

This is a planning aid only! See your Academic Advisor for complete information.

Microbiology (SMB) Option

Updated 7.07; 8.08

Grade	Course	Credit Hours	Title
Basic Core Courses (22 credits)			
	BIOL 107	1	Biol Freshman Experience
	BIOL 101	4	Intro to Biology 1
	BIOL 102	4	Intro to Biology 2
	BIOL 243	4	Intro Cell Biology
	BIOL 244	3	Genetics
	BIOL 244L	1	Genetics Lab
	BIOL 316	4	Basic Microbiology
	BIOL 428	1	Senior Seminar
Biology Elective Core Courses – choose 1 (4 credits)			
	BIOL 333	4	Ecology
	BIOL 357	4	Intro Animal Physiology
Microbiology Electives (minimum 12 credits) 300 level or above			
Chemistry (minimum 19 credits)			
	CHM 115	4	Gen Chemistry 1
	CHM 116	4	Gen Chemistry 2
	CHM 255	3	Organic Chemistry
	CHM 255L	1	Organic Chemistry Lab
	CHM 256	3	Organic Chemistry 2
	CHM 256L	1	Organic Chemistry Lab 2
	CHM 333	3	Principles of Biochemistry
Physics (minimum 8 credits)			
	PHYS 220	4	Gen Physics 1
	PHYS 221	4	Gen Physics 2
Mathematics¹/Computer (minimum 12 credits)			
	MA 223	3	Intro Analysis 1 (Calculus)
	MA 224	3	Intro Analysis 2 (Calculus)
	BIOL 330 or STAT 301	3	Biostatistics Elem Stat Method
	Any CS, CIS or ITS	3	CS 342 or CIS 204 or 304 encouraged

² MA 163 and 164 Calculus I and II are geared towards engineering students. They may be used to replace MA 223 and 224

Grade	Course	Credit Hours	Title
English¹/Communication (6-13 credits)			
	ENGL 100 ²	4	English Composition
	ENGL 104	3	English Composition 1
	ENGL 105	3	English Composition 2
	or ENGL 108	3	Accelerated 1 st Yr Composition (replaces ENGL100/104/105)
	COM 114	3	Fndmtls of Speech Comm.

¹ Based on placement evaluation, students may be placed in ENGL 100, 104 or 108.

² With an A or B grade in ENGL 100, student can progress on to ENGL 105 without taking ENGL 104.

Humanities/Social Science Electives (min. 3 credits from each category 15 credits total -see back)			

Free Electives (19-26 credits) can be used for minor study area			

Preparatory Courses (0-12 Credits)			
<i>Based on placement evaluation, students may be placed in the following courses before taking CHM 115 and/or MA 223</i>			
	CHM 100	3	Prep for Gen Chemistry
	MA 021*	0	Beginning Algebra
	MA 115	3	Intermediate Algebra
	MA 153	3	Algebra & Trig 1
	MA 154	3	Algebra & Trig 2
	or MA 159	5	Pre-Calculus (replaces MA 153/154)

*Courses with course numbers below 100 do not count toward your degree. However, these courses will count toward full-time status.

Graduation Checklist:

- ___ 124 credits completed (not including course below 100 level or any F grades)
- ___ C grade or higher in BIOL 101/102 and
- ___ C average in all biology core courses
- ___ C average overall for all biology courses
- ___ 32 credit at the 300 level and above at PUC

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MICROBIOLOGY OPTION

EMS Freshman Advisor

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Biological Sciences Advisors

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SAMPLE Plan of Study

- ✓ The following sample plan of study may or may not apply to you. Please consult your advisor for an individual plan.
- ✓ **You must see your advisor to obtain your PIN each semester before registering for courses.**
- ✓ Please read the **PUC academic catalog** for full details of graduation requirements. The academic catalog is available online at <http://www.calumet.purdue.edu/catalog/>

Fall Semester		Spring Semester		May/Summer Semester
BIOL 107	(1)	BIOL 102	(4)	
BIOL 101	(4)	CHM 116	(4)	
CHM 115	(4)	MA 224 or Prep course	(3)	
MA 223 or Prep course	(3)	ENGL 105	(3)	
ENGL 100 or 104	(4 or 3)	HUMANITIES/SOC SCI Elective	(3)	
Total semester credits	15-16	Total semester credits	17	
BIOL 243	(4)	BIOL 316	(4)	
CHM 255/255L	(4)	CHM 256/256L	(4)	
COM 114	(3)	Computer Elective	(3)	
HUMANITIES/SOC SCI Elective	(3)	HUMANITIES/SOC SCI Elective	(3)	
Free Electives	(1-3)	Free Electives	(1-3)	
Total semester credits	15-17	Total semester credits	15-17	
BIOL 244/244L	(4)	BIOL 330	(4)	
BIOL 333 or 357	(4)	CHM 333	(3)	
PHYS 220	(4)	PHYS 221	(4)	
HUMANITIES/SOC SCI Elective	(3)	HUMANITIES/SOC SCI Elective	(3)	
		Microbiology Elective	(3-4)	
Total semester credits	15	Total semester credits	17-18	
BIOL 561	(3)	BIOL 428	(1)	
Microbiology Elective	(5)	Microbiology or Free Electives	(14-16)	
Free Electives	(7-9)			
Total semester credits	15-17	Total semester credits	15-17	

Humanities and Social Science Credit Requirements: Minimum 3 credits should be in Humanities (philosophy, literature, history, music or creative arts classes) **AND** a minimum 3 credits in any Social Sciences (economics, political science, psychology, or sociology classes). Remaining credits can be from any Humanities/Social Science department.

Recommended Microbiology Elective Courses

BIOL 477 Phycology (3) BIOL 533 Medical Microbiology (3) BIOL 595 Environmental Micro (3-4)
 BIOL 507 Molecular Biology (3) BIOL 534 Med Microbiology Lab (2) BIOL 595 Tissue Culture (3)
 BIOL 508 Recombinant DNA (3) BIOL 561 Immunology (3) BIOL 595 Bioinformatics (3)
 BIOL 524 Microbiology I (3) BIOL 595 Food Microbiology (5) BIOL 495/595 Microbiology Research (1-3)

The National Registry of Microbiologists (NRM) is the organization certifying microbiologists in both clinical and nonclinical specialty areas. Those interested in working in medical or industrial fields are encouraged to become registered. For more information and an application, go to <http://www.asm.org/Academy/index>.