UF FLORIDA

College of Agricultural and Life Sciences Department of Microbiology and Cell Science

Please read the requirements below that you must follow to graduate. If you have questions about admission, course planning, or registration contact your academic advisor at <u>mcsadvising@ifas.ufl.edu</u>.

Graduation Requirements

- Students must take at least three credits in the final fall/spring (two credits in summer) semester to graduate.
- Thirty 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.
- Students must maintain both a 3.0 overall GPA and 3.0 major GPA to graduate.
 - A lower GPA will result in academic probation and possible dismissal from the program
- Fifteen credits must be completed in major courses with a MCB, PCB, or BSC prefix.
- Satisfactorily complete MCB 7922 Final Literature Review in the last semester of coursework: <u>http://microbiologyonline.ifas.ufl.edu/student-resources/graduation-info/</u>

Required courses

- Students are required to complete at least <u>ONE</u> of the following:
 - Note GMS 6121 and MCB 5205 can both be taken and one can count as an elective

Course #	Course Title Text		Credits	Fall	Spring	Summer
MCB 5205	Microbiology of Human Pathogens (Pre-Req: microbiology course)	3	\checkmark	\checkmark	
GMS 6121	Infectious Disease (Pre-Req: biochemistry course)		3	\checkmark	\checkmark	Sum C**

• Students are required to complete at least <u>ONE</u> of the following:

• Note – GMS 7133 and MCB 5505 can both be taken and one can count as an elective

Course #	Course Title	Credits	Fall	Spring	Summer
MCB 5505	Virology (Pre-Req: microbiology course)	3	\checkmark	\checkmark	Sum C**
	Advanced Molecular Virology (Pre-Req: passing grade in GMS6121)	2	\checkmark	\checkmark	Sum C**

• Students are required to complete at least <u>ONE</u> of the following:

o Note - taking up to 2 additional journal courses can count as electives (maximum 3 credits total)

Course #	Course Title	Credits	Fall	Spring	Summer
MCB 7922	Journal Colloquy – (topic announced each semester) (Pre-Req: none)	1	\checkmark	\checkmark	Sum C**
GMS 7192	Journal Colloquy – Infectious Disease (Pre-Req: none)	1	\checkmark	\checkmark	Sum C**
GMS 7192	Journal Colloquy – Bacteriology (Pre-Req: none)	1	\checkmark	\checkmark	Sum C**
GMS 7192	Journal Colloquy – COVID-19 (Pre-Req: none)	1	\checkmark	\checkmark	Sum C**

• Students are required to complete <u>ALL THREE</u> of the courses listed below

Course #	Course Title	Credits	Fall	Spring	Summer
BSC 6459	Fundamentals in Bioinformatics (Pre-Req: molecular biology or biochemistry		\checkmark		
	course)				
BCH 5413	Mammalian Molecular Biology and Genetics (Pre-Req: molecular biology or	3	\checkmark	\checkmark	Sum C**
	biochemistry course)				
MCB 7922	Final Literature Review (must be taken in final semester)	1	\checkmark	\checkmark	Sum C**

Elective Courses

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Remaining credits must come from elective courses (required and elective credits must total 30 to be eligible to graduate)

•	Note – module courses	are offered during s	shortened periods (throughout the semester	
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Course #	Course Title	Credits	Fall	Spring	Summer
MCB 6796	Microbiological Data Analysis (Pre-Req: microbiology course)	3	\checkmark		
BSC 6895C	AI in Agriculture and Life Sciences (Pre-Req: microbiology course)	3	\checkmark		
MCB 6407	Prokaryotic Cell (Pre-Req: courses in microbiology and biochemistry)	3	\checkmark		
MCB 6937	Synthetic Biology (Pre-Req: microbiology course)	3	\checkmark		
MCB 6656	Environmental Microbiology (Pre-Req: microbiology course)		\checkmark		
MCB 6937	Fundamentals in Molecular Genetics (Recommended for those with limited	3	\checkmark		
	molecular biology background)				
MCB 6417	Microbial Metabolism and Energetics (module) (Pre-Req: biochemistry course)	1	\checkmark		
MCB 6095	Microbiology Careers (Pre-Req: none)	1	\checkmark	\checkmark	Sum B***
MCB 6096	Innovation Project Management (Pre-Req: none)	1	\checkmark	\checkmark	Sum B***
GMS 6108^	Bacterial Physiology, Antibiotics and Genetics (Pre-Req: grade of B+ in GMS6121)	3	\checkmark	\checkmark	Sum C**
GMS 6109^	Advanced Bacteriology (Pre-Req: passing grade in GMS6121)	2	\checkmark	\checkmark	Sum C**
GMS 6132	Introductory Gene and Immunotherapy (Pre-Req: passing grade in GMS6121)	2	\checkmark	\checkmark	Sum C**
MCB 5270	Antimicrobial Resistance (Pre-Req: microbiology course)	3	\checkmark	\checkmark	
MCB 6937	Regulatory Aspects of Microbiome-Based Therapies (Pre-Req: MCB6424 or MCB4422)	1	\checkmark	~	
MCB 6937	Advanced Molecular Genetics (Pre-Req: molecular genetics course)	3		\checkmark	
MCB 5252	Microbiology, Immunology & Basis for Immuno-				
	Therapeutics (Recommended for those with limited microbiology and immunology	4		\checkmark	Sum A*
	background)				
MCB 6772	Advanced Topics in Cell Biology (module) (Pre-Req: microbiology course)	1		\checkmark	
MCB 6355	Microbial/Host Defense (module) (Pre-Req: immunology course)	1		\checkmark	
MCB 6937	Methods to Study Prokaryotic Transcriptional Regulation (module) (Pre-Req:	1		\checkmark	
	microbiology course)				
MCB 6318	Comparative Microbial Genomics (module) (Pre-Req: grade of A- in BSC6459)	2		✓	
PCB 6667	Human Genomics (Pre-Req: microbiology course)	3		✓	
MCB 6326	Computational Genomics and Epigenomics (Pre-Req: microbiology course)	3		\checkmark	
PCB 5235	Immunology (Pre-Req: microbiology course)	3		\checkmark	
MCB 5705	Astrobiology (Pre-Req: microbiology course)	3		\checkmark	
MCB 6424	Probiotics (Pre-Req: microbiology course)	3		\checkmark	
MCB 6670C	The Microbiome (Pre-Req: microbiology course)	3		\checkmark	Sum C**
MCB 6937	Python Programming (Pre-Req: microbiology course)	3		\checkmark	
MCB 6458	Post Translational Modifications in Microbiology (Pre-Req: microbiology course)	2			Sum C**
MCB 6151	Prokaryotic Diversity (Pre-Req: microbiology course)	3			Sum C**
MCB 6937	Microbial Multicellularity (Pre-Req: passing grade in MCB5205)	2			Sum C**

Introductory Course Track

• These two courses are required in addition to the standard 30 credits for students in the <u>Introductory</u> <u>Online MS track only</u>. It will be noted in your admission email if you are required to take either of these courses.

Course #	Course Title	Credits	Fall	Spring	Summer
MCB 6937	Biology of Microorganisms	3	\checkmark	\checkmark	Sum A*
BCH 5404	Fundamentals of Biochemistry and Molecular Biology	4	\checkmark	\checkmark	Sum C**

* Sum A refers to the first six-week summer session, mid-May through late June

** Sum C refers to the 12-week summer session, mid-May through early August

***Sum B refers to the second six-week summer session, early July through early August

^ Students may not take both GMS6108 and GMS6109; students may take either GMS6108 or GMS6109