

**EXECUTIVE COMMITTEE
COLLEGE OF NATURAL AND AGRICULTURAL SCIENCE**

**REPORT TO RIVERSIDE DIVISION
MAY 23, 2017**

To be adopted:

Proposed changes to the undergraduate major requirements in Microbiology.

PRESENT:

Major Requirements

Some of the following requirements for the Microbiology major may also fulfill the College's breadth requirements. Consult with an advisor for course planning.

1. Core Curriculum (72-77 units)
Students must complete all required core curriculum courses with a grade of "C-" or better and with a cumulative GPA in the courses of at least 2.0. Grades of "D" or "F" in two required courses, either separate courses or repetitions of the same course, are grounds for discontinuation from the major.

- a) BIOL 005A, BIOL 05LA, BIOL 005B, BIOL 005C
- b) CHEM001A, CHEM001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC
- c) ~~CHEM 12A, CHEM 12B, CHEM 12C~~

d) PHYS 002A, PHYS 002B, PHYS 002C, PHYS 02LA, PHYS 02LB, PHYS 02LC

e) MATH 009A, MATH 009B

f) STAT 100A

g) BCH 100, or BCH 110A and BCH 110B

2. Upper-Division Requirements (37 units)

- a) Major Core (19 units): BIOL 102, BIOL 107A, MCBL 121/BIOL 121, MCBL 121L/BIOL 121L, MCBL 125

PROPOSED:

Major Requirements

Some of the following requirements for the Microbiology major may also fulfill the College's breadth requirements. Consult with an advisor for course planning.

1. Core Curriculum (72-77 units)
Students must complete all required core curriculum courses with a grade of "C-" or better and with a cumulative GPA in the courses of at least 2.0. Grades of "D" or "F" in two required courses, either separate courses or repetitions of the same course, are grounds for discontinuation from the major.

- a) BIOL 005A, BIOL 05LA or BIOL 020, BIOL 005B, BIOL 005C
- b) No Change

c) CHEM 008A and 08LA or CHEM 08HA and CHEM 8HLA, CHEM 008B and CHEM 08LB or CHEM 08HB and CHEM 8HLB, CHEM 008C and CHEM 08LC or CHEM 08HC and CHEM 8HLC

d) No Change

e) MATH 007A or MATH 009A, MATH 007B or MATH 009B

f) No Change

g) No Change

2. No Change

- a) No Change

b) Major Electives. A minimum of 18 units from the following to be selected in consultation with a faculty advisor: BIOL 128/CBNS 128, BIOL 157, BIOL 158, CBNS 101, ENSC 120/NEM 120, MCBL 120/BIOL 120/PLPA 120, MCBL 120L/BIOL 120L/PLPA 120L, MCBL 122/BIOL 122, MCBL 123/BIOL 123/PLPA 123, MCBL 124/BIOL 124, MCBL 141/ENSC 141, MCBL 197, PLPA 134/BIOL 134, PLPA 134L/BIOL 134L

b) No Change

3. Other Requirements

3. No Change

For the Bachelor of Science degree, an additional 16 units in upper-division microbiology courses and/or substantive courses in a field or fields related to the major. Acceptable courses include BCH 102, BCH 110C, BIOL 107B, BIOL 109, BIOL 119, ENSC 133/MCBL 133, MCBL 190, MCBL 198-I³; a more complete list of acceptable courses is available at the CNAS Undergraduate Academic Advising Center. For the Bachelor of Arts degree, the foreign language requirement may be fulfilled by completing level-four coursework or by demonstrating the equivalent proficiency in one foreign language.

4. Bachelor of Science Sample Program¹

4. Bachelor of Science Sample Program¹

Freshman Year	Fall	Winter	Spring
BIOL 005A, BIOL 005LA, BIOL 005B		5	4
CHEM 001A, CHEM 001B, CHEM 001C,	4	4	4
CHEM 01LA, CHEM 01LB, CHEM 01LC	1	1	1
ENGL 001A, ENGL 001B	4		4
Humanities/Soci al Sciences			4
MATH 009A, MATH 009B	4	4	

Freshman Year	Fall	Winter	Spring
BIOL 005A, BIOL 005LA <u>or</u> BIOL 020, BIOL 005B		5	4
CHEM 001A, CHEM 001B, CHEM 001C,	4	4	4
CHEM 01LA, CHEM 01LB, CHEM 01LC	1	1	1
ENGL 001A, ENGL 001B	4		4
Humanities/Soci al Sciences			4
MATH 007A or MATH 009A, MATH 007B or MATH 009B	4	4	

NASC 093	2		
Total Units	15	14	17
Sophomore Year	Fall	Winter	Spring
STAT 100A			5
BIOL 005C	4		
<u>CHEM 12A,</u> <u>CHEM 12B,</u> <u>CHEM 12C</u>	4	4	4
Elective		4	
Humanities/Social Sciences		4	
PHYS 002A, PHYS 002B, PHYS 002C	4	4	4
PHYS 02LA, PHYS 02LB, PHYS 02LC	1	1	1
Total Units	13	17	14
Junior Year	Fall	Winter	Spring
BCH 100	4		
Humanities/Social Sciences	4	4	4
BIOL 102		4	
MCBL 121		4	
MCBL 121L			3
PHIL 0094	4		
Major Electives & Other Reqs			7
Elective	4	4	
Total Units	16	16	14

NASC 093	2		
Total Units	15	14	17
Sophomore Year	Fall	Winter	Spring
STAT 100A			5
BIOL 005C	4		
<u>CHEM 008A and</u> <u>08LA or CHEM</u> <u>08HA and CHEM</u> <u>8HLA, CHEM</u> <u>008B and CHEM</u> <u>08LB or CHEM</u> <u>08HB and CHEM</u> <u>8HLB, CHEM</u> <u>008C and CHEM</u> <u>08LC or CHEM</u> <u>08HC and CHEM</u> <u>8HLC</u>	4	4	4
Elective		4	
Humanities/Social Sciences		4	
PHYS 002A, PHYS 002B, PHYS 002C	4	4	4
PHYS 02LA, PHYS 02LB, PHYS 02LC	1	1	1
Total Units	13	17	14
Junior Year	Fall	Winter	Spring
BCH 100	4		
Humanities/Social Sciences	4	4	4
BIOL 102		4	
MCBL 121		4	
MCBL 121L			3
PHIL 009 ⁴	4		
Major Electives & Other Reqs			7
Elective	4	4	
Total Units	16	16	14

Senior Year	Fall	Winter	Spring
BIOL 107A	4		
MCBL 125			4
Major Electives & Other Reqs.	8	8	7
MCBL 197	3	3	3
ENGL 001C		4	
Total Units	15	15	14
Notes:			
¹ Some students will take courses in summer session to (i) reduce the unit load during the normal academic year (ii) complete the degree requirements in less than four years or (iii) enable the acquisition of a minor or double major in four years.			
² No more than 4 units can be applied toward the Major Electives unit requirement, unless approved by the Microbiology Steering Committee.			
³ No more than 4 units can be applied toward the Other Requirements unit requirement, unless approved by the Microbiology Steering Committee.			
⁴ Students are encouraged to take a class in ethics.			

Senior Year	Fall	Winter	Spring
BIOL 107A	4		
MCBL 125			4
Major Electives & Other Reqs.	8	8	7
MCBL 197	3	3	3
ENGL 001C		4	
Total Units	15	15	14
Notes:			
¹ No Change			
² No Change			
³ No Change			
⁴ No Change			

Justification:

In the majority of CNAS courses, credit is not awarded for BIOL 05LA if it has already been awarded for BIOL 020, and vice-versa. It is our understanding that wherever BIOL 05LA appears as a requirement, the 'or BIOL 020' statement should appear as well, so that students who have successfully completed BIOL 020 can use it as a degree requirement for those programs.

The Department of Chemistry has moved forward to separate Organic Chemistry courses into two courses (LEC and LAB) per the Undergraduate Studies Committee's recommendation for 2017 FALL. Also, re numbering the courses to "008" for the Organic Chemistry Lecture Series (CHEM 008A, CHEM 008B, CHEM 008C,) and "08" for the Honors Organic Chemistry Lecture (CHEM 08HA, CHEM 08HB, CHEM 08HC) and Organic Chemistry Labs (CHEM 08LA, CHEM 08LB, CHEM 08LC, CHEM 08HA, CHEM 08HB, CHEM 08HC, CHEM 08HLA, CHEM 08HLB, CHEM 08HLC) in order to comply with BANNER system requirements.

Math 007A/B is the new Calculus for Life Sciences course that runs parallel to Math 009A/B (and has the same placement criteria as well as prerequisites). MATH 007A/B will be considered equivalent in terms

of program requirements and in the progression of the first-year calculus sequence. The content of Math 007A/B significantly overlaps with Math 009A/B; credit is only awarded for either Math 007A or Math 009A, and credit is only awarded for either Math 007B or Math 009B.

Approvals:

Approved by the faculty of the Department of Microbiology:

November 14, 2016

Approved by the Executive Committee of the College of Natural and
Agricultural Sciences:

January 10, 2017

Approved by the Committee on Educational Policy:

May 3, 2017