**General Education Requirements: 41 Hours**

<table>
<thead>
<tr>
<th>Area</th>
<th>Hours</th>
<th>To be selected from:</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>6</td>
<td>ENGL 1113 (or 1313) and ENGL 1213 (or 1413 or 3323) (See Academic Regulation 3.5 in Catalog)</td>
</tr>
<tr>
<td>American History &amp; Government</td>
<td>6</td>
<td>HIST 1103 and POLS 1113</td>
</tr>
<tr>
<td>Analytical &amp; Quantitative Thought (A)</td>
<td>7</td>
<td>MATH 2144* and CS 1113*</td>
</tr>
<tr>
<td>Humanities (H)</td>
<td>6</td>
<td>Courses designated (H)</td>
</tr>
<tr>
<td>Natural Sciences (N)</td>
<td>6</td>
<td>PHYS 2014* and course designated N</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (S)</td>
<td>3</td>
<td>ECON 2103* or AGEC 1113*</td>
</tr>
<tr>
<td>Additional General Education</td>
<td>7</td>
<td>Courses designated (A), (H), (N), or (S)</td>
</tr>
</tbody>
</table>

*College and Departmental Requirements that may be used to meet Gen Ed Requirements.

**Diversity (D) & International Dimension (I)**

May be completed in any part of the degree plan.

At least one Diversity (D) course: _______

At least one International Dimension (I) course: _______

**College/Departmental Requirements: 13 Hours**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year Seminar (A&amp;S 1111)</td>
<td>1</td>
<td>(TRANSFER STUDENTS WITH 15 HOURS EXEMPT)</td>
</tr>
<tr>
<td>Arts &amp; Humanities</td>
<td>3</td>
<td>(SEE NOTE 2.A.)</td>
</tr>
<tr>
<td>Natural &amp; Mathematical Sciences</td>
<td>9</td>
<td>MATH 2153; and PHYS 2114; and</td>
</tr>
<tr>
<td>Foreign Languages Proficiency</td>
<td>--</td>
<td>2 additional hours</td>
</tr>
<tr>
<td>Upper-Division General Education 6 hours outside major department</td>
<td>--</td>
<td>(SEE NOTE 3.)</td>
</tr>
</tbody>
</table>

**Major Requirements: 50 Hours**

Minimum GPA 2.00 with a minimum grade of "C" or "P" in each course in Major Requirements and each required MATH course.

**Major Foundation: 17 hours**

- MATH 2163, 2223, and 3013; and 3613 or 4023
- 2-3 hours from: CS 2133 or 2433 or ENGR 1412
- 3 hours from: STAT 4013, 4033, 4053, 4203, or IEM 3103

**Mathematics Core: 21 hours**

- MATH 4513, 4553, and 4583
- 9 hours from the following, with 3 hours from each group:
  - Analysis: MATH 4013, 4023, 4143, 4223, 4263, 4283, 5213
  - Applied Algebra/Discrete Math: MATH 4063, 4453, 4663, 4713, 4753, 4813, CS 3653
- 3 hours from: 4000-level courses in MATH or STAT or upper division CS (See Academic Regulation 3.5 in Catalog)

**Area of Application: 9 hours**

- 9 hours from the following: an alternative 9 hour plan with at least 6 upper division hours may be used with Departmental approval.
  - Agricultural Economics: AGEC 3213, 3333, and 4213 or 4333
  - Bioinformatics: CHEM 1515, MICR 3033 and 4203
  - Cognitive Science: CS 4793; PHIL 4003 or 4313 or 4543; PSYC 3173
  - Ecology: ZOOL 1604; BIOL 3034; 3 hours from upper division ZOOL
  - Economics: Econ 2203; 3113 or 3123; 3 hours from upper division ECON
  - Finance: FIN 3113; 6 hours from FIN 4223, 4303, 4763
  - GIS: GEG 4203; 4343 or 4353; 3 hours from upper division GIS
  - Geophysical Analysis: ENSC 2113, 3233, and GEOL 4103
  - Network and Signal Analysis: ENSC 2613, ECEN 2011, 3714; 3513 or 3613
  - Operations Research: IEM 4013, 4713; 3 hours from upper division IEM
  - Physics: 9 hours upper division PHYS

**Capstone Experience: 3 hours**

- 3 hours from a project or internship applying mathematical methods to a problem in the area of application.
- MATH 4900 (3 hours) or 4910 (3 hours) or 4993 or 4590 (3 hours) with approval of advisor and internship mentor.

**Electives: 16 Hours**

May need to include 10 hours of a foreign language. (see note 3.)

May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 4 additional upper division hours.

**Additional State/OSU Requirements**

- At least 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU. Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.

**Other Requirements:**

- See notes 1, 2 & 3 on back of degree sheet

**Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

**Hours in One Department:** Hours in one department in excess of 54 will be added to the minimum total of 120 required for graduation.

Signature on file in the Office of the Registrar

DEAN

DEPARTMENT HEAD
1. GENERAL EDUCATION REQUIREMENTS

No more than two courses (or eight hours) from the major department may be used to meet General Education and College and Departmental Requirements. The General Education required English Composition, required U.S. History, required American Government, one required MATH or STAT course, and required foreign language for B.A. degrees do not count against the two-course maximum.

2. A&S COLLEGE/DEPARTMENTAL REQUIREMENTS

a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, ENGL (except 3323), HIST, MUSI, PHIL (except 1313, 3003 and 4003), REL, TH, and foreign languages (second year and above). No more than six hours may be music or theatre performance or art studio.

b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, BOT, CHEM, CS (except 4883), GEO, MATH, MICR, PHYS, STAT and ZOOL; or courses from other departments that carry an (A) or (N) general education designation.

c. The required six hours of upper-division General Education may not include courses from the student’s major department. This requirement may be satisfied by courses also used to satisfy any part of a student’s degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

d. Non-Western Studies Requirement for B.A. and B.F.A. One 3-hour course in Non-Western Studies from: AMIS 2013, 4013; ANTH 3443, 4223; ART 2693, 2733, 4603, 4653, 4663, 4673, 4683, 4703, 4713, 4763; CHIN 1225; ENGL 2963, 3183, 3190 (African Novel), 4330; FLL 1000 (Arabic 2 & Mvskoke2); GEOG 3053, 3733, 3753, 3763, 3783; HIST 1713, 3003, 3013, 3043, 3053, 3123, 3133, 3153, 3163, 3203, 3413, 3423, 3433, 3443, 3503, 3513, 3523, 3543, 3553, 3583, 3793; HONR 3033; JAPN 1225, 2015, 2225; MUSI 3583; PHIL 3943, 4943, 4953; POLS 3003, 3053, 3123, 3163, 3223, 3313; REL 1103, 3573, 4113, 4213, 4223; RUSS 1225, 3003, 3053, 3123, 4013, 4023, 4113, 4123; SOC 4533, 4653. This requirement may be satisfied by courses also used to satisfy any part of a student’s degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses.

3. FOREIGN LANGUAGE PROFICIENCY

a. The foreign language requirement for the B.A. may be satisfied by 10 hours college credit in the same language, or equivalent proficiency (e.g., passing an advanced standing examination; completing a second-year or higher college-level course in the language, etc.).

b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second year level of study). It may also be satisfied by any of the options listed above for the B.A. utilizing elective hours.

c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 5 hours college credit in the same language with no grade below C (or pass an advanced standing examination equivalent to 5 hours of college credit.)

4. EXCLUSIONS

a. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54 hour maximum allowed from one department.

b. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

5. TEACHER CERTIFICATION

Students can satisfy the requirements for secondary schools teaching certification while earning a B.A. or B.S. in the College of Arts & Sciences. Those interested should see their Arts and Sciences adviser and the OSU Professional Education Unit in room 325 Willard.