



# Microbiology BS – 2015/16 Catalog

USF BioAdvise - SCA 203 Ph: 813/974-3250 Fax: 813/974-3263 - [bioadvise@usf.edu](mailto:bioadvise@usf.edu), <http://biology.usf.edu/bioadvise>



## CMMB

Cell Biology,  
Microbiology and  
Molecular Biology

### Microbiology Major Requirements: 42 hours total

- Students must receive a C- or better to meet major requirements.
- Cascading Prerequisites are strictly enforced.
- ☐ Students must maintain a 2.0 GPA in all majors' coursework, which is calculated using only USF Biology courses.
- ☐ Students must have **less than 3** D and/or F grades in Biology and supporting science requirement lectures.
- ☐ Students must complete a minimum of 20 hours in Biology at USF Tampa.

#### Microbiology Core Curriculum: 22 hours

<u>Microbiology Core Curriculum: 22 hours</u>			<u>Prerequisite</u>
☐ BSC 2010, 2010L	Cellular Processes & Lab	4hrs	
☐ BSC 2011, 2011L	Biodiversity & Lab	4hrs	
☐ MCB 3020/L	General Microbiology & Lab	4hrs	BSC 2010/L, CHM 2210
☐ MCB 3410	Cell Metabolism	3hrs	BSC 2010/L, CHM 2046
☐ PCB 3023, 3023L	Cell Biology w/Lab	4hrs	BSC 2010/L, CHM 2046
☐ PCB 3063	Genetics	3hrs	BSC 2010/L, CHM 2046

#### Advanced Microbiology Curriculum: 20 hours

Most advanced microbiology courses are not offered every semester. There are no set offerings for summer semesters.

☐ MCB 4115/L	Determinative Bacteriology & Lab (Fall only)	5hrs	MCB 3020/L
☐ MCB 4320	Molecular Microbiology (FA & SP)	3hrs	MCB 3020/L, PCB 3023, PCB 3063
☐ Choose <b>12</b> hours of the following Microbiology Major courses			
○ BCH 3053	Biochemistry	3hrs	BSC 2010/L, CHM 2210
○ BSC 4905	Independent Study	1hr	Contract with faculty member
○ BSC 4933*	Special Topic approved for Micro	3hrs	CI
○ MCB 4933	Special Topics approved for Micro	3hrs	CI
○ BSC 5931	Special Topic approved for Micro	3hrs	CI
○ MCB 4404	Microbial Physiology + Genetics (SP only)	3hrs	MCB 3020/L
○ MCB 4404L	Microbial Physiology + Genetics Lab	1hr	MCB 4404 (Co-Req, can take concurrently)
○ MCB 4503	Virology (Fall Only)	3hrs	MCB 3020/L
○ MCB 4905	Undergraduate Research	1-4 hrs	3.0 GPA, contract with faculty, max 2 credits/semester
○ MCB 4934	Seminar in Microbiology	1hr	MCB 3020/L, CI
○ MCB 5206	Public Health & Path Micro (Summer only)	3hrs	MCB 3020/L, CI
○ MCB 5655	Applied & Env Micro (also BSC 4933)	3hrs	MCB 3020/L, CI
○ PCB 4671	Molecular Evolution (every other Spring)	3hrs	PCB 3063 or CI
○ PCB 4234	Immunology (Fall only)	3hrs	PCB 3023, PCB 3063 or MCB 3020/L
○ ZOO 4753	Human Histology & Histopathology	3hrs	PCB 3063, PCB 3023, CHM 2210

\*Not all BSC 4933 courses count towards this major's electives hours. Check with an Advisor.

**Check BioAdvise permits page for additional Microbiology electives.**

#### Supporting Sciences: 32-34 hours total

<u>Supporting Sciences: 32-34 hours total</u>			<u>Prerequisite grade</u>
• Students must receive a C- or better to meet requirements for degree			
☐ CHM 2045& CHM 2045L	General Chemistry I and Lab	4 hrs.	C (2.0) grade min
☐ CHM 2046 & CHM 2046L	General Chemistry II and Lab	4 hrs.	C (2.0) grade min
☐ CHM 2210 & CHM 2210L	Organic Chemistry I and Lab	5 hrs.	C (2.0) grade min
☐ CHM 2211& CHM 2211L	Organic Chemistry II and Lab	5 hrs.	C (2.0) grade min
☐ <b>One</b> of the General Physics sequences	8 hrs.:		C- or better
○ PHY 2053/L & 2054/L	(non-calculus based, recommended for life science/pre-health majors)		
○ PHY 2048/L & 2049/L	(calculus based – must take MAC 2311 and 2312 math sequence)		
☐ Calc I: MAC 2241 Life Sciences, MAC 2311, or MAC 2281 Engineering	3-4 hrs.		C (2.0) grade min to take Calc II
☐ Calc II or Statistics: MAC 2242, MAC 2312, MAC 2282, or STA 2023	3-4hrs.		C- or better

# Additional USF Degree Requirements

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## General Education Common Core:

- ENC 1101**
- ENC 1102**
- Choose one of the following Social Sciences:** AMH 2020, ANT 2000, ECO 2013, POS 2041, PSY 2012, OR SYG 2000
- Choose one of the following Humanities:** ARH 2000, HUM 1020, LIT 2000, PHI 2010, OR THE 2000

## Foundations of Knowledge and Learning Lower-Level Requirements:

- Social/Behavioral Science** \_\_\_\_\_
- Human/Cultural Diversity in a Global Context** \_\_\_\_\_
- Fine Arts** \_\_\_\_\_
- Humanities** \_\_\_\_\_
- Human Historical Context and Process dimension** (two courses from above must also meet HHCP)  
ENC 1101 \_\_\_\_\_

## Foundations of Knowledge and Learning Upper-Level Requirements:

- Capstone** \_\_\_\_\_
- Writing Intensive** \_\_\_\_\_

## Other University Requirements:

- 120 Hours** – A Bachelor’s Degree requires a minimum of 120 credit hours
- 48 Hour Rule** – All students are required to take at least 48 credits at the 3000+ level. Between your Microbiology major courses and the exit courses you will complete 40 upper level credits. Based on the number of credits you have already taken, you have \_\_\_\_\_ upper level credits remaining, outside of the major and exit courses.
- Summer Rule** – All students who enter USF with fewer than 60 credits are required to take at least 9 credits of course work in the summer at a State University System (SUS) 4-year University.
- GPA Requirement** – Students must earn an Overall 2.0 GPA and USF 2.0 GPA
- USF Residency** – Students must complete 30 of the last 60 credits in USF Tampa coursework
- FLENT** (Foreign Language Entrance Requirement)
- Gordon Rule Communication** – ENC 1101 & ENC 1102 , Writing Intensive and one ‘double-dip’ course



**“BioAdvise at USF” on Facebook for new opportunities within the Biology Field!**

The final responsibility for meeting all graduation requirements stated in the catalog rests with the student. See the USF catalog for a complete list of graduation requirements. <http://www.ugs.usf.edu/catalogs.htm>