



Burnett School of Biomedical Sciences

Bachelor of Science in Biomedical Sciences

Molecular Microbiology Track

Catalog Year 2019-2020

I. University Requirements

- UCF General Education Program (36 hrs)

II. Departmental Requirements (82 hrs)

- SLS 2311C Overview of Select Medical Careers 2 hrs
**Recommended for pre-professional students*

A. Core Curriculum (69 hrs)

Life Sciences

- BSC 2010C Biology I 4 hrs
- PCB 4280 **-OR-** PCB 3233 Molecular Immunology or Immunology 3 hrs
- PCB 3233L Immunology Lab 1 hr
- MCB 3020C General Microbiology 5 hrs
- BSC 3403C Quantitative Biological Methods 4 hrs
- PCB 3522 Molecular Biology I 3 hrs
- PCB 4524 Molecular Biology II 3 hrs
- MCB 4201 Microbial Stress Response 3 hrs
- MCB 4204 Cellular Microbiology: Host-Pathogen Interactions 3 hrs
- MCB 4404 Bacterial Genetics and Physiology 3 hrs
- MCB 4414 Microbial Metabolism 3 hrs

Chemistry

- CHM 2045C Chemistry Fundamentals I 4 hrs
- CHM 2046 Chemistry Fundamentals II 3 hrs
- CHM 2046L Chemistry Fundamentals II Lab 1 hr
- CHM 2210 Organic Chemistry I 3 hrs
- CHM 2211 Organic Chemistry II 3 hrs
- CHM 2211L Organic Laboratory Techniques I 2 hrs
- BCH 4053 **-OR-** BCH 4024 Biochemistry I or Medical Biochemistry 3 hrs/4 hrs

Math

- MAC 2311C Calculus with Analytic Geometry I 4 hrs
Prerequisites: MAT 1033C, MAC 1105C, MAC 114C, MAC 1140C
- STA 2023 Statistical Methods I 3 hrs

Physics

- PHY 2048C **-OR-** PHY 2053C General Physics Using Calculus I or College Physics I 4 hrs
- PHY 2049C **-OR-** PHY 2054C General Physics Using Calculus II or College Physics II 4 hrs

B. Upper Division Restricted Electives (11 hrs)

Must take at least **3 restricted elective courses** (at least 2 must have a lab component and only 1 can be chosen from the full list of Biomedical Sciences restricted electives).

- BOT 4434C General Mycology
- MCB 3202 Principles of Infectious Disease
- MCB 3203+L Pathogenic Microbiology + Lab
- MCB 4207 Infectious Processes
- MCB 4276 Epidem of Infectious Diseases
- MCB 4503C Virology
- MCB 4603 Environmental Microbiology
- MCB 4721C Methods in Biotechnology
- PCB 4028 Molecular and Cellular Pharmacology
- PCB 4284 Immunobiology

Note: Participating in AIM, GEAR, HUT (formerly HIM), PILOT, or PURE will substitute for one restricted elective.

III. Unrestricted Electives: University requirement 3000 level or above (3-9 hrs)

See the "Unrestricted Electives" sheet for suggestions.

	Course	Credit Hours
Unrestricted Elective #1		



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Suggested Plan of Study**

Freshman Year				
Fall		Spring		Summer
CHM 2045C	4 hrs	BSC 2010C	4 hrs	Plan your 9 required summer hours into your course of study.
ENC 1101	3 hrs	CHM 2046	3 hrs	
MAC 1105C	3 hrs	CHM 2046L	1 hr	
GEP #9	3 hrs	ENC 1102	3 hrs	
		MAC 1114C	3 hrs	
		SLS 2311C*	2 hrs	
Total	13 hrs	Total	14-16 hrs	
*Recommended for pre-professional students pursuing any of the following fields: <i>Chiropractic, Dental, Medical, Optometry, Pharmacy, Podiatry, Veterinary</i>				

Sophomore Year				
Fall		Spring		Summer
CHM 2210	3 hrs	BSC 3403C	4 hrs	
MAC 1140C	3 hrs	CHM 2211	3 hrs	
MCB 3020C	5 hrs	CHM 2211L	2 hrs	
GEP #4	3 hrs	MAC 2311C	4 hrs	
		GEP #5	3 hrs	
Total	14 hrs	Total	16 hrs	

Junior Year				
Fall		Spring		Summer
BCH 4053 or BCH 4024	3/4 hrs	PCB 3233L	1 hr	
PHY 2053C or PHY 2048C*	4 hrs	PCB 3522	3 hrs	
Restricted Elective	3/4 hrs	PCB 4280 or PCB 3233	3 hrs	
GEP #10	3 hrs	PHY 2054C or PHY 2049C*	4 hrs	
		Restricted Elective	3/4 hrs	
Total	13-15 hrs	Total	14-15 hrs	
*Students enrolling in PHY 2048C/2049C must accommodate taking MAC 2311C/2312 as prerequisites				

Senior Year				
Fall		Spring		Summer
GEP #6	3 hrs	MCB 4204	3 hrs	
MCB 4201	3 hrs	MCB 4404	3 hrs	
MCB 4414	3 hrs	STA 2023	3 hrs	
PCB 4524	3 hrs	SPC 1603C* or SPC 1608	3 hrs	
Restricted Elective	3/4 hrs	3000-Level Elective	3/4 hrs	
Total	15-16 hrs	Total	15-16 hrs	
*Recommended				

**Burnett School of Biomedical Sciences
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