

# MICROBIOLOGY

## BACHELOR OF ARTS

Requirements apply to students entering Spring 2003 and later. At least 124 hrs. (45 Junior/Senior hrs.) must be completed for graduation. Double majors must complete at least 15 hrs. unique to each major.

### I. General College Requirements (58 hrs.):

**English** (9 hrs.): ENGL 101 \_\_\_\_; ENGL 102 (or 105) \_\_\_\_; ENGL 203 (or 205, 209, 210, 211) \_\_\_\_

**Communication/Logic** (3 hrs., one of the following):

COMS 130, COMS 230, PHIL 148, PHIL 310 **OR**

Exemption/Examination \_\_\_\_

**Western Civilization** (6 hrs.): HWC 204 (or 114) \_\_\_\_ and HWC 205 (or 115) \_\_\_\_

**Principal Course Distribution Requirements:** (*see Undergraduate Catalog and Timetable appendix for list of principal courses*)

**Humanities** (9 hrs.):

(HT) \_\_\_\_\_, (HL) \_\_\_\_\_, (HR) \_\_\_\_\_

**Social Science** (9 hrs.):

(SC) \_\_\_\_\_, (SI) \_\_\_\_\_, (SF) \_\_\_\_\_

**Non-Western Culture** (one course): \_\_\_\_ (*see Undergraduate Catalog and Timetable appendix for list of courses*)

**Foreign Language** (16-20 hrs. or proficiency):

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

A **Principal course in Earth Sciences or Mathematical Sciences** (3 hrs.) (in addition to MATH 115 or 121) or BIOL 570 \_\_\_\_\_

### II. General Science Requirements (37-38 hrs.):

\_\_\_\_\_ BIOL 150 (or BIOL 151) Principles of Molecular & Cellular Biology (4 hrs.)

\_\_\_\_\_ BIOL 350 Principles of Genetics (3 hrs.)

\_\_\_\_\_ BIOL 405 Laboratory in Genetics (2 hrs.)

\_\_\_\_\_ CHEM 184 Foundations of Chemistry I (5 hrs.)

\_\_\_\_\_ CHEM 188 Foundations of Chemistry II (5 hrs.)

\_\_\_\_\_ CHEM 622 Fund. Organic Chemistry (3 hrs.) **OR**

\_\_\_\_\_ CHEM 624 Organic Chemistry I (3 hrs.)

\_\_\_\_\_ CHEM 625 Organic Chemistry I lab (2 hrs.)

\_\_\_\_\_ MATH 115 & MATH 116 Calculus I & II (6 hrs.) **OR**

\_\_\_\_\_ MATH 121 Calculus I (5 hrs.)

\_\_\_\_\_ PHSX 114 & PHSX 115 Col. Physics I & II (8 hrs.) **OR**

\_\_\_\_\_ PHSX 211 & PHSX 212 General Physics I & II (8 hrs.)

*Note: Students planning graduate study are advised to complete a year of Organic Chemistry (CHEM 624, 625, 626, 627 and a year of Biochemistry (BIOL 636, 637, 638).*

### III. Microbiology Core Requirements (9-10 hrs.):

\_\_\_\_\_ BIOL 400 Fundamentals of Microbiology (3 hrs.) or BIOL 401, Honors

\_\_\_\_\_ BIOL 402 Fundamentals of Microbiology Lab (2 hrs.) or BIOL 403, Honors

\_\_\_\_\_ *One of the following two courses:*

BIOL 516 Microbial Physiology (3 hrs) **OR**

BIOL 600 Introductory Biochemistry Lectures (4 hrs.)

\_\_\_\_\_ BIOL 599 Senior Seminar – Current Progress in Microbiology (1 hr.) (*must be taken in senior year*)

### IV. Microbiology Electives and Laboratory Requirements (15 hrs.):

Fifteen hours of Microbiology courses, including three lab courses, selected from the following:

BIOL 503 Immunology (3 hrs.)

BIOL 504 Immunology Lab (2 hrs.)

BIOL 506 Pathogenic Microbiology (3 hrs.)

BIOL 507 Pathogenic Microbiology Lab (2 hrs.)

BIOL 512 General Virology (3 hrs.)

BIOL 513 Virology Laboratory (2 hrs.)

BIOL 517 Microbial Physiology Lab (2 hrs.)

BIOL 518 Microbial Genetics (3 hrs.)

BIOL 519 Microbial Genetics Lab (2 hrs.)

BIOL 524 Molecular Immunology (3 hrs.)

BIOL 544 Applied Microbiology (3 hrs.)

### V. Biology Electives Requirements (3 hrs.):

*Biology courses numbered 400 or higher to be selected in consultation with a microbiology advisor.* A course listed above which has not been used to fulfill the above requirements, or BIOL 423 Non-Laboratory Independent Study or BIOL 424 Independent Study, may be used as an elective.

BIOL \_\_\_\_\_ (\_\_\_\_ hrs.)

BIOL \_\_\_\_\_ (\_\_\_\_ hrs.)