

**Cell, Molecular, & Developmental Biology (CMDB) Theme- MSTP/ARISE
2018-2019 Academic Requirements**

COURSES	PLANNED	COMPLETED
Module Courses- recommended by theme		
GBS 710- Cell Signaling (January, 2 hours)	MS2 Spring	
GBS 712- Cellular and Molecular Aspects of Developmental Biology (February, 2 hours)	MS2 Spring	
GBS 714- Developmental Neuroscience (March, 2 hours)	MS2 Spring	
GBS 784- Stem Cell Biology (April, 2 hours)	MS2 Spring	
Theme Required Courses		
GBS 717- Methods and Scientific Logic (2 hours)	GS1 Summer	
GBS 792- CMDB Seminar or any JHS Seminar (1 hour)	Fall & Spring	
GBSC 742.VTC- CMDB Student Theme Meeting (1 hour)	Fall & Spring	
GBS Required Courses		
GRD 717- Principles of Scientific Integrity (3 hours)	GS1 Fall	
Grant-writing/Scientific-writing (2 hours) - Course selected: GBS 716, GBS 725, GBS 768, GBSC 726		
Biostatistics (3 hours) -Course selected: GBSC 731, BST 611, BST 612, BST 622	GS1 Fall	
Journal Clubs (1 hour) -Chosen in consultation with mentor	Fall & Spring	
Three Advanced Courses (3 hours each) -Chosen in consultation with mentor and thesis committee		
MSTP/ARISE Required Courses		
MSTP 794- Translational Research Seminar (1 hour) -MSTP Requirement	Fall, Spring, & Summer	
MSTP 795- Continuing Clinical Education (1 hour) -MSTP Requirement	Fall & Summer	
Research -MSTP- MSTP 798: Non-dissertation & MSTP 799: Dissertation -ARISE- PSDO 798: Non-dissertation & PSDO 799: Dissertation -Student must complete 24 hours total of dissertation research	Fall, Spring, & Summer	

Notes:

- Students must be registered for 9 hours each semester. Any hours over must be approved by the MSTP/ARISE Director.
- Must obtain permission of Thesis Mentor, Theme Director, and MSTP/ARISE Director to register for Career Development courses (e.g., GRD and CIRTL)
- Students must be admitted to candidacy for a minimum of 1 year before the thesis defense

Additional MSTP/ARISE Requirements:

- Submission of F30/F31 **on or before** April of GS2 Year (MSTP Requirement)
- Committee Meetings held every 6 months

Additional Theme Requirements:

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