Tourism Management
HTM 5323	Hospitality and Tourism Financial Management
HTM 5413	Hospitality and Tourism Human Resources Management
HTM 5423	Hospitality and Tourism Marketing Management
HTM 5503	Big Data Analytics in Hospitality and Tourism Management
HTM 5513	Hospitality and Tourism Strategic Management
HTM 5850	Special Topics in the Hospitality and Tourism Industry
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 5033	Management of Sustainable Enterprises
MGMT 5041	Performance Management
MGMT 5083	Corporate and Social Responsibility
MGMT 5093	Management of Nonprofit Organizations
MGMT 5123	Org Design & Research
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 5033	Information Systems Project Management
MSIS 5133	Advanced Web Based Application Development
MSIS 5213	Information Assurance Management
MSIS 5253	Advanced System Certification and Accreditation

Total Hours		36
Hours Subtotal		9
MKTG 5983	Data Base Marketing	
MKTG 5963	Data Mining and Customer Relationship Management Applications	
MKTG 5743	Advanced Marketing Analytics	
MKTG 5553	International Marketing Strategy	
MKTG 5543	Social Media Strategies	
MKTG 5500	Current Topics in Marketing Analytics	
MKTG 5443	Social Issues in Marketing Environment	
MKTG 5253	Advanced SAS Programming for Marketing Analytics	
MKTG 5243	Base SAS Programming for Database Marketing	
MKTG 5233	Global Competitive Environment	
MKTG 5223	Entrepreneurial Marketing	
MSIS 5773	The Upper Layers of Telecommunications Systems	
MSIS 5713	Scripting Essentials	
MSIS 5683	Big Data Advanced Analytics Technologies	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5663	Data Warehousing	
MSIS 5653	Advanced Systems Analysis and Design	
MSIS 5643	Advanced Database Management	
MSIS 5623	Information and Network Technology Management	
MSIS 5410	Advanced Topics in Information Assurance	
MSIS 5393	Advanced Spreadsheet Modeling	
MSIS 5313	Supply Chain Analytics	
MSIS 5273	Legal and Ethical Issues in Information Technology	

Waived for part-time and distance MBA students

# Graduate College Master's Program Requirements

# **Business Administration: Accounting, MBA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 39

Code	Title	Hours
Degree Core		
Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
MBA 5300	Current Business Topics	1
MBA 5400	Business Practicum	1
MBA 5500	Interdisciplinary Inquiry in Business Administration	1
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5100	Professional Development (Part 1) <sup>1</sup>	1
MBA 5100	Professional Development (Case Consulting) <sup>1</sup>	1
MBA 5100	Professional Development (Part 2) <sup>1</sup>	1
Hours Subtotal		27
Option Requirements	s	
ACCT 5003	Advanced Federal Income Taxation	3
ACCT 5013	Tax Research	3
or ACCT 5113	Financial Accounting Research	
ACCT 5103	Seminar in Contemporary Accounting Theory I	3
ACCT 5153	Financial Statement Analysis	3
Hours Subtotal		12
Total Hours		39

Not required for online or professional MBA.

# **Graduate College Master's Program Requirements**

# **Business Administration: Business Sustainability, MBA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 39

Code	Title	Hours
Degree Core		
Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
MBA 5300	Current Business Topics	1
MBA 5400	Business Practicum	1
MBA 5500	Interdisciplinary Inquiry in Business Administration	1
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5100	Professional Development (Part 1) 1	1
MBA 5100	Professional Development (Case Consulting) <sup>1</sup>	1
MBA 5100	Professional Development (Part 2) <sup>1</sup>	1
Hours Subtotal		27
<b>Option Requirements</b>	•	
MGMT 5033	Management of Sustainable Enterprises	3
MGMT 5083	Corporate and Social Responsibility	3
Select 6 hours of the	following:	6
MKTG 5333	Marketing for Nonprofit Organizations	
MKTG 5443	Social Issues in Marketing Environment	
MGMT 5073	Management and Ethical Leadership	
MGMT 5093	Management of Nonprofit Organizations	
MGMT 5533	Leadership Challenges	
MGMT 5113	Individual and Organizational Behavior	
EEE 5123	Entrepreneurship and The Arts	
EEE 5403	Social Entrepreneurship	
EEE 5603	Entrepreneurship Empowerment in South Africa	
Hours Subtotal		12
Total Hours		39

Not required for online or professional MBA.

## **Graduate College Master's Program Requirements**

# **Business Administration: Data Science, MBA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 39

Code	Title	Hours
Degree Core		
Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
MBA 5300	Current Business Topics	1
MBA 5400	Business Practicum	1
MBA 5500	Interdisciplinary Inquiry in Business Administration	1
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5100	Professional Development (Part 1) 1	1
MBA 5100	Professional Development (Case Consulting) <sup>1</sup>	1
MBA 5100	Professional Development (Part 2) 1	1
Hours Subtotal		27
Option Requirements		
MSIS 5643	Advanced Database Management	3
MSIS 5673	Descriptive Analytics and Visualization	3
Select 6 hours from t	he following:	6
MSIS 5193	Programming for Data Science and Analytics I	
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5313	Supply Chain Analytics	
MSIS 5393	Advanced Spreadsheet Modeling	
MSIS 5503	Statistics for Data Science	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5683	Big Data Advanced Analytics Technologies	
Hours Subtotal		12
Total Hours		39

1 credit hour class taken each semester (3 semesters)

# **Graduate College Master's Program Requirements**

# **Business Administration: Economics, MBA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 45

Code	Title	Hours
Degree Core		
Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
MKTG 5633	The External Environment of Business	3
or LSB 5163	Legal Environment of Business	
or MGMT 5073	Management and Ethical Leadership	
ACCT 5183	MBA Financial Reporting	3
ACCT 5283	MBA Managerial Accounting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
FIN 5053	Theory and Practice of Financial Management (or other Finance 5000-level course)	3
or MKTG 5733	Introduction to Marketing Analytics	
or MSIS 5633	Predictive Analytics Technologies	
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5100	Professional Development (Part 1) 1	1
MBA 5100	Professional Development (Case Consulting) <sup>1</sup>	1
MBA 5100	Professional Development (Part 2) <sup>1</sup>	1
Hours Subtotal		33
Option Requirements	S	
Select 12 hours from	the following:	12
ECON 4223	Business and Economic Forecasting	
ECON 5010	Research and Independent Studies	
ECON 5033	Macroeconomic Analysis	
ECON 5213	Introduction to Econometrics	
ECON 5733	Energy Economics: Traditional and	
	Renewable Energy Markets	
ECON 6013	Microeconomic Theory I	
ECON 6213	Econometrics I	
ECON 6323	Mathematical Economics I	
Hours Subtotal		12
Total Hours		45

Not required for online or professional MBA.

## **Graduate College Master's Program Requirements**

Learn more about Graduate College 2022-2023 Master's Degree Program Requirements (p. 2766). Check the General Graduate College academic

regulations for minimal GPA, language proficiency and other general requirements.

# **Business Administration: Energy Business, MBA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 39

Code	Title	Hours
Degree Core		
Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
MBA 5300	Current Business Topics	1
MBA 5400	Business Practicum	1
MBA 5500	Interdisciplinary Inquiry in Business Administration	1
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5100	Professional Development (Part 1) <sup>1</sup>	1
MBA 5100	Professional Development (Case Consulting) <sup>1</sup>	1
MBA 5100	Professional Development (Part 2) <sup>1</sup>	1
Hours Subtotal		27
Option Requireme	nts	
FIN 5003	Introduction to Energy Business	3
FIN 5363	Energy Finance	3
Select 6 hours of t	he following:	6
ENGR 5010	Engineering Problems and Design	
GEOL 5990	Advanced Studies in Geology	
ECON 5010	Research and Independent Studies (Energy Economics)	
FIN 5053	Theory and Practice of Financial Management	
FIN 5763	Derivative Securities and the Management of Financial Price Risk	
MSIS 5393	Advanced Spreadsheet Modeling	
Hours Subtotal		12
Total Hours		39

Not required for online or professional MBA.

# **Graduate College Master's Program Requirements**

# **Business Administration: Entrepreneurship, MBA**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 39

Code	Title	Hours
Degree Core		
Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
MBA 5300	Current Business Topics	1
MBA 5400	Business Practicum	1
MBA 5500	Interdisciplinary Inquiry in Business Administration	1
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5100	Professional Development (Part 1)	1
MBA 5100	Professional Development (Case Consulting)	1
MBA 5100	Professional Development (Part 2)	1
Hours Subtotal		27
Option Requirement	s	
EEE 5113	Entrepreneurship and Venture Management	3
Select 9 hours of the	e following:	9
EEE 5133	Dilemmas and Debates in Entrepreneurship	
EEE 5200	Special Topics in Entrepreneurship (Commercializing of new Technology)	
EEE 5200	Special Topics in Entrepreneurship (Real Estate Development)	
EEE 5223	Entrepreneurial Marketing	
EEE 5233	Ideation, Creativity & Innovation	
EEE 5263	Corporate Entrepreneurship	
EEE 5313	Emerging Enterprise Consulting	
EEE 5333	Launching a Business: The First 100 Days	
EEE 5403	Social Entrepreneurship	
EEE 5513	Growing Small and Family Ventures	
EEE 5610	Advanced Entrepreneurship Practicum (Entrepreneurship Initiative - Wal-Mart)	
EEE 5610	Advanced Entrepreneurship Practicum (Project MGMT Consulting)	
EEE 5610	Advanced Entrepreneurship Practicum (Advanced Practicum CIE Scholar)	
EEE 5653	Venture Capital	
EEE 5713	Native American Entrepreneurship	
EEE 5993	Preparing Effective Business Plans	

Hours Subtotal	12
Total Hours	39

# **Graduate College Master's Program Requirements**

# **Business Administration: Finance Investment Banking, MBA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 39

Code	Title	Hours
Core Requirements		
MBA 5100	Professional Development <sup>1</sup>	3
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5300	Current Business Topics	1
MBA 5400	Business Practicum	1
MBA 5500	Interdisciplinary Inquiry in Business	1
	Administration	
Hours Subtotal		27
Program Option Requ	uirements	
FIN 5053	Theory and Practice of Financial Management	3
FIN 5223	Investment Theory and Strategy	3
FIN 5343	Valuation and Financial Modeling	3
Select 3 hours from the following (if a student has taken the equivalent of FIN 5013 - part of the Common Core - and is waived out of it, they need to take an extra elective from one of the following courses):		3
FIN 5363	Energy Finance	
FIN 5833	Student Managed Investment Fund	
FIN 5550	Special Topics in Finance (Securities Industry Essentials)	
FIN 5550	Special Topics in Finance (Computational Finance)	
Hours Subtotal		12
Total Hours		39

Part-time MBA with an option is 36 hours with same requirements minus MBA 5100.

# **Business Administration: Global Marketing, MBA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 39

Code	Title	Hours
Degree Core		
Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
MBA 5300	Current Business Topics	1
MBA 5400	Business Practicum	1
MBA 5500	Interdisciplinary Inquiry in Business Administration	1
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5100	Professional Development (Part 1) 1	1
MBA 5100	Professional Development (Case Consulting) <sup>1</sup>	1
MBA 5100	Professional Development (Part 2) 1	1
Hours Subtotal		27
Option Requirement	ts	
MKTG 5233	Global Competitive Environment	3
MKTG 5553	International Marketing Strategy	3
Select 6 hours of th	e following:	6
AGIN 5353	Advanced Case Studies in Agricultural Marketing and International Development	
ANTH 5243	Globalization and Culture	
MBA 5010	Independent Study	
MKTG 5220	Seminar in Marketing	
MKTG 5633	The External Environment of Business	
GS 5020	Independent Study	
GS 5070	Special Topics in Global Studies	
GS 5313	Global Communication and Public Diplomacy	
GS 5323	Nation Branding	
GS 5343	Geopolitics of New Media	
GS 5413	Global Development	
GS 5513	Global Crisis Management	
Hours Subtotal		12
Total Hours		39

Not required for online or professional MBA.

# **Graduate College Master's Program Requirements**

# **Business Administration: Hospitality and Tourism Management, MBA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 39

Code	Title	Hours
Core Courses		
MBA 5100	Professional Development <sup>1</sup>	3
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5300	Current Business Topics	1
MBA 5400	Business Practicum	1
MBA 5500	Interdisciplinary Inquiry in Business Administration	1
Hours Subtotal		27
Program Option Requ	uirements	
Select two courses fr	om the required courses list:	6
HTM 5413	Hospitality and Tourism Human Resources Management	
HTM 5323	Hospitality and Tourism Financial Management	
HTM 5423	Hospitality and Tourism Marketing Management	
HTM 5513	Hospitality and Tourism Strategic Management	
Select two courses fr	om the electives list:	6
HTM 5233	Convention and Special Event Management	
HTM 5263	Applied Revenue Management in Hospitality and Tourism Management	
HTM 5503	Big Data Analytics in Hospitality and Tourism Management	
HTM 5850	Special Topics in the Hospitality and Tourism Industry	
Hours Subtotal		12
Total Hours		39

Part-time MBA with an option is 36 hours with same requirements minus MBA 5100.

### **Graduate College Master's Program Requirements**

Learn more about Graduate College 2022-2023 Master's Degree Program Requirements (p. 2766). Check the General Graduate College academic

regulations for minimal GPA, language proficiency and other general requirements.

### **Business Administration: Human Resource Management, MBA**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 42** 

Code	Title	Hours
Degree Core		
Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
MBA 5300	Current Business Topics	1
MBA 5400	Business Practicum	1
MBA 5500	Interdisciplinary Inquiry in Business Administration	1
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5100	Professional Development (Part 1) <sup>1</sup>	1
MBA 5100	Professional Development (Case Consulting) <sup>1</sup>	1
MBA 5100	Professional Development (Part 2) 1	1
Hours Subtotal		27
Option Requirements	•	
MGMT 5133	Total Rewards	3
MGMT 5153	Talent Development	3
MGMT 5543	Human Resource Analytics	3
MGMT 5823	Talent Acquisition	3
LSB 5423	Employment Law	3
Hours Subtotal		15
Total Hours		42

Not required for online or professional MBA.

## **Graduate College Master's Program Requirements**

# **Business Administration: Information Assurance, MBA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 39

Code	Title	Hours
Degree Core		
Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
MBA 5300	Current Business Topics	1
MBA 5400	Business Practicum	1
MBA 5500	Interdisciplinary Inquiry in Business Administration	1
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5100	Professional Development (Part 1) <sup>1</sup>	1
MBA 5100	Professional Development (Case Consulting) <sup>1</sup>	1
MBA 5100	Professional Development (Part 2) <sup>1</sup>	1
Hours Subtotal		27
Option Requirement	ts	
MSIS 5203	Advanced Infrastructure Development	3
MSIS 5213	Information Assurance Management	3
Select 6 hours from	the following:	6
MSIS 5233	Applied Information Systems Security	
MSIS 5253	Advanced System Certification and Accreditation	
MSIS 5273	Legal and Ethical Issues in Information Technology	
MSIS 5713	Scripting Essentials	
Hours Subtotal		12
Total Hours		39

Not required for online or professional MBA.

# **Graduate College Master's Program Requirements**

# **Business Administration: Marketing Analytics, MBA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 39

Code	Title	Hours
Degree Core		
Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
MBA 5300	Current Business Topics	1
MBA 5400	Business Practicum	1
MBA 5500	Interdisciplinary Inquiry in Business Administration	1
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5100	Professional Development (Part 1) <sup>1</sup>	1
MBA 5100	Professional Development (Case Consulting) <sup>1</sup>	1
MBA 5100	Professional Development (Part 2) <sup>1</sup>	1
Hours Subtotal		27
Option Requireme	nts	
MKTG 5733	Introduction to Marketing Analytics	3
MKTG 5743	Advanced Marketing Analytics	3
Select 6 hours from	m the following:	6
MKTG 5243	Base SAS Programming for Database Marketing	
MKTG 5500	Current Topics in Marketing Analytics	
MSIS 5303	Prescriptive Analytics	
MSIS 5633	Predictive Analytics Technologies	
Hours Subtotal		12
Total Hours		39

Not required for online or professional MBA.

# **Graduate College Master's Program Requirements**

# **Business Administration: Nonprofit Management, MBA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 39

Code	Title	Hours
Degree Core		
Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
MBA 5300	Current Business Topics	1
MBA 5400	Business Practicum	1
MBA 5500	Interdisciplinary Inquiry in Business Administration	1
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5100	Professional Development (Part 1) 1	1
MBA 5100	Professional Development (Case Consulting) <sup>1</sup>	1
MBA 5100	Professional Development (Part 2) <sup>1</sup>	1
Hours Subtotal		27
Option Requirements	3	
MGMT 5093	Management of Nonprofit Organizations	3
MGMT 5163	Fundraising for Nonprofit Organizations	3
Select 6 hours from t	he following:	6
MGMT 5073	Management and Ethical Leadership	
MGMT 5533	Leadership Challenges	
MGMT 5133	Total Rewards	
MGMT 5713	Negotiation and Third-Party Dispute Resolution	
AGED 5203	Grant Seeking	
EEE 5403	Social Entrepreneurship	
EEE 5603	Entrepreneurship Empowerment in South Africa	
Hours Subtotal		12
Total Hours		39

Not required for online or professional MBA.

# **Graduate College Master's Program Requirements**

## **Business Analytics and Data Science, MS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 37** 

Code	Title	Hours
<b>Required Courses</b>		
BAN 5400	Practicum in Business Analytics	2
BAN 5560	Business Analytics Research and Communications (Research and Communications I)	1
BAN 5560	Business Analytics Research and Communications (Research and Communications II)	1
BAN 5733	Descriptive Business Analytics	3
BAN 5743	Predictive Business Analytics	3
BAN 5753	Advanced Business Analytics	3
MSIS 5503	Statistics for Data Science	3
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5633	Predictive Analytics Technologies	3
Hours Subtotal		22
Electives		
Select 15 hours fro	om the following:	15
ACCT 5183	MBA Financial Reporting	
BAN 5511	Web Analytics and Digital Marketing	
BAN 5521	GIS Applications in Marketing Analytics	
BAN 5530	Consulting in Marketing Analytics	
BAN 5541	Using R in Marketing Analytics	
BAN 5551	Optimization Applications in Marketing Analytics	
BAN 5561	Customer Lifetime Value Models in Marketing	
BAN 5563	Strategic Marketing and Business Analytics	
BAN 5763	Advanced Marketing Research Analytics	
BAN 5900	Advanced Practicum in Business Analytics	
ECON 5113	Managerial Economics	
EEE 5863	CIE Scholar Practicum	
FIN 5013	Business Finance	
HCA 5013	Survey of Health Care Administration	
MKTG 5133	Marketing Management	
MKTG 5243	Base SAS Programming for Database Marketing	
MKTG 5253	Advanced SAS Programming for Marketing Analytics	
MSIS 5213	Information Assurance Management	
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5243	Information Technology Forensics	
MSIS 5303	Prescriptive Analytics	

Total Hours		37
Hours Subtotal		15
STAT 5213	Bayesian Analysis	
STAT 5053	Time Series Analysis	
STAT 5013	Statistics for Experimenters I	
MSIS 5713	Scripting Essentials	
MSIS 5683	Big Data Advanced Analytics Technologies	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5663	Data Warehousing	

# **Graduate College Master's Program Requirements**

Hours

# **Business Analytics and Data Science: Advanced Data Science, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Title

**Total Hours: 37** 

Code

Required Core Cou	rses	
BAN 5400	Practicum in Business Analytics	2
BAN 5560	Business Analytics Research and Communications (Research and Communications I)	1
BAN 5560	Business Analytics Research and Communications (Research and Communications II)	1
BAN 5733	Descriptive Business Analytics	3
BAN 5743	Predictive Business Analytics	3
BAN 5753	Advanced Business Analytics	3
MSIS 5503	Statistics for Data Science	3
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5633	Predictive Analytics Technologies	3
Hours Subtotal		22
Required Option Co	purses	
MSIS 5223	Programming for Data Science and Analytics II	3
MSIS 5663	Data Warehousing	3
Hours Subtotal		6
Electives		
Required Option Ele	ctives	
	n the following or other courses as approved by	6
the program direct	or.	
the program direct MSIS 5303	or. Prescriptive Analytics	
, •		
MSIS 5303	Prescriptive Analytics	
MSIS 5303 MSIS 5683	Prescriptive Analytics Big Data Advanced Analytics Technologies	
MSIS 5303 MSIS 5683 MSIS 5713 MSIS 5900	Prescriptive Analytics Big Data Advanced Analytics Technologies Scripting Essentials Practicum in Management Information	3
MSIS 5303 MSIS 5683 MSIS 5713 MSIS 5900  Select 3 hours from	Prescriptive Analytics Big Data Advanced Analytics Technologies Scripting Essentials Practicum in Management Information Systems	3
MSIS 5303 MSIS 5683 MSIS 5713 MSIS 5900  Select 3 hours from program director.	Prescriptive Analytics Big Data Advanced Analytics Technologies Scripting Essentials Practicum in Management Information Systems In the following or other courses as approved by	3
MSIS 5303 MSIS 5683 MSIS 5713 MSIS 5900  Select 3 hours from program director. ACCT 5183	Prescriptive Analytics Big Data Advanced Analytics Technologies Scripting Essentials Practicum in Management Information Systems In the following or other courses as approved by MBA Financial Reporting	3
MSIS 5303 MSIS 5683 MSIS 5713 MSIS 5900  Select 3 hours from program director. ACCT 5183 BAN 5511	Prescriptive Analytics Big Data Advanced Analytics Technologies Scripting Essentials Practicum in Management Information Systems In the following or other courses as approved by MBA Financial Reporting Web Analytics and Digital Marketing	3
MSIS 5303 MSIS 5683 MSIS 5713 MSIS 5900  Select 3 hours from program director. ACCT 5183 BAN 5511 BAN 5521	Prescriptive Analytics Big Data Advanced Analytics Technologies Scripting Essentials Practicum in Management Information Systems In the following or other courses as approved by MBA Financial Reporting Web Analytics and Digital Marketing GIS Applications in Marketing Analytics	3
MSIS 5303 MSIS 5683 MSIS 5713 MSIS 5900  Select 3 hours from program director. ACCT 5183 BAN 5511 BAN 5521 BAN 5530	Prescriptive Analytics Big Data Advanced Analytics Technologies Scripting Essentials Practicum in Management Information Systems In the following or other courses as approved by MBA Financial Reporting Web Analytics and Digital Marketing GIS Applications in Marketing Analytics Consulting in Marketing Analytics	3
MSIS 5303 MSIS 5683 MSIS 5713 MSIS 5900  Select 3 hours from program director. ACCT 5183 BAN 5511 BAN 5521 BAN 5530 BAN 5541	Prescriptive Analytics Big Data Advanced Analytics Technologies Scripting Essentials Practicum in Management Information Systems In the following or other courses as approved by  MBA Financial Reporting Web Analytics and Digital Marketing GIS Applications in Marketing Analytics Consulting in Marketing Analytics Using R in Marketing Analytics Optimization Applications in Marketing	3
MSIS 5303 MSIS 5683 MSIS 5683 MSIS 5713 MSIS 5900  Select 3 hours from program director. ACCT 5183 BAN 5511 BAN 5521 BAN 5530 BAN 5541 BAN 5551	Prescriptive Analytics Big Data Advanced Analytics Technologies Scripting Essentials Practicum in Management Information Systems In the following or other courses as approved by MBA Financial Reporting Web Analytics and Digital Marketing GIS Applications in Marketing Analytics Consulting in Marketing Analytics Using R in Marketing Analytics Optimization Applications in Marketing Analytics Customer Lifetime Value Models in	3
MSIS 5303 MSIS 5683 MSIS 5683 MSIS 5713 MSIS 5900  Select 3 hours from program director. ACCT 5183 BAN 5511 BAN 5521 BAN 5521 BAN 5530 BAN 5541 BAN 5551  BAN 5551	Prescriptive Analytics Big Data Advanced Analytics Technologies Scripting Essentials Practicum in Management Information Systems In the following or other courses as approved by MBA Financial Reporting Web Analytics and Digital Marketing GIS Applications in Marketing Analytics Consulting in Marketing Analytics Using R in Marketing Analytics Optimization Applications in Marketing Analytics Customer Lifetime Value Models in Marketing	3
MSIS 5303 MSIS 5683 MSIS 5683 MSIS 5713 MSIS 5900  Select 3 hours from program director. ACCT 5183 BAN 5511 BAN 5521 BAN 5530 BAN 5541 BAN 5551  BAN 5561  BAN 5561	Prescriptive Analytics Big Data Advanced Analytics Technologies Scripting Essentials Practicum in Management Information Systems In the following or other courses as approved by  MBA Financial Reporting Web Analytics and Digital Marketing GIS Applications in Marketing Analytics Consulting in Marketing Analytics Using R in Marketing Analytics Optimization Applications in Marketing Analytics Customer Lifetime Value Models in Marketing Strategic Marketing and Business Analytics	3

Te	ntal Hours		37
Н	ours Subtotal		9
0	ther courses as app	roved by program director.	
	STAT 5213	Bayesian Analysis	
	STAT 5053	Time Series Analysis	
	STAT 5013	Statistics for Experimenters I	
	MSIS 5673	Descriptive Analytics and Visualization	
	MSIS 5243	Information Technology Forensics	
	MSIS 5213	Information Assurance Management	
	MKTG 5253	Advanced SAS Programming for Marketing Analytics	
	MKTG 5243	Base SAS Programming for Database Marketing	
	MKTG 5133	Marketing Management	
	HCA 5013	Survey of Health Care Administration	
	FIN 5013	Business Finance	
	EEE 5863	CIE Scholar Practicum	

## **Graduate College Master's Program Requirements**

# **Business Analytics and Data Science: Cybersecurity Analytics, MS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Hours

Title

**Total Hours: 37** 

Code

		Hours
Required Core Cou	irses	
BAN 5400	Practicum in Business Analytics	2
BAN 5560	Business Analytics Research and Communications (Research and Communications I)	1
BAN 5560	Business Analytics Research and Communications (Research and Communications II)	1
BAN 5733	Descriptive Business Analytics	3
BAN 5743	Predictive Business Analytics	3
BAN 5753	Advanced Business Analytics	3
MSIS 5503	Statistics for Data Science	3
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5633	Predictive Analytics Technologies	3
Hours Subtotal		22
Required Option C	ourses	
MSIS 5213	Information Assurance Management	3
MSIS 5203	Advanced Infrastructure Development	3
Hours Subtotal		6
Electives		
Required Option Ele	ectives	
	m the following or other courses as approved by	6
the program direct	or.	
MSIS 5713	Scripting Essentials	
MSIS 5713 MSIS 5273	Scripting Essentials Legal and Ethical Issues in Information Technology	
	Legal and Ethical Issues in Information	
MSIS 5273 MSIS 5253	Legal and Ethical Issues in Information Technology Advanced System Certification and	3
MSIS 5273  MSIS 5253  Select 3 hours from	Legal and Ethical Issues in Information Technology Advanced System Certification and Accreditation	3
MSIS 5273  MSIS 5253  Select 3 hours fror program director.	Legal and Ethical Issues in Information Technology Advanced System Certification and Accreditation In the following or other courses as approved by	3
MSIS 5273  MSIS 5253  Select 3 hours fror program director.  ACCT 5183	Legal and Ethical Issues in Information Technology Advanced System Certification and Accreditation In the following or other courses as approved by MBA Financial Reporting	3
MSIS 5273  MSIS 5253  Select 3 hours fror program director.  ACCT 5183  BAN 5511	Legal and Ethical Issues in Information Technology Advanced System Certification and Accreditation In the following or other courses as approved by MBA Financial Reporting Web Analytics and Digital Marketing	3
MSIS 5273  MSIS 5253  Select 3 hours fror program director.  ACCT 5183  BAN 5511  BAN 5521	Legal and Ethical Issues in Information Technology Advanced System Certification and Accreditation In the following or other courses as approved by MBA Financial Reporting Web Analytics and Digital Marketing GIS Applications in Marketing Analytics	3
MSIS 5273  MSIS 5253  Select 3 hours fror program director.  ACCT 5183  BAN 5511  BAN 5521  BAN 5530	Legal and Ethical Issues in Information Technology Advanced System Certification and Accreditation In the following or other courses as approved by  MBA Financial Reporting Web Analytics and Digital Marketing GIS Applications in Marketing Analytics Consulting in Marketing Analytics	3
MSIS 5273  MSIS 5253  Select 3 hours fror program director. ACCT 5183  BAN 5511  BAN 5521  BAN 5530  BAN 5541	Legal and Ethical Issues in Information Technology Advanced System Certification and Accreditation In the following or other courses as approved by MBA Financial Reporting Web Analytics and Digital Marketing GIS Applications in Marketing Analytics Consulting in Marketing Analytics Using R in Marketing Analytics Optimization Applications in Marketing	3
MSIS 5273  MSIS 5253  Select 3 hours fror program director.  ACCT 5183  BAN 5511  BAN 5521  BAN 5530  BAN 5541  BAN 5551	Legal and Ethical Issues in Information Technology Advanced System Certification and Accreditation In the following or other courses as approved by MBA Financial Reporting Web Analytics and Digital Marketing GIS Applications in Marketing Analytics Consulting in Marketing Analytics Using R in Marketing Analytics Optimization Applications in Marketing Analytics Customer Lifetime Value Models in	3
MSIS 5273  MSIS 5253  Select 3 hours fror program director. ACCT 5183  BAN 5511  BAN 5521  BAN 5530  BAN 5541  BAN 5551  BAN 5551	Legal and Ethical Issues in Information Technology Advanced System Certification and Accreditation In the following or other courses as approved by  MBA Financial Reporting Web Analytics and Digital Marketing GIS Applications in Marketing Analytics Consulting in Marketing Analytics Using R in Marketing Analytics Optimization Applications in Marketing Analytics Customer Lifetime Value Models in Marketing	3
MSIS 5273  MSIS 5253  Select 3 hours fror program director. ACCT 5183 BAN 5511 BAN 5521 BAN 5530 BAN 5541 BAN 5551  BAN 5561 BAN 5561	Legal and Ethical Issues in Information Technology Advanced System Certification and Accreditation In the following or other courses as approved by  MBA Financial Reporting Web Analytics and Digital Marketing GIS Applications in Marketing Analytics Consulting in Marketing Analytics Using R in Marketing Analytics Optimization Applications in Marketing Analytics Customer Lifetime Value Models in Marketing Strategic Marketing and Business Analytics	3
MSIS 5273  MSIS 5253  Select 3 hours fror program director. ACCT 5183 BAN 5511 BAN 5521 BAN 5530 BAN 5541 BAN 5551  BAN 5561 BAN 5563 BAN 5763	Legal and Ethical Issues in Information Technology Advanced System Certification and Accreditation In the following or other courses as approved by  MBA Financial Reporting Web Analytics and Digital Marketing GIS Applications in Marketing Analytics Consulting in Marketing Analytics Using R in Marketing Analytics Optimization Applications in Marketing Analytics Customer Lifetime Value Models in Marketing Strategic Marketing and Business Analytics Advanced Marketing Research Analytics	3

FIN 5013	Business Finance	
HCA 5013	Survey of Health Care Administration	
MKTG 5133	Marketing Management	
MKTG 5243	Base SAS Programming for Database Marketing	
MKTG 5253	Advanced SAS Programming for Marketing Analytics	
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5243	Information Technology Forensics	
MSIS 5303	Prescriptive Analytics	
MSIS 5663	Data Warehousing	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5683	Big Data Advanced Analytics Technologies	
STAT 5013	Statistics for Experimenters I	
STAT 5053	Time Series Analysis	
STAT 5213	Bayesian Analysis	
Other courses as app	roved by program director.	
Hours Subtotal		9
Total Hours		37

## **Graduate College Master's Program Requirements**

# **Business Analytics and Data Science: Health Analytics, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 37** 

Code	Title	Hours
Required Core Course	es	
BAN 5400	Practicum in Business Analytics	2
BAN 5560	Business Analytics Research and Communications (Research and Communications I)	1
BAN 5560	Business Analytics Research and Communications (Research and Communications II)	1
BAN 5733	Descriptive Business Analytics	3
BAN 5743	Predictive Business Analytics	3
BAN 5753	Advanced Business Analytics	3
MSIS 5503	Statistics for Data Science	3
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5633	Predictive Analytics Technologies	3
Hours Subtotal		22
Required Option Cou	rses	
HCA 5013	Survey of Health Care Administration	3
MSIS 5673	Descriptive Analytics and Visualization	3
Hours Subtotal		6
Electives		
Required Option Electi	ves	
Select 6 hours from t the program director.	he following or other courses as approved by	6
MSIS 5303	Prescriptive Analytics	
MSIS 5663	Data Warehousing	
MSIS 5683	Big Data Advanced Analytics Technologies	
Select 3 hours from t program director.	he following or other courses as approved by	3
ACCT 5183	MBA Financial Reporting	
BAN 5511	Web Analytics and Digital Marketing	
BAN 5521	GIS Applications in Marketing Analytics	
BAN 5530	Consulting in Marketing Analytics	
BAN 5541	Using R in Marketing Analytics	
BAN 5551	Optimization Applications in Marketing Analytics	
BAN 5561	Customer Lifetime Value Models in Marketing	
BAN 5563	Strategic Marketing and Business Analytics	
BAN 5763	Advanced Marketing Research Analytics	
BAN 5900	Advanced Practicum in Business Analytics	
ECON 5113	Managerial Economics	
EEE 5863	CIE Scholar Practicum	
FIN 5013	Business Finance	

Total Hours		37
Hours Subtotal		9
Other courses as a	approved by program director.	
STAT 5213	Bayesian Analysis	
STAT 5053	Time Series Analysis	
STAT 5013	Statistics for Experimenters I	
MSIS 5713	Scripting Essentials	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5243	Information Technology Forensics	
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5213	Information Assurance Management	
MKTG 5253	Advanced SAS Programming for Marketing Analytics	
MKTG 5243	Base SAS Programming for Database Marketing	
MKTG 5133	Marketing Management	
HCA 5013	Survey of Health Care Administration	

## **Graduate College Master's Program Requirements**

# **Business Analytics and Data Science: Marketing Analytics, MS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Hours

Title

**Total Hours: 37** 

Code

Code	iitie	Hours
Required Core Cou	rses	
BAN 5400	Practicum in Business Analytics	2
BAN 5560	Business Analytics Research and Communications (Research and Communications I)	1
BAN 5560	Business Analytics Research and Communications (Research and Communications II)	1
BAN 5733	Descriptive Business Analytics	3
BAN 5743	Predictive Business Analytics	3
BAN 5753	Advanced Business Analytics	3
MSIS 5503	Statistics for Data Science	3
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5633	Predictive Analytics Technologies	3
Hours Subtotal		22
Required Option Co	ourses	
BAN 5763	Advanced Marketing Research Analytics	3
MKTG 5253	Advanced SAS Programming for Marketing Analytics	3
Hours Subtotal		6
Electives		
Required Option Elec	ctives	
Select 6 hours from	n the following or other courses as approved by or.	6
MKTG 5133	Marketing Management	
BAN 5530	Consulting in Marketing Analytics	
BAN 5551	Optimization Applications in Marketing	
	Analytics	
BAN 5561		
BAN 5561 BAN 5511	Analytics Customer Lifetime Value Models in	
	Analytics Customer Lifetime Value Models in Marketing	
BAN 5511	Analytics Customer Lifetime Value Models in Marketing Web Analytics and Digital Marketing	
BAN 5511 BAN 5521 ACCT 5183	Analytics Customer Lifetime Value Models in Marketing Web Analytics and Digital Marketing GIS Applications in Marketing Analytics	3
BAN 5511 BAN 5521 ACCT 5183 Select 3 hours from	Analytics Customer Lifetime Value Models in Marketing Web Analytics and Digital Marketing GIS Applications in Marketing Analytics MBA Financial Reporting	3
BAN 5511 BAN 5521 ACCT 5183 Select 3 hours from program director.	Analytics Customer Lifetime Value Models in Marketing Web Analytics and Digital Marketing GIS Applications in Marketing Analytics MBA Financial Reporting In the following or other courses as approved by	3
BAN 5511 BAN 5521 ACCT 5183 Select 3 hours from program director. BAN 5541	Analytics Customer Lifetime Value Models in Marketing Web Analytics and Digital Marketing GIS Applications in Marketing Analytics MBA Financial Reporting In the following or other courses as approved by Using R in Marketing Analytics	3
BAN 5511 BAN 5521 ACCT 5183 Select 3 hours from program director. BAN 5541 BAN 5563	Analytics Customer Lifetime Value Models in Marketing Web Analytics and Digital Marketing GIS Applications in Marketing Analytics MBA Financial Reporting In the following or other courses as approved by Using R in Marketing Analytics Strategic Marketing and Business Analytics	3
BAN 5511 BAN 5521 ACCT 5183 Select 3 hours from program director. BAN 5541 BAN 5563 BAN 5900	Analytics Customer Lifetime Value Models in Marketing Web Analytics and Digital Marketing GIS Applications in Marketing Analytics MBA Financial Reporting In the following or other courses as approved by Using R in Marketing Analytics Strategic Marketing and Business Analytics Advanced Practicum in Business Analytics	3
BAN 5511 BAN 5521 ACCT 5183 Select 3 hours from program director. BAN 5541 BAN 5563 BAN 5900 ECON 5113	Analytics Customer Lifetime Value Models in Marketing Web Analytics and Digital Marketing GIS Applications in Marketing Analytics MBA Financial Reporting In the following or other courses as approved by Using R in Marketing Analytics Strategic Marketing and Business Analytics Advanced Practicum in Business Analytics Managerial Economics	3
BAN 5511 BAN 5521 ACCT 5183 Select 3 hours from program director. BAN 5541 BAN 5563 BAN 5900 ECON 5113 EEE 5863	Analytics Customer Lifetime Value Models in Marketing Web Analytics and Digital Marketing GIS Applications in Marketing Analytics MBA Financial Reporting In the following or other courses as approved by Using R in Marketing Analytics Strategic Marketing and Business Analytics Advanced Practicum in Business Analytics Managerial Economics CIE Scholar Practicum	3

Total Hours		37
Hours Subtotal		9
Other courses as app	roved by program director.	
STAT 5213	Bayesian Analysis	
STAT 5053	Time Series Analysis	
STAT 5013	Statistics for Experimenters I	
MSIS 5713	Scripting Essentials	
MSIS 5683	Big Data Advanced Analytics Technologies	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5663	Data Warehousing	
MSIS 5303	Prescriptive Analytics	
MSIS 5243	Information Technology Forensics	
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5213	Information Assurance Management	
MKTG 5253	Advanced SAS Programming for Marketing Analytics	
MKTG 5243	Base SAS Programming for Database Marketing	

## **Graduate College Master's Program Requirements**

### **Chemical Engineering, MS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 30

Code	Title	Hours
Core Courses		
CHE 5123	Advanced Chemical Reaction Engineering	3
CHE 5213	Advanced Transport Phenomena	3
CHE 5743	Chemical Engineering Process Modeling	3
CHE 5843	Principles of Chemical Engineering Thermodynamics	3
CHE 5302	Introduction to Science and Engineering Research	2
Hours Subtotal		14
Seminar		
Three hours from:		3
CHE 6010	Chemical Engineering Seminar	
Hours Subtotal		3
Electives		
committee.	the approval of the student's advisory	
Suggested Elective		
CHE 5073	Tissue Engineering	
CHE 5133	Catalysis and Photocatalysis	
CHE 5283	Advanced Bioprocess Engineering	
CHE 5293	Advanced Biomedical Engineering	
CHE 5323	Electrochemical Engineering	
CHE 5373	Process Simulation	
CHE 5493	Molecular Modeling and Simulation	
CHE 5523	Colloid Processing	
CHE 5603	Membrane Separations	
CHE 5753	Applied Numerical Computing for Scientists and Engineers	
CHE 5773	Computational Fluid-Particle Dynamics	
Hours Subtotal		7
Thesis		
CHE 5000	Master's Thesis	6
Hours Subtotal		6
Total Hours		30

## **Graduate College Master's Program Requirements**

### **Chemistry, MS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 30

Code	Title	Hours
Coursework		
CHEM 5001	Introduction to Chemistry Research	1
CHEM 5000	Thesis	6
CHEM 5011	Graduate Seminar	1
CHEM 6010	Research Seminar	5
Hours Subtotal		13
Electives		
Select 17 hours fro	om the following:	17
CHEM 5053	Foundations of Physical Chemistry	
CHEM 5063	Foundations of Organic Chemistry	
CHEM 5073	Foundations of Analytical Chemistry	
CHEM 5263	Foundations of Inorganic Chemistry	
CHEM 5103	Physical and Chemical Separations	
CHEM 5223	Polymer Chemistry	
CHEM 5373	Spectrometric Identification of Organic Compounds	
CHEM 5443	Mechanism and Structure in Organic Chemistry	
CHEM 5563	Chemical Thermodynamics I	
CHEM 5963	Advanced Inorganic Chemistry	
CHEM 6103	Electroanalytical Chemistry	
CHEM 6223	Physical Polymer Science	
CHEM 6420	Special Topics in Organic Chemistry	
CHEM 6650	Selected Topics in Chemistry	
Hours Subtotal		17
Total Hours		30

# Graduate College Master's Program Requirements

### **Civil Engineering, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Courses		
consultation wi	of approved graduate level coursework in th the CIVE Graduate Coordinator (minimum of 18 00 level or higher)	24
Hours Subtotal		24
Research Hours	3	
CIVE 5000	Master's Thesis	6
<b>Hours Subtotal</b>		6
Total Hours		30

#### **Creative Component Option**

Total Hours: 32

Code	Title	Hours
Core Courses		
consultation wi	of approved graduate level coursework in th the CIVE Graduate Coordinator (minimum of 24 00 level or higher)	30
<b>Hours Subtotal</b>		30
Research Hours	3	
CIVE 5080	Engineering Problems	2
<b>Hours Subtotal</b>		2
Total Hours		32

## **Graduate College Master's Program Requirements**

## **Communication Sciences and Disorders, MS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

**Total Hours: 57** 

Code	Title	Hours
Courses		
Suggested Plan of Stu	ıdy	
Fall - 1st Year		
CDIS 5013	Evidence-Based Practice	3
CDIS 5193	Motor Speech Disorders	3
CDIS 5143	Phonological Disorders	3
CDIS 5210	Advanced Practicum	3
Spring - 1st Year		
CDIS 5330	Voice and Resonance Disorders	4
CDIS 5153	Neurological Communication Disorders	3
CDIS 5113	Advanced Language Disorders in Children	3
CDIS 5210	Advanced Practicum	3
Summer - 1st Year		
CDIS 5210	Advanced Practicum	3
CDIS 5163	Dysphagia	3
CDIS 5422		2
Fall - 2nd Year		
CDIS 5163	Dysphagia	3
CDIS 5183	Traumatic Brain Injury and Dementia	3
CDIS 5210	Advanced Practicum	3
Spring - 2nd Year		
CDIS 5210	Advanced Practicum	3
CDIS 5243	Language and Literacy Disorders in School- Age and Adolescence	3
CDIS 5533	Autism Spectrum Disorder. Assessment & Intervention of Communication Deficits	3
Hours Subtotal		51
Thesis		
CDIS 5000	Masters Research & Thesis	6
Total Hours		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

Code	Title	Hours
Courses		
Suggested Plan of Stu	ıdy	
Fall - 1st Year		
CDIS 5013	Evidence-Based Practice	3
CDIS 5193	Motor Speech Disorders	3
CDIS 5143	Phonological Disorders	3
CDIS 5210	Advanced Practicum	3
Spring - 1st Year		
CDIS 5330	Voice and Resonance Disorders	4
CDIS 5153	Neurological Communication Disorders	3
CDIS 5113	Advanced Language Disorders in Children	3
CDIS 5210	Advanced Practicum	3
Summer - 1st Year		
CDIS 5210	Advanced Practicum	3
CDIS 5163	Dysphagia	3
CDIS 5422		2
Fall - 2nd Year		
CDIS 5163	Dysphagia	3
CDIS 5183	Traumatic Brain Injury and Dementia	3
CDIS 5210	Advanced Practicum	3
Spring - 2nd Year		
CDIS 5210	Advanced Practicum	3
CDIS 5243	Language and Literacy Disorders in School-	3
	Age and Adolescence	
CDIS 5533	Autism Spectrum Disorder. Assessment &	3
	Intervention of Communication Deficits	
Total Hours		51

#### **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.

## Graduate College Master's Program Requirements

### **Computer Science, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Courses		
CS 5113	Computer Organization and Architecture	3
CS 5313	Formal Language Theory	3
CS 5323	Design and Implementation of Operating Systems II	3
CS 5413	Data Structures and Algorithm Analysis II	3
Hours Subtotal		12
<b>Elective Courses</b>	3	
Select 12 hours,	9 of which must be CS:	12
Hours Subtotal		12
Thesis		
Select 6 hours:		6
Hours Subtotal		6
Total Hours		30

#### **Non-Thesis Option**

Total Hours: 33

Code	Title	Hours
Core Courses		
CS 5113	Computer Organization and Architecture	3
CS 5313	Formal Language Theory	3
CS 5323	Design and Implementation of Operating Systems II	3
CS 5413	Data Structures and Algorithm Analysis II	3
Hours Subtotal		12
<b>Elective Courses</b>		
Select 21 hours, 15	of which must be CS:	21
Hours Subtotal		21
Total Hours		33

## **Graduate College Master's Program Requirements**

# Counseling: Mental Health Counseling, MS

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis**

**Total Hours**: 66

Code	Title	Hours
Counseling Core		
CPSY 5413	Child and Adolescent Counseling	3
CPSY 5453	Vocational and Career Information	3
CPSY 5473	Basic Counseling Skills <sup>1</sup>	3
CPSY 5493	Professional and Ethical Issues in Counseling	3
CPSY 5503	Multicultural Counseling	3
CPSY 5553	Theories of Counseling <sup>1</sup>	3
CPSY 5563	Conceptualization and Diagnosis in Counseling	3
CPSY 5583	Group Process	3
CPSY 6553	Advanced Practice in Marital and Family Treatment	3
EPSY 5103	Human Development in Psychology	3
Hours Subtotal		30
Research		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Hours Subtotal		6
<b>Counseling Practice</b>		
CPSY 5593	Counseling Practicum <sup>2</sup>	3
CPSY 5683	Internship In Counseling I	3
CPSY 5693	Internship In Counseling II	3
Hours Subtotal		9
<b>Community Counseli</b>	ng Specialization	
CPSY 5483	Mental Health Counseling	3
CPSY 5523	Assessment in Counseling <sup>3</sup>	3
CPSY 5673	Substance Abuse Counseling	3
Electives		
	to be chosen from a list of courses e board for licensure). 4	6
Hours Subtotal		15
Thesis		
CPSY 5000	Master's Thesis	6
Hours Subtotal		6
Total Hours		66

1

Prerequisite for CPSY 5593.

2

Prerequisite for CPSY 5683/5693.

3

Prerequisite for either REMS 5373 or EPSY 5783.

4

Among the courses listed are CPSY 5323, CPSY 6223, CPSY 5663, CPSY 5173, CPSY 5533, and SPSY 5783.

#### **Non-Thesis**

Total Hours: 60

Code	Title	Hours
Counseling Core		
CPSY 5413	Child and Adolescent Counseling	3
CPSY 5453	Vocational and Career Information	3
CPSY 5473	Basic Counseling Skills <sup>1</sup>	3
CPSY 5493	Professional and Ethical Issues in Counseling	3
CPSY 5503	Multicultural Counseling	3
CPSY 5553	Theories of Counseling <sup>1</sup>	3
CPSY 5563	Conceptualization and Diagnosis in Counseling	3
CPSY 5583	Group Process	3
CPSY 6553	Advanced Practice in Marital and Family Treatment	3
EPSY 5103	Human Development in Psychology	3
Hours Subtotal		30
Research		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Hours Subtotal		6
<b>Counseling Practice</b>		
CPSY 5593	Counseling Practicum <sup>2</sup>	3
CPSY 5683	Internship In Counseling I	3
CPSY 5693	Internship In Counseling II	3
Hours Subtotal		9
<b>Community Counselin</b>	ng Specialization	
CPSY 5483	Mental Health Counseling	3
CPSY 5523	Assessment in Counseling <sup>3</sup>	3
CPSY 5673	Substance Abuse Counseling	3
Electives		
	to be chosen from a list of courses board for licensure). 4	6
Hours Subtotal		15
Total Hours		60

1

Prerequisite for CPSY 5593.

2

Prerequisite for CPSY 5683/5693.

3

Prerequisite for either REMS 5373 or EPSY 5783.

4

Among the courses listed are CPSY 5323, CPSY 6223, CPSY 5663, CPSY 5173, CPSY 5533, and SPSY 5783.

## **Counseling: Mental Health Counseling Requirements**

- Complete a minimum of 60 graduate credit hours of coursework for the Mental Health Counseling Option and 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.

### **Graduate College Master's Program Requirements**

### **Counseling: School Counseling, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

**Total Hours**: 66

Code	Title	Hours
Counseling Core		
CPSY 5453	Vocational and Career Information	3
CPSY 5473	Basic Counseling Skills <sup>1</sup>	3
CPSY 5493	Professional and Ethical Issues in Counseling	3
CPSY 5503	Multicultural Counseling	3
CPSY 5553	Theories of Counseling <sup>1</sup>	3
CPSY 5563	Conceptualization and Diagnosis in Counseling	3
CPSY 5583	Group Process	3
CPSY 5673	Substance Abuse Counseling	3
CPSY 6553	Advanced Practice in Marital and Family Treatment	3
EPSY 5103	Human Development in Psychology	3
Hours Subtotal		30
Research		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Hours Subtotal		6
School Counseling Sp	pecialization	
CPSY 5513	Comprehensive School Counseling Programs	3
CPSY 5413	Child and Adolescent Counseling	3
CPSY 5523	Assessment in Counseling	3
Hours Subtotal		9
<b>Counseling Practice</b>		
CPSY 5593	Counseling Practicum	3
CPSY 5683	Internship In Counseling I	3
CPSY 5693	Internship In Counseling II	3
Select six hours of ele	ectives.	6
Thesis		
CPSY 5000	Master's Thesis	6
Hours Subtotal		21
Total Hours		66

Prerequisite for CPSY 5593.

#### **Non-Thesis Option**

Total Hours: 60

Code	Title	Hours
Counseling Core		
CPSY 5453	Vocational and Career Information	3

CPSY 5473	Basic Counseling Skills <sup>1</sup>	3
CPSY 5493	Professional and Ethical Issues in Counseling	3
CPSY 5503	Multicultural Counseling	3
CPSY 5553	Theories of Counseling <sup>1</sup>	3
CPSY 5563	Conceptualization and Diagnosis in Counseling	3
CPSY 5583	Group Process	3
CPSY 5673	Substance Abuse Counseling	3
CPSY 6553	Advanced Practice in Marital and Family Treatment	3
EPSY 5103	Human Development in Psychology	3
Hours Subtotal		30
Research		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Hours Subtotal		6
School Counseling Sp	pecialization	
CPSY 5513	Comprehensive School Counseling Programs	3
CPSY 5413	Child and Adolescent Counseling	3
CPSY 5523	Assessment in Counseling	3
Select six hours of ele	ectives.	6
Hours Subtotal		15
<b>Counseling Practice</b>		
CPSY 5593	Counseling Practicum	3
CPSY 5683	Internship In Counseling I	3
CPSY 5693	Internship In Counseling II	3
Hours Subtotal		9
Total Hours		60

1

Prerequisite for CPSY 5593.

### **Counseling: School Counseling Requirements**

- Complete a minimum of 60 graduate credit hours of coursework for the Mental Health Counseling Option and 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.

# Graduate College Master's Program Requirements

### **Design, Housing & Merchandising: Apparel Design and Production, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0

#### **Research Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Courses		
DHM 5001	Orientation to Graduate Studies in Design, Housing and Merchandising	1
DHM 5013	Research Developments in Design, Housing and Merchandising	3
DHM 5112	Research Planning and Proposal Writing	2
Required Non-Core C	ourses	
DHM 5003	Theoretical Perspectives for Design, Housing and Merchandising	3
STAT 5013	Statistics for Experimenters I	3
DHM 5000	Master's Thesis	6
Hours Subtotal		18
Electives		
Select from any of th DHM):	e following (9 credits of which must be in	12
DHM 4573	Sustainable Design for Apparel and Interiors	
DHM 5113	Theories of Creative Process in Design and Merchandising	
DHM 5233	Design Evaluation	
DHM 5303	Sociological, Psychological and Economic Aspects of Consumer Behavior	
DHM 5343	Applied Sensation, Perception and Behavioral Psychology in DHM	
DHM 5440	Career Internship	
DHM 5533	Theory and Design of Functional Apparel	
Hours Subtotal		12
Total Hours		30

### **Design Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Courses		
DHM 5001	Orientation to Graduate Studies in Design, Housing and Merchandising	1
DHM 5013	Research Developments in Design, Housing and Merchandising	3
DHM 5112	Research Planning and Proposal Writing	2
Required Non-Core Co	ourses	
DHM 5000	Master's Thesis	6
DHM 5003	Theoretical Perspectives for Design, Housing and Merchandising	3

DHM 5113	Theories of Creative Process in Design and Merchandising	3
DHM 5233	Design Evaluation	3
Hours Subtotal		21
Electives		
Select from any of DHM):	the following (6 credits of which must be in	9
DHM 4573	Sustainable Design for Apparel and Interiors	
DHM 5303	Sociological, Psychological and Economic Aspects of Consumer Behavior	
DHM 5343	Applied Sensation, Perception and Behavioral Psychology in DHM	
DHM 5440	Career Internship	
DHM 5533	Theory and Design of Functional Apparel	
STAT 5013	Statistics for Experimenters I	
Hours Subtotal		9
Total Hours		30

#### **Graduate College Master's Program** Requirements

# Design, Housing & Merchandising: Digital Design, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 30

Code	Title	Hours
Core Courses		
DHM 5001	Orientation to Graduate Studies in Design, Housing and Merchandising	1
DHM 5013	Research Developments in Design, Housing and Merchandising	3
DHM 5112	Research Planning and Proposal Writing	2
Hours Subtotal		6
Non-Core Requireme	nts	
DHM 5003	Theoretical Perspectives for Design, Housing and Merchandising	3
DHM 5113	Theories of Creative Process in Design and Merchandising	3
REMS 5953	Statistical Methods in Education	3
DHM 5073	Virtual and Augmented Reality Applications in Design, Housing and Merchandising	3
DHM 5173	Advanced Digital Design Communication	3
Select six hours from	the following:	6
DHM 5000	Master's Thesis	
OR		
DHM 5810	Problems in Design, Housing and Merchandising	
AND		
DHM 5353	Graduate Interior Design Studio	
Hours Subtotal		21
Electives		
Select one course (3	hours) from the following:	3
DHM 5373	Topics in Building Information Modeling	
REMS 6003	Analyses of Variance	
	be determined by advisor.	
Hours Subtotal		3
Total Hours		30

## **Graduate College Master's Program Requirements**

# Design, Housing & Merchandising: Interior Design, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Research Thesis Option**

Total Hours: 30

Code	Title	Hours
DHM Core		
DHM 5001	Orientation to Graduate Studies in Design, Housing and Merchandising	1
DHM 5013	Research Developments in Design, Housing and Merchandising	3
DHM 5112	Research Planning and Proposal Writing	2
Hours Subtotal		6
Other Requirements (	(Non-Core)	
DHM 5000	Master's Thesis	6
DHM 5003	Theoretical Perspectives for Design, Housing and Merchandising	3
DHM 5113	Theories of Creative Process in Design and Merchandising	3
DHM 5343	Applied Sensation, Perception and Behavioral Psychology in DHM	3
DHM 5353	Graduate Interior Design Studio	3
STAT 5013	Statistics for Experimenters I	3
Hours Subtotal		21
Electives		
Choose 3 hours from	the following:	3
DHM 5233	Design Evaluation	
DHM 5440	Career Internship	
DHM 4373	Advanced Computer-Aided Design for Interior Design <sup>1</sup>	

Or appropriate related course from outside of DHM (note: interdisciplinary courses such as gerontology, hospitality, merchandising, etc. are encouraged).

Hours Subtotal	3
Total Hours	30

#### **Design Thesis Option**

Total Hours: 30

Code	Title	Hours	
DHM Core			
DHM 5001	Orientation to Graduate Studies in Design, Housing and Merchandising	1	
DHM 5013	Research Developments in Design, Housing and Merchandising	3	
DHM 5112	Research Planning and Proposal Writing	2	
Hours Subtotal		6	
Other Requirements (Non-Core)			
DHM 5000	Master's Thesis	6	

DHM 5113	Theories of Creative Process in Design and Merchandising	3
DHM 5233	Design Evaluation	3
DHM 5343	Applied Sensation, Perception and Behavioral Psychology in DHM	3
DHM 5353	Graduate Interior Design Studio	3
Hours Subtotal		18
Electives		
Choose 6 hours from	m the following:	6
DHM 4573	Sustainable Design for Apparel and Interiors <sup>1</sup>	
DHM 5003	Theoretical Perspectives for Design, Housing and Merchandising	
DHM 5440	Career Internship	
STAT 5013	Statistics for Experimenters I	
	ed course from outside of DHM (note: urses such as gerontology, hospitality, . are encouraged).	
Hours Subtotal		6
Total Hours		30

## **Graduate College Master's Program Requirements**

# Design, Housing & Merchandising: Merchandising, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 30

Code	Title	Hours
DHM Core		
DHM 5001	Orientation to Graduate Studies in Design, Housing and Merchandising	1
DHM 5013	Research Developments in Design, Housing and Merchandising	3
DHM 5112	Research Planning and Proposal Writing	2
Hours Subtotal		6
Other Requirements	(Non-Core)	
DHM 5003	Theoretical Perspectives for Design, Housing and Merchandising	3
STAT 5013	Statistics for Experimenters I	3
DHM 5000	Master's Thesis	6
Hours Subtotal		12
Electives		
Select 12 hours from	the following, 9 of which must be in DHM:	12
DHM 4573	Sustainable Design for Apparel and Interiors	
DHM 5113	Theories of Creative Process in Design and Merchandising	
DHM 5303	Sociological, Psychological and Economic Aspects of Consumer Behavior	
DHM 5343	Applied Sensation, Perception and Behavioral Psychology in DHM	
DHM 5440	Career Internship	
DHM 5643	Promotional Strategies in Merchandising	
DHM 5653	Merchandising Trends, Practices and Theories in Apparel and Interior Industries	
DHM 5663	International Merchandising Management	
DHM 6403	Merchandising Theory Application and Strategy Implementation	
DHM 6463	Project Management	
DHM 5643	Promotional Strategies in Merchandising	
	ated courses outside of DHM, such as itality, business, etc.	
Hours Subtotal		12
Total Hours		30

## **Graduate College Master's Program Requirements**

### Design, Housing & Merchandising: Retail Merchandising Leadership, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 36** 

Code	Title	Hours
Required Courses		
DHM 5013	Research Developments in Design, Housing and Merchandising	3
DHM 5113	Theories of Creative Process in Design and Merchandising	3
DHM 5240	Master's Creative Component	3
DHM 5303	Sociological, Psychological and Economic Aspects of Consumer Behavior	3
DHM 5603	Historical and Contemporary Issues in Trade	3
DHM 5623	Professional Advancement in Merchandising	3
DHM 5643	Promotional Strategies in Merchandising	3
DHM 5663	International Merchandising Management	3
DHM 5673	Financial Merchandising Implications	3
DHM 5683	Strategic Planning for the Merchandising Executive	3
DHM 6403	Merchandising Theory Application and Strategy Implementation	3
REMS 5953	Statistical Methods in Education	3
Total Hours		36

## **Graduate College Master's Program Requirements**

### **Dietetics, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 36** 

Code	Title	Hours
Core Requirements	8	
STAT 5013	Statistics for Experimenters I	3
or NSCI 5603	Statistical Methods in Dietetics	
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	3
NSCI 5963	Environmental Scanning and Analysis	3
NSCI 5033	Macronutrients in Human Nutrition	3
NSCI 5043	Micronutrients in Human Nutrition	3
NSCI 5843	Non-thesis Graduate Capstone	3
Hours Subtotal		18
Elective Courses		
Select 18 hours fro	m the following:	18
NSCI 5013	Financial Management and Cost Controls in Dietetics	
NSCI 5053	Functional Foods for Chronic Disease Prevention	
NSCI 5103	Grant Writing for the Professional	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5203	Nutrition in Wellness	
NSCI 5213	Entrepreneurship in Food Service and Dietetics	
NSCI 5223	Advanced Nutrition Across the Life Span	
NSCI 5240	Contemporary Issues in Nutrition	
NSCI 5313	Dietary and Herbal Supplements	
NSCI 5323	Nutrition and Physical Activity in Aging	
NSCI 5363	Maternal and Child Nutrition	
NSCI 5373	Childhood Nutrition	
NSCI 5443	Nutrigenomics and Nutrigenetics	
NSCI 5543	Obesity Prevention Across the Lifespan	
NSCI 5553	Global Nutrition and Food Security	
NSCI 5613	Nutrition Education and Behavior Change	
NSCI 5643	Advanced Medical Nutrition Therapy	
NSCI 5683	Fundamentals of Leadership in Dietetics	
NSCI 5713	Public Health Nutrition and Food Policy	
NSCI 5753	Health Care Administration	
NSCI 5913	Nutritional Epidemiology	
NSCI 6033	Phytochemicals	
NSCI 6223	Nutrition in Immunology	
NSCI 6243	Nutrition and Cancer	
NSCI 6643	Clinical Aspects of Nutrition Support	
Hours Subtotal		18
Total Hours		36

# **Graduate College Master's Program Requirements**

### **Economics, MS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 33

Code	Title	Hours
Degree Core		
Required Courses		
ECON 5033	Macroeconomic Analysis	3
ECON 5213	Introduction to Econometrics	3
ECON 6013	Microeconomic Theory I	3
ECON 6213	Econometrics I	3
ECON 6323	Mathematical Economics I	3
Hours Subtotal		15
Electives		
Select 15 hours		15
Suggested Electives:		
AGEC 5053	Environmental Economics and Resource Development	
AGEC 5113	Applications of Mathematical Programming	
AGEC 5503	Economics of Natural and Environmental Resource Policy	
AGEC 5723	Plan & Pol Devlpmnt	
ECON 5733	Energy Economics: Traditional and Renewable Energy Markets	
ECON 6033	Macroeconomic Theory I	
STAT 5023	Statistics for Experimenters II	
STAT 5053	Time Series Analysis	
Hours Subtotal		15
Other Requirements		
ECON 5003	Research Report	3
Hours Subtotal		3
Total Hours		33

## **Graduate College Master's Program Requirements**

# **Educational Leadership Studies: College Student Development, MS**

Tiel.

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 36

**Total Hours** 

Code	Title	Hours
Required Core		
HESA 5173	Introduction to Student Affairs	3
HESA 5213	Student Development Theory	3
HESA 5320	Seminar in Student Development	3
HESA 5463	Legal Issues in Student Affairs	3
HESA 5813	Leadership and Development of Higher Education Organizations	3
HESA 6243	Internship in Higher Education and Student Affairs I	3
HESA 6253	Internship in Higher Education and Student Affairs II	3
HESA 6583	The Impact of College on Students and Society	3
Hours Subtotal		24
Assessment Core		
HESA 5343	Assessment Techniques for Higher Education and Student Affairs Professionals	3
HESA 5653	Research to Practice in Higher Education and Student Affairs	3
Hours Subtotal		6
Capstone		
HESA 5903	Capstone in Higher Education and Student Affairs	3
Hours Subtotal		3
Electives 1		
Select 3 hours from	the following:	3
HESA 5223	Career Development for College Students	
HESA 5953	Organizational Development for Higher Education	
HESA 5973	Foundations of Higher Education	
HESA 5983	Administrative Issues in Higher Education	
HESA 6163	International Issues in Higher Education	
HESA 6233	Critical Issues in Higher Education and Student Affairs	
HESA 6703	Finance in Higher Education	
HESA 6733	Planning and Educational Change	
EPSY 5103	Human Development in Psychology	
EPSY 6533	Human Motivation	
SCFD 6983	Diversity and Equity Issues in Education	
Hours Subtotal		3
T.A.I.H.		26

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And other courses approved by graduate advisory committee.

## **Graduate College Master's Program Requirements**

# **Educational Leadership Studies: Higher Education, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 36** 

(Degree program is online only)

Code	Title	Hours
Required Core		
HESA 5343	Assessment Techniques for Higher Education and Student Affairs Professionals	3
HESA 5653	Research to Practice in Higher Education and Student Affairs	3
HESA 5720	HESA Creative Component	3
HESA 5813	Leadership and Development of Higher Education Organizations	3
HESA 5973	Foundations of Higher Education	3
HESA 6233	Critical Issues in Higher Education and Student Affairs	3
Hours Subtotal		18
Guided Electives 1		
Select 18 hours from	the following:	18
HESA 5213	Student Development Theory	
HESA 5223	Career Development for College Students	
HESA 5320	Seminar in Student Development	
HESA 5333	Introduction to Hidden Student Populations	
HESA 5340	Hidden Student Populations	
HESA 6583	The Impact of College on Students and Society	
HESA 6683	The U.S. Two-Year/Community College	
HESA 6710	Special Problems in Higher Education and Student Affairs	
HESA 6733	Planning and Educational Change	
Hours Subtotal		18
Total Hours		36

And other courses approved by graduate advisory committee.

## **Graduate College Master's Program Requirements**

# **Educational Leadership Studies: School Administration, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 36** 

Code	Title	Hours
Common Core		
EDLE 5813	Leadership Theory and Ethical Decision Making	3
EDLE 5953	Developing Educational Organizations	3
Hours Subtotal		6
Emphasis Core		
EDLE 5253	The Principalship	3
EDLE 5323	School Finance	3
EDLE 5473	Supervision of Instruction	3
EDLE 5723	Education Law	3
EDLE 5800	Embedded Field Studies Internship	3
EDLE 5893	Field Studies Intern II	3
Hours Subtotal		18
Research and Inqu	iiry	
Select 6 hours from	n the following:	6
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
SCFD 5913	Introduction to Qualitative Inquiry	
Hours Subtotal		6
Option Electives		
Select 6 hours from	m the following:	6
(Alternate courses	may be approved by the student's advisor)	
CIED 5053	Curriculum Issues	
CIED 5623	Multicultural and Diversity Issues in Curriculum	
SCFD 5883	Educational Sociology	
SCFD 5873	Culture, Society and Education	
SCFD 5990	Problems and Issues in Social Foundations	
SPED 5633	Behavior Characteristics of Exceptional Individuals	
SPED 5993	Culturally Responsive Teaching in Special Education	
REMS 5373	Educational Measurements	
EDTC 5103	Advanced Computing Applications in Education	
EDTC 5720	Educ Workshop	
WAED 5013	Foundations and Characteristics of Adult Learning	
WAED 5313	Overview of Workforce and Adult Education	
WAED 5353	Instructional Strategies for Adults	
WAED 5123	Administration & Evaluation of Workforce and Adult Education	
Hours Subtotal		6

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

### Graduate College Master's Program Requirements

# **Educational Leadership Studies: Workforce and Adult Education, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 36** 

**Total Hours** 

Code	Title	Hours
Common Core		
EDLE 5813	Leadership Theory and Ethical Decision Making	3
EDLE 5953	Developing Educational Organizations	3
Hours Subtotal		6
<b>Emphasis Core</b>		
WAED 5013	Foundations and Characteristics of Adult Learning	3
WAED 5313	Overview of Workforce and Adult Education	3
WAED 5353	Instructional Strategies for Adults	3
WAED 5123	Administration & Evaluation of Workforce and Adult Education	3
EDLE 5800	Embedded Field Studies Internship	3
EDLE 5893	Field Studies Intern II	3
Hours Subtotal		18
Research and Inqu	iiry	
Select 6 hours from	n the following:	6
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
SCFD 5913	Introduction to Qualitative Inquiry	
Hours Subtotal		6
Option Electives		
Select 6 hours from	n the following:	6
Alternate courses	may be approved by the student's advisor)	
CIED 5053	Curriculum Issues	
CIED 5623	Multicultural and Diversity Issues in Curriculum	
SCFD 5883	Educational Sociology	
SCFD 5873	Culture, Society and Education	
SCFD 5990	Problems and Issues in Social Foundations	
SPED 5633	Behavior Characteristics of Exceptional Individuals	
SPED 5993	Culturally Responsive Teaching in Special Education	
REMS 5373	Educational Measurements	
EDTC 5103	Advanced Computing Applications in Education	
EDTC 5720	Educ Workshop	
Hours Subtotal		6
- · · · · ·		

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## **Graduate College Master's Program Requirements**

### **Educational Psychology, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis**

Total Hours: 36

Code	Title	Hours
Degree Core		
Select two of the fol	lowing courses:	6
EPSY 5103	Human Development in Psychology	
EPSY 5463	Psychology of Learning	
EPSY 5553	Motivation in Educational Contexts	
Hours Subtotal		6
Research and Measu	urement	
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Hours Subtotal		6
Program Core		
Select the remaining	course from the Degree Core for three hours.	3
Select 15 hours from	n the following:	15
EPSY 5320	Seminar in Educational Psychology	
EPSY 5403	Issues in Adolescent Development	
EPSY 5473	Psychology of Adult Learning	
EPSY 5603	Developmental Issues in Instruction	
EPSY 5663	Creativity for Teachers	
EPSY 5963	Developing Resources to Support Educational Programs	
EPSY 5983	Instructional Effectiveness in Higher Education	
Hours Subtotal		18
Thesis Option		
EPSY 5000	Master's Thesis	6
Hours Subtotal		6
Total Hours		36

### **Creative Component**

Total Hours: 36

Code	Title	Hours
Degree Core		
Select two of the fo	llowing courses:	6
EPSY 5103	Human Development in Psychology	
EPSY 5463	Psychology of Learning	
EPSY 5553	Motivation in Educational Contexts	
Hours Subtotal		6
Research and Meas	urement	
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Hours Subtotal		6
Program Core		

Select the remainin	g course from the Degree Core for three hours.	3
Select 15 hours from the following:		15
EPSY 5403	Issues in Adolescent Development	
EPSY 5473	Psychology of Adult Learning	
EPSY 5603	Developmental Issues in Instruction	
EPSY 5663	Creativity for Teachers	
EPSY 5963	Developing Resources to Support Educational Programs	
EPSY 5983	Instructional Effectiveness in Higher Education	
Hours Subtotal		18
Creative Componen	t Option	
EPSY 5320	Seminar in Educational Psychology	3
Select three hours	of electives.	3
Hours Subtotal		6
Total Hours		36

## **Graduate College Master's Program Requirements**

# **Educational Psychology: Educational Psychology, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 36

Code	Title	Hours
Degree Core		
Select 6 hours from	m the following:	6
EPSY 5103	Human Development in Psychology	
EPSY 5463	Psychology of Learning	
EPSY 5553	Motivation in Educational Contexts	
Hours Subtotal		6
Research and Mea	surement	
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Hours Subtotal		6
Program Core		
	m EPSY 5103, EPSY 5463, EPSY 5553, t used as part of Degree Core:	3
Select 15 hours fro	om the following:	15
FDEP 5183	Theories of Social Psychology	
EPSY 5320	Seminar in Educational Psychology	
EPSY 5403	Issues in Adolescent Development	
EPSY 5473	Psychology of Adult Learning	
EPSY 5603	Developmental Issues in Instruction	
EPSY 5663	Creativity for Teachers	
EPSY 5963	Developing Resources to Support Educational Programs	
EPSY 5983	Instructional Effectiveness in Higher Education	
Hours Subtotal		18
Thesis		
EPSY 5000	Master's Thesis (6 hours, required)	6
Hours Subtotal		6
<b>Total Hours</b>		36

#### **Non-Thesis Option**

**Total Hours: 36** 

Code	Title	Hours
Degree Core		
Select 6 hours from t	he following:	6
EPSY 5103	Human Development in Psychology	
EPSY 5463	Psychology of Learning	
EPSY 5553	Motivation in Educational Contexts	
Hours Subtotal		6
Research and Measurement		
REMS 5013	Research Design and Methodology	3

REMS 5953	Statistical Methods in Education	3
Hours Subtotal		6
Program Core		
	m EPSY 5103, EPSY 5463, EPSY 5553, t used as part of Degree Core:	3
Select 15 hours fro	om the following:	15
FDEP 5183	Theories of Social Psychology	
EPSY 5320	Seminar in Educational Psychology	
EPSY 5403	Issues in Adolescent Development	
EPSY 5473	Psychology of Adult Learning	
EPSY 5603	Developmental Issues in Instruction	
EPSY 5663	Creativity for Teachers	
EPSY 5963	Developing Resources to Support Educational Programs	
EPSY 5983	Instructional Effectiveness in Higher Education	
Hours Subtotal		18
Creative Compone	ent	
the development o	electives from the emphasis area with of a Creative Component. Related elective ermined by the student with committee	6
Hours Subtotal		6
Total Hours		36

## **Graduate College Master's Program Requirements**

### **Educational Psychology: Research, Evaluation, Measurement and** Statistics, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0

#### **Thesis Option**

Total Hours: 36

Code	Title	Hours
Inquiry Core		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
REMS 5373	Educational Measurements	3
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6373	Program Evaluation	3
SCFD 5913	Introduction to Qualitative Inquiry	3
Hours Subtotal		21
<b>Educational Psychology</b>	ogy Degree Core	
EPSY 5103	Human Development in Psychology	3
EPSY 5463	Psychology of Learning	3
Hours Subtotal		6
Inquiry Elective		
Select 3 hours from t	the following:	3
REMS 5373	Educational Measurements	
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 Exam	ns	
	coursework and having an approved I, students must pass a qualifying	
Thesis		
REMS 5000	Master's Thesis	6
Hours Subtotal		6
Total Hours		36

Code	Title	Hours
Inquiry Core		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
REMS 5373	Educational Measurements	3
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6373	Program Evaluation	3
SCFD 5913	Introduction to Qualitative Inquiry	3
Hours Subtotal		21
<b>Educational Psycholo</b>	ogy Degree Core	
EPSY 5103	Human Development in Psychology	3
EPSY 5463	Psychology of Learning	3
Hours Subtotal		6
Inquiry Elective		
Select 3 hours from t	he following:	3
REMS 5373	Educational Measurements	
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 Exam	ns	
	coursework and having an approved I, students must pass a qualifying	
Report with Electives		
Select one of the foll	owing options:	6
Option 1 - 2 hours	of thesis plus 4 hours or related electives	
Elective coursewo	ment of a Creative Component with Related ork (elective options are specified within the ements for each program).	
Hours Subtotal	e	6

#### **Graduate College Master's Program** Requirements

**Total Hours** 

Learn more about Graduate College 2022-2023 Master's Degree Program Requirements (p. 2766). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

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#### **Report Option**

**Total Hours: 36** 

# **Educational Psychology: School Psychometrics, MS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

**Total Hours: 37** 

Code	Title	Hours
Required Courses		
SPSY 5023	Introduction to School Psychology	3
SPSY 5113	Developmental Psychopathology	3
EPSY 5103	Human Development in Psychology	3
REMS 5013	Research Design and Methodology	3
EDHS 5910	Educational and Human Sciences Field Experiences	2
SPSY 5793	Individual Intellectual Assessment of Children and Youth	3
REMS 5953	Statistical Methods in Education	3
SPSY 6313	Advanced Interventions for Increased Academic Achievement	3
SPSY 5803	Advanced Cognitive Assessment and Theory	3
SPSY 5210	Introductory Practicum in School Psychology	2
SPSY 6333	Instructional Assessment and Consultation	3
EPSY 5000	Master's Thesis	6
Total Hours		37

### **Formal Report Option**

**Total Hours: 37** 

Code	Title	Hours
Required Courses		
SPSY 5023	Introduction to School Psychology	3
SPSY 5113	Developmental Psychopathology	3
EPSY 5103	Human Development in Psychology	3
REMS 5013	Research Design and Methodology	3
EDHS 5910	Educational and Human Sciences Field Experiences	2
SPSY 5793	Individual Intellectual Assessment of Children and Youth	3
REMS 5953	Statistical Methods in Education	3
SPSY 6313	Advanced Interventions for Increased Academic Achievement	3
SPSY 5803	Advanced Cognitive Assessment and Theory	3
SPSY 5210	Introductory Practicum in School Psychology	2
SPSY 6333	Instructional Assessment and Consultation	3
EPSY 5000	Master's Thesis	2
Select 4 hours of electives		4

Formal Report also required

Total Hours 37

## **Graduate College Master's Program Requirements**

# **Educational Technology: Educational Technology, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 36

Code	Title	Hours
Common Core		
EDTC 5103	Advanced Computing Applications in Education <sup>1</sup>	3
EDTC 5203	Foundations of Educational Technologies	3
EDTC 5753	Introduction to Instructional Design	3
Hours Subtotal		9
Research and Inquiry	1	
REMS 5013	Research Design and Methodology	3
Hours Subtotal		3
Option - Educational	Technology	
EDTC 5153	Computer-Based Instruction Development <sup>1</sup>	3
EDTC 5403	Creativity and Innovation in Educational Technology	3
EDTC 5503	Facilitating Online Learning <sup>1</sup>	3
EDTC 5053	Learning in a Digital Age <sup>1</sup>	3
EDTC 5113	Digital Media Production for Instruction	3
Hours Subtotal		15
Electives or Thesis		
Select 9 hours		9
Suggested Courses		
EDTC 5303	Digital Games and Simulations in the Classroom	
EDTC 5783	Learning and Teaching with Mobile Devices	
EDTC 5793	Design-Based Research	
LBSC 5613	Library Networks and Databases	
EPSY 5463	Psychology of Learning	
EPSY 5473	Psychology of Adult Learning	
REMS 5953	Statistical Methods in Education (OR)	
EDTC 5000	Master's Report or Thesis	
Hours Subtotal		9
<b>Total Hours</b>		36

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.

## **Graduate College Master's Program Requirements**

# **Educational Technology: School Library Media, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 36** 

Code	Title	Hours
Common Core		
EDTC 5203	Foundations of Educational Technologies	3
EDTC 5103	Advanced Computing Applications in Education	3
EDTC 5753	Introduction to Instructional Design	3
Hours Subtotal		9
Research and Inq	uiry Requirement	
REMS 5013	Research Design and Methodology	3
•	is approved for this course, you must complete d send printed certificate to the COE Graduate	
Hours Subtotal		3
Option Area - Sch	nool Library Media	
LBSC 5113	Selection and Organization of Informational and Educational Resources	3
LBSC 5613	Library Networks and Databases	3
LBSC 5823	Administration of School Library Media and Technology Programs	3
CIED 5353	Literature for Children, Adolescents and Adults	3
CIED 5443	Teaching Reading with Literature	3
Hours Subtotal		15
Electives		
EDTC 5113	Digital Media Production for Instruction	3
EDTC 5303	Digital Games and Simulations in the Classroom	3
EDTC 5403	Creativity and Innovation in Educational Technology	3
Other (consult yo	ur advisor for permission to substitute classes)	
Hours Subtotal		9
Total Hours		36

# **Graduate College Master's Program Requirements**

### **Electrical Engineering, MEN**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 33

Code	Title	Hours
ECEN Graduate Le	evel Courses	
Select 24 hours o	f 5000-level or higher courses.	24
	o to 9 hours of ECEN 5080 with approval of the uate advisory committee. <sup>1</sup>	
	three credit hours of ECEN 5070 may be Plan of Study with approval of the advisory	
•	EN 5030, ECEN 6050, and ENGL 4893 may not ne MEngEE Plan of Study.	
<b>Additional Course</b>	es	
•	ECEN, math, science, or engineering graduate- n approval of the student's graduate advisory	9
Total Hours		33
1		

ECEN 4xxx courses approved for graduate credit completed in the Spring 2020 semester or earlier are equivalent to ECEN 5080 in the Plan of Study.

## **Graduate College Master's Program Requirements**

### **Electrical Engineering, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 30<sup>1</sup>

Code	Title	Hours
ECEN Graduate L	_evel Courses	
	MSEE degree program are required to take st two areas of ECEN at the 5000-level or above	. 21
ECEN 5080 m	edit hours of ECEN 5070 and six credit hours of ay be included on the MSEE Plan of Study with e advisory committee. <sup>1</sup>	
ECEN 5000	Thesis	6
ECEN 5030, E the MS Plan o	CEN 6050, and ENGL 4893 may not be applied t of Study.	0
<b>Additional Cours</b>	es	
•	-ECEN, math, science, or engineering graduate- th approval of the student's graduate advisory	3
Total Hours		30
1		

ECEN 4xxx courses approved for graduate credit completed in the Spring 2020 semester or earlier are equivalent to ECEN 5070 in the Plan of Study.

## **Graduate College Master's Program Requirements**

# **Engineering and Technology Management, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 32** 

**Total Hours** 

Code	Title	Hours
Degree Core		
ETM 5111	Introduction to Strategy, Technology and Integration	1
ETM 5511	Capstone Preparation	1
ETM 5133	Capstone to Strategy, Technology and Integration	3
ETM 5143	Strategic Decision Analysis for Engineering and Technology Managers	3
Hours Subtotal		8
Electives		
Select 24 hours from	the following:	24
ETM 5221	Engineering Teaming	
ETM 5241	Strategic Project Management	
ETM 5291	Failure Mode and Effects Analysis in Design	
ETM 5341	Leadership Strategies for Technical Professionals	
ETM 5351	Planning Technical Projects	
ETM 5371	Ethics for Practicing Engineers	
ETM 5391	New Product Introduction and Commercialization	
ETM 5411	Engineering Economic Analysis	
ETM 5461	Intellectual Property Management	
ETM 5481	Sustainable Enterprise Strategies	
ETM 5531	Contract Law in Engineering and Technology	
ETM 5153	Foundations of Engineering Management	
ETM 5163	Business Innovation and Technology	
ETM 5253	Engineering Problem Solving and Decision- Making	
ETM 5283	Strategic Planning	
ETM 5943	Lean Sigma Implementation	
IEM 5413	Engineering Entrepreneurship	
IEM 5603	Project Management	
IEM 5743	Information Systems and Technology	
IEM 5763	Supply Chain Strategy	
IEM 5813	Performance Measurement Systems	
MGMT 5113	Individual and Organizational Behavior	
MGMT 5533	Leadership Challenges	
MKTG 5133	Marketing Management	
SOC 5813	Myths and Realities of Organizational Change	
Hours Subtotal		24

32

## **Graduate College Master's Program Requirements**

33

# **Engineering Technology: Fire Safety and Explosion Protection, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Hours

**Total Hours** 

#### **Thesis Option**

Title

Total Hours: 30

Code

Chainesvina Technol		
Engineering rechnol	ogy Core Courses	
FEMP 5013	Research Design & Methodology	3
or FSEP 5013	Research Design & Methodology	
IEM 5603	Project Management	3
or FSEP 5023	Project Management	
FSEP 5133	Principles of Industrial and Process Safety	3
Fire Safety and Expl	osion Protection Core Courses	
Select 9 hours from	FSEP core courses.	9
Hours Subtotal		18
Electives		
Select 3 hours of gracommittee.	aduate courses approved by the advisory	3
Select 3 hours from	FSEP courses.	3
Hours Subtotal		6
Master's Thesis		
FSEP 5000	Master's Thesis	6
(minimum two from	the FPST program). The written document	
must satisfy the req and structure. The th	uirements of the Graduate College for format nesis defense consists of a twenty-minute llowed by questions from the committee.	
must satisfy the req and structure. The th	uirements of the Graduate College for format nesis defense consists of a twenty-minute	6
must satisfy the req and structure. The the oral presentation, fo	uirements of the Graduate College for format nesis defense consists of a twenty-minute	6 30
must satisfy the req and structure. The the oral presentation, fo Hours Subtotal	uirements of the Graduate College for format nesis defense consists of a twenty-minute	
must satisfy the req and structure. The the oral presentation, fo Hours Subtotal Total Hours	uirements of the Graduate College for format nesis defense consists of a twenty-minute llowed by questions from the committee.	30
must satisfy the req and structure. The the oral presentation, fo Hours Subtotal Total Hours	uirements of the Graduate College for format nesis defense consists of a twenty-minute llowed by questions from the committee.	30
must satisfy the req and structure. The the oral presentation, fo Hours Subtotal Total Hours Code FSEP Core Courses	uirements of the Graduate College for format nesis defense consists of a twenty-minute llowed by questions from the committee.  Title	30 Hours
must satisfy the req and structure. The the oral presentation, fo Hours Subtotal Total Hours Code FSEP Core Courses FSEP 5033	uirements of the Graduate College for format nesis defense consists of a twenty-minute llowed by questions from the committee.  Title  Risk Analysis	30 Hours
must satisfy the req and structure. The the oral presentation, fo Hours Subtotal Total Hours  Code FSEP Core Courses FSEP 5033 FSEP 5113	uirements of the Graduate College for format nesis defense consists of a twenty-minute flowed by questions from the committee.  Title  Risk Analysis Fire and Explosion Hazard Recognition	30 Hours
must satisfy the req and structure. The the oral presentation, for Hours Subtotal  Total Hours  Code  FSEP Core Courses FSEP 5033 FSEP 5113 FSEP 5143	uirements of the Graduate College for format nesis defense consists of a twenty-minute llowed by questions from the committee.  Title  Risk Analysis Fire and Explosion Hazard Recognition Structural Design for Fire and Life Safety	30 Hours 3 3 3
must satisfy the req and structure. The the oral presentation, for Hours Subtotal  Total Hours  Code  FSEP Core Courses FSEP 5033  FSEP 5113  FSEP 5143  FSEP 5043	uirements of the Graduate College for format nesis defense consists of a twenty-minute llowed by questions from the committee.  Title  Risk Analysis Fire and Explosion Hazard Recognition Structural Design for Fire and Life Safety	30 Hours 3 3 3
must satisfy the req and structure. The the oral presentation, for Hours Subtotal  Total Hours  Code  FSEP Core Courses FSEP 5033 FSEP 5113 FSEP 5143 FSEP 5043 FSEP Electives	uirements of the Graduate College for format nesis defense consists of a twenty-minute ellowed by questions from the committee.  Title  Risk Analysis Fire and Explosion Hazard Recognition Structural Design for Fire and Life Safety Principles and Impacts of Explosions	30 Hours 3 3 3 3
must satisfy the req and structure. The thoral presentation, fo Hours Subtotal  Total Hours  Code  FSEP Core Courses FSEP 5033 FSEP 5113 FSEP 5143 FSEP 5043  FSEP 5043  FSEP Electives FSEP 5060	uirements of the Graduate College for format nesis defense consists of a twenty-minute flowed by questions from the committee.  Title  Risk Analysis Fire and Explosion Hazard Recognition Structural Design for Fire and Life Safety Principles and Impacts of Explosions  Emerging Topics in Engineering Technology Advanced Special Hazard Suppression and	30 Hours 3 3 3 3 3
must satisfy the req and structure. The the oral presentation, for Hours Subtotal  Total Hours  Code  FSEP Core Courses FSEP 5033 FSEP 5113 FSEP 5143 FSEP 5043  FSEP 5043  FSEP Electives FSEP 5060 FSEP 5123	uirements of the Graduate College for format nesis defense consists of a twenty-minute flowed by questions from the committee.  Title  Risk Analysis Fire and Explosion Hazard Recognition Structural Design for Fire and Life Safety Principles and Impacts of Explosions  Emerging Topics in Engineering Technology Advanced Special Hazard Suppression and Detection	30 Hours 3 3 3 3 3
must satisfy the req and structure. The the oral presentation, for Hours Subtotal  Total Hours  Code  FSEP Core Courses FSEP 5033 FSEP 5113 FSEP 5143 FSEP 5043  FSEP Electives FSEP 5060 FSEP 5123  FSEP 5153	uirements of the Graduate College for format nesis defense consists of a twenty-minute ellowed by questions from the committee.  Title  Risk Analysis Fire and Explosion Hazard Recognition Structural Design for Fire and Life Safety Principles and Impacts of Explosions  Emerging Topics in Engineering Technology Advanced Special Hazard Suppression and Detection Advanced Exposure Assessment	30 Hours 3 3 3 3 3 3
must satisfy the req and structure. The the oral presentation, for Hours Subtotal  Total Hours  Code  FSEP Core Courses FSEP 5033 FSEP 5113 FSEP 5143 FSEP 5043  FSEP Electives FSEP 5060 FSEP 5123  FSEP 5153 FSEP 5163	Title  Risk Analysis Fire and Explosion Hazard Recognition Structural Design for Fire and Life Safety Principles and Impacts of Explosions  Emerging Topics in Engineering Technology Advanced Special Hazard Suppression and Detection Advanced Exposure Assessment Building Electrical Systems	30 Hours 3 3 3 3 3 3 3 3

Code	Title	Hours
<b>Engineering Technolo</b>	ogy Core Courses	
FEMP 5013	Research Design & Methodology	3
or FSEP 5013	Research Design & Methodology	
IEM 5603	Project Management	3
or FSEP 5023	Project Management	
FSEP 5133	Principles of Industrial and Process Safety	3
Fire Safety and Explo	sion Protection Core Courses	
Select 9 hours from F	SEP core courses.	9
Hours Subtotal		18
Electives		
Select one of the two	options:	15
Coursework only optio	n	
Select 6 hours of go	graduate courses approved by the advisory	
Select 9 hours from	m FSEP courses.	
Creative component o	ption	
Select 6 hours of good committee.	graduate courses approved by the advisory	
Select 6 hours from	m FSEP courses	
FSEP 5990	Directed Studies (3 hours)	
report (a "mini-the	urse is used for a creative component. A sis") must be submitted, prepared in the sis, but not submitted for Graduate College	
Hours Subtotal		15

Code	Title	Hours
FSEP Core Courses		_
FSEP 5033	Risk Analysis	3
FSEP 5113	Fire and Explosion Hazard Recognition	3
FSEP 5143	Structural Design for Fire and Life Safety	3
FSEP 5043	Principles and Impacts of Explosions	3
FSEP Electives		
FSEP 5060	Emerging Topics in Engineering Technology	3
FSEP 5123	Advanced Special Hazard Suppression and Detection	3
FSEP 5153	Advanced Exposure Assessment	3
FSEP 5163	Building Electrical Systems	3
FSEP 5213	Advanced Building Design and Analysis	3
FSEP 5383	Fire and Evacuation Modeling	3

## **Graduate College Master's Program Requirements**

Learn more about Graduate College 2022-2023 Master's Degree Program Requirements (p. 2766). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

### **Non-Thesis Option**

Total Hours: 33

# **Engineering Technology: Mechatronics & Robotics, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Courses		
MERO 5013	Research Design & Methodology	3
MERO 5023	Project Management	3
MERO 5033	Principles of Industrial and Process Safety	3
Hours Subtotal		9
Required Courses		
MERO 5113	Mechatronic Systems I	3
MERO 5123	Mechatronic Systems II	3
MERO 5213	Introduction to Robot Dynamics and Kinematics	3
Hours Subtotal		9
Electives		
Select 6 hours:		6
MERO 5060	Emerging Topics in Engineering Technology	
MERO 5070	Directed Studies	
MERO 5133	Mechatronic System Hardware and Software Integration	
MERO 5313	Linear Control Systems for Mechatronics	
MERO 5323	Intelligent Control of Mechatronic Systems	
MERO 5413	Robotic Underwater Vehicles	
MERO 5423	Engineering Acoustics	
MERO 5433	Industrial Noise Control	
MERO 5513	Electrohydraulics	
MERO 5523	Electropneumatics	
MERO 5613	Smart Manufacturing for Mechatronics	
MERO 5633	Multiphysics Computational Modeling and Simulation	
MERO 5713	Advanced CAD for Electro-Mechanical Systems	
MERO 5723	Mechanism Design with CAD	
MERO 5733	Advanced Vibration for Electro-Mechanical Systems	
MAE 5433	Robotics, Kinematics, Dynamics and Control	
or ECEN 5433	Robotics Kinematics, Dynamics and Control	
MAE 5483	Advanced Mechatronics Design	
or ECEN 5483	Advanced Mechatronics Design	
ECEN 5233	Embedded Sensor Networks	
ECEN 5283	Computer Vision	
ECEN 5533	Modern Communication Theory	
ECEN 5553	Telecommunications Systems	

ETM 5111	Introduction to Strategy, Technology and Integration	
ETM 5143	Strategic Decision Analysis for Engineering and Technology Managers	
ETM 5153	Foundations of Engineering Management	
ETM 5221	Engineering Teaming	
ETM 5241	Strategic Project Management	
ETM 5291	Failure Mode and Effects Analysis in Design	
ETM 5371	Ethics for Practicing Engineers	
ETM 5411	Engineering Economic Analysis	
IEM 5143	Reliability and Maintainability	
ETM 5461	Intellectual Property Management	
Hours Subtotal		6
Thesis		
MERO 5000	Thesis Research	6
Hours Subtotal		6
Total Hours		30

### **Non-Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Courses		
MERO 5013	Research Design & Methodology	3
MERO 5023	Project Management	3
MERO 5033	Principles of Industrial and Process Safety	3
Hours Subtotal		9
Required Courses		
MERO 5113	Mechatronic Systems I	3
MERO 5123	Mechatronic Systems II	3
MERO 5213	Introduction to Robot Dynamics and Kinematics	3
Hours Subtotal		9
Electives		
Select 12 hours (miniform ETM/IEM course	mum 6 hours of MERO courses and 3 hours	12
MERO 5060	Emerging Topics in Engineering Technology	
MERO 5133	Mechatronic System Hardware and Software Integration	
MERO 5313	Linear Control Systems for Mechatronics	
MERO 5323	Intelligent Control of Mechatronic Systems	
MERO 5413	Robotic Underwater Vehicles	
MERO 5423	Engineering Acoustics	
MERO 5433	Industrial Noise Control	
MERO 5513	Electrohydraulics	
MERO 5523	Electropneumatics	
MERO 5613	Smart Manufacturing for Mechatronics	
MERO 5633	Multiphysics Computational Modeling and Simulation	
MERO 5713	Advanced CAD for Electro-Mechanical Systems	
MERO 5723	Mechanism Design with CAD	

MERO 5733	Advanced Vibration for Electro-Mechanical	
	Systems	
MAE 5433	Robotics, Kinematics, Dynamics and Control	
or ECEN 5433	Robotics Kinematics, Dynamics and Control	
MAE 5483	Advanced Mechatronics Design	
or ECEN 5483	Advanced Mechatronics Design	
ECEN 5233	Embedded Sensor Networks	
ECEN 5283	Computer Vision	
ECEN 5533	Modern Communication Theory	
ECEN 5553	Telecommunications Systems	
ETM 5111	Introduction to Strategy, Technology and Integration	
ETM 5143	Strategic Decision Analysis for Engineering and Technology Managers	
ETM 5153	Foundations of Engineering Management	
ETM 5221	Engineering Teaming	
ETM 5241	Strategic Project Management	
ETM 5291	Failure Mode and Effects Analysis in Design	
ETM 5371	Ethics for Practicing Engineers	
ETM 5411	Engineering Economic Analysis	
IEM 5143	Reliability and Maintainability	
ETM 5461	Intellectual Property Management	
MERO 5070	Directed Studies <sup>1</sup>	
Hours Subtotal		12
Total Hours		30

The MERO 5070 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.

## **Graduate College Master's Program Requirements**

### **English, MA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 30

Code	Title	Hours
Required Course	s	
ENGL 5013	Introduction to Graduate Studies	3
ENGL 5363	Critical Approaches to Screen Studies: Theory and History	3
Select 18 addition	nal hours of ENGL courses	18
Hours Subtotal		24
Thesis		
ENGL 5000	Master's Thesis	6
Hours Subtotal		6
Total Hours		30

## Graduate College Master's Program Requirements

#### **English: Creative Writing, MFA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 42** 

Code	Title	Hours
Required Courses		
Craft and Forms		
Select 3 hours from	the following:	3
ENGL 5760	Craft and Forms of Prose	
ENGL 5780	Craft and Forms of Poetry	
ENGL 5720	Seminar in Creative Nonfiction	
Graduate-Level Work	shops	
Select 12 hours from	m the following courses:	12
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	
Graduate-Level Litera	ature	
Select six hours		6
Hours Subtotal		21
Electives		
	om creative writing, literature, methods course ants, or other areas of language and culture	9
Hours Subtotal		9
Thesis		
Twelve hours from:		12
ENGL 5000	Master's Thesis 12 hours limited to MFA	
Hours Subtotal		12
Total Hours		42

#### **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 course work 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.

 Thesis Hours: Only MFA students may use up to 12 hours of ENGL 5000 on their Plan of Study.

### Graduate College Master's Program Requirements

### **English: Professional Writing, MA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Required Courses		
Professional Writing C	fore Courses	
ENGL 5593	Seminar in Style and Editing	3
ENGL 5553	Studies in Visual Rhetoric and Design	3
ENGL 5523	Genres in Professional Writing	3
ENGL 5340	Studies in Discourse Analysis	3
Select 6 hours from t	he following:	6
ENGL 5353	Studies in the History of Rhetoric	
ENGL 5560	Seminar in Professional Writing	
ENGL 6350	Topics in Rhetorical Theory	
ENGL 6500	Topics in Professional Writing	
Hours Subtotal		18
Thesis		
ENGL 5000	Master's Thesis	6
Hours Subtotal		6
Sample Electives 1		
Select 6 hours from t	he following:	6
Professional Writing		
ENGL 5013	Introduction to Graduate Studies	
ENGL 5223	Professional Writing Theory and Pedagogy	
ENGL 5560	Seminar in Professional Writing	
ENGL 6500	Topics in Professional Writing	
Composition		
ENGL 5213	Composition Theory and Pedagogy	
Linguistics		
ENGL 5143	Descriptive Linguistics	
ENGL 5123	Approaches to Language Acquisition	
ENGL 5130	Studies in English Grammar	
ENGL 5140	Seminar in Linguistics	
ENGL 6410	Topics in Linguistics	
TESL		
ENGL 5243	Teaching English as a Second Language	
ENGL 5333	Second Language Assessment	
ENGL 5313	Internship, Teaching English as a Second Language	
ENGL 5120	Studies in Teaching English as a Second Language	
ENGL 6420	Topics in Second Language Acquisition	
Hours Subtotal		6
Total Hours		30

1

Courses other than those listed may be taken as electives if approved by the advisory committee.

### **Non-Thesis Option**

**Total Hours: 34** 

Code	Title	Hours
Required Courses		
Professional Writing C	ore Courses	
ENGL 5593	Seminar in Style and Editing	3
ENGL 5553	Studies in Visual Rhetoric and Design	3
ENGL 5523	Genres in Professional Writing	3
ENGL 5340	Studies in Discourse Analysis	3
Select 6 hours from t	he following:	6
ENGL 5353	Studies in the History of Rhetoric	
ENGL 5560	Seminar in Professional Writing	
ENGL 6350	Topics in Rhetorical Theory	
ENGL 6500	Topics in Professional Writing	
Hours Subtotal		18
Creative Component		
ENGL 5210	Sem or Directed Study	1
ENGL 5520	Internship in Professional Writing	3
Hours Subtotal	· · · · · · · · · · · · · · · · · · ·	4
Sample Electives 1		
Select 12 hours from	the following:	12
Professional Writing	<b>3</b>	
ENGL 5013	Introduction to Graduate Studies	
ENGL 5223	Professional Writing Theory and Pedagogy	
ENGL 5560	Seminar in Professional Writing	
ENGL 6500	Topics in Professional Writing	
Composition		
ENGL 5213	Composition Theory and Pedagogy	
Linguistics	, , , , , , , , , , , , , , , , , , , ,	
ENGL 5143	Descriptive Linguistics	
ENGL 5123	Approaches to Language Acquisition	
ENGL 5130	Studies in English Grammar	
ENGL 5140	Seminar in Linguistics	
ENGL 6410	Topics in Linguistics	
TESL	'	
ENGL 5243	Teaching English as a Second Language	
ENGL 5333	Second Language Assessment	
ENGL 5313	Internship, Teaching English as a Second Language	
ENGL 5120	Studies in Teaching English as a Second Language	
ENGL 6420	Topics in Second Language Acquisition	
Hours Subtotal	10p.00 iii 0c00iid Language Acquisition	12
Total Hours		34

1

Courses other than those listed may be taken as electives if approved by the advisory committee.

# **Graduate College Master's Program Requirements**

# English: Teaching English to Speakers of Other Languages, MA

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Required Courses		
TESL Core Courses		
ENGL 5243	Teaching English as a Second Language	3
ENGL 5313	Internship, Teaching English as a Second Language	3
ENGL 5333	Second Language Assessment	3
Linguistics Core Cou	rses	
ENGL 5123	Approaches to Language Acquisition	3
ENGL 5130	Studies in English Grammar	3
ENGL 5143	Descriptive Linguistics	3
Hours Subtotal		18
Thesis		
ENGL 5000	Master's Thesis	6
Hours Subtotal		6
Sample Electives 1		
Select 6 hours from	the following:	6
Language and Lingui	istics	
ENGL 4003	History of the English Language	
ENGL 4093	Language in America (DS)	
ENGL 5133	Phonetics and Phonology	
ENGL 5140	Seminar in Linguistics	
ENGL 5153	Syntax	
ENGL 5173	Sociolinguistics	
ENGL 5410	Seminar in British Literature of the 16th Century	
PSYC 6393	Language Development	
Teaching Methodolo	gy	
ENGL 5013	Introduction to Graduate Studies	
ENGL 5120	Studies in Teaching English as a Second Language	
ENGL 5213	Composition Theory and Pedagogy	
ENGL 5223	Professional Writing Theory and Pedagogy	
ENGL 6420	Topics in Second Language Acquisition	
EDTC 5103	Advanced Computing Applications in Education	
CIED 5143	Language Arts in the Curriculum	
Cultural Studies		
Hours Subtotal		6
Total Hours		30

1

Courses other than those listed may be taken as electives if approved by the advisory committee.

### **Non-Thesis Option**

**Total Hours: 34** 

Code	Title	Hours
Required Courses		
TESL Core Courses		
ENGL 5243	Teaching English as a Second Language	3
ENGL 5313	Internship, Teaching English as a Second Language	3
ENGL 5333	Second Language Assessment	3
Linguistics Core Cours	ses	
ENGL 5123	Approaches to Language Acquisition	3
ENGL 5130	Studies in English Grammar	3
ENGL 5143	Descriptive Linguistics	3
Hours Subtotal		18
<b>Creative Component</b>		
ENGL 5210	Sem or Directed Study	1
Hours Subtotal		1
Sample Electives 1		
Select 15 hours of the	e following:	15
Language and Linguis	tics	
ENGL 4003	History of the English Language	
ENGL 4093	Language in America (DS)	
ENGL 5133	Phonetics and Phonology	
ENGL 5140	Seminar in Linguistics	
ENGL 5153	Syntax	
ENGL 5173	Sociolinguistics	
ENGL 5410	Seminar in British Literature of the 16th Century	
PSYC 6393	Language Development	
Teaching Methodology	/	
ENGL 5013	Introduction to Graduate Studies	
ENGL 5120	Studies in Teaching English as a Second Language	
ENGL 5213	Composition Theory and Pedagogy	
ENGL 5223	Professional Writing Theory and Pedagogy	
ENGL 6420	Topics in Second Language Acquisition	
EDTC 5103	Advanced Computing Applications in Education	
CIED 5143	Language Arts in the Curriculum	
Cultural Studies		
Hours Subtotal		15
Total Hours		34

1

Courses other than those listed may be taken as electives if approved by the advisory committee.

# **Graduate College Master's Program Requirements**

## **Entomology and Plant Pathology: Entomology, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 30

Code	Title	Hours
Core Requirements		
ENTO 5870	Scientific Presentations (Both fall and spring semesters - 1 credit hour each)	2
or PLP 5870	Scientific Presentations	
ENTO 5623	Advanced Biotechnology Methods	3
or PLP 5623	Advanced Biotechnology Methods	
ENTO 5524 or PLP 55	524	4
ENTO 5000	Master's Research and Thesis	6
or PLP 5000	Research	
	redit hours total must be listed on the Plan 6 credit hours completed will appear on final e Plan of Study).	
Hours Subtotal		15
Discipline Requireme	ents	
Entomology - 15 hou	rs	15
Core - select at lea	ast two courses from the following:	
ENTO 5464	Insect Biology and Classification	
ENTO 5003	Insect Biochemistry	
ENTO 5044	Insect Morphology and Physiology	
Plus any additiona and Plan of Study	al courses to complete the graduate program (7-8 hours)	
Hours Subtotal		15
Total Hours		30

## **Graduate College Master's Program Requirements**

# **Entomology and Plant Pathology: Plant Pathology, MS**

Title

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Hours

Total Hours: 30

Code

	11110	
Core Requirements		
ENTO 5870	Scientific Presentations (Both fall and spring semesters - 1 credit hour each)	2
or PLP 5870	Scientific Presentations	
ENTO 5623	Advanced Biotechnology Methods	3
or PLP 5623	Advanced Biotechnology Methods	
Select four hours fro	om the following:	4
ENTO 5524	Integrated Management of Insect Pests and Pathogens	
OR		
PLP 5524	Integrated Management of Insect Pests and Pathogens	
ENTO 5000	Master's Research and Thesis	6
or PLP 5000	Research	
	redit hours total must be listed on the Plan 6 credit hours completed will appear on final ne Plan of Study).	
Hours Subtotal		15
Discipline Requirem	ents	
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:	
PLP 5003	Plant Nematology	
PLP 5014	Plant Virology	
PLP 5104	Mycology	
PLP 5304	Phytobacteriology	
Plus additional cour of Study (6-10 hours	ses to complete the graduate program Plan	
Hours Subtotal		15
Total Hours		30

### **Graduate College Master's Program Requirements**

### **Entrepreneurship, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 33

Code	Title	Hours
Degree Core		
Required Courses		
ACCT 5183	MBA Financial Reporting	3
ACCT 5283	MBA Managerial Accounting	3
EEE 5113	Entrepreneurship and Venture Management	3
EEE 5223	Entrepreneurial Marketing	3
EEE 5233	Ideation, Creativity & Innovation	3
EEE 5333	Launching a Business: The First 100 Days	3
EEE 5993	Preparing Effective Business Plans	3
FIN 5013	Business Finance	3
MGMT 5113	Individual and Organizational Behavior	3
Hours Subtotal		27
Electives		
Select six hours from	the following: 1, 2	6
EEE 5133	Dilemmas and Debates in Entrepreneurship	
EEE 5200	Special Topics in Entrepreneurship	
EEE 5263	Corporate Entrepreneurship	
EEE 5313	Emerging Enterprise Consulting	
EEE 5403	Social Entrepreneurship	
EEE 5513	Growing Small and Family Ventures	
EEE 5610	Advanced Entrepreneurship Practicum	
EEE 5653	Venture Capital	
Hours Subtotal		6
Total Hours		33

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.

### **Graduate College Master's Program Requirements**

### **Environmental Science, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Requiremen	its	
ENVR 5303	Issues in Environmental Sustainability	3
ENVR 5123	<b>Environmental Problem Analysis</b>	3
Select an approv	ed 3-hour Natural or Physical Science course.	3
Select an approv	ed 3-hour skills course.	3
Select 12 approv	ed hours to complete degree requirements.	12
Hours Subtotal		24
Research Require	ement	
Select 6 hours of	Thesis	6
Hours Subtotal		
Total Hours		30

#### **Non-Thesis Option**

Total Hours: 32

Code	Title	Hours
Core Requiremen	ts	
ENVR 5303	Issues in Environmental Sustainability	3
ENVR 5123	<b>Environmental Problem Analysis</b>	3
Select an approve	ed 3-hour Natural or Physical Science course.	3
Select an approved 3-hour skills course.		3
Select 18 approve	ed hours to complete degree requirements.	18
Hours Subtotal		30
Research Require	ement	
Select 2 credit hours of Thesis		2
Hours Subtotal		
Total Hours		32

### **Graduate College Master's Program Requirements**

### Environmental Science: Environmental Management Professional Science Masters, MS

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 33

Code	Title	Hours
Required Core Curric	ulum	
ENVR 5123	Environmental Problem Analysis	3
ENVR 5533	Genres of Environmental Writing	3
ENVR 5303	Issues in Environmental Sustainability	3
ENVR 5503	Environmental Management Practicum	3
ENVR 5510	Environmental Management Internship	3
Hours Subtotal		15
Electives		
Select 18 hours of na	atural or physical science.	18
Examples of Elective	Courses:	
ENVR 5313	Clean Air Act: Regulation, Compliance and Reporting	
ENVR 5443	Hazardous Waste Regulations for Environmental Managers	
ENVR 5453	Bioremediation for Environmental Managers	
ENVR 5523	Industrial Ecology	
ENVR 5543	Environmental Management Systems	
ENVR 5573	Applied Standards for Environmental Managers	
ENVR 5633	Physical Geology for Environmental Managers	
ENVR 5703	Chemical Aspects of Environmental Science I	
ENVR 5713	Chemical Aspects of Environmental Science II	
ENVR 5733	Environmental Site Assessment	
ENVR 5743	Environmental Impact Assessment	
ENVR 5753	Environmental Site Remediation	
ENVR 5823	Watershed Management	
ENVR 5853	Field Stream Assessment	
Hours Subtotal		18
Total Hours		33

### **Graduate College Master's Program Requirements**

### **Family and Community Services, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 36

Code	Title	Hours
Core Courses		
HDFS 5173	Program Design, Implementation, and Evaluation in Human Development and Family Science	3
HDFS 5213	Lifespan Development	3
HDFS 5223	Resilience in Individuals and Families	3
HDFS 5443	Interpersonal Relationships	3
HDFS 5543	Family Crisis and Trauma	3
HDFS 5553	Perspectives on Parenting and Parent Education	3
HDFS 5713	Individual and Family Resource Management	3
HDFS 5753	Leadership and Management of Community Service Programs	3
HDFS 5913	Foundations and Principles of Family and Community Services	3
HDFS 5923	Dynamics of Family Interaction	3
Outside Electives		
	dvisor approval (students work with their least one elective appropriate to their career	3
<b>Creative Component</b>		
HDFS 5163	Master's Capstone in HDFS	3
Total Hours		36

### **Graduate College Master's Program Requirements**

## Family and Consumer Sciences Education, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 36** 

Code	Title	Hours
Degree Core		
Required Courses		
HDFS 5823	History and Philosophy of Family and Consumer Sciences Education	3
HDFS 5833	Occupational Programs in Family and Consumer Sciences	3
HDFS 5843	Reading in the Content Areas of Family and Consumer Sciences Education	3
HDFS 5873	Technology in Family and Consumer Sciences Programs	3
HDFS 5953	Research Experience in Family and Consumer Sciences	3
HDFS 5963	Evaluation and Assessment in Family and Consumer Sciences Programs	3
HDFS 5993	Special Topics in Family and Consumer Sciences Education: 4-H and FCCLA	3
Choose One Specializa	ation Course (3 Credit Hours)	3
HDFS 5973	Administration of Family and Consumer Sciences Education Programs	
HDFS 5983	Techniques of Supervision in Family and Consumer Sciences Programs	
Choose Three Elective	s (9 Credit Hours)	9
HDFS 4913	Instructional Methods in Family and Consumer Sciences	
HDFS 5110	Directed Study in HDFS (3 Hours Allowed)	
HDFS 5853	Adolescent Learners in Family and Consumer Sciences Programs	
HDFS 5863	Exceptional Learners in Family and Consumer Sciences Programs	
HDFS 5883	Family and Consumer Sciences in a Pluralistic Society: Foundations and Issues	
HDFS 5893	Addressing Family Issues and Public Policy Through Family and Consumer Sciences Education	
HDFS 5943	Development of Instructional Materials for Family and Consumer Sciences Programs	
Non-Thesis Project Re	quirement (3 Credit Hours)	
HDFS 5160	Master's Creative Component	3
Total Hours		36

### **Graduate College Master's Program Requirements**

Learn more about Graduate College 2022-2023 Master's Degree Program Requirements (p. 2766). Check the General Graduate College academic

regulations for minimal GPA, language proficiency and other general requirements.

### **Family Financial Planning, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 36

Code	Title	Hours
Degree Core		
Required Courses		
EDHS 5240	Master's Creative Component	3
FFP 5303	Fundamentals of Family Financial Planning	3
FFP 5333	Theories and Research in Family Financial Planning I	3
FFP 5353	Financial Counseling for Family Financial Planning	3
FFP 5403	Estate Planning for Families	3
FFP 5453	Retirement Planning, Employee Benefits and the Family	3
FFP 5553	Insurance Planning for Families	3
FFP 5603	Investing for the Family's Future	3
FFP 5653	Personal Income Tax for Family Financial	3
	Planning	
FFP 5803	Case Studies in Family Financial Planning	3
Hours Subtotal		30
Electives		
Select six hours from	the following:	6
FFP 5343	Theories and Research in Family Financial Planning II	
FFP 5483	Military Family Financial Issues	
FFP 5703	Professional Practices in Family Financial Planning	
REMS 5953	Statistical Methods in Education	
Hours Subtotal		6
Total Hours		36

### **Graduate College Master's Program Requirements**

# Fire and Emergency Management Administration, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 33

Code	Title	Hours
Core Courses		
FEMP 5113	Introduction to Fire Administration	;
FEMP 5123	Introduction to Emergency Management	;
FEMP 5013	Research Design & Methodology	;
Hours Subtotal		9
Methods/Research		
FEMP 5653	Hazard, Vulnerability, and Risk Analysis	;
or FEMP 5023	Quantitative Methods for Fire and Emergency Management I	,
or FEMP 6013	Qualitative Methods for Fire and Emergency Management	
Hours Subtotal		;
Administration		
FEMP 5413	Financial Administration for Fire and Emergency Management	;
or FEMP 5423	Labor Management for Fire and Emergency Management	
Hours Subtotal		;
Options		
Select 6 hours from	one of the following options:	(
Emergency Manager	nent Option	
FEMP 5213	Disaster Response	
FEMP 5223	Preparedness and Planning	
FEMP 5233	Disaster Recovery	
FEMP 5243	Mitigation	
FEMP 5820	Special Topics Seminar in Emergency Management	
FEMP 6820	Advanced Special Topics Seminar in Emergency Management	
Fire Administration (	Option	
FEMP 5313	Political and Community Relations for Fire and Emergency Management Administration	
FEMP 5323	Leadership and Management for Fire and Emergency Management	
FEMP 5333	Incident Command	
FEMP 6413	Seminar Risk Theory and Management	
FEMP 5830	Special Topics Seminar in Fire Administration	
FEMP 6810	Advanced Special Topics Seminar in Fire Administration	
Hours Subtotal		

Select 3 or more of th	ese courses or any of the courses listed in ready 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	
POLS 5673	Understanding and Responding to Terrorism	
Hours Subtotal		6
Thesis		
FEMP 5000	Thesis	6
Hours Subtotal		6
<b>Total Hours</b>		33

### **Non-Thesis Option**

Total Hours: 33

Code	Title	Hours
Core Courses		
FEMP 5113	Introduction to Fire Administration	3
FEMP 5123	Introduction to Emergency Management	3
FEMP 5013	Research Design & Methodology	3
Hours Subtotal		9
Methods/Research		
FEMP 5653	Hazard, Vulnerability, and Risk Analysis	3
or FEMP 5023	Quantitative Methods for Fire and Emergency Management I	y
or FEMP 6013	Qualitative Methods for Fire and Emergency Management	
Hours Subtotal		3
Administration		
FEMP 5413	Financial Administration for Fire and Emergency Management	3
or FEMP 5423	Labor Management for Fire and Emergency Management	
Hours Subtotal		3
Options		
Select 6 hours from	one of the following options:	6
Emergency Manager	nent Option	
FEMP 5213	Disaster Response	

Tot	tal Hours		33
Но	urs Subtotal		3
		Management Administration	
	MP 5903	Practicum in Fire and Emergency	3
	acticum		
Но	urs Subtotal		9
	POLS 5673	Understanding and Responding to Terrorism	
	FEMP 6840	Directed Readings in Fire and Emergency Management	
	FEMP 6323	Organizational Behavior in Disasters	
	FEMP 6313	Comparative and International Dimensions of Emergency Management	
	FEMP 6303	Populations at Risk	
	FEMP 6103	Proseminar in Fire and Emergency Management	
	FEMP 6023	Quantitative Methods for Fire and Emergency Management II	
	FEMP 5810	Special Topics Seminar in Fire and Emergency Management	
	FEMP 5643	Politics of Disaster	
	FEMP 5633	Emergency Management and Public Policy in the United States	
	FEMP 5623	Emergency Management in the International Setting	
	FEMP 5613	Complex Emergencies	
	lect 3 or more of th s curriculum not al	nese courses or any of the courses listed in	9
	ectives		
	urs Subtotal		6
	FEMP 6810	Advanced Special Topics Seminar in Fire Administration	
	5000	Administration	
	FEMP 5830	Special Topics Seminar in Fire	
	FEMP 6413	Seminar Risk Theory and Management	
	FEMP 5333	Emergency Management Incident Command	
	FEMP 5323	Leadership and Management for Fire and	
	FEMP 5313	Political and Community Relations for Fire and Emergency Management Administration	
Fire	e Administration Op	tion	
	FEMP 6820	Advanced Special Topics Seminar in Emergency Management	
	FEMP 5820	Special Topics Seminar in Emergency Management	
	FEMP 5243	Mitigation	
	FEMP 5233	Disaster Recovery	
	FEMP 5223	Preparedness and Planning	

**Graduate College Master's Program Requirements** 

Learn more about Graduate College 2022-2023 Master's Degree Program Requirements (p. 2766). Check the General Graduate College academic

regulations for minimal GPA, language proficiency and other general requirements.

### **Food Science, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Degree Core		
FDSC 4153	Advanced Food Microbiology	3
FDSC 4763	Analysis of Food Products	3
FDSC 5000	Master's Research and Thesis	6
FDSC 5300	Food Science Seminar	1
FDSC 5373	Advanced Food Chemistry	3
STAT 5013	Statistics for Experimenters I	3
Hours Subtotal		19
Electives		
Select 11 hours fro	om the following:	11
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	Internal Audit and Advanced HACCP	
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

Code	Title	Hours
Degree Core		
FDSC 4153	Advanced Food Microbiology	3
FDSC 4763	Analysis of Food Products	3
FDSC 5000	Master's Research and Thesis	2
	Science Seminar (offered for fixed credit, 1 num of 3 credit hours)	3
FDSC 5373	Advanced Food Chemistry	3
STAT 5013	Statistics for Experimenters I	3
Hours Subtotal		17
Electives		
Select 15 hours fr	om the following:	15
FDSC 4123	Principles of Food Engineering	

Total Hours		32
Hours Subtotal		15
FDSC 5553	Interpreting Animal and Food Science Research	
FDSC 5393	Issues in Food Science	
FDSC 5333	Carcass Value Estimation Systems	
FDSC 5233	Food Safety Audit Schemes	
FDSC 5213	Advances in Meat Science	
FDSC 5143	Food Safety Modernization Act	
FDSC 5120	Special Topics in Food Science	
FDSC 5113	Internal Audit and Advanced HACCP	
FDSC 5102	Ethics and Professionalism in Animal and Food Science	
FDSC 4333	Processed Meat	
FDSC 4253	Pre-Harvest Food Safety	
FDSC 4243	Researching Consumer Food Preferences	

### **Graduate College Master's Program Requirements**

### **Forensic Sciences, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis**

Total Hours: 30

Code	Title	Hours
Required Courses		
FRNS 5000	Thesis Research & Seminar	6
FRNS 5013	Survey of Forensic Sciences	3
FRNS 5063	Ethical Research and Scientific Writing	3
FRNS 5653	The Law and Expert Evidence	3
FRNS 5963	Forensic Statistics	3
Hours Subtotal		18
Electives		
Select 12 hours from	the following:	12
FRNS 5023	Questioned Document Examination	
FRNS 5033	Theory and Practice of Forensic Handwriting Examination	
FRNS 5043	Technical Aspects of Forensic Document Examination	
FRNS 5053	The Historical Aspects of Forensic Document Examination	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences	
FRNS 5213	Molecular Biology for the Forensic Scientist	
FRNS 5242	Population Genetics for the Forensic Scientist	
FRNS 5282	Methods in Forensic Sciences	
FRNS 5323	Forensic Microbiology	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5422	Forensic Osteology and Anthropology	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	
FRNS 5533	Drug Toxicity	
FRNS 5543	Advanced Forensic Toxicology	
FRNS 5622	Crime Scene Laboratory and Moot Court Experience	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5733	Forensic Victimology	
FRNS 5743	Forensic Science Seminar	
FRNS 5753	Criminal Behavioral Analysis	
FRNS 5943	Forensic Management and Organizational Development	
FRNS 5960	Forensic Problem Solving through Applied Research	
FRNS 5970	Directed Readings in Forensic Sciences	
FRNS 5980	Non-Thesis Creative Component in Forensic Sciences	

FRNS 5990	Special Topics in Forensic Sciences	
Hours Subtotal		12
<b>Total Hours</b>		30

#### **Non-Thesis**

Total Hours: 32

Code	Title	Hours
Required Courses		
FRNS 5063	Ethical Research and Scientific Writing	3
FRNS 5613	Criminalistics and Evidence Analysis	3
FRNS 5653	The Law and Expert Evidence	3
Hours Subtotal		9
Electives		
Select 23 hours from	n the following:	23
FRNS 5013	Survey of Forensic Sciences	
FRNS 5023	Questioned Document Examination	
FRNS 5033	Theory and Practice of Forensic Handwriting Examination	
FRNS 5043	Technical Aspects of Forensic Document Examination	
FRNS 5053	The Historical Aspects of Forensic Document Examination	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences	
FRNS 5213	Molecular Biology for the Forensic Scientist	
FRNS 5242	Population Genetics for the Forensic Scientist	
FRNS 5282	Methods in Forensic Sciences	
FRNS 5323	Forensic Microbiology	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5422	Forensic Osteology and Anthropology	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	
FRNS 5533	Drug Toxicity	
FRNS 5543	Advanced Forensic Toxicology	
FRNS 5622	Crime Scene Laboratory and Moot Court Experience	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5733	Forensic Victimology	
FRNS 5743	Forensic Science Seminar	
FRNS 5753	Criminal Behavioral Analysis	
FRNS 5943	Forensic Management and Organizational Development	
FRNS 5960	Forensic Problem Solving through Applied Research	
FRNS 5970	Directed Readings in Forensic Sciences	
FRNS 5980	Non-Thesis Creative Component in Forensic Sciences	
FRNS 5990	Special Topics in Forensic Sciences	

Hours Subtotal	23
Total Hours	32

### **Other Forensic Sciences Requirements**

- 16 Hours of Professional Seminar
- · Comprehensive Exam
- · Moot Court Expert Testimony Experience

### **Graduate College Master's Program Requirements**

### Forensic Sciences: Arson, Explosives, Firearms and Toolmarks Investigation, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 32

Code	Title	Hours
Required Courses		
FRNS 5063	Ethical Research and Scientific Writing	3
FRNS 5613	Criminalistics and Evidence Analysis	3
FRNS 5653	The Law and Expert Evidence	3
Hours Subtotal		9
Electives		
Select 23 hours of	the following:	23
FRNS 5013	Survey of Forensic Sciences	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5093	Scientific Writing and Presentation Skills	
FRNS 5103	The Chemistry of Pyrotechnics	
FRNS 5113	Essential Science for Explosive Operators	
FRNS 5123	Fire Dynamics in Forensic Investigations	
FRNS 5133	Ordnance Identification and Recognition	
FRNS 5143	Methods in Fire and Explosion Investigation NFPA 921/1033	
FRNS 5153	Explosives Research, Testing and Evaluation Methods	
FRNS 5183	Computer Fire Modeling	
FRNS 5423	Blast Injuries and Effects	
FRNS 5663	Destructive Devices/Explosives: Law and Regulations	
FRNS 5673	Intelligence for Forensic Investigators	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5803	Circuit Exploitation of Destructive Devices	
FRNS 5813	Building Construction and Fire/Explosion Forensic Examination	
FRNS 5823	Forensic Examination of Fire Protection Systems	
FRNS 5833	Identification of Destructive Device Fuzing Systems	
FRNS 5853	Electrical Theory and Failure Analysis in Forensic Fire Investigations	
FRNS 5873	Firearms and Toolmarks	
FRNS 5963	Forensic Statistics	
FRNS 5970	Directed Readings in Forensic Sciences	
FRNS 5980	Non-Thesis Creative Component in Forensic Sciences	
FRNS 5990	Special Topics in Forensic Sciences	
FRNS 6113	Advanced Energetic Materials Chemistry and Engineering	
FRNS 6123	Advanced Fire Dynamics	

Total Hours		32
Hours Subtotal		23
FRNS 6923	RCIED - Advanced Analysis and Mitigation	
FRNS 6903	Advanced Forensic Examination of Firearms	
FRNS 6853	Advanced Electrical Theory and Failure Analysis in Forensic Fire Investigations	
FRNS 6843	Advanced Destructive Device Circuit Exploitation	
FRNS 6423	Advanced Blast Injuries and Effects	
FRNS 6183	Advanced Computer Fire Modeling	
FRNS 6173	Advanced Interdisciplinary Post Blast Investigation	

### Other Forensic Sciences: Arson and Explosives Investigation Requirements

· Creative Component

### **Graduate College Master's Program Requirements**

## **Forensic Sciences: Forensic Document Examination, MS**

Tiel.

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 32** 

Code	Title	Hours
Required Courses		
FRNS 5613	Criminalistics and Evidence Analysis	3
FRNS 5063	Ethical Research and Scientific Writing	3
FRNS 5653	The Law and Expert Evidence	3
Hours Subtotal		9
Electives		
Select 23 hours from	n the following:	23
FRNS 5013	Survey of Forensic Sciences	
FRNS 5023	Questioned Document Examination	
FRNS 5033	Theory and Practice of Forensic Handwriting Examination	
FRNS 5043	Technical Aspects of Forensic Document Examination	
FRNS 5053	The Historical Aspects of Forensic Document Examination	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences	
FRNS 5213	Molecular Biology for the Forensic Scientist	
FRNS 5242	Population Genetics for the Forensic Scientist	
FRNS 5282	Methods in Forensic Sciences	
FRNS 5323	Forensic Microbiology	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5422	Forensic Osteology and Anthropology	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	
FRNS 5533	Drug Toxicity	
FRNS 5543	Advanced Forensic Toxicology	
FRNS 5622	Crime Scene Laboratory and Moot Court Experience	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5733	Forensic Victimology	
FRNS 5743	Forensic Science Seminar	
FRNS 5753	Criminal Behavioral Analysis	
FRNS 5943	Forensic Management and Organizational Development	
FRNS 5960	Forensic Problem Solving through Applied Research	
FRNS 5970	Directed Readings in Forensic Sciences	
FRNS 5980	Non-Thesis Creative Component in Forensic Sciences	
FRNS 5990	Special Topics in Forensic Sciences	
FRNS 5990		

Hours Subtotal	
Total Hours	32

### **Additional Forensic Sciences: Forensic Document Examination Requirements**

- · 16 hours of Professional Seminar
- · Comprehensive Exam

### **Graduate College Master's Program Requirements**

## Forensic Sciences: Forensic Science Administration, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Tiel.

**Total Hours: 32** 

Code	Title	Hours
Required Courses		
FRNS 5063	Ethical Research and Scientific Writing	3
FRNS 5613	Criminalistics and Evidence Analysis	3
FRNS 5653	The Law and Expert Evidence	3
Hours Subtotal		9
Electives		
Select 23 hours from	the following:	23
FRNS 5013	Survey of Forensic Sciences	
FRNS 5023	Questioned Document Examination	
FRNS 5033	Theory and Practice of Forensic Handwriting Examination	
FRNS 5043	Technical Aspects of Forensic Document Examination	
FRNS 5053	The Historical Aspects of Forensic Document Examination	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences	
FRNS 5213	Molecular Biology for the Forensic Scientist	
FRNS 5242	Population Genetics for the Forensic Scientist	
FRNS 5282	Methods in Forensic Sciences	
FRNS 5323	Forensic Microbiology	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5422	Forensic Osteology and Anthropology	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	
FRNS 5533	Drug Toxicity	
FRNS 5543	Advanced Forensic Toxicology	
FRNS 5622	Crime Scene Laboratory and Moot Court Experience	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5733	Forensic Victimology	
FRNS 5743	Forensic Science Seminar	
FRNS 5753	Criminal Behavioral Analysis	
FRNS 5943	Forensic Management and Organizational Development	
FRNS 5960	Forensic Problem Solving through Applied Research	
FRNS 5963	Forensic Statistics	
FRNS 5970	Directed Readings in Forensic Sciences	
FRNS 5980	Non-Thesis Creative Component in Forensic Sciences	

FRNS 5990	Special Topics in Forensic Sciences	
Hours Subtotal		23
Total Hours		32

### **Additional Forensic Sciences: Forensic Science Administration Requirements**

- · 16 Hours of Professional Seminar
- · Comprehensive Exam

### **Graduate College Master's Program Requirements**

### **General Agriculture: Agribusiness,** MAG

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Formal Report Option**

Total Hours: 32

Code	Title	Hours
Required Courses	Required Courses	
Select a minimum of 12 hours in Agricultural Economics not including AGEC 5000 or AGEC 5010: 1		12
AGEC 5423	Agribusiness Management	
or AGEC 5043	Advanced Farm and Ranch Management	
AGEC 5603	Advanced Agricultural Finance	
MGMT 5113	Individual and Organizational Behavior	
STAT 5543	Applied Regression Analysis	
ECON 5113	Managerial Economics <sup>2</sup>	
or AGEC 5103	Mathematical Economics	
Hours Subtotal		12
Electives		
Select 20 hours of electives.		20
Hours Subtotal		20
Total Hours		32

Students with no background in accounting should take ACCT 5103. Students with strong skills in mathematics and statistics should take STAT 5543 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.

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

**Electives** 

Code	Title	Hours
Required Courses		
Select a minimum of including AGEC 5000	12 hours in Agricultural Economics not 0 or AGEC 5010: <sup>1</sup>	12
AGEC 5423	Agribusiness Management	
or AGEC 5043	Advanced Farm and Ranch Management	
AGEC 5603	Advanced Agricultural Finance	
MGMT 5113	Individual and Organizational Behavior	
STAT 5543	Applied Regression Analysis	
ECON 5113	Managerial Economics <sup>2</sup>	
or AGEC 5103	Mathematical Economics	
Hours Subtotal		12

Select 24 hours of electives.	24
Hours Subtotal	24
Creative Component	
Select a creative component that might include AGEC 5990.	
Total Hours	36

1

Students with no background in accounting should take ACCT 5103. Students with strong skills in mathematics and statistics should take STAT 5543 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** 

Code	Title	Hours
Required Courses		
	f 12 hours in Agricultural Economics not	12
including AGEC 5000	or AGEC 5010: 1	
AGEC 5423	Agribusiness Management	
or AGEC 5043	Advanced Farm and Ranch Management	
AGEC 5603	Advanced Agricultural Finance	
MGMT 5113	Individual and Organizational Behavior	
STAT 5543	Applied Regression Analysis	
ECON 5113	Managerial Economics <sup>2</sup>	
or AGEC 5103	Mathematical Economics	
Hours Subtotal		12
Electives		
Select 18 hours of el	ectives.	18
Hours Subtotal		18
<b>Professional Interns</b>	hip	
AGEC 5010	Professional Experience in Agricultural	6
	Economics or Agribusiness	
Hours Subtotal		6
Total Hours		36

1

Students with no background in accounting should take ACCT 5103. Students with strong skills in mathematics and statistics should take STAT 5543 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.

# **Graduate College Master's Program Requirements**

## General Agriculture: Agricultural Leadership, MAG

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 32** 

Code	Title	Hours
Required Courses		
AECL 5101	Orientation to Graduate Programs in Agricultural Education, Communications and Leadership	1
Leadership		
AGLE 5303	Foundations of Leadership Theory	3
AGLE 5353	Leadership in Agriculture	3
AGLE 6203	Extension Program Development	3
or AECL 5863	Methods of Technological Change	
Hours Subtotal		10
Electives		
Select 6 hours of AGI	ED, AGLE or AGCM electives	6
Hours Subtotal		6
Electives/Area of Em	phasis <sup>1</sup>	
Select 16 hours		16
Hours Subtotal		16
Total Hours		32

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.

### **Graduate College Master's Program Requirements**

#### **Geography, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Required Courses		
GEOG 5001	Professional Development in Geography	1
GEOG 5303	Geographic Analysis I	3
GEOG 5403	Current Geographic Research	3
GEOG 5413	History and Philosophy of Geography	3
Hours Subtotal		10
Required Seminars		
Group I Seminar (Hum	an)	
Select 3 hours from t	he following:	3
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 <sup>1</sup>	
GEOG 6120	Seminar in Urban Geography	
GEOG 6130	Seminar in Political Geography	
GEOG 6180	Seminar in Transportation Geography	
GEOG 6210	Seminar in Historical Geography	
Group II Seminar (Phys	sical)	
Select 3 hours from t	he following:	3
GEOG 5023	Geography of Arid Lands	
GEOG 5063	Geoarchaeology and Environmental History	
GEOG 5073	Climate Change: Past, Present and Future	
GEOG 5083	Geography of Grass-Dominated Ecosystems	
GEOG 5113	Landscape Ecology	
GEOG 5123	International Resource Management	
GEOG 5163	Resource Management in the National Parks	
GEOG 5233	Human Dimensions of Global Environmental Change	
GEOG 6013	Seminar in Quaternary Paleoecology	
GEOG 6110	Seminar in Cultural and Political Ecology <sup>1</sup>	
Hours Subtotal		6
Electives		
Select 8 hours		8
Hours Subtotal		8
Thesis Hours		
GEOG 5000	Thesis	6
Hours Subtotal		6
Total Hours		30

GEOG 6110 cannot satisfy both Group I and Group II requirements simultaneously.

### **Non-Thesis Option**

Total Hours: 36

Code	Title	Hours
Required Courses		
GEOG 5001	Professional Development in Geography	1
GEOG 5303	Geographic Analysis I	3
GEOG 5403	Current Geographic Research	3
GEOG 5413	History and Philosophy of Geography	3
Hours Subtotal		10
Required Seminars		
Group I Seminar (Hun	nan)	
Select 3 hours from	the following:	3
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 <sup>1</sup>	
GEOG 6120	Seminar in Urban Geography	
GEOG 6130	Seminar in Political Geography	
GEOG 6180	Seminar in Transportation Geography	
GEOG 6210	Seminar in Historical Geography	
Group II Seminar (Phy	rsical)	
Select 3 hours from	the following:	3
GEOG 5023	Geography of Arid Lands	
GEOG 5063	Geoarchaeology and Environmental History	
GEOG 5073	Climate Change: Past, Present and Future	
GEOG 5083	Geography of Grass-Dominated Ecosystems	
GEOG 5113	Landscape Ecology	
GEOG 5123	International Resource Management	
GEOG 5163	Resource Management in the National Parks	
GEOG 5233	Human Dimensions of Global Environmental Change	
GEOG 6013	Seminar in Quaternary Paleoecology	
GEOG 6110	Seminar in Cultural and Political Ecology <sup>1</sup>	
Hours Subtotal		6
Electives		
Select 20 hours		20
Hours Subtotal		20
Total Hours		36

### **Graduate College Master's Program Requirements**

Learn more about Graduate College 2022-2023 Master's Degree Program Requirements (p. 2766). Check the General Graduate College academic

#### 3044 Geography, MS

regulations for minimal GPA, language proficiency and other general requirements.

Hours

### **Geology, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Title

Total Hours: 30

Code

	riue	Hours
<b>Required Coursewor</b>	k	
GEOL 5243	Research Methods and Techniques in Geosciences	3
hours of GEOL 5990 9 hours can be trans other academic units	ne following courses. Not to exceed 12 "Advanced Studies in Geology." Maximum iferred with "B" or better. Courses from s can be taken with approval of MS student e. All courses are 3 hours.	21
GEOL 5093	Quaternary Geology and Geochronology	
GEOL 5183	Paleontology and Paleoceanographic Reconstruction	
GEOL 5223	Advanced Methods in Structural Geology	
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 5453	Groundwater Modeling	
GEOL 5463	Physical Hydrogeology	
GEOL 5483	Petroleum Water Management	
GEOL 5513	Marine Geology	
GEOL 5533	Organic Geochemistry	
GEOL 5543	Introduction to Exploration Seismology	
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	Advanced Studies in Geology (Plate Techtonics)	
GEOL 5990	Advanced Studies in Geology (Spectral Signal Processing)	
GEOL 5990	Advanced Studies in Geology (Seismic Data Processing)	9
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	

Total Hours		30
Hours Subtotal		6
GEOL 5000	Master's Thesis	6
Thesis		
Hours Subtotal		24
GEOL 6553	Contaminant Hydrogeology	

### **Report Option**

Title

**Total Hours: 32** 

Code

Hours

Code	Title	Hours
Required Coursework		
GEOL 5990	Advanced Studies in Geology	3
Select 29 hours of the	following courses. Maximum 9 hours can	29
be transferred. All cou	ırses are 3 hours.	
GEOL 5093	Quaternary Geology and Geochronology	
GEOL 5183	Paleontology and Paleoceanographic Reconstruction	
GEOL 5223	Advanced Methods in Structural Geology	
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 5453	Groundwater Modeling	
GEOL 5463	Physical Hydrogeology	
GEOL 5483	Petroleum Water Management	
GEOL 5513	Marine Geology	
GEOL 5533	Organic Geochemistry	
GEOL 5543	Introduction to Exploration Seismology	
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 (Plate Techtonics)	
GEOL 5990	Advanced Studies in Geology (Spectral Signal Processing)	
GEOL 5990	Advanced Studies in Geology (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	

Hours Subtotal	32
Total Hours	32

# Graduate College Master's Program Requirements

### **Geoscience, MPSM**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 36

Code	Title	Hours
Core Courses		
Select 9 hours from t	the following:	9
GEOL 5213	Seismic Interpretation	
GEOL 5383	Sequence Stratigraphy	
GEOL 5223	Advanced Methods in Structural Geology	
GEOL 5333	Applied Geostatistics	
GEOL 5463	Physical Hydrogeology	
GEOL 5103	Introduction to Geophysical Exploration	
GEOL 5113	Seismic Interpretation	
MBA 5300	Current Business Topics (Ethics)	
MBA 5400	Business Practicum (Project Management)	
MBA 5500	Interdisciplinary Inquiry in Business	
	Administration (Descriptive Analytics)	
Hours Subtotal		9
Option Requirements	3	
Select 12 hours from	appropriate option:	12
Geophysics		
GEOL 5103	Introduction to Geophysical Exploration	
GEOL 5113	Seismic Interpretation	
GEOL 5543	Introduction to Exploration Seismology	
GEOL 5990	Advanced Studies in Geology	
GEOL 6103	Gravity and Magnetic Methods	
GEOL 6303	Electrical and Electromagnetic Methods	
Petroleum Geology	,	
GEOL 5023	Petroleum Geology	
GEOL 5253	Petrology and Diagenesis of Clastic Rocks	
GEOL 5133	Structural Styles in Oil and Gas Exploration	
GEOL 5283	Subsurface Geologic Methods	
GEOL 5353	Advanced Well Log Analysis	
GEOL 5363	Carbonate Depositional Systems	
GEOL 5393	Stratigraphy of the Midcontinent	
GEOL 5603	Basin Evolution	
GEOL 6503	Rock Fractures	
GEOL 6133	Unconventional Petroleum Reservoirs	
GEOL 6283	Geology of Shales	
GEOL 6373	Advanced Carbonate Petrology and	
	Geochemistry	
GEOL 6363	Carbonate Reservoir Characterization	
GEOL 6386	Sequence Stratigraphy of Shales	
Hydrogeology		
GEOL 5453	Groundwater Modeling	
GEOL 5463	Physical Hydrogeology	
GEOL 5483	Petroleum Water Management	
GEOL 6553	Contaminant Hydrogeology	
CIVE 5033	GIS Applications for Water Resources	
	• •	

	CIVE 5833	Introduction to Environmental Modeling	
	CIVE 5913	Groundwater Hydrology	
	CIVE 6843	Stochastic Methods in Hydrology	
	SOIL 5223	Soil Chemical Processes and Impact on	
		Environmental Quality	
	SOIL 5483	Soil Bioremediation and Sustainability	
	SOIL 5583	Soil Physics Measurement Techniques	
Н	ours Subtotal		12
CI	usters		
	elect any four course aduate certification	es - courses within a cluster can lead to a . <sup>1</sup>	12
	Big Data (online and	l certification available through CS)	
	STAT 5093	Statistical Computing	
	CS 5783	Machine Learning	
	CS 5433	Big Data Management	
	CS 5683	Big Data Analytics	
	Business Administra	ation (online and certification through Spears)	
	MGMT 5113	Individual and Organizational Behavior	
	ACCT 5183	MBA Financial Reporting	
	FIN 5013	Business Finance	
	ECON 5113	Managerial Economics	
	MKTG 5133	Marketing Management	
	Business Data Minii	ng (online and certification through Spears)	
	BAN 5733	Descriptive Business Analytics	
	BAN 5743	Predictive Business Analytics	
	MSIS 5633	Predictive Analytics Technologies	
	MSIS 5643	Advanced Database Management	
	Marketing Analytics	(online and certification through Spears)	
	MKTG 5733	Introduction to Marketing Analytics	
	MKTG 5743	Advanced Marketing Analytics	
	MSIS 5633	Predictive Analytics Technologies	
	MSIS 5303	Prescriptive Analytics	
	Advanced Computin	•	
	CS 5033	Parallel Algorithms and Programming	
	CS 5123	Cloud Computing and Distributed Systems	
	CS 5513	Numerical Computation	
	STAT 5053	Time Series Analysis	
	STAT 5063	Statistical Machine Learning with R	
	CS 5793	Artificial Intell II	
	ECEN 5733	Neural Networks	
		t (courses available online and in Tulsa)	
	FIN 5003	Introduction to Energy Business	
	FIN 5363	Energy Finance	
	PETE 5363	Petroleum Economics and Investments	
	MSIS 5633	Predictive Analytics Technologies	
		neering and Management	
	CIVE 5713	Soil Mechanics	
	CIVE 5813	Environmental Laboratory Analysis	
	CIVE 4123	The Legal & Regulatory Environment of	
	0.72 4120	Civil Engineering	
	SOIL 4893	Environmental Soil Chemistry	
	Reservoir Managem	·	
	PETE 4303	Petroleum Rocks and Fluids	

1

PETE 4313	Drilling and Well Completions	
PETE 4333	Production Engineering	
PETE 4343	Reservoir Engineering and Well Testing	
PETE 5303	Petroleum Geomechanics	
PETE 5513	Directional Drilling	
GEO-Int		
GEOG 5263	Geospatial Applications for Unmanned Aerial Systems	
GEOG 5303	Geographic Analysis I	
GEOG 5343	Advanced Geographic Information Systems: Resource Management Applications	
GEOL 5990	Advanced Studies in Geology	
Hours Subtotal		12
Thesis		
Three hours of Caps with a research repo	tone Project Course (Professional Internship ort)	3
Hours Subtotal		3
Total Hours		36

Most of the courses have prerequisites that can be waived with instructor's consent.

#### **Retention Requirements**

- The student will complete a Progress Report every semester in consultation with the mentor clearly highlighting previous achievements and immediate expectations, indicating how well the student is progressing towards degree completion.
- Enrollment in minimum of one course per semester or an approved leave of absence.

#### **Graduation Requirements**

- Completion of a capstone project to the satisfaction of the student's committee along with a written report
- No pending Incomplete ("I") grades in the coursework contributing towards the professional master's degree. A student can take more than 36 credit hours of course work. However, only 36 credit hours of coursework will be counted towards degree completion.

### **Graduate College Master's Program Requirements**

### **Global Health, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 32

Code	Title	Hours
Global Health Core	Courses	
HCA 5103	Introduction to Global Health	3
HCA 5143	Relief and Development in Global Health	3
HCA 5153	International Health Systems	3
HCA 5173	<b>Emerging Global Infectious Diseases</b>	3
Hours Subtotal		12
<b>Elective Courses</b>		
HCA 5183	Global Environmental and Occupational Health	3
HCA 5193	Health Aspects of Disasters	3
HCA 5273	Understanding Global Burden of Diseases	3
HCA 5020	Seminar in Global Health	3
HCA 5030	Problems and Issues in Global Health	3
HCA 5123	Survey of Research and Evaluation in Health Care	3
HCA 5052	Directed Readings in Health Care Administration	2
Hours Subtotal		20
Total Hours		32

### **Graduate College Master's Program Requirements**

### **Global Studies, MS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

### **Thesis Option**

Total Hours: 33

Code	Title	Hours
Core Course Require	ments	
Required Hours		
GS 5013	Contemporary Issues in Global Studies	3
GS 5233	Global Competitive Environment	3
GS 5313	Global Communication and Public Diplomacy	3
GS 5413	Global Development	3
GS 5513	Global Crisis Management	3
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

Code	Title	Hours
Core Course Re	quirements	
Required Hours		
GS 5013	Contemporary Issues in Global Studies	3
GS 5233	Global Competitive Environment	3
GS 5313	Global Communication and Public Diplomacy	3
GS 5413	Global Development	3
GS 5513	Global Crisis Management	3
Research Hours		
GS 5133	Research Design and Methods for Global Studies	3
Hours Subtotal		18
Focus Area Req	uirements	
Select 12 focus area hours		12
Select 3 Creative Component or Internship hours		3
Hours Subtotal		15
Total Hours		33

### **Graduate College Master's Program Requirements**

### **Graphic Design, MFA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours:** 60

Code	Title	Hours
Core Requirements	S	
courses—Graphic Interaction Design hours. Faculty will for each time they	red to take three core graduate level studio Design Studio; Motion Design Studio; and Studio three times for a total of 27 credit provide students with different design projects take a Studio. Three (3) additional Studio en depending on the student's Plan of Study	27
ART 5420	Graduate Graphic Design Studio	
ART 5450	Graduate Motion Design Studio	
ART 5460	Graduate Interaction Design Studio	
Hours Subtotal		27
Graphic Design His	story	
ART 5423	Graduate Study in Graphic Design History	3
Graphic Design Se	minar	
ART 5440	Graduate Special Topics in Graphic Design	3
Teaching Practicus	n	
ART 5413	Graduate Teaching Practicum in Graphic Design	3
Thesis		
Six hours from:		6
ART 5400	Graduate Study: Graphic Design Thesis	
Art History		
Select 3 hours		3
that are availab Art History, inclu	noose among the many graduate-level classes le in the Department of Art, Graphic Design and Juding Art 5920, Art History Seminar, Art 5613, Art 5833, History of Chinese Art, Art 5763, etc.	
Hours Subtotal		18
Electives		15
Elective courses m student's Plan of S	nay include the following depending on the Study:	
Department of A Education; Depa	(6) credit hours of Graduate Level Courses: in Art, Graphic Design and Art History; College of artment of Design, Housing and Merchandising; Computer Science	
Three (3) to six	(6) credit hours of Graphic Design internship	
ART 5410	Graduate Graphic Design Internship	
	e (3) credit hours in Graduate Studio Class n, Motion Design and Interaction Design)	
ART 5420	Graduate Graphic Design Studio	
ART 5460	Graduate Interaction Design Studio	
Three (3) hours	of thesis or Studio credits	
Hours Subtotal		15
Total Hours		60

### **Graduate College Master's Program Requirements**

## **Health and Human Performance: Applied Exercise Science, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 36

Code	Title	Hours
Core Courses		
LEIS 5023	Legal Aspects of Health, Physical Education and Leisure Services	3
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
or HHP 5053	Research Design in Leisure, Health and Huma Performance	ın
HHP 5523	Current Readings in Health	3
Hours Subtotal		12
Required Courses		
HHP 5853	Clin Ex Test & Prescript	3
HHP 5873	Human Bioenergetics	3
Hours Subtotal		6
Departmental Elective	es	
Select 12 hours from	the following:	12
HLTH 5113	Psychological Aspects of Health	
HHP 5073	Psychological Aspects of Sport	
HHP 5733	Motor Learning	
HHP 5823	Applied Neuromuscular Physiology	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5303	Human Nutrition and Metabolism I	
BIOL 5215	Mammalian Physiology	
HHP 5843	Applied Biomechanics	
Hours Subtotal		12
Thesis		
HHP 5000	Master's Thesis	6
Total Hours		36

#### **Non-Thesis Option**

Total Hours: 33

Code	Title	Hours
Core Courses		
LEIS 5023	Legal Aspects of Health, Physical Education and Leisure Services	3
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
or HHP 5053	Research Design in Leisure, Health and Huma Performance	an
HHP 5523	Current Readings in Health	3
Hours Subtotal		12
Required Courses		

HHP 5853	Clin Ex Test & Prescript	3
HHP 5873	Human Bioenergetics	3
Hours Subtotal		6
Departmental Elec	ctives	
Select 12 hours fr	om the following:	12
HLTH 5113	Psychological Aspects of Health	
HHP 5073	Psychological Aspects of Sport	
HHP 5733	Motor Learning	
HHP 5823	Applied Neuromuscular Physiology	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5303	Human Nutrition and Metabolism I	
BIOL 5215	Mammalian Physiology	
HHP 5843	Applied Biomechanics	
Hours Subtotal		12
Creative Compone	ent	
HHP 5030	Field Problems in Health and Human Performance	3
Total Hours		33

### **Graduate College Master's Program Requirements**

## **Health and Human Performance: Health Promotion, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

**Total Hours: 36** 

Code	Title F	lours
Core Courses		
LEIS 5023	Legal Aspects of Health, Physical Education and Leisure Services	3
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
or HHP 5053	Research Design in Leisure, Health and Human Performance	า
HHP 5523	Current Readings in Health	3
Hours Subtotal		12
Required Courses		
HLTH 5653	Foundations of Public Health Education and Promotion	3
HLTH 5683	Health Behavior Theory and Practice for Public Health	3
HLTH 5973	Designing Public Health Programs	3
HLTH 5983	Implementation and Evaluation of Public Health Programs	3
Hours Subtotal		12
<b>Departmental Electi</b>	ves	
Select 6 hours of the	e following:	6
HLTH 5113	Psychological Aspects of Health	
HLTH 5453	Cultural Issues In Health	
HLTH 5133	Environmental Health	
HLTH 5233	Sexuality and Health	
HLTH 5323	General Epidemiology	
Hours Subtotal		6
Thesis		
HLTH 5000	Thesis Research	6
Hours Subtotal		6
<b>Total Hours</b>		36

#### **Non-Thesis Option**

**Total Hours: 36** 

Code	Title	Hours
Core Courses		
LEIS 5023	Legal Aspects of Health, Physical Education and Leisure Services	3
REMS 5953	Statistical Methods in Education	3
REMS 5013 or HHP 5053	Research Design and Methodology Research Design in Leisure, Health and Huma Performance	3 an
HHP 5523	Current Readings in Health	3

Hours Subtotal		12
<b>Required Courses</b>		
HLTH 5653	Foundations of Public Health Education and Promotion	3
HLTH 5683	Health Behavior Theory and Practice for Public Health	3
HLTH 5973	Designing Public Health Programs	3
HLTH 5983	Implementation and Evaluation of Public Health Programs	3
Hours Subtotal		12
Departmental Elect	tives	
Select 9 hours of the	ne following:	9
HLTH 5113	Psychological Aspects of Health	
HLTH 5453	Cultural Issues In Health	
HLTH 5133	Environmental Health	
HLTH 5233	Sexuality and Health	
HLTH 5323	General Epidemiology	
Hours Subtotal		9
Non-Thesis		
HLTH 5030	Field Experiences in Health Promotion	3
Hours Subtotal		3
Total Hours		36

### **Graduate College Master's Program Requirements**

## **Health and Human Performance: Physical Education, MS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 36

Code	Title	Hours
Core Courses		
LEIS 5023	Legal Aspects of Health, Physical Education and Leisure Services	3
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
or HHP 5053	Research Design in Leisure, Health and Huma Performance	an
HHP 5523	Current Readings in Health	3
Hours Subtotal		12
Required Courses		
Select approved cours	ses.	6
Hours Subtotal		6
Departmental Elective	es	
Select 12 hours of the	e following:	12
HHP 5073	Psychological Aspects of Sport	
HHP 5733	Motor Learning	
HHP 5873	Human Bioenergetics	
CIED 5043	Issues in Teaching	
EPSY 5663	Creativity for Teachers	
Hours Subtotal		12
Thesis		
HHP 5000	Master's Thesis	6
Hours Subtotal		6
Total Hours		36

#### **Non-Thesis Option**

Total Hours: 33

Code	Title	Hours
Core Courses		
LEIS 5023	Legal Aspects of Health, Physical Education and Leisure Services	3
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
or HHP 5053	Research Design in Leisure, Health and Huma Performance	n
HHP 5523	Current Readings in Health	3
Hours Subtotal		12
Required Courses		
Select approved co	ourses.	6
Hours Subtotal		6
Departmental Elec	tives	

Select 12 hours of	of the following:	12
HHP 5073	Psychological Aspects of Sport	
HHP 5733	Motor Learning	
HHP 5873	Human Bioenergetics	
CIED 5043	Issues in Teaching	
EPSY 5663	Creativity for Teachers	
Hours Subtotal		12
Non-Thesis		
Non-Thesis HHP 5030	Field Problems in Health and Human	3
HHP 5030	Field Problems in Health and Human Performance	
		3 <b>3</b>

### **Graduate College Master's Program Requirements**

#### **Health Care Administration, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 32

**Total Hours** 

Code	Title	Hours
Degree Core		
Required Courses		
HCA 5013	Survey of Health Care Administration	3
HCA 5033	Legal Issues in Health Care Administration	3
HCA 5093	Leadership Methods and Styles in Healthcare	3
HCA 5123	Survey of Research and Evaluation in Health Care	3
Hours Subtotal		12
<b>Optional Electives</b>		
Select 20 hours fro	m the following:	20
HCA 5010	Special Topics in Health Care Administration (Clinical Operations Internship)	
HCA 5010	Special Topics in Health Care Administration	
HCA 5023	Human Resources in Health Care and Public Administration	
HCA 5043	Organizational Leadership and Development in Health Care	
HCA 5063	Health Care Compliance	
HCA 5052	Directed Readings in Health Care Administration	
HCA 5083	The Financial Structure of Health Care Organizations	
HCA 5103	Introduction to Global Health	
HCA 5113	Entrepreneurship and the Health Sciences	
HCA 5133	Health Care Informatics	
HCA 5143	Relief and Development in Global Health	
HCA 5153	International Health Systems	
HCA 5163	Healthcare Accounting and Auditing	
HCA 5173	Emerging Global Infectious Diseases	
HCA 5193	Health Aspects of Disasters	
HCA 5213	Advanced Cases in Healthcare Finance	
HCA 5223	Ethics in Healthcare	
HCA 5233	Advanced Leadership Methods and Styles in Healthcare	
HCA 5263	Patient Safety, Quality Measurement & Improvement	
HCA 5990	Internship in Health Care Administration	
Hours Subtotal		20
Takal Harris		

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### **Graduate College Master's Program Requirements**

#### **History, MA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### Plan I

Total Hours: 30

Code	Title	Hours
Required Course	es	
Select 12 hours	in a major field.	12
Select 9 hours f	rom a minor field.	9
Hours Subtotal		21
Methods		
HIST 5023	Historical Methods	3
Hours Subtotal		3
Thesis		
HIST 5000	Thesis	6
Hours Subtotal		6
Total Hours		30

#### **Plan II: Public History**

**Total Hours: 36** 

Code	Title	Hours
Required Courses		
HIST 5053	Museum Studies	3
or HIST 5063	Historic Preservation	
Select minimum of	9 hours of Seminar courses	9
Select courses per Plan of Study to complete degree		18
requirements.		
Hours Subtotal		30
Thesis		
HIST 5000	Thesis	6
Hours Subtotal		6
Total Hours		36

### **Graduate College Master's Program Requirements**

#### **Horticulture, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Courses		
HORT 5020	Graduate Seminar	1
Select 3 hours of	STAT at 5000-level or above	3
	m of 16 hours of additional HORT or related ice, Soil Science, Plant Biology, Biochemistry or	16
Select 4 hours of	HORT or related field	4
Hours Subtotal		24
Thesis		
HORT 5000	Master's Research and Thesis	6
Hours Subtotal		6
Total Hours		30

#### **Formal Report Option**

**Total Hours: 36** 

Code	Title	Hours
Courses		
Select 28-34 hour HORT 5110):	s (depending on whether 2 or 8 hours is taken in	28-34
Select 3 hours transcript.	of STAT in Undergraduate or Graduate	
HORT 5020	Graduate Seminar (1 hour)	
Select minimu	m of 16 hours of additional HORT or related field	
Select 8 to 14	hours from HORT or related field.	
Hours Subtotal		28-34
Thesis		
HORT 5110	Advanced Horticultural Problems	2-8
Hours Subtotal		2-8
Total Hours		36

### **Graduate College Master's Program Requirements**

## Hospitality and Tourism Management, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 32

Code	Title	Hours
Required Courses		
HTM 5112	Graduate Education and Research	2
HTM 5413	Hospitality and Tourism Human Resources Management	3
or HTM 5323	Hospitality and Tourism Financial Managem	ent
or HTM 5423	Hospitality and Tourism Marketing Manager	nent
HTM 5513	Hospitality and Tourism Strategic Management	3
HTM 5813	Research Methods and Analytics in Hospitality and Tourism	3
REMS 5953	Statistical Methods in Education	3
or STAT 5013	Statistics for Experimenters I	
Hours Subtotal		14
Electives		
Select 12 hours, 6 of	which need to be HTM	12
Hospitality and Tourisi	m Management	
HTM 5233	Convention and Special Event Management	
HTM 5263	Applied Revenue Management in Hospitality and Tourism Management	
HTM 5313	Hospitality and Tourism Information Technology	
HTM 5503	Big Data Analytics in Hospitality and Tourism Management	
HTM 5680	Seminar in Food Service Management	
HTM 5780	Seminar in Lodging Management	
HTM 5813	Research Methods and Analytics in Hospitality and Tourism	
HTM 5850	Special Topics in the Hospitality and Tourism Industry	
(Recommended Outs	ide Elective Courses)	
Accounting and Finance	ce	
ACCT 5103	Seminar in Contemporary Accounting Theory I	
ACCT 5183	MBA Financial Reporting	
ACCT 5283	MBA Managerial Accounting	
ACCT 5603	Advanced Accounting-based Information Systems	
Entrepreneurship		
EEE 5223	Entrepreneurial Marketing	
EEE 5263	Corporate Entrepreneurship	
EEE 5313	Emerging Enterprise Consulting	
Human Resources		
MGMT 5133	Total Rewards	

Total Hours		32
Hours Subtotal		6
HTM 5000	Master's Thesis	6
Thesis		
Hours Subtotal		12
MSIS 5633	Predictive Analytics Technologies	
	Management	
MSIS 5623	Information and Network Technology	
	Development	
MSIS 5133	Advanced Web Based Application	
MSIS 5123	Enterprise Resource Planning	
Information and Techn	ology	
MKTG 5613	Seminar in Consumer Behavior	
MKTG 5553	International Marketing Strategy	
MKTG 5223	Entrepreneurial Marketing	
MKTG 5213	Services Marketing	
MKTG 5133	Marketing Management	
Marketing	,	
MGMT 5533	Leadership Challenges	
MGMT 5313	Project Management	
MGMT 5223	Seminar in Human Resource Management	
MGMT 5123	Org Design & Research	
MGMT 5113	Individual and Organizational Behavior	
Management	zmplojimom zam	
LSB 5423	Employment Law	
MGMT 5823	Talent Acquisition	
MGMT 5543	Human Resource Analytics	
MGMT 5153	Talent Development	

#### **Non-Thesis Option**

Total Hours: 32

Code	Title	Hours
Required Courses		
HTM 5112	Graduate Education and Research	2
HTM 5323	Hospitality and Tourism Financial Management	3
HTM 5413	Hospitality and Tourism Human Resources Management	3
HTM 5513	Hospitality and Tourism Strategic Management	3
BADM 5513	Fundamentals of Business Analytics	3
HTM 5423	Hospitality and Tourism Marketing Management	3
Hours Subtotal		17
Electives		
Select 15 hours, 9 of	which must be HTM.	15
Hospitality and Touris	m Management	
HTM 5233	Convention and Special Event Management	
HTM 5263	Applied Revenue Management in Hospitality and Tourism Management	
HTM 5313	Hospitality and Tourism Information Technology	

HTM 5503	Big Data Analytics in Hospitality and Tourism Management	
HTM 5680	Seminar in Food Service Management	
HTM 5780	Seminar in Lodging Management	
HTM 5813	Research Methods and Analytics in Hospitality and Tourism	
HTM 5850	Special Topics in the Hospitality and Tourism Industry	
(Recommended Outs	side Elective Courses)	
Accounting and Finan	ice	
ACCT 5103	Seminar in Contemporary Accounting Theory I	
ACCT 5183	MBA Financial Reporting	
ACCT 5283	MBA Managerial Accounting	
ACCT 5603	Advanced Accounting-based Information Systems	
Entrepreneurship		
EEE 5223	Entrepreneurial Marketing	
EEE 5263	Corporate Entrepreneurship	
EEE 5313	Emerging Enterprise Consulting	
Human Resources		
MGMT 5133	Total Rewards	
MGMT 5153	Talent Development	
MGMT 5543	Human Resource Analytics	
MGMT 5823	Talent Acquisition	
LSB 5423	Employment Law	
Management		
MGMT 5113	Individual and Organizational Behavior	
MGMT 5123	Org Design & Research	
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 Tech	nology	
MSIS 5123	Enterprise Resource Planning	
MSIS 5133	Advanced Web Based Application Development	
MSIS 5623	Information and Network Technology Management	
MSIS 5633	Predictive Analytics Technologies	
Hours Subtotal		15
Total Hours		32

### 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.
- 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.

### Graduate College Master's Program Requirements

# Human Development and Family Science: Aging Sciences, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 36

Code	Title	Hours
Human Developme	ent and Family Science	
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
Research Methods	and Statistics	
HDFS 5123	Research Methods and Design in HDFS I	3
REMS 5953	Statistical Methods in Education	3
Aging Sciences Co	re	
HDFS 5013	Assessment for Aging Research	3
HDFS 5413	Aging in Human Development	3
HDFS 5483	Aging Network Seminar	3
HDFS 5493	Aging and Diverse Families	3
Aging Sciences Ele	ectives	
Select 6 hours from	n the following:	6
NSCI 5393	Nutrition and Aging	
LEIS 5073	Recreational Therapy and Geriatrics	
LEIS 5473	Leisure and Aging	
CPSY 5173	Gerontological Counseling	
Other courses as approved by committee.		
Thesis		
HDFS 5000	Master's Thesis	6
Total Hours		36

#### **Non-Thesis Option**

**Total Hours: 36** 

Code	Title	Hours
Human Developm	ent and Family Science	
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
<b>Research Method</b>	s and Statistics	
HDFS 5123	Research Methods and Design in HDFS I	3
REMS 5953	Statistical Methods in Education	3
Aging Sciences C	ore	
HDFS 5013	Assessment for Aging Research	3
HDFS 5413	Aging in Human Development	3
HDFS 5483	Aging Network Seminar	3
HDFS 5493	Aging and Diverse Families	3
Aging Sciences El	lectives	
Select 9 hours fro	m the following:	9
NSCI 5393	Nutrition and Aging	
LEIS 5073	Recreational Therapy and Geriatrics	
LEIS 5473	Leisure and Aging	

Total Ho	ours		36
HDFS 5	163 I	Master's Capstone in HDFS	3
Non-The	esis		
Othe	courses as ap	proved by committee.	
CPSY	<sup>'</sup> 5173 (	Gerontological Counseling	

### **Graduate College Master's Program Requirements**

# Human Development and Family Science: Applied Human Services, MS

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 33

Code	Title	Hours
Degree Core		
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
Research Methods	and Statistics	
HDFS 5123	Research Methods and Design in HDFS I	3
REMS 5953	Statistical Methods in Education	3
Topics in Human D	Development and Family Science	
Select 6 credit hou	rs in HDFS to be selected from the following	6
courses or approve	ed by advisor.	
HDFS 5153	Policy in Human Development and Family Science	
HDFS 5273	Parent Education	
HDFS 5513	Issues in Family Science	
HDFS 5563	Community and Family	
Hours Subtotal		18
Electives		
-	ose electives from one of the following choose electives with their advisory	9-12
Aging Sciences		
HDFS 5413	Aging in Human Development	
HDFS 5423	Research Perspectives in Gerontology	
HDFS 5433	Theories of Aging	
HDFS 5483	Aging Network Seminar	
HDFS 5493	Aging and Diverse Families	
Early Childhood Edu	ıcation	
HDFS 5323	Issues in Early Childhood	
HDFS 5333	Early Childhood Education History and Theory	
HDFS 5353	Diversity in Early Childhood	
HDFS 5363	Early Childhood Development and Education	
Infant Mental Healt	h	
HDFS 5193	Reflective Practice	
HDFS 5233	Infant Mental Health	
HDFS 5243	Infant and Early Childhood Development and Attachment	
HDFS 5343	Developmental Assessment and Interventions	
Intellectual and Dev	velopmental Disabilities	
HDFS 5193	Reflective Practice	
HDFS 5283	Developmental Disabilities	

HDFS 5623	Systems Theory and Applications to the Family	
HDFS 5653	Systemic Approaches to Psychopathology and Psychopharmacology	
Hours Subtotal		9-12
Thesis/Non-Thesis I	Hours	
Select either thesis of (3 hours).	option (6 hours) or creative component option	3-6
HDFS 5000	Master's Thesis	
OR		
HDFS 5160	Master's Creative Component	
Hours Subtotal		3-6
Total Hours		33

### **Graduate College Master's Program Requirements**

# Human Development and Family Science: Developmental and Family Sciences, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 30

Code	Title	Hours
Required Courses		
Theoretical Foundatio	ns in Human Development and Family Science	
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
Hours Subtotal		6
Research Methods a	nd Statistics	
Choose one of the fo	llowing options:	9
HDFS 5123	Research Methods and Design in HDFS I	
STAT 5013	Statistics for Experimenters I	
STAT 5063	Statistical Machine Learning with R	
OR		
PSYC 5304	Quantitative Methods in Psychology I <sup>1</sup>	
PSYC 5314	Quantitative Methods in Psychology II	
HDFS 6143	Structural Equation Modeling for HDFS	
	Applications	
Hours Subtotal		9
Electives in Human D	Development and Family Science	
	in HDFS from the following courses or	9
approved by advisor.		
HDFS 5153	Policy in Human Development and Family Science	
HDFS 5273	Parent Education	
HDFS 5283	Developmental Disabilities	
HDFS 5493	Aging and Diverse Families	
HDFS 5513	Issues in Family Science	
HDFS 5563	Community and Family	
Hours Subtotal		9
Thesis		
HDFS 5000	Master's Thesis	6
Hours Subtotal		6
Total Hours		30

If PSYC 5304 and PSYC 5314 are selected, total hours required for degree are increased by two.

### **Graduate College Master's Program Requirements**

# Human Development and Family Science: Early Childhood Education, MS

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Early Childhood Ed	ucation Core	
HDFS 5323	Issues in Early Childhood	3
HDFS 5333	Early Childhood Education History and Theory	3
HDFS 5353	Diversity in Early Childhood	3
Human Developme	nt and Family Science Core	
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
Hours Subtotal		15
Research Methods	and Statistics	
HDFS 5123	Research Methods and Design in HDFS I	3
	course with MS Advisory Committee approval - iclude the following:	3
REMS 5953	Statistical Methods in Education	
SCFD 5913	Introduction to Qualitative Inquiry	
Hours Subtotal		6
Electives		
Selected elective co	ourses in ECE or approved by advisor.	3
HDFS 5193	Reflective Practice	
HDFS 5243	Infant and Early Childhood Development and Attachment	
HDFS 5363	Early Childhood Development and Education	
Hours Subtotal		3
Individual Research	n or Creative Project	
(Requires MS Advis	sory Committee Approval)	
HDFS 5000	Master's Thesis	6
Hours Subtotal		6
Total Hours		30

#### **Non-Thesis Option**

**Total Hours: 32** 

Code	Title	Hours	
Early Childhood E	ducation Core		
HDFS 5323	Issues in Early Childhood	3	
HDFS 5333	Early Childhood Education History and Theory	3	
HDFS 5353	Diversity in Early Childhood	3	
Human Development and Family Science Core			
HDFS 5213	Lifespan Development	3	

HDFS 5523	Family Theory	3
Hours Subtotal		15
Research Methods a	nd Statistics	
HDFS 5123	Research Methods and Design in HDFS I	3
Selected research co example courses inc	urse with MS Advisory Committee approval - lude the following:	3
REMS 5953	Statistical Methods in Education	
SCFD 5913	Introduction to Qualitative Inquiry	
Hours Subtotal		6
Electives		
Selected elective cou	urses in ECE or approved by advisor:	6
HDFS 5193	Reflective Practice	
HDFS 5243	Infant and Early Childhood Development and Attachment	
HDFS 5363	Early Childhood Development and Education	
Hours Subtotal		6
Individual Research	or Creative Project	
(Requires MS Adviso	ry Committee Approval)	
HDFS 5160	Master's Creative Component	5
Hours Subtotal		5
Total Hours		32

### **Graduate College Master's Program Requirements**

# Human Development and Family Science: Marriage and Family Therapy, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 60

Code	Title	Hours
Required Courses		
AREA I. Theoretical F	oundations	
HDFS 5613	Theoretical Models of Marriage and Family Therapy	3
HDFS 5623	Systems Theory and Applications to the Family	3
AREA II. Clinical Prac	tice	
HDFS 5603	Pre-Practicum in Marriage and Family Therapy: Counseling Skills	3
HDFS 5633	Couples Treatment in Marriage and Family Therapy	3
HDFS 5643	Child and Adolescent Treatment in Marriage and Family Therapy	3
HDFS 5653	Systemic Approaches to Psychopathology and Psychopharmacology	3
AREA III. Individual D	evelopment and Family Relations	
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
HDFS 5543	Family Crisis and Trauma	3
HDFS 5583	Intimate Relationships and Sexuality across the Lifespan	3
AREA IV. Professiona	l Identity and Ethics	
HDFS 5663	Professionalism and Ethics in Marriage and Family Therapy	3
Standard Curriculum	Clinical Experience Requirements	
(minimum of 15 hou	ırs)	
HDFS 5690	Marriage and Family Therapy Practicum (Minimum of 18 months of practicum experience required and a minimum of 500 client contact hours.)	15
AREA V. Research		
HDFS 5123	Research Methods and Design in HDFS I	3
Area VI. Additional L	Learning	
of HDFS 5000 Mast statistics/research	uired to complete either thesis (6 hours ers Research and an advisor-approved methods course) or complete a creative 5160) and six additional hours of elective	
HDFS 5000	Master's Thesis	6
Select 3 hours from	the following:	3
REMS 5953	Statistical Methods in Education	
STAT 5013	Statistics for Experimenters I	

Committee-approved equivalent	
Total Hours	60
1	

Total hours for HDFS 5690 can range from 15-18. Any hours beyond 15 for this course increase the total hours required for this degree.

#### **Non-Thesis Option**

**Total Hours:** 60

Code	Title	Hours
Required Courses		
AREA I. Theoretical Fo	oundations	
HDFS 5613	Theoretical Models of Marriage and Family Therapy	3
HDFS 5623	Systems Theory and Applications to the Family	3
AREA II. Clinical Pract	ice	
HDFS 5603	Pre-Practicum in Marriage and Family Therapy: Counseling Skills	3
HDFS 5633	Couples Treatment in Marriage and Family Therapy	3
HDFS 5643	Child and Adolescent Treatment in Marriage and Family Therapy	3
HDFS 5653	Systemic Approaches to Psychopathology and Psychopharmacology	3
AREA III. Individual De	velopment and Family Relations	
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
HDFS 5543	Family Crisis and Trauma	3
HDFS 5583	Intimate Relationships and Sexuality across the Lifespan	3
AREA IV. Professional	Identity and Ethics	
HDFS 5663	Professionalism and Ethics in Marriage and Family Therapy	3
Standard Curriculum (	Clinical Experience Requirements	
(minimum of 15 hour	rs)	
HDFS 5690	Marriage and Family Therapy Practicum (Minimum of 18 months of practicum experience required and a minimum of 500 client contact hours.) <sup>1</sup>	15
AREA V. Research		
HDFS 5123	Research Methods and Design in HDFS I	3
Area VI. Additional Le		
of HDFS 5000 Maste statistics/research m	ired to complete either thesis (6 hours rs Research and an advisor-approved nethods course) or complete a creative 160) and six additional hours of elective	
HDFS 5160	Master's Creative Component	3
Select two 3-credit ho	ours courses of advisor-approved electives.	6
Total Hours		60

Total hours for HDFS 5690 can range from 15-18. Any hours beyond 15 for this course increase the total hours required for this degree.

# **Graduate College Master's Program Requirements**

## **Industrial Engineering and Management, MS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
<b>Required Cours</b>	es	
Track Core		
Select 12 appro	ved hours.	12
Select 6 hours of	of track supporting courses.	6
Hours Subtotal		18
Thesis		
IEM 5000	Master's Research and Thesis	6
<b>Hours Subtotal</b>		6
Electives		
Select 6 hours of committee.	of graduate courses approved by the advisory	6
Hours Subtotal		6
Total Hours		30

#### **Non-Thesis Option**

Total Hours: 33

Code	Title	Hours
Required Course	s	
Track Core Course	es	
Select 12 approv	red hours.	12
Select 12 hours	of track-supporting courses.	12
Hours Subtotal		24
Electives		
Select one of the	three options	9
Coursework Only	Option (9 hours)	
Select 9 hours committee.	s of graduate courses approved by the advisory	
Independent Stud	ly Option (9 hours)	
Select 6 hours committee.	s of graduate courses approved by the advisory	
IEM 5350	Industrial Engineering Problems	
Internship/Praction	cum Option (9 hours)	
Select 3 to 6 h	nours of IEM 5020 and/or IEM 5030.	
IEM 5020	Graduate Engineering Practicum	
IEM 5030	Engineering Practice	
Select 3-6 hou advisory com	urs from graduate courses approved by the mittee.	
Hours Subtotal		9
Total Hours		33

### **Graduate College Master's Program Requirements**

#### Industrial Engineering and Management: Operations Research and Analytics, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Common Core		
IEM 5003	Probability and Statistics for Engineers	3
IEM 5013	Introduction to Optimization	3
IEM 5703	Discrete System Simulation	3
Hours Subtotal		9
<b>Specialty Core Cour</b>	ses	
IEM 5063	Network Optimization	3
IEM 5133	Stochastic Processes	3
IEM 5723	Data, Process and Object Modeling	3
Hours Subtotal		9
Electives		
Select six hours (incourse)	cluding at least one IEM graduate-level	6
Hours Subtotal		6
Thesis		
IEM 5000	Master's Research and Thesis	6
Hours Subtotal		6
Total Hours		30

#### **Non-Thesis Option**

Total Hours: 33

Code	Title	Hours
Common Core		
IEM 5003	Probability and Statistics for Engineers	3
IEM 5013	Introduction to Optimization	3
IEM 5703	Discrete System Simulation	3
Hours Subtotal		9
<b>Specialty Core Course</b>	es	
IEM 5063	Network Optimization	3
IEM 5133	Stochastic Processes	3
IEM 5723	Data, Process and Object Modeling	3
Hours Subtotal		9
Electives		
Select six hours (inclu	ıding at least one IEM graduate-level	6
course)		
Hours Subtotal		6
Additional Requireme	nts	
Select one of the following options:		9
Option 1		

9 hours of additional approved electives

Total Hours		33
Hours Subtotal		9
3-6 hours of II electives to ed	EM 5020 and/or IEM 5030 plus additional qual 9 hours	
Option 3		
6 hours of add	ditional approved electives	
IEM 5350	Industrial Engineering Problems	
Option 2		

### **Graduate College Master's Program Requirements**

# Industrial Engineering and Management: Supply Chain and Logistics, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Common Core		
IEM 5003	Probability and Statistics for Engineers	
IEM 5013	Introduction to Optimization	3
IEM 5703	Discrete System Simulation	3
Hours Subtotal		9
<b>Specialty Core Cours</b>	es	
IEM 5203	Facility Location, Warehousing and Transportation	3
IEM 5633	Advanced Production and Inventory Control	3
IEM 5763	Supply Chain Strategy	3
Hours Subtotal		9
Electives		
Select six hours (inclucourse)	uding at least one IEM graduate-level	6
Hours Subtotal		6
Thesis		
IEM 5000	Master's Research and Thesis	6
Hours Subtotal		6
Total Hours		30

#### **Non-Thesis Option**

Total Hours: 33

Code	Title	Hours
Common Core		
IEM 5003	Probability and Statistics for Engineers	3
IEM 5013	Introduction to Optimization	3
IEM 5703	Discrete System Simulation	3
Hours Subtotal		9
Specialty Core Cour	rses	
IEM 5203	Facility Location, Warehousing and Transportation	3
IEM 5633	Advanced Production and Inventory Control	3
IEM 5763	Supply Chain Strategy	3
Hours Subtotal		9
Electives		
Select six hours (incourse)	cluding at least one IEM graduate-level	6
Hours Subtotal		6
Additional Requiren	nents	

Total Hours	33
Hours Subtotal	9
electives to equal 9 hours	
3-6 hours of IEM 5020 and/or IEM 5030 plus additional	
Option 3	
6 hours of additional approved electives	
IEM 5350 Industrial Engineering Problems	
Option 2	
9 hours of additional approved electives	
Option 1	
Select one of the following options:	9

### **Graduate College Master's Program Requirements**

#### **Integrative Biology, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Required Courses	s	
Select 24 hours of BIOL 5000.	of 5000-level courses or seminars, not including	24
Thesis		
BIOL 5000	Research for Master's Thesis	6
Total Hours		30

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

Code	Title	Hours
Required Courses		
Select a minimum of 2 not including BIOL 500	28 hours of 5000-level courses or seminars, 00. <sup>1</sup>	28
Hours Subtotal		28
Seminar Courses		
Select a minimum of t	wo seminar classes.	2
Hours Subtotal		2
Report		
2 hours of formal repo	ort	2
Hours Subtotal		2
Total Hours		32

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

### **Graduate College Master's Program Requirements**

#### **Interdisciplinary Studies, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Thesis		
6 Hours of T	hesis	6
<b>Hours Subto</b>	tal	6
Other Requir	rements	
Select 24 ho	urs based on plan of study:	24
Hours Subtotal		24
Total Hours		30

#### **Non-Thesis Option**

Total Hours: 32

Code	Title	Hours
Required Coursewo	rk	
Select no more than	n 3 hours of research with a grade of "SR."	1-3
Select courses base	ed on plan of study	29-31
Total Hours		32

### **Graduate College Master's Program Requirements**

#### **International Agriculture, MAG**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0

#### **Creative Component Option**

Total Hours: 36

Code	Title	Hours
Core Requirements		
AGIN 5312	Applied Issues in International Agriculture and Natural Resources	2
AGIN 5313	Global Food Security and Sustainability	3
Select one of the follo	owing:	3
AGIN 5113	Global Agricultural Development Communications	
AGIN 5213	Global Agricultural Entrepreneurship	
AGIN 5333	Guided Reading in International Agriculture and Natural Resources	
AGIN 5353	Advanced Case Studies in Agricultural Marketing and International Development	
AGIN 5413	Overview of Global Development	
AGIN 5800	International Agriculture Internship Experience <sup>1, 2</sup>	4
AGIN 5102	International Agriculture Creative Component	2
Hours Subtotal		14
Focus Area <sup>3</sup>		
consultation with the	te an international agriculture focus area in graduate advisory committee and faculty/ Example focus areas include but are not	22

limited to: International Agricultural Development and Trade, Agricultural Entrepreneurship, Agricultural Outreach Education and Extension, or Production Agriculture and Food Security.

Hours Subtotal	22
Total Hours	36

International students may substitute another course for this requirement.

Must be a minimum four-week international experience.

Could include an additional international experience.

#### **Professional Internship Option**

**Total Hours: 36** 

Code	Title	Hours
Core Requiremen	ts	
AGIN 5312	Applied Issues in International Agriculture and Natural Resources	2
AGIN 5313	Global Food Security and Sustainability	3
Select one of the	following:	3

AGIN 5113	Global Agricultural Development Communications	
AGIN 5213	Global Agricultural Entrepreneurship	
AGIN 5333	Guided Reading in International Agriculture and Natural Resources	
AGIN 5353	Advanced Case Studies in Agricultural Marketing and International Development	
AGIN 5413	Overview of Global Development	
AGIN 5800	International Agriculture Internship Experience <sup>1, 2</sup>	6
Hours Subtotal		14
Focus Area <sup>3</sup>		
consultation with the staff of the program limited to: Internation Agricultural Entrepr	ate an international agriculture focus area in ne graduate advisory committee and faculty/ n. Example focus areas include but are not onal Agricultural Development and Trade, eneurship, Agricultural Outreach Education roduction Agriculture and Food Security.	22
Hours Subtotal		22
Total Hours		36
1		
International studer requirement.	nts may substitute another course for this	
Must be a minimum	four-wook international experience	

Must be a minimum four-week international experience.

Could include an additional international experience.

#### **Graduate College Master's Program** Requirements

#### **International Agriculture, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Course Requireme	nts	
AGIN 5312	Applied Issues in International Agriculture and Natural Resources	2
AGIN 5313	Global Food Security and Sustainability	3
Select one of the f	ollowing:	3
AGIN 5113	Global Agricultural Development Communications	
AGIN 5213	Global Agricultural Entrepreneurship	
AGIN 5333	Guided Reading in International Agriculture and Natural Resources	
AGIN 5353	Advanced Case Studies in Agricultural Marketing and International Development	
AGIN 5413	Overview of Global Development	
AGIN 5800	International Agriculture Internship Experience <sup>1, 2</sup>	1
Hours Subtotal		9
Research and Inqu	iry Core	
Quantitative/Qualita	ative	
Select one of the f	ollowing:	3
ECON 5213	Introduction to Econometrics	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
STAT 5013	Statistics for Experimenters I	
Or other quantit Graduate Advis	ative/qualitative course approved by the ory Committee	
Research Methods		
Select one of the f	ollowing:	3
AGEC 5101	Research Methodology	
AGED 5983	Quantitative Research Methods	
SOIL 5112	Research Methods in Plant and Soil Sciences	
HORT 5233	Experimental Horticulture	
	ative or qualitative research methods course Graduate Advisory Committee	
AGIN 5000	Master's Thesis/Report in International Agriculture	6
Hours Subtotal		12
Focus Area		
The student will cr	eate an international agriculture focus area in	9

consultation with the graduate advisory committee and faculty/ staff of the program. Example focus areas include but are not

limited to: Rural Development, Agricultural Entrepreneurship, Agricultural Outreach Education and Extension, Community Engagement and Sustainabilty, or Production Agriculture and

Food Security.

Hours Subtotal	9
Total Hours	30

International students may substitute another course for the international experience requirement.

2

Must be a minimum four-week international experience.

#### **Formal Report Option**

**Total Hours: 32** 

Code	Title	Hours
Course Requirements	3	
AGIN 5312	Applied Issues in International Agriculture and Natural Resources	2
AGIN 5313	Global Food Security and Sustainability	3
Select one of the follo	owing:	3
AGIN 5113	Global Agricultural Development Communications	
AGIN 5213	Global Agricultural Entrepreneurship	
AGIN 5333	Guided Reading in International Agriculture and Natural Resources	
AGIN 5353	Advanced Case Studies in Agricultural Marketing and International Development	
AGIN 5413	Overview of Global Development	
AGIN 5800	International Agriculture Internship Experience <sup>1, 2</sup>	4
Hours Subtotal		12
Research and Inquiry	Core	
Quantitative/Qualitativ	re	
Select one of the follo	owing:	3
ECON 5213	Introduction to Econometrics	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
STAT 5013	Statistics for Experimenters I	
Or other quantitati Graduate Advisory	ve/qualitative course approved by the Committee	
Research Methods		
Select one of the follo	owing:	3
AGEC 5101	Research Methodology	
AGED 5983	Quantitative Research Methods	
SOIL 5112	Research Methods in Plant and Soil Sciences	
HORT 5233	Experimental Horticulture	
· ·	ve or qualitative research methods course raduate Advisory Committee	
AGIN 5000	Master's Thesis/Report in International Agriculture	2
Hours Subtotal		8

**Focus Area** 

The student will create an international agriculture focus area in consultation with the graduate advisory committee and faculty/ staff of the program. Example focus areas include but are not limited to: Rural Development, Agricultural Entrepreneurship, Agricultural Outreach Education and Extension, Community Engagement and Sustainabilty, or Production Agriculture and Food Security.

Hours Subtotal	12
Total Hours	32

1

International students may substitute another course for the international experience requirement.

2

Must be a minimum four-week international experience.

#### **Creative Component**

**Total Hours: 32** 

Code	Title	Hours
Course Requirements	3	
AGIN 5312	Applied Issues in International Agriculture and Natural Resources	2
AGIN 5313	Global Food Security and Sustainability	3
Select one of the follo	owing:	3
AGIN 5113	Global Agricultural Development Communications	
AGIN 5213	Global Agricultural Entrepreneurship	
AGIN 5333	Guided Reading in International Agriculture and Natural Resources	
AGIN 5353	Advanced Case Studies in Agricultural Marketing and International Development	
AGIN 5413	Overview of Global Development	
AGIN 5800	International Agriculture Internship Experience <sup>1, 2</sup>	4
Hours Subtotal		12
Research and Inquiry	Core	
Quantitative/Qualitativ	ve .	
Select one of the follo	owing:	3
ECON 5213	Introduction to Econometrics	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
STAT 5013	Statistics for Experimenters I	
Or other quantitati Graduate Advisory	ve/qualitative course approved by the Committee	
Research Methods		
Select one of the follo	owing:	3
AGEC 5101	Research Methodology	
AGED 5983	Quantitative Research Methods	
SOIL 5112	Research Methods in Plant and Soil Sciences	
HORT 5233	Experimental Horticulture	
•	ve or qualitative research methods course raduate Advisory Committee	

AGIN 5102	International Agriculture Creative	2
	Component	
Hours Subtotal		8
Focus Area		
consultation with staff of the progra limited to: Rural I Agricultural Outre	create an international agriculture focus area in the graduate advisory committee and faculty/ am. Example focus areas include but are not Development, Agricultural Entrepreneurship, each Education and Extension, Community Sustainabilty, or Production Agriculture and	12
<b>Hours Subtotal</b>		12
Total Hours		32

1

International students may substitute another course for the international experience requirement.

2

Must be a minimum four-week international experience.

### **Graduate College Master's Program Requirements**

#### **Leisure Studies, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0

#### **Thesis Option**

Total Hours: 36

Research and Inquiry REMS 5953 Statistical Methods in Education REMS 5013 Research Design and Methodology Hours Subtotal  Core Courses RMRT 5023 Legal Aspects of Recreation Management Health, Physical Education, and Leisure Services RMRT 5413 Organization and Administration of Recreation and Leisure Services RMRT 5433 Current Issues in Recreation Management RMRT 5443 Social Foundations of Recreation Management  Hours Subtotal  Cognate Select 12 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals: RM 4453 Outdoor Education and Interpretation RM 4463 Areas and Facilities in Recreation Management RM 4473 Recreation in the Natural Environment RM 4493 Administration of Recreation Services RM 4553 Tourism in Recreation Settings RM 4563 Entrepreneurial Recreation Management RM 4943 Grant Writing and Nonprofit Management RMRT 5030 Field Problems in Recreation Management RMRT 5073 Recreational Therapy and Geriatrics	3
REMS 5013 Research Design and Methodology  Hours Subtotal  Core Courses  RMRT 5023 Legal Aspects of Recreation Management Health, Physical Education, and Leisure Services  RMRT 5413 Organization and Administration of Recreation and Leisure Services  RMRT 5433 Current Issues in Recreation Management Management  Hours Subtotal  Cognate  Select 12 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals:  RM 4453 Outdoor Education and Interpretation  RM 4463 Areas and Facilities in Recreation Management  RM 4473 Recreation in the Natural Environment  RM 4493 Administration of Recreation Services  RM 4553 Tourism in Recreation Settings  RM 4563 Entrepreneurial Recreation Management  RM 4943 Grant Writing and Nonprofit Management  RMRT 5030 Field Problems in Recreation Management  RMRT 5073 Recreational Therapy and Geriatrics	3 6 t, 3 t 3 3
Hours Subtotal  Core Courses  RMRT 5023  Legal Aspects of Recreation Management Health, Physical Education, and Leisure Services  RMRT 5413  Organization and Administration of Recreation and Leisure Services  RMRT 5433  Current Issues in Recreation Management Management Management  Hours Subtotal  Cognate  Select 12 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals:  RM 4453  Outdoor Education and Interpretation  RM 4463  Areas and Facilities in Recreation Management  RM 4473  Recreation in the Natural Environment  RM 4493  Administration of Recreation Services  RM 4563  Entrepreneurial Recreation Management  RM 4943  Grant Writing and Nonprofit Management  RMRT 5030  Field Problems in Recreation Management  RMRT 5073  Recreational Therapy and Geriatrics	6 t, 3 t 3 3
Core Courses  RMRT 5023  Legal Aspects of Recreation Management Health, Physical Education, and Leisure Services  RMRT 5413  Organization and Administration of Recreation and Leisure Services  RMRT 5433  Current Issues in Recreation Management Management  RMRT 5443  Social Foundations of Recreation Management  Hours Subtotal  Cognate  Select 12 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals:  RM 4453  Outdoor Education and Interpretation Areas and Facilities in Recreation Management  RM 4473  Recreation in the Natural Environment  RM 4493  Administration of Recreation Services  RM 4563  Entrepreneurial Recreation Management  RM 4943  Grant Writing and Nonprofit Management  RMRT 5030  Field Problems in Recreation Management  RMRT 5073  Recreational Therapy and Geriatrics	t, 3 t 3 12
RMRT 5023  Legal Aspects of Recreation Management Health, Physical Education, and Leisure Services  RMRT 5413  Organization and Administration of Recreation and Leisure Services  RMRT 5433  Current Issues in Recreation Management Management  RMRT 5443  Social Foundations of Recreation Management  Hours Subtotal  Cognate  Select 12 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals:  RM 4453  Outdoor Education and Interpretation  RM 4463  Areas and Facilities in Recreation Management  RM 4473  Recreation in the Natural Environment  RM 4493  Administration of Recreation Services  RM 4553  Tourism in Recreation Settings  RM 4563  Entrepreneurial Recreation Management  RM 4943  Grant Writing and Nonprofit Management  RMRT 5030  Field Problems in Recreation Management  RMRT 5073  Recreational Therapy and Geriatrics	3 t 3 3
Health, Physical Education, and Leisure Services  RMRT 5413 Organization and Administration of Recreation and Leisure Services  RMRT 5433 Current Issues in Recreation Management  RMRT 5443 Social Foundations of Recreation Management  Hours Subtotal  Cognate  Select 12 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals:  RM 4453 Outdoor Education and Interpretation  RM 4463 Areas and Facilities in Recreation Management  RM 4473 Recreation in the Natural Environment  RM 4493 Administration of Recreation Services  RM 4553 Tourism in Recreation Settings  RM 4563 Entrepreneurial Recreation Management  RM 4943 Grant Writing and Nonprofit Management  RMRT 5030 Field Problems in Recreation Management  RMRT 5073 Recreational Therapy and Geriatrics	3 t 3 3
Recreation and Leisure Services  RMRT 5433 Current Issues in Recreation Management  RMRT 5443 Social Foundations of Recreation Management  Hours Subtotal  Cognate  Select 12 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals:  RM 4453 Outdoor Education and Interpretation  RM 4463 Areas and Facilities in Recreation Management  RM 4473 Recreation in the Natural Environment  RM 4493 Administration of Recreation Services  RM 4553 Tourism in Recreation Settings  RM 4563 Entrepreneurial Recreation Management  RM 4943 Grant Writing and Nonprofit Management  RMRT 5030 Field Problems in Recreation Management  RMRT 5073 Recreational Therapy and Geriatrics	t 3 3
RMRT 5443  Social Foundations of Recreation Management  Hours Subtotal  Cognate  Select 12 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals: RM 4453  Outdoor Education and Interpretation RM 4463  Areas and Facilities in Recreation Management RM 4473  Recreation in the Natural Environment RM 4493  Administration of Recreation Services RM 4553  Tourism in Recreation Settings RM 4563  Entrepreneurial Recreation Management RM 4943  Grant Writing and Nonprofit Management RMRT 5030  Field Problems in Recreation Management RMRT 5073  Recreational Therapy and Geriatrics	3 12
Management  Hours Subtotal  Cognate  Select 12 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals:  RM 4453 Outdoor Education and Interpretation  RM 4463 Areas and Facilities in Recreation Management  RM 4473 Recreation in the Natural Environment  RM 4493 Administration of Recreation Services  RM 4553 Tourism in Recreation Settings  RM 4563 Entrepreneurial Recreation Management  RM 4943 Grant Writing and Nonprofit Management  RMRT 5030 Field Problems in Recreation Management  RMRT 5073 Recreational Therapy and Geriatrics	12
Cognate  Select 12 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals:  RM 4453 Outdoor Education and Interpretation  RM 4463 Areas and Facilities in Recreation  Management  RM 4473 Recreation in the Natural Environment  RM 4493 Administration of Recreation Services  RM 4553 Tourism in Recreation Settings  RM 4563 Entrepreneurial Recreation Management  RM 4943 Grant Writing and Nonprofit Management  RMRT 5030 Field Problems in Recreation Management  RMRT 5073 Recreational Therapy and Geriatrics	
Select 12 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals:  RM 4453 Outdoor Education and Interpretation  RM 4463 Areas and Facilities in Recreation  Management  RM 4473 Recreation in the Natural Environment  RM 4493 Administration of Recreation Services  RM 4553 Tourism in Recreation Settings  RM 4563 Entrepreneurial Recreation Management  RM 4943 Grant Writing and Nonprofit Management  RMRT 5030 Field Problems in Recreation Management  RMRT 5073 Recreational Therapy and Geriatrics	12
form a cognate appropriate to the student's goals:  RM 4453  Outdoor Education and Interpretation  RM 4463  Areas and Facilities in Recreation  Management  RM 4473  Recreation in the Natural Environment  RM 4493  Administration of Recreation Services  RM 4553  Tourism in Recreation Settings  RM 4563  Entrepreneurial Recreation Management  RM 4943  Grant Writing and Nonprofit Management  RMRT 5030  Field Problems in Recreation Management  RMRT 5073  Recreational Therapy and Geriatrics	12
RM 4453 Outdoor Education and Interpretation RM 4463 Areas and Facilities in Recreation Management RM 4473 Recreation in the Natural Environment RM 4493 Administration of Recreation Services RM 4553 Tourism in Recreation Settings RM 4563 Entrepreneurial Recreation Management RM 4943 Grant Writing and Nonprofit Management RMRT 5030 Field Problems in Recreation Management RMRT 5073 Recreational Therapy and Geriatrics	
RM 4463 Areas and Facilities in Recreation Management RM 4473 Recreation in the Natural Environment RM 4493 Administration of Recreation Services RM 4553 Tourism in Recreation Settings RM 4563 Entrepreneurial Recreation Management RM 4943 Grant Writing and Nonprofit Management RMRT 5030 Field Problems in Recreation Management RMRT 5073 Recreational Therapy and Geriatrics	
Management  RM 4473 Recreation in the Natural Environment  RM 4493 Administration of Recreation Services  RM 4553 Tourism in Recreation Settings  RM 4563 Entrepreneurial Recreation Management  RM 4943 Grant Writing and Nonprofit Management  RMRT 5030 Field Problems in Recreation Management  RMRT 5073 Recreational Therapy and Geriatrics	
RM 4493 Administration of Recreation Services RM 4553 Tourism in Recreation Settings RM 4563 Entrepreneurial Recreation Management RM 4943 Grant Writing and Nonprofit Management RMRT 5030 Field Problems in Recreation Management RMRT 5073 Recreational Therapy and Geriatrics	
RM 4553 Tourism in Recreation Settings RM 4563 Entrepreneurial Recreation Management RM 4943 Grant Writing and Nonprofit Management RMRT 5030 Field Problems in Recreation Management RMRT 5073 Recreational Therapy and Geriatrics	
RM 4563 Entrepreneurial Recreation Management RM 4943 Grant Writing and Nonprofit Management RMRT 5030 Field Problems in Recreation Management RMRT 5073 Recreational Therapy and Geriatrics	
RM 4943 Grant Writing and Nonprofit Management RMRT 5030 Field Problems in Recreation Management RMRT 5073 Recreational Therapy and Geriatrics	
RMRT 5030 Field Problems in Recreation Managemen RMRT 5073 Recreational Therapy and Geriatrics	
RMRT 5073 Recreational Therapy and Geriatrics	
	it
RMRT 5403 Outdoor Recreation	
RMRT 5423 Supervision of Recreation Management People and Programs	
RMRT 5483 Recreational Therapy for Persons with Physical Disabilities	
RMRT 5493 Recreational Therapy in Mental Health and Intellectual Disabilities	d
And other courses as approved by the student's graduate committee.	
Hours Subtotal	12
Thesis	
RMRT 5000 Master's Thesis	6
Hours Subtotal	6
Total Hours	36

Code	Title	Hours
Research and Inquir	у	
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
Hours Subtotal		6
Core Courses		
RMRT 5023	Legal Aspects of Recreation Management, Health, Physical Education, and Leisure Services	3
RMRT 5413	Organization and Administration of Recreation and Leisure Services	3
RMRT 5433	Current Issues in Recreation Management	3
RMRT 5443	Social Foundations of Recreation Management	3
Hours Subtotal		12
Cognate		
Select 18 hours, whi	ch may include RMRT and LEIS courses, to	18
form a cognate appr	opriate to the student's goals:	
RM 4453	Outdoor Education and Interpretation	
RM 4463	Areas and Facilities in Recreation Management	
RM 4473	Recreation in the Natural Environment	
RM 4493	Administration of Recreation Services	
RM 4553	Tourism in Recreation Settings	
RM 4563	Entrepreneurial Recreation Management	
RM 4943	Grant Writing and Nonprofit Management	
RMRT 5030	Field Problems in Recreation Management	
RMRT 5073	Recreational Therapy and Geriatrics	
RMRT 5403	Outdoor Recreation	
RMRT 5423	Supervision of Recreation Management People and Programs	
RMRT 5483	Recreational Therapy for Persons with Physical Disabilities	
RMRT 5493	Recreational Therapy in Mental Health and Intellectual Disabilities	
And other courses a committee.	s approved by the student's graduate	
Hours Subtotal		18
Total Hours		36

#### **Graduate College Master's Program** Requirements

Learn more about Graduate College 2022-2023 Master's Degree Program Requirements (p. 2766). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

#### **Non-Thesis Option**

**Total Hours: 36** 

### **Management Information Systems, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 33

Code	Title	Hours
Degree Core		
Required Courses		
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5213	Information Assurance Management	3
MSIS 5633	Predictive Analytics Technologies	3
MSIS 5663	Data Warehousing	3
MSIS 5693	Digital Transformation Strategy	3
MSIS 5713	Scripting Essentials	3
MSIS 5900	Practicum in Management Information Systems (Part-time students can replace with alternative 5000-level course)	3
Hours Subtotal		21
Electives 1		
Select 12 Hours of El	ectives	12
Suggested Electives		
MSIS 5033	Information Systems Project Management	
MSIS 5133	Advanced Web Based Application Development	
MSIS 5213	Information Assurance Management	
MSIS 5243	Information Technology Forensics	
MSIS 5273	Legal and Ethical Issues in Information Technology	
MSIS 5303	Prescriptive Analytics	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5683	Big Data Advanced Analytics Technologies	
MSIS 5950	Advanced Practicum	
Hours Subtotal		12
Total Hours		33

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.

### **Graduate College Master's Program Requirements**

# Management Information Systems: Big Data Analytics, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 33** 

Code	Title	Hours
Common Core		
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5213	Information Assurance Management	3
MSIS 5633	Predictive Analytics Technologies	3
MSIS 5663	Data Warehousing	3
MSIS 5693	Digital Transformation Strategy	3
MSIS 5713	Scripting Essentials	3
MSIS 5900	Practicum in Management Information Systems	3
Hours Subtotal		21
Electives		
Select 9 hours from	the following:	9
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5303	Prescriptive Analytics	
MSIS 5313	Supply Chain Analytics	
MSIS 5503	Statistics for Data Science	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5683	Big Data Advanced Analytics Technologies	
Select 3 hours from approved electives (including those listed above):		3
MSIS 5203	Advanced Infrastructure Development	
MSIS 5233	Applied Information Systems Security	
MSIS 5253	Advanced System Certification and Accreditation	
MSIS 5273	Legal and Ethical Issues in Information Technology	
Appropriate substitu	utions can be made on a case-by-case basis.	
Hours Subtotal		12
Total Hours		33

### **Graduate College Master's Program Requirements**

## **Management Information Systems: Cybersecurity, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 33

Code	Title	Hours
Common Core		
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5213	Information Assurance Management	3
MSIS 5633	Predictive Analytics Technologies	3
MSIS 5663	Data Warehousing	3
MSIS 5693	Digital Transformation Strategy	3
MSIS 5713	Scripting Essentials	3
MSIS 5900	Practicum in Management Information Systems	3
Hours Subtotal		21
Electives		
Select 9 hours from	m the following:	9
MSIS 5203	Advanced Infrastructure Development	
MSIS 5233	Applied Information Systems Security	
MSIS 5253	Advanced System Certification and Accreditation	
MSIS 5273	Legal and Ethical Issues in Information Technology	
Select 3 hours from above):	m approved electives (including those listed	3
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5303	Prescriptive Analytics	
MSIS 5313	Supply Chain Analytics	
MSIS 5503	Statistics for Data Science	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5683	Big Data Advanced Analytics Technologies	
Appropriate subst	itutions can be made on a case-by-case basis.	
Hours Subtotal		12
Total Hours		33

### **Graduate College Master's Program Requirements**

# Management Information Systems: Health Analytics, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 33** 

Code	Title	Hours
Common Core		
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5213	Information Assurance Management	3
MSIS 5633	Predictive Analytics Technologies	3
MSIS 5663	Data Warehousing	3
MSIS 5693	Digital Transformation Strategy	3
MSIS 5713	Scripting Essentials	3
MSIS 5900	Practicum in Management Information Systems	3
Hours Subtotal		21
Health Analytics Ro	equirements	
HCA 5013	Survey of Health Care Administration	3
Hours Subtotal		3
Electives		
Select 6 hours from	n the following:	6
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5303	Prescriptive Analytics	
MSIS 5313	Supply Chain Analytics	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5683	Big Data Advanced Analytics Technologies	
Select 3 hours from above):	n approved electives (including those listed	3
MSIS 5203	Advanced Infrastructure Development	
MSIS 5233	Applied Information Systems Security	
MSIS 5253	Advanced System Certification and Accreditation	
MSIS 5273	Legal and Ethical Issues in Information Technology	
MSIS 5503	Statistics for Data Science	
Appropriate substi	tutions can be made on a case-by-case basis.	
Hours Subtotal		9
Total Hours		33

### **Graduate College Master's Program Requirements**

#### **Mass Communications, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 31

Code	Title	Hours
Core Courses		
MC 5651	Introduction to Graduate Study in Mass Communications	1
MC 5113	Methods of Research in Mass Communication	3
MC 5333	Media Theory	3
MC 5733	Responsibility in Mass Communication	3
Hours Subtotal		10
Concentration		
Select one of the fo	llowing tracks:	15
Brand Communication	on	
MC 5223	Mass Communication Research Analysis and Interpretation <sup>1</sup>	
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	
MC 5753	Media And Elections	
Other approved g	graduate-level electives (6 hours maximum)	
Sports Communicati	on	
MC 5223	Mass Communication Research Analysis and Interpretation	
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 5883	Media Management	
MC 5383	Media Relations	
MC 5143	Diversity In Sports Media	
Global Communication	ons	
MC 5223	Mass Communication Research Analysis and Interpretation <sup>1</sup>	
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 5253	International Mass Communication	
MC 5540	Specialized Multimedia Journalism Applications	
MC 5753	Media And Elections	
MC 5163	Mass Communication Law	
MC 5773	Censorship	
MC Elective		
Other approved gra	aduate-level elective (6 hours max)	
Hours Subtotal		15
Thesis		
MC 5000	Thesis	6
Hours Subtotal		6
Total Hours		31

An advanced research course is required for thesis track.

#### **Non-Thesis Option**

**Total Hours: 32** 

Code	Title	Hours
Core Courses		
MC 5651	Introduction to Graduate Study in Mass Communications	1
MC 5113	Methods of Research in Mass Communication	3
MC 5333	Media Theory	3
MC 5733	Responsibility in Mass Communication	3
Hours Subtotal		10
Concentration		
Select one of the fo	ollowing tracks:	15
Brand Communicati	ion	
MC 5223	Mass Communication Research Analysis and Interpretation	
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	
MC 5753	Media And Elections	
Other approved	graduate-level elective (6 hours max)	

Sports Communca		
MC 5223	Mass Communication Research Analysis and Interpretation	
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 5883	Media Management	
MC 5383	Media Relations	
MC 5143	Diversity In Sports Media	
Global Communica	tion	
MC 5223	Mass Communication Research Analysis and Interpretation	
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 5253	International Mass Communication	
MC 5540	Specialized Multimedia Journalism Applications	
MC 5753	Media And Elections	
MC 5163	Mass Communication Law	
MC 5773	Censorship	
MC Elective		
Other graduate-lev	vel elective (6 hours max)	
Hours Subtotal		15
Non-Thesis Option	ns	
Select from the fo	llowing options:	7
Creative Compo	nent	
MC 5010	Capstone Creative Project (4 hours)	
MC Elective (3	hours)	
Practicum		
MC 5020	Advanced Practicum or Internship in Mass Communication (6 hours)	
Formal Report	(1 hour)	
Study Abroad		
MC 5030	Independent Study in Mass Communication (6 hours)	
Formal Report	(1 hour)	
Hours Subtotal		7
Total Hours		32

**Graduate College Master's Program Requirements** 

Learn more about Graduate College 2022-2023 Master's Degree Program Requirements (p. 2766). Check the General Graduate College academic

regulations for minimal GPA, language proficiency and other general requirements.

### **Materials Science and Engineering, MS**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Required Courses		
MSE 5010	Materials Science and Engineering Seminar for Masters Students	0
MSE 5013	Advanced Thermodynamics of Materials	3
MSE 5023	Diffusion and Kinetics	3
MSE 5043	Advanced Materials Characterization	3
MSE 5093	Fundamentals of Materials Science	3
MSE 5193	Advanced Materials Processing	3
Hours Subtotal		15
Electives		
Select 9 hours of the	following:	9
MSE 5030	Independent Study in Materials Science and Engineering	
MSE 5053	Smart Materials	
MSE 5063	Biomedical Materials	
MSE 5073	Tissue Engineering	
MSE 5093	Fundamentals of Materials Science <sup>1</sup>	
MSE 5103	Electrical and Optical Properties of Ceramics	
MSE 5113	Diffraction in Materials	
or MAE 5113	Diffraction in Materials	
MSE 5123	Advanced Composites Manufacturing: Materials, Methods and Applications	
MSE 5133	Solid Oxide Fuel Cells	
MSE 5143	Batteries and Supercapacitors for Energy Storage	
MSE 5153	Crystal Physics and Materials Properties	
MSE 5173	Organic Electronic Materials and Devices	
MSE 5174	Fundamentals of Photovoltaics	
MSE 5193	Advanced Materials Processing <sup>1</sup>	
MSE 5200	Applied Innovation I	
or EEE 5200	Special Topics in Entrepreneurship	
MSE 5223	Additive Manufacturing: Materials, Methods and Applications	
MSE 5553	Fatigue and Fracture	
MSE 5583	Corrosion Engineering	
or MAE 5583	Corrosion Engineering	
MSE 5693	Phase Transformations in Materials	
or MAE 5693	Phase Transformations in Materials	
MSE 5683	Thermodynamics and Thermostatistics of Materials	
or MAE 5683	Thermodynamics and Thermostatistics of Materials	

MAE 5503	Mechanics of Advanced Composites for Structural Design
MAE 5543	Modern Materials
ECEN 5843	Microelectronic Fabrication
ECEN 6843	Advanced Microelectronic Fabrication

The following related MS&E graduate courses currently offered in various departments at OSU are also available to satisfy degree requirements. MSE program approval will be required for registration

Chemistry		
CHEM 5223	Polymer Chemistry	
CHEM 5263	Foundations of Inorganic Chemistry	
CHEM 5283	Solid State Chemistry	
CHEM 6113	Analytical Spectroscopy	
CHEM 5623	Quantum Chemistry I	
CHEM 5963	Advanced Inorganic Chemistry	
Physics		
PHYS 5613	Quantum Mechanics I	
PHYS 5663	Solid State Physics I	
PHYS 5713	Solid State Physics II	
PHYS 5960	Problems in Chemical Physics	
PHYS 6243	Semiconductors I	
PHYS 6313	Quantum Mechanics II	
Biological/Health Scie	nce	
BIOM 6175	Molcular And Cellular Biology	
Chemical Engineering		
CHE 5283	Advanced Bioprocess Engineering	
CHE 5293	Advanced Biomedical Engineering	
Electrical and Comput	er Engineering	
ECEN 6840	Photonics III: Microscopy I	
ECEN 6843	Advanced Microelectronic Fabrication	
ECEN 6840	Photonics III: Microscopy I	
ECEN 6850	Photonics III: Microscopy II	
ECEN 6860	Photonics III: Microscopy III and Image Processing	
ECEN 6890	Photonics IV: Semiconductor Synthesis and Devices III	
Mechanical and Aeros	pace Engineering	
MAE 5143	Tribology	
MAE 5243	Micro Flows	
MAE 5573	Continuum Mechanics	
MAE 5633	Advanced Thermal Energy Systems Analysis	
MAE 5993	Microstructural Mechanics	
MAE 6133	Surface Mechanics	
Hours Subtotal		9
Thesis Research		
6 hours of MSE 5000		6
Hours Subtotal		6
Total Hours		30

1

With departmental approval, these courses may be substituted for a required MSE course.

#### **Non-Thesis Option**

Total Hours: 35

Code	Title	Hours
Required Courses		
MSE 5010	Materials Science and Engineering Seminar for Masters Students	0
MSE 5013	Advanced Thermodynamics of Materials	3
MSE 5023	Diffusion and Kinetics	3
MSE 5043	Advanced Materials Characterization	3
MSE 5093	Fundamentals of Materials Science	3
MSE 5193	Advanced Materials Processing	3
Hours Subtotal		15
Electives		
Select 18 hours of the	e following:	18
Materials Science and	Engineering	
MSE 5030	Independent Study in Materials Science and Engineering	
MSE 5053	Smart Materials	
MSE 5063	Biomedical Materials	
MSE 5073	Tissue Engineering	
MSE 5093	Fundamentals of Materials Science 1	
MSE 5103	Electrical and Optical Properties of Ceramics	
MSE 5113	Diffraction in Materials	
or MAE 5113	Diffraction in Materials	
MSE 5123	Advanced Composites Manufacturing: Materials, Methods and Applications	
MSE 5133	Solid Oxide Fuel Cells	
MSE 5143	Batteries and Supercapacitors for Energy Storage	
MSE 5153	Crystal Physics and Materials Properties	
MSE 5173	Organic Electronic Materials and Devices	
MSE 5174	Fundamentals of Photovoltaics	
MSE 5193	Advanced Materials Processing <sup>1</sup>	
MSE 5200	Applied Innovation I	
or EEE 5200	Special Topics in Entrepreneurship	
MSE 5223	Additive Manufacturing: Materials, Methods and Applications	
MSE 5553	Fatigue and Fracture	
MSE 5583	Corrosion Engineering	
or MAE 5583	Corrosion Engineering	
MSE 5693	Phase Transformations in Materials	
or MAE 5693	Phase Transformations in Materials	
MSE 5683	Thermodynamics and Thermostatistics of Materials	
or MAE 5683	Thermodynamics and Thermostatistics of Materials	
MAE 5543	Modern Materials	
ECEN 5843	Microelectronic Fabrication	

ECEN 6843	Advanced Microelectronic Fabrication	
in various departmen	MS&E graduate courses currently offered ts at OSU are also available to satisfy MSE program approval will be required for	
Chemistry		
CHEM 5223	Polymer Chemistry	
CHEM 5263	Foundations of Inorganic Chemistry	
CHEM 5283	Solid State Chemistry	
CHEM 6113	Analytical Spectroscopy	
CHEM 5623	Quantum Chemistry I	
CHEM 5963	Advanced Inorganic Chemistry	
Physics		
PHYS 5613	Quantum Mechanics I	
PHYS 5663	Solid State Physics I	
PHYS 5713	Solid State Physics II	
PHYS 5960	Problems in Chemical Physics	
PHYS 6243	Semiconductors I	
PHYS 6313	Quantum Mechanics II	
Biological/ Health Scient	ence	
BIOM 6175	Molcular And Cellular Biology	
Chemical Engineering		
CHE 5283	Advanced Bioprocess Engineering	
CHE 5293	Advanced Biomedical Engineering	
Electrical and Compute	er Engineering	
ECEN 6843	Advanced Microelectronic Fabrication	
ECEN 6840	Photonics III: Microscopy I	
ECEN 6850	Photonics III: Microscopy II	
ECEN 6860	Photonics III: Microscopy III and Image Processing	
ECEN 6890	Photonics IV: Semiconductor Synthesis and Devices III	
Mechanical and Aeros	pace Engineering	
MAE 5143	Tribology	
MAE 5243	Micro Flows	
MAE 5573	Continuum Mechanics	
MAE 5633	Advanced Thermal Energy Systems Analysis	
MAE 5993	Microstructural Mechanics	
MAE 6133	Surface Mechanics	
Independent Study		
2 hours required		2
Hours Subtotal		20

1

**Total Hours** 

With departmental approval, these courses may be substituted for a required MSE course.

35

### **Graduate College Master's Program Requirements**

Learn more about Graduate College 2022-2023 Master's Degree Program Requirements (p. 2766). Check the General Graduate College academic

regulations for minimal GPA, language proficiency and other general requirements.

#### **Mathematics, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 33

Code	Title	Hours
Core Courses		
Choose one of the fo	llowing tracks:	18
Applied Track		
Select one of the follow	owing two courses:	
MATH 5023	Advanced Linear Algebra	
MATH 5043	Advanced Calculus I	
Select one of the follo	owing two courses:	
MATH 5543	Numerical Analysis for Differential Equations	
or MATH 5553	Numerical Analysis for Linear Algebra	
MATH 5553	Numerical Analysis for Linear Algebra	
Select four of the foll	owing courses:	
MATH 4233	Intermediate Differential Equations	
MATH 4513	Introduction to Numerical Analysis	
MATH 4553	Introduction to Optimization	
MATH 5213	Fourier Analysis and Wavelets	
MATH 5233	Partial Differential Equations	
MATH 5243	Ordinary Differential Equations	
MATH 5253	Advanced Ordinary Differential Equations	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	
MATH 5563	Finite Element Methods for Partial Differential Equations	
MATH 5580	Case Studies in Applied Mathematics	
MATH 5593	Methods of Applied Mathematics	
Pure Track		
Option 1		
Required:		
MATH 5043	Advanced Calculus I	
MATH 5053	Advanced Calculus II	
MATH 5003	Abstract Algebra I	
MATH 5013	Abstract Algebra II	
MATH 5303	General Topology	
MATH 4283	Complex Variables	
Option 2		
Required:		
MATH 5043	Advanced Calculus I	
MATH 5053	Advanced Calculus II	
MATH 5003	Abstract Algebra I	
MATH 5013	Abstract Algebra II	
Select two of the follow	owing courses:	
MATH 5143	Real Analysis I	

Additional Graduate Courses  Electives  Select 9 hours of electives (no more than 6 hours can be outside 9 MATH, STAT or CS).  Thesis/Report  MATH 5000 Master's Research and Thesis (3-6 hours in combination with electives)	<b>Total Hours</b>		33
MATH 5283 Complex Analysis I MATH 5293 Complex Analysis II MATH 5313 Geometric Topology MATH 6323 Algebraic Topology I MATH 5613 Algebra I MATH 5613 Algebra II MATH 5623 Algebra II MATH 5623 Algebra II MATH 5043 Advanced Calculus I MATH 5913 Introduction to Research in Mathematics Education Select one of the following courses: MATH 4713 Number Theory MATH 4753 Introduction to Cryptography MATH 5003 Abstract Algebra I MATH 5013 Abstract Algebra I MATH 5013 Abstract Algebra II MATH 5013 Abstract Algebra II MATH 5013 Abstract Algebra II MATH 5013 Introduction to Numerical Analysis Select three of the following (with exactly two in one area): Discrete Math MATH 4513 Introduction to Numerical Analysis MATH 4553 Introduction to Optimization MATH 4563 Combinatorics MATH 4553 Numerical Analysis for Differential Equations MATH 5543 Numerical Analysis for Linear Algebra CS 4793 Artificial Intelligence I Geometry MATH 4423 Geometry and Algorithms in Three-Dimensional Modeling MATH 4813 Groups and Representations CS 4143 Computer Graphics Statistics STAT 4043 Applied Regression Analysis STAT 5123 Probability Theory STAT 5223 Statistical Inference STAT 5013 Statistical Inference STAT 5043 Sample Survey Designs STAT 5043 Sample Survey Designs STAT 5043 Sample Survey Designs STAT 5043 Experimenters II STAT 5043 Sample Survey Designs STAT 5043 Experimental Designs Hours Subtotal 18 Additional Graduate Courses Electives Select 9 hours of electives (no more than 6 hours can be outside 94 MATH, STAT or CS). Thesis/Report MATH 5000 Master's Research and Thesis (3-6 hours in 6	Hours Subtotal		15
MATH 5283 Complex Analysis I MATH 5293 Complex Analysis II MATH 5313 Geometric Topology MATH 6323 Algebraic Topology I MATH 5613 Algebra I MATH 5623 Algebra II MATH 5623 Algebra II MATH 5623 Algebra II MATH 5043 Advanced Calculus I MATH 5013 Introduction to Research in Mathematics Education Select one of the following courses: MATH 4713 Number Theory MATH 4753 Introduction to Cryptography MATH 5003 Abstract Algebra I MATH 5003 Abstract Algebra I MATH 5013 Advanced Linear Algebra Select three of the following (with exactly two in one area): Discrete Math MATH 4513 Introduction to Numerical Analysis MATH 4553 Introduction to Optimization MATH 4663 Combinatorics MATH 4553 Numerical Analysis for Differential Equations MATH 5543 Numerical Analysis for Linear Algebra CS 4793 Artificial Intelligence I Geometry MATH 4423 Geometry and Algorithms in Three- Dimensional Modeling MATH 4813 Groups and Representations CS 4143 Computer Graphics Statistics STAT 4043 Applied Regression Analysis STAT 5123 Probability Theory STAT 5223 Statistical Inference STAT 5013 Statistics for Experimenters I STAT 5023 Statistics for Experimenters II STAT 5023 Statistics for Experimenters II STAT 503 Sample Survey Designs STAT 5043 Sample Survey Designs STAT 5063 Statistical Machine Learning with R STAT 503 Experimental Designs Hours Subtotal  Additional Graduate Courses Electives Electives Hours of electives (no more than 6 hours can be outside MATH, STAT or CS). Thesis/Report			
MATH 5283 Complex Analysis I MATH 5293 Complex Analysis II MATH 5313 Geometric Topology MATH 6323 Algebrai Topology I MATH 5613 Algebra I MATH 5623 Algebra II MATH 5623 Algebra II MATH 5623 Algebra II MATH 5624 Advanced Calculus I MATH 5043 Advanced Calculus I MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses: MATH 4713 Number Theory MATH 4753 Introduction to Cryptography MATH 5003 Abstract Algebra I MATH 5013 Abstract Algebra I MATH 5013 Abstract Algebra I MATH 5023 Advanced Linear Algebra Select three of the following (with exactly two in one area): Discrete Math MATH 4513 Introduction to Numerical Analysis MATH 4553 Introduction to Optimization MATH 4554 Combinatorics MATH 5543 Numerical Analysis for Differential Equations MATH 5553 Numerical Analysis for Linear Algebra CS 4793 Artificial Intelligence I Geometry MATH 4423 Geometry and Algorithms in Three- Dimensional Modeling MATH 4813 Groups and Representations CS 4143 Computer Graphics Statistics STAT 4043 Applied Regression Analysis STAT 5123 Probability Theory STAT 5223 Statistical Inference STAT 5013 Statistics for Experimenters II STAT 5023 Statistical Machine Learning with R STAT 503 Experimental Designs Hours Subtotal AATH, STAT or CS).		Master's Research and Thesis (3-6 hours in	6
MATH 5283 Complex Analysis I MATH 5293 Complex Analysis II MATH 5293 Geometric Topology MATH 6323 Algebra I Complex Analysis II MATH 5613 Algebra I MATH 5623 Algebra II MATH 5623 Algebra II MATH 5623 Algebra II MATH 5624 Advanced Calculus I MATH 5043 Advanced Calculus I MATH 5043 Advanced Calculus I MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses: MATH 4713 Number Theory MATH 4753 Introduction to Cryptography MATH 5003 Abstract Algebra I MATH 5013 Abstract Algebra II MATH 5013 Abstract Algebra II MATH 5013 Abstract Algebra II MATH 5013 Introduction to Numerical Analysis MATH 4513 Introduction to Numerical Analysis MATH 4513 Introduction to Optimization MATH 4513 Introduction to Optimization MATH 4553 Introduction to Optimization MATH 4663 Combinatorics MATH 5543 Numerical Analysis for Differential Equations MATH 5553 Numerical Analysis for Linear Algebra CS 4793 Artificial Intelligence I  Geometry MATH 4423 Geometry and Algorithms in Three-Dimensional Modeling MATH 4813 Groups and Representations CS 4143 Computer Graphics  Statistics STAT 4043 Applied Regression Analysis STAT 5123 Probability Theory STAT 5223 Statistical Inference STAT 5013 Statistics for Experimenters II STAT 5023 Statistical Inference STAT 503 Statistical Machine Learning with R STAT 503 Experimental Designs  Hours Subtotal Additional Graduate Courses Electives Select 9 hours of electives (no more than 6 hours can be outside 9			
MATH 5283 Complex Analysis I MATH 5293 Complex Analysis II MATH 5313 Geometric Topology MATH 6323 Algebrai Topology I MATH 5613 Algebra I MATH 5623 Algebra II MATH 5623 Algebra II MATH 5043 Advanced Calculus I MATH 5043 Advanced Calculus I MATH 5913 Introduction to Research in Mathematics Education Select one of the following courses: MATH 4713 Number Theory MATH 4753 Introduction to Cryptography MATH 5003 Abstract Algebra II MATH 5013 Abstract Algebra II MATH 5013 Abstract Algebra II MATH 5023 Advanced Linear Algebra Select three of the following (with exactly two in one area): Discrete Math MATH 4513 Introduction to Numerical Analysis MATH 4553 Introduction to Optimization MATH 4563 Combinatorics MATH 4563 Numerical Analysis for Differential Equations MATH 5543 Numerical Analysis for Linear Algebra CS 4793 Artificial Intelligence I Geometry MATH 4813 Groups and Representations CS 4143 Computer Graphics Statistics STAT 4043 Applied Regression Analysis STAT 5123 Probability Theory STAT 5223 Statistical Inference STAT 5013 Statistics for Experimenters II STAT 5023 Statistics of Experimenters II STAT 5043 Sample Survey Designs STAT 5040 Statistical Machine Learning with R STAT 5033 Experimental Designs Hours Subtotal Additional Graduate Courses		cuves (110 more man o nours can be outside	9
MATH 5283 Complex Analysis I MATH 5293 Complex Analysis II MATH 5313 Geometric Topology MATH 6323 Algebra ic Topology I MATH 5613 Algebra II MATH 5623 Algebra II MATH 5623 Algebra II MATH 5624 Advanced Calculus I MATH 5043 Advanced Calculus I MATH 5913 Introduction to Research in Mathematics Education Select one of the following courses: MATH 4713 Number Theory MATH 4753 Introduction to Cryptography MATH 4750 Advanced Linear Algebra II MATH 5003 Abstract Algebra II MATH 5013 Advanced Linear Algebra Select three of the following (with exactly two in one area): Discrete Math MATH 4513 Introduction to Numerical Analysis MATH 4553 Introduction to Optimization MATH 4663 Combinatorics MATH 4554 Numerical Analysis for Differential Equations MATH 5553 Numerical Analysis for Linear Algebra CS 4793 Artificial Intelligence I Geometry MATH 4413 Geometry and Algorithms in Three-Dimensional Modeling MATH 4813 Croups and Representations CS 4143 Computer Graphics Statistics STAT 4043 Applied Regression Analysis STAT 5123 Probability Theory STAT 5223 Statistical Inference STAT 5013 Statistics for Experimenters II STAT 5023 Statistical Inference STAT 5043 Sample Survey Designs STAT 5043 Sample Survey Designs STAT 5040 Statistical Machine Learning with R STAT 5030 Experimental Designs Hours Subtotal Additional Graduate Courses		otives (no more than 6 hours can be sut-id-	0
MATH 5283 Complex Analysis I MATH 5293 Complex Analysis II MATH 5313 Geometric Topology MATH 6323 Algebraic Topology I MATH 5613 Algebra I MATH 5623 Algebra II MATH 5623 Algebra II MATH 5043 Advanced Calculus I MATH 5913 Introduction to Research in Mathematics Education Select one of the following courses: MATH 4713 Number Theory MATH 4753 Introduction to Cryptography MATH 5003 Abstract Algebra II MATH 5013 Abstract Algebra II MATH 5013 Abstract Algebra II MATH 5023 Advanced Linear Algebra Select three of the following (with exactly two in one area): Discrete Math MATH 4513 Introduction to Numerical Analysis MATH 4553 Introduction to Optimization MATH 4553 Introduction to Optimization MATH 4553 Numerical Analysis for Differential Equations MATH 5553 Numerical Analysis for Linear Algebra CS 4793 Artificial Intelligence I Geometry MATH 4423 Geometry and Algorithms in Three- Dimensional Modeling MATH 4813 Groups and Representations CS 4143 Computer Graphics Statistics STAT 4043 Applied Regression Analysis STAT 5123 Probability Theory STAT 5223 Statistical Inference STAT 5013 Statistics for Experimenters II STAT 5023 Statistical Machine Learning with R STAT 5063 Statistical Machine Learning with R STAT 5003 Experimental Designs		Courses	
MATH 5283 Complex Analysis I MATH 5293 Complex Analysis II MATH 5313 Geometric Topology MATH 6323 Algebraic Topology I MATH 5613 Algebra I MATH 5623 Algebra II MATH 5623 Algebra II MATH 5624 Algebra II MATH 5043 Advanced Calculus I MATH 5913 Introduction to Research in Mathematics Education Select one of the following courses: MATH 4713 Number Theory MATH 4753 Introduction to Cryptography MATH 5003 Abstract Algebra II MATH 5013 Abstract Algebra II MATH 5023 Advanced Linear Algebra Select three of the following (with exactly two in one area): Discrete Math MATH 4513 Introduction to Numerical Analysis MATH 4553 Introduction to Optimization MATH 4553 Introduction to Optimization MATH 4663 Combinatorics MATH 5543 Numerical Analysis for Differential Equations MATH 5553 Numerical Analysis for Linear Algebra CS 4793 Artificial Intelligence I Geometry MATH 4813 Groups and Representations CS 4143 Computer Graphics Statistics STAT 4043 Applied Regression Analysis STAT 5123 Probability Theory STAT 5223 Statistical Inference STAT 5013 Statistics for Experimenters II STAT 5043 Sample Survey Designs STAT 5043 Sample Survey Designs STAT 5043 Experimental Designs		Courses	10
MATH 5283 Complex Analysis I MATH 5293 Complex Analysis II MATH 5313 Geometric Topology MATH 6323 Algebraic Topology I MATH 5613 Algebra I MATH 5623 Algebra II MATH 5623 Algebra II MATH 5043 Advanced Calculus I MATH 5913 Introduction to Research in Mathematics Education Select one of the following courses: MATH 4713 Number Theory MATH 4753 Introduction to Cryptography MATH 5003 Abstract Algebra II MATH 5013 Abstract Algebra II MATH 5023 Advanced Linear Algebra Select three of the following (with exactly two in one area): Discrete Math MATH 4513 Introduction to Numerical Analysis MATH 4553 Introduction to Optimization MATH 4553 Introduction to Optimization MATH 4663 Combinatorics MATH 5543 Numerical Analysis for Differential Equations MATH 5553 Numerical Analysis for Linear Algebra CS 4793 Artificial Intelligence I Geometry MATH 4423 Geometry and Algorithms in Three- Dimensional Modeling MATH 4813 Groups and Representations CS 4143 Computer Graphics Statistics STAT 4043 Applied Regression Analysis STAT 5123 Probability Theory STAT 5223 Statistical Inference STAT 5013 Statistics for Experimenters II STAT 5023 Statistics for Experimenters II STAT 5043 Sample Survey Designs		Experimental Designs	10
MATH 5283 Complex Analysis I MATH 5293 Complex Analysis II MATH 5313 Geometric Topology MATH 6323 Algebra I MATH 5613 Algebra I MATH 5623 Algebra II MATH 5623 Algebra II MATH 5624 Advanced Calculus I MATH 5043 Advanced Calculus I MATH 5091 Introduction to Research in Mathematics Education Select one of the following courses: MATH 4713 Number Theory MATH 4753 Introduction to Cryptography MATH 4503 Abstract Algebra II MATH 5003 Abstract Algebra II MATH 5013 Abstract Algebra II MATH 5023 Advanced Linear Algebra Select three of the following (with exactly two in one area): Discrete Math MATH 4513 Introduction to Numerical Analysis MATH 4553 Introduction to Optimization MATH 4663 Combinatorics MATH 5543 Numerical Analysis for Differential Equations MATH 5553 Numerical Analysis for Linear Algebra CS 4793 Artificial Intelligence I Geometry MATH 4423 Geometry and Algorithms in Three- Dimensional Modeling MATH 4813 Groups and Representations CS 4143 Computer Graphics Statistics STAT 4043 Applied Regression Analysis STAT 5123 Probability Theory STAT 5223 Statistical Inference STAT 5013 Statistics for Experimenters II STAT 5023 Statistics for Experimenters II STAT 5043 Sample Survey Designs		•	
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MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I  MATH 5623 Algebra II  Math Education Track  Required:  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography  MATH 5003 Abstract Algebra II  MATH 5013 Abstract Algebra II  MATH 5023 Advanced Linear Algebra  Select three of the following (with exactly two in one area):  Discrete Math  MATH 4513 Introduction to Numerical Analysis  MATH 4553 Introduction to Optimization  MATH 4563 Combinatorics  MATH 4563 Numerical Analysis for Differential Equations  MATH 5553 Numerical Analysis for Linear Algebra  CS 4793 Artificial Intelligence I  Geometry  MATH 4423 Geometry and Algorithms in Three-Dimensional Modeling  MATH 4813 Groups and Representations		Computer Graphics	
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra II  MATH 5623 Algebra II  Math Education Track  Required:  MATH 5043 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography  MATH 5003 Abstract Algebra II  MATH 5013 Abstract Algebra II  MATH 5023 Advanced Linear Algebra  Select three of the following (with exactly two in one area):  Discrete Math  MATH 4513 Introduction to Numerical Analysis  MATH 4553 Introduction to Optimization  MATH 4663 Combinatorics  MATH 4563 Numerical Analysis for Differential Equations  MATH 5553 Numerical Analysis for Linear Algebra  CS 4793 Artificial Intelligence I  Geometry  MATH 4423 Geometry and Algorithms in Three-Dimensional Modeling		·	
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I  MATH 5623 Algebra II  MATH 5624 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography  MATH 5003 Abstract Algebra I  MATH 5013 Abstract Algebra II  MATH 5023 Advanced Linear Algebra  Select three of the following (with exactly two in one area):  Discrete Math  MATH 4513 Introduction to Numerical Analysis  MATH 4553 Introduction to Optimization  MATH 4554 Combinatorics  MATH 5554 Numerical Analysis for Differential Equations  MATH 5553 Numerical Analysis for Linear Algebra  CS 4793 Artificial Intelligence I  Geometry  MATH 4423 Geometry and Algorithms in Three-	ΜΔΤΗ ΛΩ13	-	
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebra I  MATH 5613 Algebra II  MATH 5623 Algebra II  MATH 5623 Algebra II  MATH 5043 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography  MATH 5003 Abstract Algebra I  MATH 5013 Advanced Linear Algebra  Select three of the following (with exactly two in one area):  Discrete Math  MATH 4513 Introduction to Numerical Analysis  MATH 4553 Introduction to Optimization  MATH 4663 Combinatorics  MATH 5543 Numerical Analysis for Differential Equations  MATH 5553 Numerical Analysis for Linear Algebra  CS 4793 Artificial Intelligence I	•		
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I  MATH 5623 Algebra II  MATH 5623 Algebra II  MATH 5043 Advanced Calculus I  MATH 5043 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography  MATH 5003 Abstract Algebra I  MATH 5013 Abstract Algebra II  MATH 5023 Advanced Linear Algebra  Select three of the following (with exactly two in one area):  Discrete Math  MATH 4513 Introduction to Numerical Analysis  MATH 4553 Introduction to Optimization  MATH 4563 Combinatorics  MATH 5543 Numerical Analysis for Differential Equations  MATH 5553 Numerical Analysis for Linear Algebra	Geometry	-	
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I  MATH 5623 Algebra II  MATH 5623 Algebra II  MATH 5043 Advanced Calculus I  MATH 5043 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography  MATH 5003 Abstract Algebra I  MATH 5013 Abstract Algebra II  MATH 5023 Advanced Linear Algebra  Select three of the following (with exactly two in one area):  Discrete Math  MATH 4513 Introduction to Numerical Analysis  MATH 4553 Introduction to Optimization  MATH 4663 Combinatorics  MATH 5543 Numerical Analysis for Differential Equations	CS 4793	•	
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra II  MATH 5623 Algebra II  MATH 5043 Advanced Calculus I  MATH 5043 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography  MATH 5003 Abstract Algebra I  MATH 5013 Abstract Algebra II  MATH 5023 Advanced Linear Algebra  Select three of the following (with exactly two in one area):  Discrete Math  MATH 4513 Introduction to Numerical Analysis  MATH 4553 Introduction to Optimization  MATH 4663 Combinatorics  MATH 5543 Numerical Analysis for Differential	MATH 5553	•	
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra II  MATH 5623 Algebra II  Math Education Track  Required:  MATH 5043 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography  MATH 5003 Abstract Algebra II  MATH 5013 Advanced Linear Algebra  Select three of the following (with exactly two in one area):  Discrete Math  MATH 4513 Introduction to Optimization  MATH 4553 Introduction to Optimization  MATH 4553 Introduction to Optimization	MATH 5543		
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra II  MATH 5623 Algebra II  MATH 5624 Algebra II  MATH 5043 Advanced Calculus I  MATH 5043 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography  MATH 5003 Abstract Algebra I  MATH 5013 Abstract Algebra II  MATH 5023 Advanced Linear Algebra  Select three of the following (with exactly two in one area):  Discrete Math  MATH 4513 Introduction to Numerical Analysis  MATH 4553 Introduction to Optimization			
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MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra II  MATH 5623 Algebra II  MATH 5623 Algebra II  MATH 5043 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography  MATH 5003 Abstract Algebra I  MATH 5013 Advanced Linear Algebra  Select three of the following (with exactly two in one area):  Discrete Math		•	
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra II  MATH 5623 Algebra II  MATH 5624 Advanced Calculus I  MATH 5043 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography  MATH 5003 Abstract Algebra I  MATH 5013 Advanced Linear Algebra  Select three of the following (with exactly two in one area):			
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I  MATH 5623 Algebra II  MATH 5624 Advanced Calculus I  MATH 5043 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography  MATH 5003 Abstract Algebra I  MATH 5013 Abstract Algebra II  MATH 5023 Advanced Linear Algebra		llowing (with exactly two in one area):	
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I  MATH 5623 Algebra II  Math Education Track  Required:  MATH 5043 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography  MATH 5003 Abstract Algebra I  MATH 5013 Abstract Algebra II		•	
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MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra II  MATH 5623 Algebra II  MATH 5624 Algebra II  MATH 5045 Advanced Calculus I  MATH 5045 Advanced Calculus I  MATH 5046 Calculus I  MATH 5047 Advanced Calculus I  MATH 5048 Advanced Calculus I  MATH 5049 Introduction to Research in Mathematics Education  Select one of the following courses:  MATH 4713 Number Theory  MATH 4753 Introduction to Cryptography			
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I  MATH 5623 Algebra II  MATH 5624 Algebra II  MATH 5045 Advanced Calculus I  MATH 5045 Advanced Calculus I  MATH 5046 Advanced Calculus I  Select one of the following courses:  MATH 4713 Number Theory			
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I  MATH 5623 Algebra II  Math Education Track  Required:  MATH 5043 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics Education  Select one of the following courses:		•	
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I  MATH 5623 Algebra II  Math Education Track  Required:  MATH 5043 Advanced Calculus I  MATH 5913 Introduction to Research in Mathematics  Education		-	
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I  MATH 5623 Algebra II  Math Education Track  Required:  MATH 5043 Advanced Calculus I			
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I  MATH 5623 Algebra II  Math Education Track  Required:	MATH 5913	Introduction to Research in Mathematics	
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I  MATH 5623 Algebra II  Math Education Track		Advanced Calculus I	
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I  MATH 5623 Algebra II	Required:		
MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology  MATH 6323 Algebraic Topology I  MATH 5613 Algebra I	Math Education Track	-	
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MATH 5283 Complex Analysis I  MATH 5293 Complex Analysis II  MATH 5313 Geometric Topology	MATH 5613		
MATH 5283 Complex Analysis I MATH 5293 Complex Analysis II	MATH 6323	, 3,	
MATH 5283 Complex Analysis I	MATH 5313		
	MATH 5293		
MATH 5153 Real Analysis II	MATH 5283		
	MATH 5153	Real Analysis II	

#### **Non-Thesis Option**

**Total Hours: 33** 

Code	Title	Hours
Core Courses		
Choose one of the fo	llowing tracks:	18
Applied Track		
Select one of the follo	owing two courses:	
MATH 5023	Advanced Linear Algebra	
MATH 5043	Advanced Calculus I	
Select one of the follo	owing two courses:	
MATH 5543	Numerical Analysis for Differential Equations	
or MATH 5553	Numerical Analysis for Linear Algebra	
MATH 5553	Numerical Analysis for Linear Algebra	
Select four of the foll	owing courses:	
MATH 4233	Intermediate Differential Equations	
MATH 4513	Introduction to Numerical Analysis	
MATH 4553	Introduction to Optimization	
MATH 5213	Fourier Analysis and Wavelets	
MATH 5233	Partial Differential Equations	
MATH 5243	Ordinary Differential Equations	
MATH 5253	Advanced Ordinary Differential Equations	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	
MATH 5563	Finite Element Methods for Partial Differential Equations	
MATH 5580	Case Studies in Applied Mathematics	
MATH 5593	Methods of Applied Mathematics	
Pure Track		
Option 1		
Required:		
MATH 5043	Advanced Calculus I	
MATH 5053	Advanced Calculus II	
MATH 5003	Abstract Algebra I	
MATH 5013	Abstract Algebra II	
MATH 5303	General Topology	
MATH 4283	Complex Variables	
Option 2		
Required:		
MATH 5043	Advanced Calculus I	
MATH 5053	Advanced Calculus II	
MATH 5003	Abstract Algebra I	
MATH 5013	Abstract Algebra II	
Select two of the follo	owing courses:	
MATH 5143	Real Analysis I	
MATH 5153	Real Analysis II	
MATH 5283	Complex Analysis I	
MATH 5293	Complex Analysis II	
MATH 5313	Geometric Topology	
MATH 6323	Algebraic Topology I	
MATH 5613	Algebra I	

MATH 5623	Algebra II	
Math Education Track		
Required:		
MATH 5043	Advanced Calculus I	
MATH 5913	Introduction to Research in Mathematics Education	
Select one of the follow	owing courses:	
MATH 4713	Number Theory	
MATH 4753	Introduction to Cryptography	
MATH 5003	Abstract Algebra I	
MATH 5013	Abstract Algebra II	
MATH 5023	Advanced Linear Algebra	
Select three of the fo	llowing (with exactly two in one area):	
Discrete Math		
MATH 4513	Introduction to Numerical Analysis	
MATH 4553	Introduction to Optimization	
MATH 4663	Combinatorics	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	
CS 4793	Artificial Intelligence I	
Geometry		
MATH 4423	Geometry and Algorithms in Three- Dimensional Modeling	
MATH 4813	Groups and Representations	
CS 4143	Computer Graphics	
Statistics		
STAT 4043	Applied Regression Analysis	
STAT 5123	Probability Theory	
STAT 5223	Statistical Inference	
STAT 5013	Statistics for Experimenters I	
STAT 5023	Statistics for Experimenters II	
STAT 5043	Sample Survey Designs	
STAT 5063	Statistical Machine Learning with R	
STAT 5303	Experimental Designs	
Hours Subtotal		18
Additional Graduate	Courses	
Electives		
	ctives (no more than 6 hours can be outside	9
MATH, STAT or CS).		
Thesis/Report		
MATH 5000	Master's Research and Thesis (3-6 hours in combination with electives)	6
Hours Subtotal		15
Total Hours		33

### **Graduate College Master's Program Requirements**

#### **Mechanical and Aerospace Engineering, MEN**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 33

Code	Title	Hours
Required Core		
	t hours of MAE courses (5000- and 6000-level) that or graduate credit.	21
Technical Elect	ives	
ECEN/IEM/MAR	of graduate-level courses in BAE/CIVE/CHE/ E/MATH/MSE/PETE with the approval of the uate Advisory Committee and the MAE Graduate	9
Capstone		
•	equirement will be satisfied by enrollment in will require a term project or creative requirement.	
MAE 5010	Mechanical and Aerospace Engineering Projects	3
Total Hours		33
1		

Graduate courses from other disciplines may be allowed but will require approval of the student's Graduate Advisory Committee and the MAE Graduate Coordinator prior to enrollment.

### **Graduate College Master's Program Requirements**

## **Mechanical and Aerospace Engineering, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 30

Code	Title	Hours
Required Course	es	
Select 18 hours	of MAE Graduate-Level Courses	18
Hours Subtotal		18
Technical Electi	ve	
Select 6 hours		6
<b>Hours Subtotal</b>		6
Research Hours		
MAE 5000	Master's Thesis	6
Hours Subtotal		6
Total Hours		30

### **Graduate College Master's Program Requirements**

#### Mechanical and Aerospace Engineering: Unmanned Aerial Systems, MS

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 30

Code	Title	Hours
Unmanned Aerial Syst	ems Core:	
Select 12 hours from	the following:	12
MAE 5083	Engineering Acoustics	
MAE 5233	Advanced Fluid Dynamics I	
MAE 5343	Advanced Aero Propulsion and Power	
MAE 5913	Advanced Aerodynamics	
MAE 5923	Guidance and Control of Aerospace Vehicles	
MAE 5943	Unsteady Aerodynamics and Aeroacoustics	
MAE 5963	Unmanned Aerial Systems Design and Analysis	
MAE 5973	Unmanned Aerial Systems Propulsion	
MAE 5983	Aircraft Certification and Test	
MAE 6313	Atmospheric Flight Control	
Mechanical and Aeros	space Engineering Electives:	
	evel course supporting UAS thesis research permission of the student's faculty advisory	6
Technical Electives:		
Any graduate-level co student's faculty adv	ourse will be allowed with permission of the isory committee.	6
MAE 5000	Master's Thesis	6
Total Hours		30

### **Graduate College Master's Program Requirements**

# Microbiology, Cell and Molecular Biology, MS

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
<b>Required Courses</b>		
MICR 5160	Seminar	1
Two hours from:		2
MICR 6120	Recent Advances in Microbiology	
Hours Subtotal		3
Electives		
Select 21 hours fro	Select 21 hours from the following:	
Non-zero ending N	AICR courses at the 5000-level	
Non-zero ending B	IOC courses at the 5000-level or above	
Hours Subtotal		21
Thesis		
MICR 5000	Thesis	6
Hours Subtotal		6
Total Hours		30

#### **Non-Thesis Option**

**Total Hours: 32** 

Code	Title	Hours
Required Courses		
MICR 5160	Seminar	1
MICR 5163	Foundations of Cellular Life	3
Six hours from:		6
MICR 5990	Special Problems	
Two hours from:		2
MICR 6120	Recent Advances in Microbiology	
Hours Subtotal		12
Electives		
Select 18 hours from	n the following:	18
MICR 6153	Molecular Microbial Genetics	
BIOL 5524	Biological Laboratory Instrumentation	
Non-zero ending	MICR courses at the 5000-level	
Non-zero ending	BIOC courses at the 5000-level or above	
Hours Subtotal		18
Additional Requiren	nents	
MICR 5000	Thesis	2
Hours Subtotal		2
Total Hours		32

### **Graduate College Master's Program Requirements**

#### **Music: Applied Music, MM**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 32

Code	Title	Hours
Required Courses		
Courses in Pedagogy		
MUSI 5890	Special Studies in Music Pedagogy	2
MUSI 5733	Techniques of Pedagogy and Performance	3
MUSI 5842	Music Repertory	2
Courses in Performance	ce	
MUSI 5002	Final Degree Performance	2
Eight hours from:		8
MUSI 5490	Lessons in Applied Music (Major Field)	
Hours Subtotal		17
Additional Requireme	ents	
MUSI 5012	Final Degree Project and Oral Examination	2
MUSI 5113	Introduction to Graduate Studies in Music	3
MUSI 5750	Seminar in Music History	3
MUSI 5962	Analytical Techniques in Music I	2
MUSI 5972	Analytical Techniques in Music II	2
Hours Subtotal		12
Electives		
in Elective Courses in	pplied Music Track will complete 3 hours Music. Other courses may be counted as	3
	the approval of the Graduate Coordinator.	
MUSI 5480	Lessons in Applied Music (Minor Field)	
MUSI 5600	Chamber Ensembles	
MUSI 5610	University Bands	
MUSI 5620	Symphony Orchestra	
MUSI 5630	University Choral Ensembles	
Hours Subtotal		3
Total Hours		32

# **Graduate College Master's Program Requirements**

#### **Music: Conducting, MM**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 32

Code	Title	Hours
Required Courses		
Courses in Pedagogy		
MUSI 5512	Advanced Studies in Music Literature and Pedagogy I	2
MUSI 5522	Advanced Studies in Music Literature and Pedagogy II	2
MUSI 5733	Techniques of Pedagogy and Performance	3
Courses in Performan	ce	
MUSI 5002	Final Degree Performance	2
MUSI 5712	Advanced Studies in Conducting I	2
MUSI 5722	Advanced Studies in Conducting II	2
MUSI 5742	Conducting Practicum	2
Hours Subtotal		15
Additional Requireme	ents	
MUSI 5012	Final Degree Project and Oral Examination	2
MUSI 5113	Introduction to Graduate Studies in Music	3
MUSI 5750	Seminar in Music History	3
MUSI 5962	Analytical Techniques in Music I	2
MUSI 5972	Analytical Techniques in Music II	2
Hours Subtotal		12
Electives		
in Elective Courses in	oplied Music Track will complete 3 hours In Music. Other courses may be counted as the approval of the Graduate Coordinator.	5
MUSI 5480	Lessons in Applied Music (Minor Field)	
MUSI 5600	Chamber Ensembles	
MUSI 5610	University Bands	
MUSI 5620	Symphony Orchestra	
MUSI 5630	University Choral Ensembles	
Hours Subtotal		5
Total Hours		32

Admission to all ensembles is by audition.

# **Graduate College Master's Program Requirements**

#### **Music: Multiple Woodwinds, MM**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 32

Code	Title	Hours
Pedagogy Courses		
MUSI 5733	Techniques of Pedagogy and Performance	3
Hours Subtotal		3
Courses in Performa	nce	
Eight hours from:		8
MUSI 5490	Lessons in Applied Music (Major Field)	
Six hours from:		6
MUSI 5480	Lessons in Applied Music (Minor Field)	
MUSI 5002	Final Degree Performance	2
Hours Subtotal		16
Additional Required (	Courses	
MUSI 5113	Introduction to Graduate Studies in Music	3
MUSI 5750	Seminar in Music History	3
MUSI 5962	Analytical Techniques in Music I	2
MUSI 5012	Final Degree Project and Oral Examination	2
Hours Subtotal		10
Elective Courses in M	<b>l</b> usic	
Select three hours fro	om the following:	3
MUSI 5600	Chamber Ensembles	
MUSI 5610	University Bands	
MUSI 5620	Symphony Orchestra	
MUSI 5630	University Choral Ensembles	
MUSI 5480	Lessons in Applied Music (Minor Field)	
MUSI 5890	Special Studies in Music Pedagogy	
MUSI 5842	Music Repertory	
MUSI 5972	Analytical Techniques in Music II	
Hours Subtotal		3
Total Hours		32

# **Graduate College Master's Program Requirements**

# Natural Resource Ecology and Management, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Courses		
Select a minimur coursework <sup>1</sup>	n of 23 hours of approved graduate-level	23
Hours Subtotal		23
Additional Requir	rements	
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	6
Hours Subtotal		7
Total Hours		30

Total hours for thesis option could reach maximum of 36 depending on the courses selected.

#### **Non-Thesis Option**

Total Hours: 32

Code	Title	Hours
Core Courses		
Select a minimur coursework	n of 29 hours of approved graduate-level	29
Hours Subtotal		29
Additional Requi	rements	
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	2
Hours Subtotal		3
Total Hours		32

# **Graduate College Master's Program Requirements**

#### Natural Resource Ecology and Management: Fisheries and Aquatic Ecology, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Courses		
Select a minimus coursework <sup>1</sup>	m of 23 hours of approved graduate-level	23
Hours Subtotal		23
Additional Requi	rements	
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	6
Hours Subtotal		7
Total Hours		30

Total hours for thesis option could reach maximum of 36 depending on courses selected.

#### **Non-Thesis Option**

Total Hours: 32

Code	Title	Hours
Core Courses		
Select a minimum coursework	m of 29 hours of approved graduate-level	29
Hours Subtotal		29
Additional Requi	rements	
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	2
Hours Subtotal		3
Total Hours		32

# **Graduate College Master's Program Requirements**

# Natural Resource Ecology and Management: Forest Resources, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Courses		
Select a minimun coursework <sup>1</sup>	n of 23 hours of approved graduate-level	23
Hours Subtotal		23
Additional Requir	ements	
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	6
Hours Subtotal		7
Total Hours		30

Total hours for thesis option could reach maximum of 36 depending on courses selected.

#### **Non-Thesis Option**

Total Hours: 32

Code	Title	Hours
Core Courses		
Select a minimur coursework	n of 29 hours of approved graduate-level	29
Hours Subtotal		29
Additional Requi	rements	
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	2
Hours Subtotal		3
Total Hours		32

# **Graduate College Master's Program Requirements**

# Natural Resource Ecology and Management: Rangeland Ecology and Management, MS

Requirements for Students Matriculating in or before Academic Year **2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Courses		
Select a minimur coursework <sup>1</sup>	n of 23 hours of approved graduate-level	23
Hours Subtotal		23
<b>Additional Requi</b>	rements	
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	6
Hours Subtotal		7
Total Hours		30

Total hours for thesis option could reach maximum of 36 depending on courses selected.

#### **Non-Thesis Option**

Total Hours: 32

Code	Title	Hours
Core Courses		
Select a minimum coursework	m of 29 hours of approved graduate-level	29
Hours Subtotal		29
Additional Requi	rements	
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	2
Hours Subtotal		3
Total Hours		32

# **Graduate College Master's Program Requirements**

#### Natural Resource Ecology and Management: Wildlife Ecology and Management, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Courses		
Select a minimur coursework <sup>1</sup>	n of 23 hours of approved graduate-level	23
Hours Subtotal		23
Additional Requir	rements	
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	6
Hours Subtotal		7
Total Hours		30

Total hours for thesis option could reach maximum of 36 depending on courses selected.

#### **Non-Thesis Option**

Total Hours: 32

Code	Title	Hours
Core Courses		
Select a minimum coursework	m of 29 hours of approved graduate-level	29
Hours Subtotal		29
Additional Requi	rements	
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	2
Hours Subtotal		3
Total Hours		32

# **Graduate College Master's Program Requirements**

# **Nutritional Sciences: Dietetics Practice, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 32

Code	Title	Hours
Common Core		
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	3
NSCI 5960	Master's Seminar in Nutritional Sciences	1
NSCI 5643	Advanced Medical Nutrition Therapy	3
NSCI 5412	Dietetic Internship Management Practicum	2
NSCI 5422	Dietetic Internship Clinical Practicum	2
NSCI 5432	Dietetic Internship Community Nutrition Practicum	2
<b>Option Specific Core</b>		
NSCI 5403	Contemporary Issues in Dietetics Practice	3
NSCI 5613	Nutrition Education and Behavior Change	3
NSCI 5713	Public Health Nutrition and Food Policy	3
Hours Subtotal		22
Electives		
Select 10 hours of the	e following:	10
NSCI 5023	Advanced Nutrition in the Pathophysiology of Chronic Disease	
NSCI 5033	Macronutrients in Human Nutrition	
NSCI 5043	Micronutrients in Human Nutrition	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5313	Dietary and Herbal Supplements	
NSCI 5323	Nutrition and Physical Activity in Aging	
NSCI 5363	Maternal and Child Nutrition	
NSCI 5543	Obesity Prevention Across the Lifespan	
NSCI 5553	Global Nutrition and Food Security	
NSCI 5870	Problems in Nutritional Science	
NSCI 5913	Nutritional Epidemiology	
Hours Subtotal		10
Total Hours		32

# **Graduate College Master's Program Requirements**

#### **Nutritional Sciences: Dietetics Research, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Hours**

Total Hours: 36

Degree Core           NSCI 5000         Master's Thesis         6           NSCI 5033         Macronutrients in Human Nutrition         3           NSCI 5043         Micronutrients in Human Nutrition         3           NSCI 5123         Research Approaches and Translation in Nutritional Sciences         3           NSCI 5412         Dietetic Internship Management Practicum         2           NSCI 5422         Dietetic Internship Community Nutrition         2           NSCI 5432         Dietetic Internship Community Nutrition         2           NSCI 5643         Advanced Medical Nutrition Therapy         3           NSCI 5960         Master's Seminar in Nutritional Sciences         1           STAT 5013         Statistics for Experimenters I         3           or REMS 5953         Statistics for Experimenters I         3           or REMS 5953         Statistical Methods in Education           Hours Subtotal         28           Electives         Select 8 hours from the following:         8           Select 8 hours from the following:         8           NSCI 5023         Advanced Nutrition for Exercise and Sport           NSCI 5333         Maternal and Child Nutrition           NSCI 54343         Nutrigenomics and Nutrigenetics           <	Code	Title	Hours
NSCI 5033 Macronutrients in Human Nutrition 3 NSCI 5043 Micronutrients in Human Nutrition 3 NSCI 5123 Research Approaches and Translation in Nutritional Sciences NSCI 5412 Dietetic Internship Management Practicum 2 NSCI 5422 Dietetic Internship Clinical Practicum 2 NSCI 5432 Dietetic Internship Clinical Practicum 2 NSCI 5432 Dietetic Internship Community Nutrition 2 Practicum NSCI 5643 Advanced Medical Nutrition Therapy 3 NSCI 5960 Master's Seminar in Nutritional Sciences 1 STAT 5013 Statistics for Experimenters I 3 or REMS 5953 Statistical Methods in Education  Hours Subtotal 28 Electives Select 8 hours from the following: 8 NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease NSCI 5313 Advanced Nutrition for Exercise and Sport NSCI 5313 Dietary and Herbal Supplements NSCI 5313 Dietary and Herbal Supplements NSCI 5443 Nutrigenomics and Nutrigenetics NSCI 5543 Obesity Prevention Across the Lifespan NSCI 5553 Global Nutrition and Food Security NSCI 5563 Nutritional Assessment NSCI 5563 Nutritional Assessment NSCI 5563 Nutritional Assessment NSCI 5613 Nutrition Education and Behavior Change NSCI 5713 Public Health Nutrition and Food Policy NSCI 5713 Public Health Nutrition and Food Policy NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences NSCI 5753 Biochemical Principles BIOC 5753 Biochemical Principles BIOC 5753 Biochemical Principles BIOC 5753 Biochemical Principles BIOC 5754 Articulation of Research Logic BIOC 5102 Molecular Genetics BIOC 5102 Molecular Genetics BIOC 5102 Molecular Genetics BIOC 523 Endocrinology CPSY 5173 Gerontological Counseling	Degree Core		
NSCI 5043 Micronutrients in Human Nutrition  NSCI 5123 Research Approaches and Translation in Nutritional Sciences  NSCI 5412 Dietetic Internship Management Practicum  NSCI 5422 Dietetic Internship Community Nutrition  Practicum  NSCI 5432 Dietetic Internship Community Nutrition  Practicum  NSCI 5643 Advanced Medical Nutrition Therapy  3 NSCI 5960 Master's Seminar in Nutritional Sciences  1 STAT 5013 Statistics for Experimenters I  or REMS 5953 Statistical Methods in Education  Hours Subtotal  Electives  Select 8 hours from the following:  8 NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease  NSCI 5133 Advanced Nutrition for Exercise and Sport  NSCI 5363 Maternal and Child Nutrition  NSCI 5313 Dietary and Herbal Supplements  NSCI 5443 Nutrigenomics and Nutrigenetics  NSCI 5543 Obesity Prevention Across the Lifespan  NSCI 5553 Global Nutrition and Food Security  NSCI 5563 Nutritional Assessment  NSCI 5563 Nutritional Assessment  NSCI 5713 Public Health Nutrition and Food Policy  NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences  NSCI 5870 Problems in Nutritional Science  NSCI 5913 Nutritional Epidemiology  NSCI 5033 Phytochemicals  BIOC 5753 Biochemical Principles  BIOC 5753 Biochemical Principles  BIOC 5102 Molecular Genetics  BIOC 5112 Articulation of Research Logic  BIOC 5284 Biochemical Laboratory Methods  BIOL 5215 Mammalian Physiology  CPSY 5173 Gerontological Counseling	NSCI 5000	Master's Thesis	6
NSCI 5123 Research Approaches and Translation in Nutritional Sciences  NSCI 5412 Dietetic Internship Management Practicum  NSCI 5422 Dietetic Internship Clinical Practicum  Practicum  NSCI 5432 Dietetic Internship Community Nutrition Practicum  NSCI 5643 Advanced Medical Nutrition Therapy  STAT 5013 Statistics for Experimenters I OREMS 5953 Statistical Methods in Education  Hours Subtotal  Electives  Select 8 hours from the following: NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease  NSCI 5133 Advanced Nutrition for Exercise and Sport NSCI 5363 Maternal and Child Nutrition NSCI 5313 Dietary and Herbal Supplements NSCI 5443 Nutrigenomics and Nutrigenetics NSCI 5543 Obesity Prevention Across the Lifespan NSCI 5553 Global Nutrition and Food Security NSCI 5563 Nutritional Assessment NSCI 5513 Nutrition Education and Behavior Change NSCI 5713 Public Health Nutrition and Food Policy NSCI 5713 Public Health Nutrition and Food Policy NSCI 5870 Problems in Nutritional Sciences NSCI 5913 Nutritional Epidemiology NSCI 5913 Nutritional Epidemiology NSCI 5033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 5723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5824 Biochemical Laboratory Methods BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5033	Macronutrients in Human Nutrition	3
Nutritional Sciences  NSCI 5412 Dietetic Internship Management Practicum 2 NSCI 5422 Dietetic Internship Clinical Practicum 2 NSCI 5432 Dietetic Internship Community Nutrition 2 Practicum  NSCI 5643 Advanced Medical Nutrition Therapy 3 NSCI 5960 Master's Seminar in Nutritional Sciences 1 STAT 5013 Statistics for Experimenters I 3 or REMS 5953 Statistical Methods in Education  Hours Subtotal 28 Electives  Select 8 hours from the following: 8 NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease NSCI 5133 Advanced Nutrition for Exercise and Sport NSCI 5313 Dietary and Herbal Supplements NSCI 5313 Dietary and Herbal Supplements NSCI 5443 Nutrigenomics and Nutrigenetics NSCI 5543 Obesity Prevention Across the Lifespan NSCI 5553 Global Nutrition and Food Security NSCI 5563 Nutritional Assessment NSCI 5613 Nutritional Assessment NSCI 5713 Public Health Nutrition and Food Policy NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences NSCI 5870 Problems in Nutritional Science NSCI 5913 Nutritional Epidemiology NSCI 6033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 5753 Biochemical Principles BIOC 5702 Molecular Genetics BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5043	Micronutrients in Human Nutrition	3
NSCI 5422 Dietetic Internship Clinical Practicum 2 NSCI 5432 Dietetic Internship Community Nutrition 2 Practicum  NSCI 5643 Advanced Medical Nutrition Therapy 3 NSCI 5960 Master's Seminar in Nutritional Sciences 1 STAT 5013 Statistics for Experimenters I 3 or REMS 5953 Statistical Methods in Education  Hours Subtotal 28 Electives  Select 8 hours from the following: 8 NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease NSCI 5133 Advanced Nutrition for Exercise and Sport NSCI 5363 Maternal and Child Nutrition NSCI 5313 Dietary and Herbal Supplements NSCI 5443 Nutrigenomics and Nutrigenetics NSCI 5543 Obesity Prevention Across the Lifespan NSCI 5553 Global Nutrition and Food Security NSCI 5563 Nutritional Assessment NSCI 5713 Public Health Nutrition and Food Policy NSCI 5713 Public Health Nutrition and Food Policy NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences NSCI 5913 Nutritional Epidemiology NSCI 5913 Nutritional Epidemiology NSCI 5753 Biochemical Principles BIOC 5753 Biochemical Principles BIOC 5753 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5123	• •	3
NSCI 5432 Dietetic Internship Community Nutrition Practicum  NSCI 5643 Advanced Medical Nutrition Therapy 3 NSCI 5960 Master's Seminar in Nutritional Sciences 1 STAT 5013 Statistics for Experimenters I 3 or REMS 5953 Statistical Methods in Education  Hours Subtotal 28  Electives  Select 8 hours from the following: 8 NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease  NSCI 5133 Advanced Nutrition for Exercise and Sport NSCI 5363 Maternal and Child Nutrition NSCI 5313 Dietary and Herbal Supplements NSCI 5443 Nutrigenomics and Nutrigenetics NSCI 5543 Obesity Prevention Across the Lifespan NSCI 5553 Global Nutrition and Food Security NSCI 5563 Nutritional Assessment NSCI 5613 Nutritional Assessment NSCI 5713 Public Health Nutrition and Food Policy NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences NSCI 5870 Problems in Nutritional Science NSCI 5913 Nutritional Epidemiology NSCI 6033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 5750 Molecular Genetics BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5284 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5412	Dietetic Internship Management Practicum	2
Practicum  NSCI 5643 Advanced Medical Nutrition Therapy 3  NSCI 5960 Master's Seminar in Nutritional Sciences 1  STAT 5013 Statistics for Experimenters I 3  or REMS 5953 Statistical Methods in Education  Hours Subtotal 28  Electives  Select 8 hours from the following: 8  NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease  NSCI 5133 Advanced Nutrition for Exercise and Sport NSCI 5363 Maternal and Child Nutrition  NSCI 5313 Dietary and Herbal Supplements  NSCI 5443 Nutrigenomics and Nutrigenetics NSCI 5543 Obesity Prevention Across the Lifespan NSCI 5553 Global Nutrition and Food Security  NSCI 5563 Nutritional Assessment NSCI 5613 Nutritional Assessment NSCI 5713 Public Health Nutrition and Food Policy NSCI 5713 Public Health Nutrition and Food Policy NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences  NSCI 5870 Problems in Nutritional Science  NSCI 5913 Nutritional Epidemiology  NSCI 6033 Phytochemicals  BIOC 5753 Biochemical Principles  BIOC 5753 Signal Transduction  BIOC 5102 Molecular Genetics  BIOC 5112 Articulation of Research Logic  BIOC 5284 Biochemical Laboratory Methods  BIOL 5283 Endocrinology  CPSY 5173 Gerontological Counseling	NSCI 5422	Dietetic Internship Clinical Practicum	2
NSCI 5960 Master's Seminar in Nutritional Sciences 1 STAT 5013 Statistics for Experimenters I 3 or REMS 5953 Statistical Methods in Education  Hours Subtotal 28 Electives Select 8 hours from the following: 8 NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease NSCI 5133 Advanced Nutrition for Exercise and Sport NSCI 5363 Maternal and Child Nutrition NSCI 5313 Dietary and Herbal Supplements NSCI 5443 Nutrigenomics and Nutrigenetics NSCI 5543 Obesity Prevention Across the Lifespan NSCI 5553 Global Nutrition and Food Security NSCI 5563 Nutritional Assessment NSCI 5613 Nutrition Education and Behavior Change NSCI 5713 Public Health Nutrition and Food Policy NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences NSCI 5870 Problems in Nutritional Science NSCI 5913 Nutritional Epidemiology NSCI 6033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 6723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5432		2
NSCI 5960 Master's Seminar in Nutritional Sciences 1 STAT 5013 Statistics for Experimenters I 3 or REMS 5953 Statistical Methods in Education  Hours Subtotal 28 Electives Select 8 hours from the following: 8 NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease NSCI 5133 Advanced Nutrition for Exercise and Sport NSCI 5363 Maternal and Child Nutrition NSCI 5313 Dietary and Herbal Supplements NSCI 5443 Nutrigenomics and Nutrigenetics NSCI 5543 Obesity Prevention Across the Lifespan NSCI 5553 Global Nutrition and Food Security NSCI 5563 Nutritional Assessment NSCI 5613 Nutrition Education and Behavior Change NSCI 5713 Public Health Nutrition and Food Policy NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences NSCI 5870 Problems in Nutritional Science NSCI 5913 Nutritional Epidemiology NSCI 6033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 6723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5643	Advanced Medical Nutrition Therapy	3
Hours Subtotal  Electives  Select 8 hours from the following:  NSCI 5023  Advanced Nutrition in the Pathophysiology of Chronic Disease  NSCI 5133  Advanced Nutrition for Exercise and Sport  NSCI 5363  Maternal and Child Nutrition  NSCI 5313  Dietary and Herbal Supplements  NSCI 5443  Nutrigenomics and Nutrigenetics  NSCI 5543  Obesity Prevention Across the Lifespan  NSCI 5553  Global Nutrition and Food Security  NSCI 5563  Nutritional Assessment  NSCI 5613  Nutrition Education and Behavior Change  NSCI 5713  Public Health Nutrition and Food Policy  NSCI 5743  Advanced Laboratory Techniques in Nutritional Sciences  NSCI 5913  Nutritional Epidemiology  NSCI 6033  Phytochemicals  BIOC 5753  Biochemical Principles  BIOC 5753  Biochemical Principles  BIOC 5102  Molecular Genetics  BIOC 5112  Articulation of Research Logic  BIOC 5824  Biochemical Laboratory Methods  BIOL 5215  Mammalian Physiology  BIOL 5283  Endocrinology  CPSY 5173  Gerontological Counseling	NSCI 5960		1
Hours Subtotal  Electives  Select 8 hours from the following:  NSCI 5023  Advanced Nutrition in the Pathophysiology of Chronic Disease  NSCI 5133  Advanced Nutrition for Exercise and Sport  NSCI 5363  Maternal and Child Nutrition  NSCI 5313  Dietary and Herbal Supplements  NSCI 5443  Nutrigenomics and Nutrigenetics  NSCI 5543  Obesity Prevention Across the Lifespan  NSCI 5553  Global Nutrition and Food Security  NSCI 5563  Nutritional Assessment  NSCI 5613  Nutrition Education and Behavior Change  NSCI 5713  Public Health Nutrition and Food Policy  NSCI 5743  Advanced Laboratory Techniques in Nutritional Sciences  NSCI 5913  Nutritional Epidemiology  NSCI 6033  Phytochemicals  BIOC 5753  Biochemical Principles  BIOC 5753  Biochemical Principles  BIOC 5102  Molecular Genetics  BIOC 5112  Articulation of Research Logic  BIOC 5824  Biochemical Laboratory Methods  BIOL 5215  Mammalian Physiology  BIOL 5283  Endocrinology  CPSY 5173  Gerontological Counseling	STAT 5013	Statistics for Experimenters I	3
Electives  Select 8 hours from the following:  NSCI 5023  Advanced Nutrition in the Pathophysiology of Chronic Disease  NSCI 5133  Advanced Nutrition for Exercise and Sport  NSCI 5363  Maternal and Child Nutrition  NSCI 5313  Dietary and Herbal Supplements  NSCI 5443  Nutrigenomics and Nutrigenetics  NSCI 5543  Obesity Prevention Across the Lifespan  NSCI 5553  Global Nutrition and Food Security  NSCI 5563  Nutritional Assessment  NSCI 5613  Nutrition Education and Behavior Change  NSCI 5713  Public Health Nutrition and Food Policy  NSCI 5743  Advanced Laboratory Techniques in Nutritional Sciences  NSCI 5870  Problems in Nutritional Science  NSCI 5913  Nutritional Epidemiology  NSCI 6033  Phytochemicals  BIOC 5753  Biochemical Principles  BIOC 5750  BIOC 5102  Molecular Genetics  BIOC 5102  Articulation of Research Logic  BIOC 5824  Biochemical Laboratory Methods  BIOL 5215  Mammalian Physiology  BIOL 5283  Endocrinology  CPSY 5173  Gerontological Counseling	or REMS 5953	Statistical Methods in Education	
Select 8 hours from the following:  NSCI 5023  Advanced Nutrition in the Pathophysiology of Chronic Disease  NSCI 5133  Advanced Nutrition for Exercise and Sport NSCI 5363  Maternal and Child Nutrition  NSCI 5313  Dietary and Herbal Supplements  NSCI 5443  Nutrigenomics and Nutrigenetics  NSCI 5543  Obesity Prevention Across the Lifespan NSCI 5553  Global Nutrition and Food Security  NSCI 5563  Nutritional Assessment  NSCI 5613  Nutrition Education and Behavior Change  NSCI 5713  Public Health Nutrition and Food Policy  NSCI 5743  Advanced Laboratory Techniques in Nutritional Sciences  NSCI 5870  Problems in Nutritional Science  NSCI 5913  Nutritional Epidemiology  NSCI 6033  Phytochemicals  BIOC 5753  Biochemical Principles  BIOC 5753  Biochemical Principles  BIOC 5102  Molecular Genetics  BIOC 5112  Articulation of Research Logic  BIOC 5824  Biochemical Laboratory Methods  BIOL 5215  Mammalian Physiology  BIOL 5283  Endocrinology  CPSY 5173  Gerontological Counseling	Hours Subtotal		28
NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease  NSCI 5133 Advanced Nutrition for Exercise and Sport NSCI 5363 Maternal and Child Nutrition  NSCI 5313 Dietary and Herbal Supplements  NSCI 5443 Nutrigenomics and Nutrigenetics  NSCI 5543 Obesity Prevention Across the Lifespan NSCI 5553 Global Nutrition and Food Security  NSCI 5563 Nutritional Assessment  NSCI 5613 Nutrition Education and Behavior Change NSCI 5713 Public Health Nutrition and Food Policy  NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences  NSCI 5870 Problems in Nutritional Science  NSCI 5913 Nutritional Epidemiology  NSCI 6033 Phytochemicals  BIOC 5753 Biochemical Principles  BIOC 6723 Signal Transduction  BIOC 5102 Molecular Genetics  BIOC 5112 Articulation of Research Logic  BIOC 5824 Biochemical Laboratory Methods  BIOL 5215 Mammalian Physiology  BIOL 5283 Endocrinology  CPSY 5173 Gerontological Counseling	Electives		
NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease  NSCI 5133 Advanced Nutrition for Exercise and Sport NSCI 5363 Maternal and Child Nutrition  NSCI 5313 Dietary and Herbal Supplements  NSCI 5443 Nutrigenomics and Nutrigenetics  NSCI 5543 Obesity Prevention Across the Lifespan NSCI 5553 Global Nutrition and Food Security  NSCI 5563 Nutritional Assessment  NSCI 5613 Nutrition Education and Behavior Change NSCI 5713 Public Health Nutrition and Food Policy  NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences  NSCI 5870 Problems in Nutritional Science  NSCI 5913 Nutritional Epidemiology  NSCI 6033 Phytochemicals  BIOC 5753 Biochemical Principles  BIOC 6723 Signal Transduction  BIOC 5102 Molecular Genetics  BIOC 5112 Articulation of Research Logic  BIOC 5824 Biochemical Laboratory Methods  BIOL 5215 Mammalian Physiology  BIOL 5283 Endocrinology  CPSY 5173 Gerontological Counseling	Select 8 hours from	the following:	8
NSCI 5363 Maternal and Child Nutrition  NSCI 5313 Dietary and Herbal Supplements  NSCI 5443 Nutrigenomics and Nutrigenetics  NSCI 5543 Obesity Prevention Across the Lifespan  NSCI 5553 Global Nutrition and Food Security  NSCI 5563 Nutritional Assessment  NSCI 5613 Nutrition Education and Behavior Change  NSCI 5613 Public Health Nutrition and Food Policy  NSCI 5713 Public Health Nutrition and Food Policy  NSCI 5743 Advanced Laboratory Techniques in  Nutritional Sciences  NSCI 5870 Problems in Nutritional Science  NSCI 5913 Nutritional Epidemiology  NSCI 6033 Phytochemicals  BIOC 5753 Biochemical Principles  BIOC 6723 Signal Transduction  BIOC 5102 Molecular Genetics  BIOC 5102 Articulation of Research Logic  BIOC 5824 Biochemical Laboratory Methods  BIOL 5215 Mammalian Physiology  BIOL 5283 Endocrinology  CPSY 5173 Gerontological Counseling		Advanced Nutrition in the Pathophysiology	
NSCI 5363 Maternal and Child Nutrition  NSCI 5313 Dietary and Herbal Supplements  NSCI 5443 Nutrigenomics and Nutrigenetics  NSCI 5543 Obesity Prevention Across the Lifespan  NSCI 5553 Global Nutrition and Food Security  NSCI 5563 Nutritional Assessment  NSCI 5613 Nutrition Education and Behavior Change  NSCI 5613 Public Health Nutrition and Food Policy  NSCI 5713 Public Health Nutrition and Food Policy  NSCI 5743 Advanced Laboratory Techniques in  Nutritional Sciences  NSCI 5870 Problems in Nutritional Science  NSCI 5913 Nutritional Epidemiology  NSCI 6033 Phytochemicals  BIOC 5753 Biochemical Principles  BIOC 6723 Signal Transduction  BIOC 5102 Molecular Genetics  BIOC 5102 Articulation of Research Logic  BIOC 5824 Biochemical Laboratory Methods  BIOL 5215 Mammalian Physiology  BIOL 5283 Endocrinology  CPSY 5173 Gerontological Counseling	NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5443 Nutrigenomics and Nutrigenetics NSCI 5543 Obesity Prevention Across the Lifespan NSCI 5553 Global Nutrition and Food Security NSCI 5563 Nutritional Assessment NSCI 5613 Nutrition Education and Behavior Change NSCI 5713 Public Health Nutrition and Food Policy NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences NSCI 5870 Problems in Nutritional Science NSCI 5913 Nutritional Epidemiology NSCI 6033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 6723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5363	·	
NSCI 5443 Nutrigenomics and Nutrigenetics NSCI 5543 Obesity Prevention Across the Lifespan NSCI 5553 Global Nutrition and Food Security NSCI 5563 Nutritional Assessment NSCI 5613 Nutrition Education and Behavior Change NSCI 5713 Public Health Nutrition and Food Policy NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences NSCI 5870 Problems in Nutritional Science NSCI 5913 Nutritional Epidemiology NSCI 6033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 6723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5313	Dietary and Herbal Supplements	
NSCI 5543 Obesity Prevention Across the Lifespan NSCI 5553 Global Nutrition and Food Security NSCI 5563 Nutritional Assessment NSCI 5613 Nutrition Education and Behavior Change NSCI 5713 Public Health Nutrition and Food Policy NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences NSCI 5870 Problems in Nutritional Science NSCI 5913 Nutritional Epidemiology NSCI 6033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 6723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5443		
NSCI 5553 Global Nutrition and Food Security  NSCI 5563 Nutritional Assessment  NSCI 5613 Nutrition Education and Behavior Change  NSCI 5713 Public Health Nutrition and Food Policy  NSCI 5743 Advanced Laboratory Techniques in  Nutritional Sciences  NSCI 5870 Problems in Nutritional Science  NSCI 5913 Nutritional Epidemiology  NSCI 6033 Phytochemicals  BIOC 5753 Biochemical Principles  BIOC 6723 Signal Transduction  BIOC 5102 Molecular Genetics  BIOC 5112 Articulation of Research Logic  BIOC 5824 Biochemical Laboratory Methods  BIOL 5215 Mammalian Physiology  BIOL 5283 Endocrinology  CPSY 5173 Gerontological Counseling	NSCI 5543	<u> </u>	
NSCI 5613 Nutrition Education and Behavior Change NSCI 5713 Public Health Nutrition and Food Policy NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences NSCI 5870 Problems in Nutritional Science NSCI 5913 Nutritional Epidemiology NSCI 6033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 6723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5553		
NSCI 5713 Public Health Nutrition and Food Policy NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences  NSCI 5870 Problems in Nutritional Science NSCI 5913 Nutritional Epidemiology NSCI 6033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 6723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5563	Nutritional Assessment	
NSCI 5713 Public Health Nutrition and Food Policy NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences  NSCI 5870 Problems in Nutritional Science NSCI 5913 Nutritional Epidemiology NSCI 6033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 6723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5613	Nutrition Education and Behavior Change	
Nutritional Sciences  NSCI 5870 Problems in Nutritional Science  NSCI 5913 Nutritional Epidemiology  NSCI 6033 Phytochemicals  BIOC 5753 Biochemical Principles  BIOC 6723 Signal Transduction  BIOC 5102 Molecular Genetics  BIOC 5112 Articulation of Research Logic  BIOC 5824 Biochemical Laboratory Methods  BIOL 5215 Mammalian Physiology  BIOL 5283 Endocrinology  CPSY 5173 Gerontological Counseling	NSCI 5713	-	
NSCI 5870 Problems in Nutritional Science NSCI 5913 Nutritional Epidemiology NSCI 6033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 6723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5743		
NSCI 6033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 6723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5870		
NSCI 6033 Phytochemicals BIOC 5753 Biochemical Principles BIOC 6723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 5913	Nutritional Epidemiology	
BIOC 5753 Biochemical Principles BIOC 6723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	NSCI 6033	·	
BIOC 6723 Signal Transduction BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	BIOC 5753	·	
BIOC 5102 Molecular Genetics BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling	BIOC 6723	·	
BIOC 5112 Articulation of Research Logic BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling			
BIOC 5824 Biochemical Laboratory Methods BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling			
BIOL 5215 Mammalian Physiology BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling		-	
BIOL 5283 Endocrinology CPSY 5173 Gerontological Counseling			
CPSY 5173 Gerontological Counseling			
		<u> </u>	

То	tal Hours		36
Н	ours Subtotal		8
	STAT 5303	Experimental Designs	
	STAT 5083	Statistics for Biomedical Researchers	
	STAT 5043	Sample Survey Designs	
	STAT 5023	Statistics for Experimenters II	
	SCFD 5913	Introduction to Qualitative Inquiry	
	REMS 6003	Analyses of Variance	
	MPH 5973	Designing Public Health Programs	
	MPH 5683	Health Behavior Theory and Practice for Public Health	
	MPH 5453	Cultural Issues in Health	
	MPH 5413	Food Safety and Public Health	
	MPH 5323	General Epidemiology	
	ITOX 5203	Bioinformatics	
	HLTH 5983	Implementation and Evaluation of Public Health Programs	
	HLTH 5973	Designing Public Health Programs	
	HLTH 5683	Health Behavior Theory and Practice for Public Health	
	HLTH 5323	General Epidemiology	
	HLTH 5113	Psychological Aspects of Health	
	HHP 5873	Human Bioenergetics	
	HHP 5853	Clin Ex Test & Prescript	
	HCA 5103	Introduction to Global Health	
	HCA 5043	Organizational Leadership and Development in Health Care	
	GENE 5102	Molecular Genetics	
	CPSY 5503	Multicultural Counseling	

#### **Non-Thesis Option**

Total Hours: 36

Code	Title	Hours
Degree Core		
NSCI 5033	Macronutrients in Human Nutrition	3
NSCI 5043	Micronutrients in Human Nutrition	3
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	3
NSCI 5412	Dietetic Internship Management Practicum	2
NSCI 5422	Dietetic Internship Clinical Practicum	2
NSCI 5432	Dietetic Internship Community Nutrition Practicum	2
NSCI 5643	Advanced Medical Nutrition Therapy	3
NSCI 5843	Non-thesis Graduate Capstone	3
NSCI 5960	Master's Seminar in Nutritional Sciences	1
STAT 5013	Statistics for Experimenters I	3
or REMS 5953	Statistical Methods in Education	
Hours Subtotal		25
Electives		
Select 11 hours from	n the following:	11
NSCI 5023	Advanced Nutrition in the Pathophysiology of Chronic Disease	

**Total Hours** 

NSCI 5133	Advanced Nutrition for Exercise and Sport
NSCI 5363	Maternal and Child Nutrition
NSCI 5313	Dietary and Herbal Supplements
NSCI 5443	Nutrigenomics and Nutrigenetics
NSCI 5543	Obesity Prevention Across the Lifespan
NSCI 5553	Global Nutrition and Food Security
NSCI 5563	Nutritional Assessment
NSCI 5613	Nutrition Education and Behavior Change
NSCI 5713	Public Health Nutrition and Food Policy
NSCI 5743	Advanced Laboratory Techniques in Nutritional Sciences
NSCI 5870	Problems in Nutritional Science
NSCI 5913	Nutritional Epidemiology
NSCI 6033	Phytochemicals
BIOC 5753	Biochemical Principles
BIOC 6723	Signal Transduction
BIOC 5102	Molecular Genetics
BIOC 5112	Articulation of Research Logic
BIOC 5824	Biochemical Laboratory Methods
BIOL 5215	Mammalian Physiology
BIOL 5283	Endocrinology
CPSY 5173	Gerontological Counseling
CPSY 5473	Basic Counseling Skills
CPSY 5503	Multicultural Counseling
GENE 5102	Molecular Genetics
HCA 5043	Organizational Leadership and Development in Health Care
HCA 5103	Introduction to Global Health
HHP 5853	Clin Ex Test & Prescript
HHP 5873	Human Bioenergetics
HLTH 5113	Psychological Aspects of Health
HLTH 5323	General Epidemiology
HLTH 5683	Health Behavior Theory and Practice for Public Health
HLTH 5973	Designing Public Health Programs
HLTH 5983	Implementation and Evaluation of Public Health Programs
ITOX 5203	Bioinformatics
MPH 5323	General Epidemiology
MPH 5413	Food Safety and Public Health
MPH 5453	Cultural Issues in Health
MPH 5683	Health Behavior Theory and Practice for Public Health
MPH 5973	Designing Public Health Programs
REMS 6003	Analyses of Variance
SCFD 5913	Introduction to Qualitative Inquiry
STAT 5023	Statistics for Experimenters II
STAT 5043	Sample Survey Designs
STAT 5083	Statistics for Biomedical Researchers
STAT 5303	Experimental Designs
Hours Subtotal	11
	0.0

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# **Graduate College Master's Program Requirements**

#### **Nutritional Sciences: Nutrition, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Core Requirements		
NSCI 5000	Master's Thesis	6
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	3
NSCI 5033	Macronutrients in Human Nutrition	3
NSCI 5043	Micronutrients in Human Nutrition	3
NSCI 5960	Master's Seminar in Nutritional Sciences	1
STAT 5013	Statistics for Experimenters I	3
Hours Subtotal		19
Electives		
Select 10 hours of th	e following:	10
NSCI 5023	Advanced Nutrition in the Pathophysiology of Chronic Disease	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5363	Maternal and Child Nutrition	
NSCI 5313	Dietary and Herbal Supplements	
NSCI 5443	Nutrigenomics and Nutrigenetics	
NSCI 5543	Obesity Prevention Across the Lifespan	
NSCI 5553	Global Nutrition and Food Security	
NSCI 5563	Nutritional Assessment	
NSCI 5613	Nutrition Education and Behavior Change	
NSCI 5643	Advanced Medical Nutrition Therapy	
NSCI 5713	Public Health Nutrition and Food Policy	
NSCI 5743	Advanced Laboratory Techniques in Nutritional Sciences	
NSCI 5870	Problems in Nutritional Science	
NSCI 5913	Nutritional Epidemiology	
NSCI 6033	Phytochemicals	
BIOC 5753	Biochemical Principles	
BIOC 6723	Signal Transduction	
BIOC 5102	Molecular Genetics	
BIOC 5112	Articulation of Research Logic	
BIOC 5824	Biochemical Laboratory Methods	
BIOL 5215	Mammalian Physiology	
BIOL 5283	Endocrinology	
CPSY 5173	Gerontological Counseling	
CPSY 5473	Basic Counseling Skills	
CPSY 5503	Multicultural Counseling	
HCA 5043	Organizational Leadership and Development in Health Care	
HCA 5103	Introduction to Global Health	
HHP 5593	Human Electrocardiographic Interpretation	
HHP 5613	Cardiac Rehabiltation	
HHP 5853	Clin Ex Test & Prescript	
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HHP 5873	Human Bioenergetics	
HLTH 5113	Psychological Aspects of Health	
HLTH 5323	General Epidemiology	
HLTH 5453	Cultural Issues In Health	
HLTH 5683	Health Behavior Theory and Practice for Public Health	
HLTH 5973	Designing Public Health Programs	
HLTH 5983	Implementation and Evaluation of Public Health Programs	
REMS 6003	Analyses of Variance	
SCFD 5913	Introduction to Qualitative Inquiry	
STAT 5023	Statistics for Experimenters II	
STAT 5043	Sample Survey Designs	
STAT 5083	Statistics for Biomedical Researchers	
STAT 5303	Experimental Designs	
VBSC 6120	Advanced Physiology of Selected Systems	
Hours Subtotal		10
Other Requirements		
Professional Seminar		1
Hours Subtotal		1
Total Hours		30

#### **Non-Thesis Option**

**Total Hours: 34** 

Code	Title	Hours
Core Requirements		
NSCI 5843	Non-thesis Graduate Capstone	3
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	3
NSCI 5033	Macronutrients in Human Nutrition	3
NSCI 5043	Micronutrients in Human Nutrition	3
NSCI 5960	Master's Seminar in Nutritional Sciences	1
STAT 5013	Statistics for Experimenters I	3
Hours Subtotal		16
Electives		
Select 17 hours of the	he following:	17
NSCI 5023	Advanced Nutrition in the Pathophysiology of Chronic Disease	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5363	Maternal and Child Nutrition	
NSCI 5313	Dietary and Herbal Supplements	
NSCI 5443	Nutrigenomics and Nutrigenetics	
NSCI 5543	Obesity Prevention Across the Lifespan	
NSCI 5553	Global Nutrition and Food Security	
NSCI 5563	Nutritional Assessment	
NSCI 5613	Nutrition Education and Behavior Change	
NSCI 5643	Advanced Medical Nutrition Therapy	
NSCI 5713	Public Health Nutrition and Food Policy	
NSCI 5743	Advanced Laboratory Techniques in Nutritional Sciences	
NSCI 5870	Problems in Nutritional Science	
NSCI 5913	Nutritional Epidemiology	

NSCI 6033	Phytochemicals	
BIOC 5753	Biochemical Principles	
BIOC 6723	Signal Transduction	
BIOC 5102	Molecular Genetics	
BIOC 5112	Articulation of Research Logic	
BIOC 5824	Biochemical Laboratory Methods	
BIOL 5215	Mammalian Physiology	
BIOL 5283	Endocrinology	
CPSY 5173	Gerontological Counseling	
CPSY 5473	Basic Counseling Skills	
CPSY 5503	Multicultural Counseling	
HCA 5043	Organizational Leadership and	
	Development in Health Care	
HCA 5103	Introduction to Global Health	
HHP 5593	Human Electrocardiographic Interpretation	
HHP 5613	Cardiac Rehabilitation	
HHP 5853	Clin Ex Test & Prescript	
HHP 5873	Human Bioenergetics	
HLTH 5113	Psychological Aspects of Health	
HLTH 5323	General Epidemiology	
HLTH 5453	Cultural Issues In Health	
HLTH 5683	Health Behavior Theory and Practice for Public Health	
HLTH 5973	Designing Public Health Programs	
HLTH 5983	Implementation and Evaluation of Public Health Programs	
REMS 6003	Analyses of Variance	
SCFD 5913	Introduction to Qualitative Inquiry	
STAT 5023	Statistics for Experimenters II	
STAT 5043	Sample Survey Designs	
STAT 5083	Statistics for Biomedical Researchers	
STAT 5303	Experimental Designs	
VBSC 6120	Advanced Physiology of Selected Systems	
Hours Subtotal		17
Other Requirements		
Professional Seminal	r	1
Hours Subtotal		1
Total Hours		34

# **Graduate College Master's Program Requirements**

# **Peace, Conflict, and Security Studies, MA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Hours

Title

Total Hours: 33

Code

Core Courses		
Thematic Core		
POLS 5203	ProSeminar in International Relations	3
POLS 5403	ProSeminar in Comparative Politics	3
POLS 5XXX	Conflict Management & Peacebuilding	3
Methodology		
POLS 5103	Research Design	3
POLS 5013	Quantitative Methods	3
Hours Subtotal		15
Electives		
Must fulfill the follow	ing two areas (12 hours). Students must	12
take at least one clas	s in a different area:	
Conflict & Peace St	udies	
POLS 5210	Topics Seminar in International Relations	
POLS 5163	International Organization	
POLS 5673	Understanding and Responding to Terrorism	
POLS 5XXX	Diplomacy	
GEOG 6130	Seminar in Political Geography	
GS 5313	Global Communication and Public Diplomacy	
GS 5323	Nation Branding	
GS 5523	Transnational Criminal Organizations and the War on Drugs	
GS 5533	Complex Emergencies	
SOC 5583	Comparative Criminal Justice Systems	
Appropriate electiv	res with approval of Director of Graduate	
Justice & Sustainab	ility	
POLS 5210	Topics Seminar in International Relations (Human Rights/Transitional Justice)	
POLS 5213	Seminar in the International Political Economy	
POLS 5410	Topics Seminar in Comparative Politics (Social Movements)	
POLS 5410	Topics Seminar in Comparative Politics (Electoral Integrity)	
POLS 5810	Seminar in Women and Politics	
FEMP 5623	Emergency Management in the International Setting	
GEOG 5073	Climate Change: Past, Present and Future	
GEOG 5233	Human Dimensions of Global Environmental Change	
GEOG 5243	Geography of the World's Indigenous Peoples	

GS 5043	Politics of the Global Economy	
GS 5413	Global Development	
GS 5553	Global Poverty and Inequality	
SOC 5333	Global Population and Social Problems	
SOC 5493	Seminar in Environmental Justice	
SOC 5653	Gender and the Middle East	
Hours Subtotal		12
Thesis or Report		
Select thesis or repor	t:	6
POLS 5000	Thesis	
OR		
POLS 5100	Directed Study	
AND		
POLS 5020	Creative Component	
Hours Subtotal		6
Total Hours		33

# **Graduate College Master's Program Requirements**

#### **Petroleum Engineering, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 30

Code	Title	Hours
Core Courses		
PETE 5313	Advanced Drilling Modeling and Simulation	3
PETE 5333	Advanced Production and Flow Assurance	3
PETE 5373	Advanced Well Stimulation	3
Hours Subtotal		9
Thesis		
PETE 5000	Master's Thesis	6
Hours Subtotal		6
Electives		
• • • • • • • • • • • • • • • • • • • •	ective (PETE or other) courses, selected by oval of the student's advisor.	15
Suggested Elective Co	urses	
Petroleum Engineer	ring (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 (MATI	H) and Statistics (STAT) Courses	
5000-level advance advisor	ed mathematics courses as approved by	
5000-level advance	ed statistics courses as approved by advisor	
Other courses		
•	rse in PETE, MATH and STAT must be pre- or as part of the plan of study.	
Hours Subtotal		15
Total Hours		30

# **Graduate College Master's Program Requirements**

#### Philosophy, MA

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Required Co	urses	
Select 24 ho	ours of approved courses.	24
Hours Subto	tal	24
Research		
Select 6 hou	rs of approved research courses.	6
Hours Subto	otal	6
Total Hours		30

#### **Formal Report Option**

Total Hours: 32

Code	Title	Hours
Required Cou	urses	
Select 30 hor	urs of approved courses.	30
Hours Subto	tal	30
Report		
Select 2 hour	rs of approved report.	2
Hours Subto	tal	2
Total Hours		32

#### **Creative Component Option**

**Total Hours: 32** 

Code	Title	Hours
Required Co	urses	
Select 30 ho	ours of approved courses.	30
Hours Subto	tal	30
<b>Creative Cor</b>	nponent	
Select 2 hou	irs of approved coursework.	2
Hours Subto	tal	2
<b>Total Hours</b>		32

# **Graduate College Master's Program Requirements**

#### **Physician Assistant Studies, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 124

Code	Title	Hours
Core Curriculum		
PA 5011	Introduction to Pharmacology	1
PA 5021	Fundamentals of Medical Imaging	1
PA 5031	Introduction to Microbiology and	1
	Immunology	
PA 5041	Laboratory Medicine	1
PA 5015	Human Anatomy	5
PA 5104	Medical Science Foundations	4
PA 5112	Developing the Physician Assistant I	2
PA 5121	Rural and Underserved Populations	1
PA 5123	Applied Clinical Medicine I	3
PA 5223	Gastrointestinal System	3
PA 5153	Nervous System	3
PA 5233	Psychiatry System	3
PA 5213	Applied Clinical Medicine II	3
PA 5222	Developing the Physician Assistant II	2
PA 5124	Cardiovascular System	4
PA 5113	Respiratory System	3
PA 5133	Hematology System	3
PA 5143	Genitourinary System	3
PA 5234	Applied Clinical Medicine III	4
PA 5242	Developing the Physician Assistant III	2
PA 5243	Endocrine System	3
PA 5263	Musculoskeletal/Integumentary System	3
PA 5253	Reproductive System	3
PA 5301	Research Methods for Evidence-Based Medicine	1
PA 5302	Developing the Physician Assistant IV	2
PA 5404	Family Medicine I	4
PA 5414	Family Medicine II	4
PA 5424	Internal Medicine I	4
PA 5434	Internal Medicine II	4
PA 5444	Emergency Medicine I	4
PA 5454	Emergency Medicine II	4
PA 5464	Obstetrics & Gynecology	4
PA 5474	Pediatrics	4
PA 5484	Psychiatry	4
PA 5494	General Surgery	4
PA 5504	Medicine Elective I	4
PA 5514	Medicine Elective II	4
PA 5524	Medicine Elective III	4
or PA 5534	Surgery Elective	
PA 5544	Medicine Selective	4

PA 5554	Professional Enrichment	4
Total Hours		124

For more information on requirements, please visit https://medicine.okstate.edu/pa/prospective-students.html.

#### Physics, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Required Courses		
PHYS 5113	Statistical Thermodynamics and Kinetic Theory	3
PHYS 5313	Electromagnetic Theory	3
PHYS 5413	Classical Mechanics	3
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3
Hours Subtotal		15
Electives		
Select 9 hours from with student's advise	PHYS, MATH or an allied field in consultation or.	9
Hours Subtotal		9
Thesis		
PHYS 5000	Master's Thesis Research or Report	6
Hours Subtotal		6
Total Hours		30

#### **Report Option**

**Total Hours: 32** 

Code	Title	Hours
Required Courses		
PHYS 5113	Statistical Thermodynamics and Kinetic Theory	3
PHYS 5313	Electromagnetic Theory	3
PHYS 5413	Classical Mechanics	3
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3
Hours Subtotal		15
Electives		
Select 15 hours from student's advisor.	PHYS or a related field in consultation with	15
Hours Subtotal		15
Non-Thesis		
PHYS 5000	Master's Thesis Research or Report (Report)	2
Hours Subtotal		2
Total Hours		32

# **Graduate College Master's Program Requirements**

Learn more about Graduate College 2022-2023 Master's Degree Program Requirements (p. 2766). Check the General Graduate College academic

regulations for minimal GPA, language proficiency and other general requirements.

#### **Physics: Optics and Photonics, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Required Courses		
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3
Select 9 hours of Pho	otonics core courses from the following with	9
advisor approval:		
PHYS 5123	Geometrical Optics	
PHYS 5163	Lasers	
PHYS 5303	Physical Optics	
ECEN 4843	Design of Lasers and Systems	
ECEN 5833	Fiber-Optic Communication Systems	
Hours Subtotal		15
Electives		
one course and a magraduate level from collectives in Group II v	the two groups of electives with a minim of eximum of two from Group I. Courses at the other departments may be substituted for with Physics Department permission, but ust have a strong connection to optics and	9
Group I		
PHYS 4813	Electromagnetic Radiation	
PHYS 5313	Electromagnetic Theory	
PHYS 6713	Advanced Electromagnetic Radiation	
ECEN 5613	Electromagnetic Theory	
Group II		
PHYS 5133	Laser Spectroscopy	
PHYS 5663	Solid State Physics I	
PHYS 6313	Quantum Mechanics II	
PHYS 6413	Nonlinear Optics	
PHYS 6423	Quantum Optics	
ECEN 4823	Design of Optical Systems	
ECEN 5843	Microelectronic Fabrication	
ECEN 5853	Ultrafast Optoelectronics	
ECEN 5793	Digital Image Processing	
Hours Subtotal		9
Thesis/Research		
	ore) of supervised research with submission	
of an approved thesis		
PHYS 5000	Master's Thesis Research or Report (Or	6
	equivalent)	
Hours Subtotal		6
Total Hours		30

#### **Non-Thesis Option**

Total Hours: 32

Code	Title	Hours
Required Courses		
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3
Select 9 hours of P	hotonics core courses from the following with	9
advisor approval:		
PHYS 5123	Geometrical Optics	
PHYS 5163	Lasers	
PHYS 5303	Physical Optics	
ECEN 4843	Design of Lasers and Systems	
ECEN 5833	Fiber-Optic Communication Systems	
Hours Subtotal		15
Electives		
one course and a m graduate level from electives in Group I alternate courses m	n the two groups of electives with a minim of naximum of two from Group I. Courses at the n other departments may be substituted for I with Physics Department permission, but must have a strong connection to optics and	9
photonics.		
Group I	Florida and the Bodistics	
PHYS 4813	Electromagnetic Radiation	
PHYS 5313	Electromagnetic Theory	
PHYS 6713	Advanced Electromagnetic Radiation	
ECEN 5613	Electromagnetic Theory	
Group II		
PHYS 5133	Laser Spectroscopy	
PHYS 5663	Solid State Physics I	
PHYS 6313	Quantum Mechanics II	
PHYS 6413	Nonlinear Optics	
PHYS 6423	Quantum Optics	
ECEN 4823	Design of Optical Systems	
ECEN 5843	Microelectronic Fabrication	
ECEN 5853	Ultrafast Optoelectronics	
ECEN 5793	Digital Image Processing	
Hours Subtotal		9
Additional Electives	s	
Select 6 hours of a	dvanced courses at the graduate level.	6
Hours Subtotal		6
Report		
Students must con	nplete a two-credit hour report.	2
Hours Subtotal		2
Total Hours		32

# **Graduate College Master's Program Requirements**

#### **Plant and Soil Sciences, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 30

Code	Title	Hours
Course Requi	rements	
Select 24 hou	ırs from the following:	24
A minimum o include:	f 15 hours of 5000-level or higher	courses that

PLNT 5020	Graduate Seminar
or SOIL 5020	Graduate Seminar
SOIL 5131	Professional Development Colloquium in Plant and Soil Sciences
PLNT 5110	Problems and Special Study
or SOIL 5110	Problems and Special Study

9 hours of MATH (including at least 3 hours of STAT in combined BS and MS programs):

No more than 9 credit hours of 3000- or 4000-level coursework approved for graduate credit.

Recommended courses at the discretion of the graduate committee that students emphasizing soil science should complete 4 of the 5 courses listed below (or equivalent) during their undergraduate or graduate programs:

SOIL 5353	Advanced Soil Genesis and Classification
SOIL 5234	Soil Nutrient Management
SOIL 5223	Soil Chemical Processes and Impact on Environmental Quality
SOIL 5683	Soil, Water, and Weather
or SOIL 6583	Soil Physics Theory
SOIL 5383	Advanced Soil Microbiology

A student may take a maximum of 3 research credit hours. Research hours are to be taken to document student effort in areas not associated with the students thesis. All students must indicate on their Plan 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.

PLNT 5230	Research	
or SOIL 5230	Research	
Hours Subtotal		24
Thesis		
PLNT 5000	Master's Thesis	6
or SOIL 5000	Master's Thesis	
Hours Subtotal		6
Total Hours		30

# Graduate College Master's Program Requirements

Learn more about Graduate College 2022-2023 Master's Degree Program Requirements (p. 2766). Check the General Graduate College academic

regulations for minimal GPA, language proficiency and other general requirements.

#### **Plant Biology, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 30

Code	Title	Hours
Required Courses	3	
PBIO 5110	Special Topics in Plant Biology (Professional Development)	1
PBIO 5000	Master's Thesis	6
Two hours from:		2
PBIO 5850	Plant Biology Seminar	
Hours Subtotal		9
Electives		
level or higher and	te courses totaling 9 credit hours at the 5000 d remaining hours at 5000 level or higher from 1, CS, ENVR, GENE, GEOG, GEOL, MATH, MICR, 1, NREM, STAT	21
Hours Subtotal		21
Total Hours		30

#### **Additional Plant Biology Requirements**

• Minimum of "B" in all courses
• Research Proposal Defense

Teaching one semester as a Graduate Teaching Assistant

# **Graduate College Master's Program Requirements**

#### **Politics and Policy Studies, MA**

Tial .

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

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#### **Thesis Option**

Total Hours: 33

Code	Title	Hours
Core Courses		
POLS 5203	ProSeminar in International Relations	3
or POLS 5403	ProSeminar in Comparative Politics	
POLS 5613	Public Policy Analysis	3
POLS 5703	ProSeminar in American Politics	3
Methods Courses		
POLS 5013	Quantitative Methods	3
POLS 5103	Research Design	3
Thesis		
POLS 5000	Thesis	6
Hours Subtotal		21
Electives		
Any POLS graduate	-level courses	12
Up to 9 credit hours department from th	of electives can be taken outside the e list below:	
AGEC 5073	Rural Economics Development	
ENVR 5403	Water Resource Management, Law, and Policy	
ENVR 5433	Environmental Law for Management Professionals	
ENVR 5823	Watershed Management	
FEMP 5633	Emergency Management and Public Policy in the United States	
GEOG 5123	International Resource Management	
GEOG 5133	Environment and Development	
GEOG 5233	Human Dimensions of Global Environmental Change	
GLHE 5030	Problems and Issues in Global Health	
GLHE 5103	Introduction to Global Health	
GLHE 5153	International Health Systems	
HDFS 5153	Policy in Human Development and Family Science	
NSCI 5553	Global Nutrition and Food Security	
SOC 5463	Seminar in Environmental Sociology	
SOC 5553	Seminar in Medical Sociology	
SOC 5583	Comparative Criminal Justice Systems	
Hours Subtotal		12
Total Hours		33

Code	Title	Hours
Core Courses		
POLS 5203	ProSeminar in International Relations	3
or POLS 5403	ProSeminar in Comparative Politics	
POLS 5613	Public Policy Analysis	3
POLS 5703	ProSeminar in American Politics	3
Methods Courses		
POLS 5013	Quantitative Methods	3
POLS 5103	Research Design	3
<b>Creative Componer</b>	nt	
POLS 5020	Creative Component	3
POLS 5100	Directed Study	3
Hours Subtotal		21
Electives		
Any POLS graduate	-level courses	12
Up to 9 credit hours	of electives can be taken outside the	
department from th	e list below:	
AGEC 5073	Rural Economics Development	
ENVR 5403	Water Resource Management, Law, and Policy	
ENVR 5433	Environmental Law for Management Professionals	
ENVR 5823	Watershed Management	
FEMP 5633	Emergency Management and Public Policy in the United States	
GEOG 5123	International Resource Management	
GEOG 5133	Environment and Development	
GEOG 5233	Human Dimensions of Global Environmental Change	
GLHE 5030	Problems and Issues in Global Health	
GLHE 5103	Introduction to Global Health	
GLHE 5153	International Health Systems	
HDFS 5153	Policy in Human Development and Family Science	
NSCI 5553	Global Nutrition and Food Security	
SOC 5463	Seminar in Environmental Sociology	
SOC 5553	Seminar in Medical Sociology	
SOC 5583	Comparative Criminal Justice Systems	
Hours Subtotal		12
Total Hours		33

# **Graduate College Master's Program Requirements**

Learn more about Graduate College 2022-2023 Master's Degree Program Requirements (p. 2766). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

#### **Creative Component Option**

Total Hours: 33

#### **Public Health, MPH**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis**

**Total Hours: 42** 

Code	Title	Hours
Core Courses		
MPH 5653	Foundations of Public Health Education and Promotion	3
REMS 5953	Statistical Methods in Education	3
HLTH 5323	General Epidemiology	3
MC 5953	Strategic Health Communications Campaigns	3
or AGCM 5403	Public Relations Campaigns in Agricultural Sciences and Natural Resources	
Select 3 hours from t	he following:	3
HCA 5093	Leadership Methods and Styles in Healthcare	
HCA 5053		
HCA 5013	Survey of Health Care Administration	3
MPH 5453	Cultural Issues in Health	3
REMS 5013	Research Design and Methodology	3
or HDFS 5133	Research Methods in HDFS II	
MPH 5683	Health Behavior Theory and Practice for Public Health	3
HLTH 5973	Designing Public Health Programs	3
Select 3 hours from t	he following:	3
HLTH 5983	Implementation and Evaluation of Public Health Programs	
REMS 6373	Program Evaluation	
AGED 6223		
MPH 5000	Master's Thesis	6
Select 3 hours of elec	ctives	3
Total Hours		42

#### **Non-Thesis**

**Total Hours: 42** 

Code	Title	Hours
Core Courses		
MPH 5653	Foundations of Public Health Education and Promotion	3
REMS 5953	Statistical Methods in Education	3
HLTH 5323	General Epidemiology	3
MC 5953	Strategic Health Communications Campaigns	3
or AGCM 5403	Public Relations Campaigns in Agricultural Sciences and Natural Resources	
Select 3 hours from the following:		3
HCA 5093	Leadership Methods and Styles in Healthcare	

HCA 5053		
HCA 5013	Survey of Health Care Administration	3
MPH 5453	Cultural Issues in Health	3
REMS 5013	Research Design and Methodology	3
or HDFS 5133	Research Methods in HDFS II	
MPH 5683	Health Behavior Theory and Practice for Public Health	3
HLTH 5973	Designing Public Health Programs	3
Select 3 hours from the	he following:	3
HLTH 5983	Implementation and Evaluation of Public Health Programs	
REMS 6373	Program Evaluation	
AGED 6223		
MPH 5030	Master of Public Health Practicum	3
Select 6 hours of elec	etives	6
Total Hours		42

# **Graduate College Master's Program Requirements**

# Public Health: Rural and Underserved Populations, MPH

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 42

Code	Title	Hours
Core Courses		
MPH 5653	Foundations of Public Health Education and Promotion	3
REMS 5953	Statistical Methods in Education	3
HLTH 5323	General Epidemiology	3
HLTH 5133	Environmental Health	3
HCA 5013	Survey of Health Care Administration	3
MC 5953	Strategic Health Communications Campaigns	3
or AGCM 5403	Public Relations Campaigns in Agricultural Sciences and Natural Resources	
HCA 5093	Leadership Methods and Styles in Healthcare	3
or HCA 5043	Organizational Leadership and Development i Health Care	n
MPH 5453	Cultural Issues in Health	3
REMS 5013	Research Design and Methodology	3
or HDFS 5133	Research Methods in HDFS II	
MPH 5683	Health Behavior Theory and Practice for Public Health	3
HLTH 5973	Designing Public Health Programs	3
Select 3 hours of the	following:	3
AECL 6223	Program Evaluation in Agriculture and Extension	
HLTH 5983	Implementation and Evaluation of Public Health Programs	
REMS 6373	Program Evaluation	
Hours Subtotal		36
Guided Electives		
HLTH 5113	Psychological Aspects of Health	
NSCI 5323	Nutrition and Physical Activity in Aging	
HLTH 5233	Sexuality and Health	
NSCI 5453	Nutrition and Health Disparities	
NSCI 5553	Global Nutrition and Food Security	
NSCI 5713	Public Health Nutrition and Food Policy	
HDFS 5153	Policy in Human Development and Family Science	
HDFS 5403	Perspectives in Gerontology	
HDFS 5411	Ethics and Aging	
HDFS 5433	Theories of Aging	
HDFS 5493	Aging and Diverse Families	
HDFS 5523	Family Theory	

Total Hours		42
Hours Subtotal		6
MPH 5000	Master's Thesis	6
Thesis		
HDFS 5583	Intimate Relationships and Sexuality across the Lifespan	

#### **Public Health Practicum**

Total Hours: 42

Code	Title	Hours
Core Courses		
MPH 5653	Foundations of Public Health Education and Promotion	3
REMS 5953	Statistical Methods in Education	3
HLTH 5323	General Epidemiology	3
HLTH 5133	Environmental Health	3
HCA 5013	Survey of Health Care Administration	3
MC 5953	Strategic Health Communications Campaigns	3
or AGCM 5403	Public Relations Campaigns in Agricultural Sciences and Natural Resources	
HCA 5093	Leadership Methods and Styles in Healthcare	3
or HCA 5043	Organizational Leadership and Development i Health Care	n
MPH 5453	Cultural Issues in Health	3
MPH 5683	Health Behavior Theory and Practice for Public Health	3
HLTH 5973	Designing Public Health Programs	3
Select 3 hours of the	following:	3
AECL 6223	Program Evaluation in Agriculture and Extension	
REMS 6373	Program Evaluation	
Hours Subtotal		33
Guided Electives		
Select 6 hours		6
HLTH 5113	Psychological Aspects of Health	
NSCI 5323	Nutrition and Physical Activity in Aging	
HLTH 5233	Sexuality and Health	
NSCI 5453	Nutrition and Health Disparities	
NSCI 5553	Global Nutrition and Food Security	
NSCI 5713	Public Health Nutrition and Food Policy	
HDFS 5153	Policy in Human Development and Family Science	
HDFS 5403	Perspectives in Gerontology	
HDFS 5411	Ethics and Aging	
HDFS 5433	Theories of Aging	
HDFS 5493	Aging and Diverse Families	
HDFS 5523	Family Theory	
HDFS 5583	Intimate Relationships and Sexuality across the Lifespan	
Hours Subtotal	·	6
Public Health Practic	um	
Public Health Practic	um	

MPH 5030	Master of Public Health Practicum	3
Hours Subtotal		3
Total Hours		42

# **Graduate College Master's Program Requirements**

#### **Quantitative Finance, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 33

Code	Title	Hours
Required Courses		
FIN 5223	Investment Theory and Strategy	3
FIN 5633	Computational Finance	3
FIN 5653	Bond Markets	3
FIN 5763	Derivative Securities and the Management of Financial Price Risk	3
FIN 5883	Quantitative Financial Applications	3
FIN 5833	Student Managed Investment Fund	3
MATH 5473	Financial Calculus	3
Electives (Partial list	)	
Select 12 hours from	the following:	12
AGEC 5103	Mathematical Economics	
AGEC 5113	Applications of Mathematical Programming	
ECON 5223	Mathematical Economics I	
ECON 6213	Econometrics I	
ECON 6243	Econometrics II	
FIN 5053	Theory and Practice of Financial Management	
FIN 5343	Valuation and Financial Modeling	
FIN 5363	Energy Finance	
FIN 5550	Special Topics in Finance (Portfolio Management)	
FIN 5763	Derivative Securities and the Management of Financial Price Risk	
FIN 5773	Financial Engineering	
FIN 6053	Financial Theory and Corporate Policy	
STAT 5053	Time Series Analysis	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	
Total Hours		33

# **Graduate College Master's Program Requirements**

#### **Social Foundations of Education, MA**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 36** 

Code	Title	Hours
Required Courses		
SCFD 5123	History of Education	3
SCFD 5713	Educational Philosophy	3
SCFD 5873	Culture, Society and Education	3
SCFD 5883	Educational Sociology	3
Hours Subtotal		12
Research and Inqui	iry	
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
SCFD 5913	Introduction to Qualitative Inquiry	3
Hours Subtotal		9
Electives		
SCFD 5923	Popular Culture and Education	3
EDLE 5813	Leadership Theory and Ethical Decision Making	3
GWST 5300	Seminar in Gender and Women's Studies	3
Hours Subtotal		9
Master's Thesis		
SCFD 5000	Master's Report or Thesis	6
Hours Subtotal		6
Total Hours		36

# **Graduate College Master's Program Requirements**

#### Sociology, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 31

Code	Title	Hours
Required Coursew	ork	
Sociological Theor	у	
Select 3 hours		6
SOC 5113	Classical Sociological Theory	
SOC 5123	Contemporary Sociological Theory	
Social Research M	ethods	
Select 6 hours		3
SOC 5243	Social Research Design	
SOC 5273	Qualitative Research Methods	
SOC 5283	Advanced Qualitative Sociological Research	
SOC 5950	Seminar in Sociology	
Statistics		
Select 3 hours		3
SOC 5263	Quantitative Analysis of Social Research	
SOC 5950	Seminar in Sociology	
Additional Sociolo	gy Courses	
Select 12 hours		12
SOC 5063	Seminar in Social Inequality and Stratification	
SOC 5643	Gender and Society	
SOC 5653	Gender and the Middle East	
SOC 5663	Seminar in Race and Ethnicity	
SOC 5463	Seminar in Environmental Sociology	
SOC 5493	Seminar in Environmental Justice	
SOC 6493	Sociology of Disaster	
SOC 5323	Seminar on Collective Behavior and Social Movements	
SOC 6653	Seminar in Social Psychology	
SOC 6753	Seminar in Deviance and Criminology	
SOC 5343	Sociology of Law and Punishment	
SOC 5583	Comparative Criminal Justice Systems	
SOC 5950	Seminar in Sociology	
Hours Subtotal		24
Thesis		
Select 6 hours of a	pproved thesis coursework.	6
Hours Subtotal		6
Pro-Seminar		
Select 1 hour of ap	proved pro-seminar coursework.	1
Hours Subtotal		1
Total Hours		31

#### **Non-Thesis Option**

Total Hours: 32

Code	Title	Hours
Required Coursewor	k	
Sociological Theory		
Select 3 hours		6
SOC 5113	Classical Sociological Theory	
SOC 5123	Contemporary Sociological Theory	
Social Research Met	thods	
Select 6 hours		3
SOC 5243	Social Research Design	
SOC 5273	Qualitative Research Methods	
SOC 5283	Advanced Qualitative Sociological Research	
SOC 5950	Seminar in Sociology	
Statistics		
Select 3 hours		3
SOC 5263	Quantitative Analysis of Social Research	
SOC 5950	Seminar in Sociology	
Additional Sociology	/ Courses	
Select 16 hours		16
SOC 5063	Seminar in Social Inequality and Stratification	
SOC 5643	Gender and Society	
SOC 5653	Gender and the Middle East	
SOC 5663	Seminar in Race and Ethnicity	
SOC 5463	Seminar in Environmental Sociology	
SOC 5493	Seminar in Environmental Justice	
SOC 6493	Sociology of Disaster	
SOC 5323	Seminar on Collective Behavior and Social Movements	
SOC 6653	Seminar in Social Psychology	
SOC 6753	Seminar in Deviance and Criminology	
SOC 5343	Sociology of Law and Punishment	
SOC 5583	Comparative Criminal Justice Systems	
SOC 5950	Seminar in Sociology	
Hours Subtotal		28
Creative Component	l .	
SOC 5013	Creative Component in Sociology	3
Hours Subtotal		3
Pro-Seminar		
Select 1 hour of app	roved pro-seminar coursework.	1
Hours Subtotal		1
Total Hours		32

# **Graduate College Master's Program Requirements**

#### Statistics, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 36

Code	Title	Hours
Required Courses		
STAT 5023	Statistics for Experimenters II	3
STAT 5063	Statistical Machine Learning with R	3
STAT 5193	SAS and R Programming	3
STAT 5123	Probability Theory	3
STAT 5223	Statistical Inference	3
STAT 5303	Experimental Designs	3
STAT 5323	Theory of Linear Models I	3
STAT 5333	Theory of Linear Models II	3
Select a three-hour graduate-level course, excluding those with STAT or MATH prefixes. <sup>1</sup>		3
Select three hours of	f electives with STAT or MATH prefix.	3
Hours Subtotal		30
Thesis		
Select 6 hours		6
Hours Subtotal		6
Total Hours		36

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.

#### **Formal Report**

Total Hours: 32

Code	Title	Hours
<b>Required Courses</b>		
STAT 5023	Statistics for Experimenters II	3
STAT 5063	Statistical Machine Learning with R	3
STAT 5193	SAS and R Programming	3
STAT 5123	Probability Theory	3
STAT 5223	Statistical Inference	3
STAT 5303	Experimental Designs	3
STAT 5323	Theory of Linear Models I	3
STAT 5333	Theory of Linear Models II	3
Select a three-hou STAT or MATH pre	r graduate-level course, excluding those with fixes. <sup>1</sup>	3
Select three hours	of electives with STAT or MATH prefix.	3
Hours Subtotal		30
Formal Report		
Select 2 hours		2
Hours Subtotal		2
Total Hours		32

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

Code	Title	Hours
Required Courses		
STAT 5023	Statistics for Experimenters II	3
STAT 5063	Statistical Machine Learning with R	3
STAT 5193	SAS and R Programming	3
STAT 5123	Probability Theory	3
STAT 5223	Statistical Inference	3
STAT 5303	Experimental Designs	3
STAT 5323	Theory of Linear Models I	3
STAT 5333	Theory of Linear Models II	3
Select a three-hour graduate-level course, excluding those with STAT or MATH prefixes. <sup>1</sup>		3
Select three hours of	electives with STAT or MATH prefix.	3
Hours Subtotal		30
Select 6 hours of appr	roved coursework to include a Creative	6
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.

### **Graduate College Master's Program Requirements**

#### Teaching, Learning and Leadership: Curriculum and Leadership Studies, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Title

**Total Hours: 36** 

Code

Code	Title	Hours
<b>Common Core</b>		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
Hours Subtotal		6
Research and Inquiry	,	
CIED 5073	Pedagogical Research	3
Selected Research co	ourse with advisor's approval	3
Example courses:		
SCFD 5913	Introduction to Qualitative Inquiry	
REMS 5953	Statistical Methods in Education	
REMS 5013	Research Design and Methodology	
Hours Subtotal		6
Program Core		
CIED 5623	Multicultural and Diversity Issues in Curriculum	3
CIED 5043	Issues in Teaching	3
Or selected course w	ith advisor's approval	
Hours Subtotal		6
Area of Emphasis		
Curriculum and Leade	rship	
Select 12 hours from	the following:	12
CIED 5043	Issues in Teaching	
CIED 5123	Curriculum in the Secondary School	
CIED 5173	Kindergarten-Primary Curriculum	
CIED 5183	Media Literacy Across the Curriculum	
CIED 5313	Curriculum of the Elementary School	
CIED 5343	Introduction to K-12 English Language Learners	
CIED 5623	Multicultural and Diversity Issues in Curriculum	
CIED 5723	Gender and Curriculum	
CIED 5730	Seminar in Education	
CIED 5823	Mindfulness, Curriculum, and Teaching	
OSU Writing Proje	ct OR other courses with Advisor's approval	
Hours Subtotal		12
Thesis		
CIED 5000	Master's Report or Thesis	6
Hours Subtotal		6
<b>Total Hours</b>		36

#### **Creative Component Option**

**Total Hours: 36** 

Hours

iotai riours. 50		
Code	Title	Hours
Common Core		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
Hours Subtotal		6
Research and Inqu	iiry	_
CIED 5073	Pedagogical Research	3
Selected Research	course with advisor's approval	3
Example course	es:	
SCFD 5913	Introduction to Qualitative Inquiry	
REMS 5953	Statistical Methods in Education	
REMS 5013	Research Design and Methodology	
Hours Subtotal		6
Program Core		_
CIED 5623	Multicultural and Diversity Issues in Curriculum	3
CIED 5043	Issues in Teaching	3
Or selected course	with advisor's approval	
Hours Subtotal		6
Area of Emphasis		
Curriculum and Lea	dership	
Select 12 hours fro	om the following:	12
CIED 5043	Issues in Teaching	
CIED 5123	Curriculum in the Secondary School	
CIED 5173	Kindergarten-Primary Curriculum	
CIED 5183	Media Literacy Across the Curriculum	
CIED 5313	Curriculum of the Elementary School	
CIED 5343	Introduction to K-12 English Language Learners	
CIED 5623	Multicultural and Diversity Issues in Curriculum	
CIED 5723	Gender and Curriculum	
CIED 5730	Seminar in Education	
CIED 5823	Mindfulness, Curriculum, and Teaching	
OSU Writing Pro	oject OR other courses with Advisor's approval	
Hours Subtotal		12
Electives		
Courses with Advis	sor's approval	6
Hours Subtotal		6
Total Hours		36

# **Graduate College Master's Program Requirements**

# Teaching, Learning and Leadership: Gifted and Talented Education, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 36** 

Code	Title	Hours
Degree Core		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
GTED 5063	Introduction to Gifted and Talented Education	3
GTED 5163	Counseling Techniques for Teachers of Gifted and Talented Students	3
GTED 5363	Differentiating Curriculum for Gifted Learners	3
GTED 5620	Practicum with Exceptional Learners	3
GTED 5763	Teaching Methods and Techniques for Gifted Education	3
GTED 5863	Developing Programs for the Gifted and Talented	3
GTED 5993	Identification and Behavioral Characteristics of the Gifted and Talented	3
Select 3 hours from the	he following:	3
CIED 5073	Pedagogical Research	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
SCFD 5913	Introduction to Qualitative Inquiry	
Hours Subtotal		30
Electives		
	ny discipline in consultation with your	6
advisory committee.		
Hours Subtotal		6
Total Hours		36

# **Graduate College Master's Program Requirements**

# **Teaching, Learning and Leadership:** K-12 Education, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 36

Code	Title	Hours
<b>Common Core</b>		_
CIED 5053	Curriculum Issues *	3
CIED 5813	Educational Advocacy and Leadership *	3
Hours Subtotal		6
Research Requireme	nt	
	course and ensure three courses found in the core that are designated with an asterisk (*)	3
are selected.		
SCFD 5913	Introduction to Qualitative Inquiry (OR)	
REMS 5013	Research Design and Methodology (OR)	
CIED 5073	Pedagogical Research (OR)	
REMS 5953	Statistical Methods in Education	
Hours Subtotal		3
Program Core		
CIED 5043	Issues in Teaching *	3
Select 3 hours from t	he following:	3
CIED 5343	Introduction to K-12 English Language Learners	
CIED 5623	Multicultural and Diversity Issues in Curriculum *	
CIED 5663	Integrating Teaching in the Secondary School	
SMED 5183	Social Justice by the Numbers: Learning to Teach Science & Math for Understanding & Equity	
SPED 5993	Culturally Responsive Teaching in Special Education	
Hours Subtotal		6
Areas of Emphasis		
In consultation with a following:	an advisor, select 21 hours from the	21
CIED 5713	Teaching and Learning in the Secondary School	
CIED 5350	The Visual Arts in the Curriculum	
CIED 5153	Advanced Studies in Children's Literature	
CIED 5353	Literature for Children, Adolescents and Adults	
CIED 5443	Teaching Reading with Literature	
CIED 5513	Young Adult Literature	
CIED 5173	Kindergarten-Primary Curriculum	
CIED 5313	Curriculum of the Elementary School	
CIED 5123	Curriculum in the Secondary School	
CIED 5143	Language Arts in the Curriculum	
CIED 5183	Media Literacy Across the Curriculum	

CIED 5433	Reading and Writing in the Content Areas
CIED 5463	Reading Assessment and Instruction
CIED 5473	Reading & Writing Difficulties
CIED 5483	Literacy and Technology Across the Curriculum
CIED 5553	Literacy Leadership and Coaching
CIED 5733	History of Reading
CIED 5843	First and Second Language Acquisition for Teachers
CIED 5863	Foreign Language Instruction, Curriculum and Assessment: Grades Pk-12
CIED 5423	Literacy Instruction in Primary Grades *
CIED 5523	Practicum II: Advanced Literacy
	Interventions
CIED 5493	Multisensory Phonics Instruction
SMED 5050	Seminar in Integrated Mathematics and Science Applications
SMED 5253	Teaching Rational Number Concepts, Proportional Reasoning, and Classroom
	Interactions *
SMED 5263	Assessment and Evaluation in School Mathematics *
SMED 5270	Practicum in School Mathematics
SMED 5273	Number Concepts and Assessment at the Elementary Level (PK-6)
SMED 5283	Problem-Centered Learning in Mathematics
SMED 5293	Teaching and Learning Mathematics in Technology *
SMED 5913	Teaching Geometry and Spatial Visualization
SMED 5923	Teaching Algebra and Mathematical Tasks
SMED 5933	Teaching Data and Probability in Schools
SMED 5943	Mathematics Leadership and Coaching
SMED 5203	Teaching the Nature of Science Through and Inquiry Approach
SMED 5713	Teaching and Learning Science in the Secondary School
SMED 5193	Inquiry and Problem-Based Learning in Science Education
SMED 5223	Teaching Science in the Schools
SMED 5050	Seminar in Integrated Mathematics and Science Applications
SMED 5243	Environmental Education in the Curriculum
SMED 5280	Workshop in Science Education
SMED 5313	Introduction to K-12 Engineering Education
SMED 5323	Technology for the K-12 STEM Educator
SMED 5333	Developing Informal and Formal STEM Programs in Schools
CIED 5323	Teaching Social Studies in the Schools
SPED 5623	Characteristics of Students with Mild/ Moderate Disabilities
SPED 5743	Planning, Compliance and Current Practices
SPED 5883	Classroom and Behavior Management

Total Hours		36
Hours Subtotal		21
SMED 5143	Methods for Teaching Secondary Science	
SMED 5153	Methods for Teaching Secondary Math	
CIED 5413	Teaching and Learning in the Secondary Schools: Social Studies Methods	
CIED 5403	Teaching and Learning in the Secondary Schools: English Language Arts Methods	
CIED 5010	Practicum for Early Career Secondary Teachers	
CIED 5363	Effective Teaching Strategies for the 6-12 Classroom	
CIED 5333	Effective Classroom Management for Secondary Schools	
SMED 5083	Teaching Science in the Elementary School (Grades 1-8)	
SMED 5013	Mathematics Education: Theory and Practice(Grade 1-4)	
CIED 5893	Reading Processes and Practices GR 1-8	
CIED 5373	Design and Management of the Elementary School Classroom	
CIED 5730	Seminar in Education	
CIED 5720	Education Workshop	
SPED 5993	Culturally Responsive Teaching in Special Education	

# Graduate College Master's Program Requirements

# **Teaching, Learning and Leadership: Mathematics/Science Education, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 36** 

Code	Title	Hours
Common Program (	Core	
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
Hours Subtotal		6
Research Requirem	ent	
Select 6 hours from	the following:	6
CIED 5073	Pedagogical Research	
MATH 5913	Introduction to Research in Mathematics Education	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
STAT 5013	Statistics for Experimenters I	
SCFD 5913	Introduction to Qualitative Inquiry	
Hours Subtotal		6
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
Hours Subtotal		12
Elective or Thesis		
Select 6 hours		6
SMED 5050	Seminar in Integrated Mathematics and Science Applications	
SMED 5193	Inquiry and Problem-Based Learning in Science Education	
SMED 5223	Teaching Science in the Schools	
SMED 5243	Environmental Education in the Curriculum	
SMED 5253	Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions	
SMED 5263	Assessment and Evaluation in School Mathematics	
SMED 5270	Practicum in School Mathematics	
SMED 5273	Number Concepts and Assessment at the Elementary Level (PK-6)	
SMED 5280	Workshop in Science Education	
SMED 5283	Problem-Centered Learning in Mathematics	
SMED 5293	Teaching and Learning Mathematics in Technology	
SMED 5313	Introduction to K-12 Engineering Education	

SMED 5323	Technology for the K-12 STEM Educator	
SMED 5333	Developing Informal and Formal STEM Programs in Schools	
SMED 5613	Effective Teaching of Mathematics in the Secondary School	
SMED 5750	Seminar in Mathematics Education	
SMED 5813	Assessment in Science Education	
SMED 5913	Teaching Geometry and Spatial Visualization	
SMED 5923	Teaching Algebra and Mathematical Tasks	
SMED 5933	Teaching Data and Probability in Schools	
SMED 5943	Mathematics Leadership and Coaching	
Hours Subtotal		6
Total Hours		36

# **Graduate College Master's Program Requirements**

# Teaching, Learning and Leadership: Reading and Literacy, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 36** 

Code	Title	Hours
Common Core		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
Hours Subtotal		6
Research and Inqu	uiry	
Select 3 hours from	m the following:	3
SCFD 5913	Introduction to Qualitative Inquiry	
REMS 5013	Research Design and Methodology	
CIED 5073	Pedagogical Research	
Hours Subtotal		3
Area of Emphasis	(Reading Specialist Certification Program)	
CIED 5143	Language Arts in the Curriculum	3
CIED 5153	Advanced Studies in Children's Literature	3
CIED 5423	Literacy Instruction in Primary Grades	3
CIED 5433	Reading and Writing in the Content Areas	3
CIED 5463	Reading Assessment and Instruction	3
CIED 5523	Practicum II: Advanced Literacy Interventions	3
CIED 5553	Literacy Leadership and Coaching	3
Hours Subtotal		21
Electives or Thesis	s	
Select 6 hours		6
Hours Subtotal		6
Total Hours		36

### **Graduate College Master's Program Requirements**

36

# **Teaching, Learning and Leadership: Special Education, MS**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 36** 

Code	Title	Hours
Common Core		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
Hours Subtotal		6
Research and Inqu	uiry	
Select 3 hours from	m the following:	3
CIED 5073	Pedagogical Research	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
SPSY 6253	Single Case Designs in Behavior Analytic Settings	
Hours Subtotal		3
Program Core		
SPED 5723	Transition Into Adulthood for Individuals with Disabilities	3
SPED 5743	Planning, Compliance and Current Practices	3
Area of Emphasis		
Select one empha	sis (15 hours)	15
Behavior and Acad	emic Interventionist	
FDEP 5493	Psychology of Learning and Behavior	
SPSY 5853	Applied Behavior Analysis	
SPSY 5873	Applied Behavior Analysis II	
SPSY 6313	Advanced Interventions for Increased Academic Achievement	
SPSY 6343	Behavioral Assessment and Consultation	
Or related coursev advisor.	vork as deemed appropriate by student's	
Mild/Moderate Disa	abilities	
Select 15 hours fro	om the following:	
CIED 5473	Reading & Writing Difficulties	
SPED 5123	Characteristics and Teaching Methods for Students with Autism Spectrum Disorders	
SPED 5623	Characteristics of Students with Mild/ Moderate Disabilities	
SPED 5673	Improving Literacy Skills of Individuals with Disabilities	
SPED 5683	Models of Instruction in the Inclusive Classroom	
SPED 5783	Assessing Students with Disabilities	
SPED 5883	Classroom and Behavior Management	
SPED 5993	Culturally Responsive Teaching in Special Education	
Hours Subtotal		21

# Electives or Thesis Select up to 6 hours with Advisor approval. Each student must complete either 6 hours of thesis (SPED 5000 or equivalent content course) or SPED 5150 (3 hours) and 3 hours of electives. Students must discuss their options with their advisor. Hours Subtotal 6

### **Graduate College Master's Program Requirements**

**Total Hours** 

# Teaching, Learning and Leadership: Workforce and Adult Education, MS

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 36** 

Code	Title	Hours
Common Core		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
Hours Subtotal		6
Research and Inqu	iry Requirement	
WAED 5443	Interpreting Research in Workforce and Adult Education	3
Select three hours	from the following:	3
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
SCFD 5913	Introduction to Qualitative Inquiry	
STAT 5013	Statistics for Experimenters I	
Hours Subtotal		6
Program Core		
WAED 5153	Curriculum Planning in Workforce and Adult Education	3
WAED 5233	Advanced Instructional Procedures in Workforce and Adult Education	3
WAED 5313	Overview of Workforce and Adult Education	3
Hours Subtotal		9
Areas of Emphasis		
Select 15 hours fro	om, but not limited to, the following (students	15

Areas of Emphasis	
Select 15 hours from, but not limited to, the following (students	1
should work with advisor to select courses appropriate	
for emphasis in WAED teaching, administration, workforce	
development or engineering education):	

CTED 4123	Coordinating Career and Technical Student Organizations and Activities
CTED 4213	Safety, Organization and Management of Learning Facilities
EDLE 5723	Education Law
WAED 5000	Thesis or Report
WAED 5010	Seminar
WAED 5013	Foundations and Characteristics of Adult Learning
WAED 5113	Principles of Leadership in Workforce Education
WAED 5123	Administration & Evaluation of Workforce and Adult Education
WAED 5133	Internationalism, Globalization and Workforce Education
WAED 5143	Organization and Administration of Adult Education
WAED 5203	Foundations of Adult and Continuing Education

Total Hours		36
Hours Subtotal		15
WAED 5910	Developing and Analyzing Teaching Content	
WAED 5880	Internship in Workforce and Adult Education	
WAED 5833	Global Consulting	
WAED 5730	Special Topics in Adult Education	
WAED 5720	Workshop	
WAED 5703	Adult Learning in Diverse Settings	
WAED 5423	Individualized Competency Based Instruction and Customized Training	
WAED 5353	Instructional Strategies for Adults	
WAED 5340	Special Problems in Workforce and Adult Education	
WAED 5333	Administration and Supervision of Workforce Education Programs	
WAED 5223	Program Planning for Workforce and Adult Educators	

### **Graduate College Master's Program Requirements**

#### **Teaching: Elementary, MATT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

Total Hours: 39

Code	Title	Hours
Degree Core		
Required Courses		
CIED 5093	Curriculum Design	3
CIED 5213	Introduction to Teaching and Learning	3
CIED 5343	Introduction to K-12 English Language Learners	3
SPED 5633	Behavior Characteristics of Exceptional Individuals	3
Hours Subtotal		12
Specialization		
CIED 4323	Social Studies in the Elementary School Curriculum	3
CIED 4362	Design and Management of the Elementary School Classroom	2
CIED 5853	Teaching Writing GR 1-8	3
CIED 5893	Reading Processes and Practices GR 1-8	3
CIED 5973	Formative Literacy Assessment GR 1-8	3
SMED 4153	Teaching Mathematics at the Intermediate Level	3
SMED 5013	Mathematics Education: Theory and Practice(Grade 1-4)	3
SMED 5083	Teaching Science in the Elementary School (Grades 1-8)	3
Hours Subtotal		23
Internship		
Minimum of 4 hours		4
CIED 5310	Field Experience in the Elementary School (Minimum of 1 hour)	
CIED 5450	Internship in Elementary Education (Minimum of 3 hours)	
Hours Subtotal		4
Total Hours		39

# **Graduate College Master's Program Requirements**

# **Teaching: Secondary Mathematics, MATT**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 34** 

Code	Title	Hours
Common Core		
CIED 5093	Curriculum Design	3
CIED 5213	Introduction to Teaching and Learning	3
CIED 5343	Introduction to K-12 English Language Learners	3
SPED 5633	Behavior Characteristics of Exceptional Individuals	3
Hours Subtotal		12
Concentration in Sec	ondary Mathematics	
SMED 4003	Teaching Fundamental Concepts of Mathematics	3
SMED 4053	Teaching Geometry in the Secondary School	3
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3
SMED 5113	Knowing and Learning in Mathematics and Science	3
SMED 5123	Classroom Interactions in Mathematics and Science	3
SMED 5133	Problem-Based Learning in Mathematics and Science	3
Hours Subtotal		18
Internship		
CIED 5710	Internship in Secondary School (Minimum of 4 hours)	4
Hours Subtotal		4
Total Hours		34

# **Graduate College Master's Program Requirements**

#### **Teaching: Secondary Science, MATT**

**Requirements for Students Matriculating in or before Academic Year 2022-2023.** Learn more about Graduate College Academic Regulation 7.0 (p. ).

**Total Hours: 34** 

Code	Title	Hours
Common Core		
CIED 5093	Curriculum Design	3
CIED 5213	Introduction to Teaching and Learning	3
CIED 5343	Introduction to K-12 English Language Learners	3
SPED 5633	Behavior Characteristics of Exceptional Individuals	3
Hours Subtotal		12
Concentration in S	Secondary Science	
SMED 5203	Teaching the Nature of Science Through and Inquiry Approach	3
SMED 5713	Teaching and Learning Science in the Secondary School	3
SMED 5723	Senior Seminar in the Secondary  Mathematics and Science Education	3
SMED 5113	Knowing and Learning in Mathematics and Science	3
SMED 5123	Classroom Interactions in Mathematics and Science	3
SMED 5133	Problem-Based Learning in Mathematics and Science	3
Hours Subtotal		18
Internship		
CIED 5710	Internship in Secondary School (Minimum of 4 hours)	4
Hours Subtotal		4
Total Hours		34

# **Graduate College Master's Program Requirements**

#### Theatre, MA

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (p. ).

#### **Thesis Option**

Total Hours: 30

Code	Title	Hours
Required Core		
TH 4953	Directing	3
TH 5113	Theatre History and Theory I	3
TH 5513	Theatre History and Theory II	3
TH 5313	Dramaturgy	3
TH 5600	Seminar in Dramatic Literature	3
One approved gra of Theatre	duate-level seminar outside of the Department	3
Hours Subtotal		18
Electives		
Select 6 hours		6
TH 5240	Topics in Advanced Acting	
TH 5400	Seminar in Theatre	
TH 5500	Individual Theatre Projects	
TH 5953	Problems in Advanced Directing	
TH 5600	Seminar in Dramatic Literature	
Graduate elect	ives in other departments	
TH 4000-level courses with an * in the OSU Catalog.		
Hours Subtotal		6
Thesis		
TH 5000	Master's Thesis and Research	6
Hours Subtotal		6
Total Hours		30

#### **Non-Thesis Option**

**Total Hours: 32** 

Code	Title	Hours
Required Core		
TH 4953	Directing	3
TH 5113	Theatre History and Theory I	3
TH 5513	Theatre History and Theory II	3
TH 5313	Dramaturgy	3
TH 5600	Seminar in Dramatic Literature	3
One approved grad of Theatre	luate-level seminar outside of the Department	3
Hours Subtotal		18
Electives		
Select 11 hours		11
TH 5240	Topics in Advanced Acting	
TH 5400	Seminar in Theatre	
TH 5500	Individual Theatre Projects	
TH 5953	Problems in Advanced Directing	

Total Hours		32
Hours Subtotal		3
TH 5100	Master's Creative Component and Research	3
Creative Compone		
Hours Subtotal		11
TH 4000-level c	ourses with an * in the OSU Catalog.	
Graduate electiv	ves in other departments	
TH 5600	Seminar in Dramatic Literature	

# **Graduate College Master's Program Requirements**