Quantitative Biology Track Worksheet

20____

SID _____

Student: _____

	MCDB	BS & BS INT

Research Lab Mentor: _____

MCDB Faculty Advisor: _____

BIOL Prerequisites:	Placement Exam Score	Course #	Semester	Grade	Place Out
BIOL 101 Biochemistry and Biophysics		BIOL 101			
BIOL 102 Prin of Cell Biology & Membrane Phys		BIOL 102			
BIOL 103 Genes and Development		BIOL 103			
BIOL 104 Prin of Ecology & Evolutionary Biology		BIOL 104			

GEN CHEM Prerequisites:	Course #	Semester	Grade	Place Out
General Chemistry				
(2 terms -161/165; or 163/167; or its equivalent)				
General Chemistry Labs				
(2 terms - 134L/136L)				

ORG CHEM Prerequisites *(BS & BS/INT only)*	Course #	Semester	Grade	
Organic Chemistry *(1 term - 174a; or 175b; or 220a)*				
Organic Chemistry Lab *(1 term - 222L; or 223L; or 226L)*				
(BS/BS INT only: Completion of the Freshman Organic Chemistry sequence 174/175 and 222L/223L satisfies all of the Chemistry prerequisites for the MCDB major)				

PHYSICS Prerequisites:	Course #	Semester	Grade	Place Out
Physics *(170/171; or180/181; or 200/201; or 260/261)*				
BS & BS INT: 2 terms				

MATH Prerequisites:	Course #	Semester	Grade	Place Out
Math 115 or higher *(1 term - not including Math 190)*				

CORE COURSES: *(BS & BS INT - Choose any 3)*		Course #	Semester	Grade
MCDB 200b Molecular Biology	MCDB 290b Microbiology			
MCDB 202a Genetics	MCDB 310a Physiological Systems			
MCDB 205b Cell Biology	MCDB 320a Neurobiology			
MCDB 210a Developmental Biology	MCDB 430a Biology of the Immune System			
EITHER: MCDB 300b Biochemistry **OR:** MB&B 300a Principles of Biochemistry I				

GENERAL ELECTIVES: *(2 Total)*		Course #	Semester	Grade
Required Track Course: MCDB 261b Intro Dynamical Systems in Biology				
(Choose 1 additional elective below)				
MCDB 320a Neurobiology	MATH 251b Stochastic Processes			
MCDB 361a *Dynamical Systems in Biology	MBB 302b Principles of Biophysics			
BENG 467b Systems Biology Cell Signaling	MBB 435a Mathematical Methods Biophysics			
CENG 320a Immunoengineering	MBB 452a Bioinformatics: Mining & Simulation			
CPSC 440b Numerical Computation	MBB 523b Biological Physics			
CPSC 475a Comp Vision & Bio Perception	PHYS 402b Advanced Classical Physics			
MATH 246a Ordinary Differential Equations				
* Prreferred Track Elective				

SPECIAL ELECTIVE:	Course #	Semester	Grade
BS & BS INT: Choose 1 from MCDB 350 or above			

LABS:	Course #	Semester	Grade
BS & BS INT: Choose 2 labs (must be from MCDB)			

SENIOR REQUIREMENT:		Course #	Semester	Grade
BS: *(2 terms of Research)*				
MCDB 475 a or b	Independent Research MCDB			
MCDB 485/486	Senior Requirement MCDB BS Major			
*MCDB 485/486 is preferred - but 2 terms of MCDB 475 (+ summer) will satisfy this req				
BS INT: *(2 terms of Intensive Research)*				
MCDB 495/496	Senior Requirement MCDB BS INT Major			