### GENERAL EDUCATION AND COLLEGE REQUIREMENTS

Courses for fulfillment of General Education and College of Arts & Sciences requirements must be from the approved General Education course list.

#### University-Wide General Education Requirements (minimum 40 hours)

**Core Area I: Symbolic and Oral Communication** (9-19 hours, 3-5 courses)
- English 1113, Principles of English Composition
- English 1213, Principles of English Composition

**Core Area II: Natural Science** (6 hours, 2 courses)
- Understanding Artistic Forms (3 hours, 1 course)
- Western Civilization and Culture (6 hours, 2 courses)

**Core Area III: Social Science** (9-19 hours, 3-5 courses)
- Political Science 1113, American Federal Government
- History 1483, U.S., 1492-1865, or History 1493, U.S., 1865-Present

**Core Area IV: Humanities** (12 hours, 4 courses)
- a: English Composition (6 hours, 2 courses)
- b: Western Civilization and Culture (6 hours, 2 courses)
- c: Mathematics (3 hours, 1 course)

**Senior Capstone Experience** (3 hrs., 1 course)

#### Additional Arts and Sciences College Requirements

**I. Science** (7 hours, 2 courses). One of the areas must include a laboratory.
- Biological Science
- Physical Science

**II. Foreign Language** (0-3 hours). One course at the intermediate level or demonstrated competency at that level.
- Intermediate Course, 3 hours

**III. Western Civilization** (6 upper-division hours, 2 courses). Must be outside the major and in addition to University General Education Core IV
- 1.
- 2.

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### Microbiology (Professional) 0411B

Bachelor of Science in Microbiology

#### Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>Mbio 2813</td>
<td>Fund. of Microbiology</td>
</tr>
<tr>
<td>Mbio 3823</td>
<td>Pathogenic Microbiology and Immunology</td>
</tr>
<tr>
<td>Mbio 4853</td>
<td>Physiology of Microorganisms</td>
</tr>
</tbody>
</table>

One capstone course or two semesters of Senior Thesis:
- Mbio 4933 Capstone in Microbiology
- Mbio 4950 Senior Thesis - Capstone

A total of 35 hours in microbiology is required, which must include the following.

#### Major Support Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>Chem 1315</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>Chem 1415</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>Bioch 3053</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>Bioch 3152</td>
<td>Organic Chemistry Lab</td>
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<tr>
<td>Bioch 3153</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>Bioch 3214</td>
<td>Quantitative Analysis</td>
</tr>
<tr>
<td>Bioch 3451</td>
<td>Basic Physical Chem. Lab, and</td>
</tr>
<tr>
<td>Bioch 3453</td>
<td>Basic Physical Chemistry</td>
</tr>
</tbody>
</table>

#### Additional Requirements

- A course in statistics from:
  - Econ 2843 Elements of Statistics
  - Psc/Soc 3123 Social Statistics

#### Botany

- 1114 General Botany

#### Zoology

- 1114 Introductory Zoology, and
- 1121 Introductory Zoology Lab

- 1155 Introduction to Biochemistry
- 3753 Intro. to Biochemical Methods

#### MATH

- 1743 Calculus I for Business, Life and Social Sciences

- 1302 General Physics Lab
- 2414 General Physics for Life Sciences
- 2424 General Physics for Life Sciences

#### PHYSICS

- 1302 General Physics Lab

- 1743 Calculus I for Business, Life and Social Sciences

- 1302 General Physics Lab
- 2414 General Physics for Life Sciences
- 2424 General Physics for Life Sciences

### Free Electives

Electives to bring total applicable hours to 124 including 48 upper-division hours.
TOTAL HOURS: A minimum of 124 semester hours acceptable toward graduation must be completed.

UPPER-DIVISION HOURS: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work will be counted as lower-division or upper-division credit depending on the level at which it was offered at the institution where the work was taken. All two-year college work is considered to be lower-division.

ARTS AND SCIENCES HOURS: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.

MAJOR WORK: At least 30 semester hours in the major must be completed.

HOURS BY EXAM, CORRESPONDENCE STUDY AND/OR EXTENSION: A maximum of 31 semester hours (or 1/4 of the total hours required for a preprofessional program of study) may be completed by a combination of exam, correspondence study and/or extension credit.

PASS/NO PASS ENROLLMENT: A maximum of 16 semester hours of free elective credit may be attempted under this option.

INDIVIDUAL STUDIES (e.g., courses titled “Independent Study”): A maximum of 12 total semester hours may be counted toward graduation.

REPEAT OF FAILED COURSEWORK: A student earning a grade of “F” in an upper-division course at OU may not repeat the course for credit at another institution without the prior written permission of the department that offered the course at OU.

MILITARY, MILITARY IN-SERVICE, AND P.E. COURSES: A maximum of 16 semester hours total of basic skills courses; aerospace studies, military science, and naval science courses; advanced military in-service experience; and PE activity courses may be included in the minimum 124 semester hours required for graduation. No more than four of the 16 semester hours may be in PE activity courses.

SENIOR INSTITUTION HOURS: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

RESIDENCY:
- A minimum of 30 semester hours acceptable toward graduation must be earned in residence at OU, including at least 15 of the last 30 hours applied toward the degree.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

GRADE POINT AVERAGES: Students must earn a minimum overall 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

SPECIAL DEGREES: Students may qualify for an Honors degree (cum Laude, Magna cum Laude, or Summa cum Laude) by completing specific requirements of the Honors College. A degree will be earned with Distinction if the student completes at least 60 semester hours at OU with at least a 3.60 combined retention GPA and OU retention GPA. A degree will be earned with Special Distinction if the student completes at least 60 semester hours at OU with at least a 3.90 combined retention GPA and OU retention GPA.

APPLICATION FOR GRADUATION: Students must apply for graduation during the term in which they complete their degree requirements in order to graduate in that term. Application forms are available from the College of Arts and Sciences Academic Services, Physical Sciences Center, Room 429. The deadline for completion of all coursework to graduate in a particular term is the last day of classes in that term.

<table>
<thead>
<tr>
<th>Freshman Year</th>
<th>Sophomore Year</th>
<th>Junior Year</th>
<th>Senior Year</th>
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GRADUATION PLAN

Total Upper-
Hours Division