

**Microbiology (MIC) Theme  
Academic Requirements**

COURSES	PLANNED	COMPLETED
<b>Lab Rotations</b>		
GBS 795 – Lab Rotation 1 (1 hour)	1 <sup>st</sup> Fall	
GBS 796 – Lab Rotation 2 (1 hour)	1 <sup>st</sup> Fall	
GBS 797 – Lab Rotation 3 (1 hour)	1 <sup>st</sup> Spring	
GBS 794 – Lab Rotation 4 (1 hour), if needed	1 <sup>st</sup> Summer	
<b>Core Courses</b>		
GBS 707- Basic Biochemistry and Metabolism (2 hours)	1 <sup>st</sup> Fall	
GBS 708- Basic Genetics and Molecular Biology (2 hours)	1 <sup>st</sup> Fall	
GBS 709- Basic Biological Organization (2 hours)	1 <sup>st</sup> Fall	
GBS 701- Core Concepts in Research: Critical Thinking/Error Analysis (1 hr)	1 <sup>st</sup> Fall	
<b>Module Courses- Exceptions require approval of theme director</b>		
GBS 760- Prokaryotic Genetics & Molecular Biology (January, 2 hours)	1 <sup>st</sup> Spring	
GBS 762- Virology (February, 2 hours)	1 <sup>st</sup> Spring	
GBS 764- Intro to Structural Biology Methods (March, 2 hours)	1 <sup>st</sup> Spring	
GBS 763- Microbial Pathogenesis (April, 2 hours)	1 <sup>st</sup> Spring	
<b>Theme Required Courses</b>		
GBSC 742.VTF- MIC Student Theme Meeting (1 hour) <i>-Attend in 1<sup>st</sup> year, but do not register</i>	Every fall & spring, 2 <sup>nd</sup> year to graduation	
<b>GBS Required Courses</b>		
GRD 717- Principles of Scientific Integrity (3 hours)	1 <sup>st</sup> Summer	
Grant-writing/Scientific-writing (2 hours) <i>-GBS 768: Communicating Science</i>	1 <sup>st</sup> Summer	
Biostatistics (3 hours) <i>-Course selected: GRD 770, BST 611, BST 612, BY 755, PY 716</i>	2 <sup>nd</sup> year	
Journal Clubs (1 hour) <i>-Chosen in consultation with mentor</i>	Every fall & spring, 2 <sup>nd</sup> year to graduation	
Three Advanced Courses (3 hours each) <i>-Chosen in consultation with mentor and thesis committee</i>		
Research (Non-dissertation & Dissertation) <i>-Student must complete 24 hours total of dissertation research</i>	Every semester beyond lab rotations	

**Notes:**

- Seminars- Attend weekly Department of Microbiology or other seminar, but do not register
- Students must be registered for 9 hours each semester, for a total of 27 hours per year. Equity and Diversity Scholars must register for 32 hours total per year. Any hours over must be approved by the program.
- Must obtain permission of Mentor and Theme Director to register for Career Development Courses (e.g., GRD & CIRTLL).
- Students must be admitted to candidacy for a minimum of 1 year before the thesis defense

**Additional Theme Requirements:**

- Publications: At least two accepted or published first author papers
- Presentations: At least one presentation at a national or international scientific meeting