

**Cell, Molecular, & Developmental Biology (CMDB) Theme
Academic Requirements**

COURSES	PLANNED	COMPLETED
Lab Rotations		
GBS 795- Lab Rotation 1 (1 hour)	1 st Fall	
GBS 796- Lab Rotation 2 (1 hour)	1 st Fall	
GBS 797- Lab Rotation 3 (1 hour)	1 st Spring	
GBS 794- Lab Rotation 4 (1 hour), if needed	1 st Summer	
Core Courses		
GBS 707- Basic Biochemistry and Metabolism (2 hours)	1 st Fall	
GBS 708- Basic Genetics and Molecular Biology (2 hours)	1 st Fall	
GBS 709- Basic Biological Organization (2 hours)	1 st Fall	
GBS 701- Core Concepts in Research: Critical Thinking/Error Analysis (1 hr)	1 st Fall	
Module Courses- Recommended by theme		
GBS 710- Cell Signaling (January, 2 hours)	1 st Spring	
GBS 712- Cellular & Molecular Aspects of Dev Bio (February, 2 hours)	1 st Spring	
GBS 723- Model Systems (March, 2 hours)	1 st Spring	
GBS 784- Stem Cell Biology (April, 2 hours)	1 st Spring	
Theme Required Courses		
GBS 792- CMDB Seminar (1 hour) <i>-Attend in 1st year, but do not register</i>	Every fall & spring, 2 nd year to graduation	
GBS Required Courses		
GRD 717- Principles of Scientific Integrity (3 hours)	1 st Summer	
Grant-writing/Scientific-writing (2 hours) <i>-Course selected: GBS 716, GBS 725, GBSC 726, GRD 709</i>		
Biostatistics (3 hours) <i>-Course selected: GRD 770, BST 611, BST 612, BY 755, PY 716</i>	2 nd year	
Journal Clubs (1 hour) <i>-Chosen in consultation with mentor</i>	Every fall & spring, 2 nd 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:

- Students must be registered for 9 hours each semester, for a total of 27 hours per year. Any hours over must be approved by the program.
- Students must be admitted to candidacy for a minimum of 1 year before the thesis defense

Additional Theme Requirements:

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