BACHELOR OF SCIENCE DEGREE
ENVIRONMENTAL BIOLOGY/MICROBIOLOGY
COORDINATE MAJOR

FOR ADDITIONAL INFORMATION, PLEASE CONTACT THE DEPARTMENT OF MICROBIOLOGY & MOLECULAR GENETICS

(1) UNIVERSITY REQUIREMENTS

Writing Requirement
Tier I: LB 133 4
Tier II: Satisfied by completing the Lyman Briggs College History, Philosophy and Sociology of Science and Senior requirements listed below.

Integrative Studies in Arts & Humanities (IAH)
IAH 201-210* 4
IAH 211-241*†# 4

Integrative Studies in Social, Behavioral & Economic Sciences (ISS)
ISS 200-level course* 4
ISS 300-level course*‡@ 4

*National, International, & Multicultural Diversity
Students must include at least one "N" course and one "I" course in their Integrative Studies programs. A "D" course may meet either an "N" or an "I" requirement, but not both.

†Summer 2013 to Summer 2017: LB 331, 333, and 336 will fulfill the IAH "B" university requirement (IAH 211 or higher). Please consult your LBC Academic Advisor for specific details for your program.

‡Summer 2013 to Summer 2017; LB 332, 334, and 335 will fulfill the ISS 300-level university requirement. Please consult your LBC Academic Advisor for specific details for your program.

# Beginning Fall 2017; LB 321a, 322a, 323a, 324a, 325a, 326a and 327a will fulfill the IAH university requirement (IAH 211 or higher).

@ Beginning Fall 2017; LB 321b, 322b, 323b, 324b, 325b, 326b and 327b will fulfill the ISS 300-level university requirement.

Please contact your LBC Academic Advisor for specific details for your program. If you fulfilled the LB 331, 332, 333, 334, 335 or 336 requirement you do not need the new Fall 2017 courses.

Mathematics, Biological and Physical Sciences
Satisfied by the Lyman Briggs College requirements in Mathematics, Biological and Physical Sciences (see next section).

(2) LYMAN BRIGGS COLLEGE REQUIREMENTS

Biological Sciences (9 cr.)
Complete ONE of the following groups of courses
(1) LB 144 & 145* 9
(2) BS 161, 162, 171, & 172 10

Chemistry (9 cr.)
Complete ONE of the following groups of courses
(1) LB 171, 171L, 172, & 172* 9
(2) CEM 141, 142, 161, & 162* 9

Physics (8-10 cr.)
Complete ONE of the following groups of courses
(1) LB 273, 274* 8
(2) PHY 231, 232, 251, & 252* 8

Mathematics (6-8 cr.)
Complete ONE of the following groups of courses
(1) LB 118 & STT 231* 7
(2) MTH 132 & STT 231* 7

History, Philosophy & Sociology of Science (11-12 cr.)
LB 133 4
LB 321-327, 330-336, 355, 490E; ENG 473A; HST 425; SOC 368 7-8

Senior Seminar (4 cr.)
LB 492 4

*Biology, Chemistry, Physics and Mathematics courses also satisfy graduation requirements for the major

Minimum number of credits required: 120
Minimum cumulative and major grade point average: 2.0

Major Code: 3507 Updated: February 2017
(3) MAJOR REQUIREMENTS

Complete ALL of the following courses (25 cr.)

CE  280  Principles of Environmental Engineering & Science  2
CEM 251  Organic Chemistry I  3
CEM 252  Organic Chemistry II  3
CEM 255  Organic Chemistry Laboratory  2
CSS 210  Fundamentals of Soil Science  3
GLG 201  The Dynamic Earth  4
GLG 421  Environmental Geochemistry  4
IBIO 355  Ecology  3
IBIO 355L  Ecology Laboratory  1

Complete ONE of the following options (4-6 cr.)

BMB 461  Advanced Biochemistry I  3
BMB 462  Advanced Biochemistry II  3
Or
BMB 401  Basic Biochemistry  4

Complete the following courses (16 cr.)

MMG 301  Introductory Microbiology  3
MMG 302  Introductory Laboratory for General And Allied Health Microbiology  1
MMG 408  Advanced Microbiology Laboratory  3
MMG 421  Prokaryotic Cell Physiology  3
MMG 425  Microbial Ecology  3
MMG 431  Microbial Genetics  3

Complete ONE of the following options (3 cr.)

MMG 491  Current Topics in Microbiology & Molecular Genetics  3
Or
MMG 492  Undergraduate Research Seminar  1
Or
MMG 499  Undergraduate Research  2
Or
MMG 499H  Honors Research  2

Complete ONE course from TWO of the following areas (6 cr.)

1. CSS 455  Pollutants in the Soil Environment  3
2. FOR 404  Forest Ecology  3
3. FSC 440  Food Microbiology  3
4. GEO 206  Physical Geography  3
   GEO 221  Introduction to Geographic Information  3
5.
6. MMG 445  Microbial Biotechnology  3
7. IBIO 446  Environmental Issues & Public Policy  3
8. FOR 466  Natural Resource Policy  3
8. FW 420  Stream Ecology  3
8. FW 472  Limnology  3

IMPORTANT: This advising guide is presented for planning purposes only. It is the student’s responsibility for knowing and following University, college and departmental requirements as stated in the Academic Programs Catalog.

The Academic Advisors will provide information and suggest others based on expressed interests. It is the student’s responsibility for enrolling in classes and selecting the number of credits per semester for success. Appointments are made using the Student Success Dashboard.