

For students joining the program in Spring 2020 or later.

Please read all the requirements below that you must follow in order to graduate. If you have questions about course content or course order, contact your academic advisor, Jacqueline Lee, at jlee9@ufl.edu. If you have questions about registration, admission, or anything else, contact mcsadvising@ifas.ufl.edu.

Required courses

- **Students must complete all four courses listed below, for a total of 11 credits**

Course #	Course Title	Credits	Fall	Spring	Summer
MCB 6940	Career Seminar	1	x	x	Sum A
BSC 6459	Fundamentals in Bioinformatics	3	x		
BCH 5413	Mammalian Molecular Biology and Genetics	3	x	x	Sum C
MCB 5252	Microbiology, Immunology & Basis for Immunotherapeutics	4		x	Sum A

- **Students are required to complete at least one of the courses below**

- Note – GMS6121 and MCB5205 can both be taken and one can count as an elective

Course #	Course Title	Credits	Fall	Spring	Summer
MCB 5205	Microbiology of Human Pathogens	3	x		
GMS 6121	Infectious Disease	3	x	x	Sum C

- **Students are required to complete at least one of the courses below**

- Note – GMS7133 and MCB5505 can both be taken and one can count as an elective

Course #	Course Title	Credits	Fall	Spring	Summer
MCB 5505	Virology	3		x	
GMS 7133	Advanced Molecular Virology (GMS 6121 pre-req)	2	x	x	Sum C

- **Students are required to complete at least three credits of module coursework listed below**

- Note – module courses are offered during shortened periods throughout the semester

Course #	Course Title	Credits	Fall	Spring	Summer
MCB 6772	Advanced Topics in Cell Biology	1		x	
MCB 6355	Microbial/Host Defense	1		x	
MCB 6457	Metabolic Regulation	1		x	
MCB 6937	Methods to Study Prokaryotic Transcriptional Regulation	1		x	
MCB 6417	Microbial Metabolism and Energetics	1	x		
MCB 6317	Molecular Biology of Gene Expression	1	x		
MCB 6318	Comparative Microbial Genomics (BSC 6459 pre-req)	2		x	

- **Students are required to complete at least one of the following:**

Course #	Course Title	Credits	Fall	Spring	Summer
MCB 7922	Journal Colloquy	1	x	x	
GMS 7192	Journal Colloquy – Infectious Disease (take GMS 6121 prior or concurrently)	1	x	x	Sum C
GMS 7192	Journal Colloquy – Bacteriology (take GMS 6108 prior or concurrently)	1	x	x	Sum C

Introductory Course Track

- These 2 courses for 7 credits are required for students in the Introductory Online MS track only. Students with prior experience in Microbiology and Biochemistry do not need to take these courses. Both courses are available as electives (*requires department permission to register*).

Course #	Course Title	Credits	Fall	Spring	Summer
MCB 6937	Biology of Microorganisms	3	x	x	Sum A
GMS 5905	Fundamentals in Biochemistry	4	x	x	Sum C

Elective Courses

- Students must complete 9-10 elective credits in order to graduate

Course #	Course Title	Credits	Fall	Spring	Summer
MCB 6937	Advanced Bacterial Genetics	3	x		
MCB 6937	Microbial Applications of Synthetic Biology	3	x		
MCB 6937	Bacterial Physiology	3	x		
MCB 6781	Extremophiles	3	x		
MCB 6937	Human Genomics	3	x		
MCB 6656	Environmental Microbiology	3	x		
MCB 6937	Applied Artificial Intelligence in the Life Sciences	3	x		
GMS 6108	Bacterial Physiology, Antibiotics, and Genetics (GMS 6121 or MCB 5205 pre-req)	3	x	x	Sum C
MCB 6937	Antimicrobial Resistance	3	x	x	
MCB 6937	Molecular Genetics	3		x	Sum C
PCB 5235	Immunology	3		x	
GMS 6132	Introductory Gene and Immunotherapy (GMS 6121 or MCB 5205 pre-req)	2	x	x	x
MCB 6424	Probiotics	3		x	
MCB 6670c	The Microbiome	3		x	
MCB 5705	Astrobiology	3		x	
MCB 6937	Post Translational Modifications in Microbiology	2			Sum C
MCB 6151	Prokaryotic Diversity	3			Sum C

Graduation

- Students must take at least 3 credits in the final fall/spring (2 in summer) semester to graduate.
- 30 credits are required to complete the degree (37 credits required in introductory online MS track).
- Only courses completed with a grade of C or higher can be counted towards the degree.
- You must maintain both a 3.0 overall GPA and 3.0 major GPA (MCB, PCB, or BSC prefix) in order to graduate.
- 15 credits must be completed in major courses with a MCB, PCB, or BSC prefix.
- Satisfactorily complete a comprehensive examination in the last semester of coursework:
https://microbiologyonline.ifas.ufl.edu/wp-content/uploads/MS_final_exam_instructions.pdf