

Quantitative Sciences Major Checklist: Biology

Name:

ID #:

Academic Advisor:

Date:

Core Courses

Required for all QSS majors in the Biology track

AP Credit may not be substituted for CHEM 150 / CHEM 202 or for PHYS 151 / PHYS 152

Course number & title			Semester & Year	Grade	Credits
MATH	111	Calculus I			
QTM	110	Introduction to Scientific Methods			
QTM	120	Math for Quantitative Sciences			
QTM	150†	Intro to Statistical Computing I			
QTM	151†	Intro to Statistical Computing II			
QTM	210	Probability & Statistics			
QTM	220	Regression Analysis			
BIOL		Foundations of Modern Biology I			
BIOL		Foundations of Modern Biology II			
CHEM					
PHYS		Physics for Science & Engineering			

*Previously numbered CHEM 141 and CHEM 142

† Required for students who declare QSS Fall 2017 and after; highly recommended for students who declared prior to Fall 2017

Elective Courses

QTM electives include 300- and 400-level lecture and seminar style classes

BIOL electives must be selected from the table on the following page and can include the required courses of the track option not chosen

Course number & title			Semester & Year	Grade	Credits
QTM					
QTM					
QTM					

Choose either Track 1 or Track 2

Track 1: Neurobiology

Course number & title			Semester & Year	Grade	Credits
BIOL	360	Introduction to Neurobiology			
BIOL	450	Computational Neuroscience			

Track 2: Population Biology, Ecology, & Evolution (PBEE)

Course number & title			Semester & Year	Grade	Credits
BIOL	241	Evolutionary Biology			
BIOL	247	Ecology			



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Expected Graduation:
Semester & Year

Total credit hours completed:
124 academic credit hours + 2 PE + HLTH100
needed for graduation

Credits toward QSS:
50+ needed to earn degree

QSS Biology Track Electives

Acceptable elective courses are listed below

PHYS/BIOL 212	Computational Modeling in the Sciences	BIOL/CHEM 330	Chemistry, Biology, & Molecular Modeling
BIOL 223	Developmental Biology	BIOL 336	Human Physiology
BIOL 241	Ecology	BIOL 360	Introduction to Neurobiology
BIOL 247	Evolution	PHYS 434	Physical Biology
BIOL 250	Cell Biology	CHEM 435	Molecular Simulation Chem Bio
BIOL 264	Human Genetics	BIOL 450	Computational Neuroscience
BIOL 301	Biochemistry	BIOL 455	Immunology & Disease
NBB 302	Behavioral Neuroscience	BIOL 463	Population Biology & Evolution of Disease

Note

Other Biology-related elective classes may be taken in consultation with a **Biology faculty advisor**. Students can also consider other combinations of the 4 elective classes, outside of the Neurobiology and PBEE options described above. This can be planned with guidance from **track advisors**.

Biology Faculty Advisors for QSS Students

- Rustom Antia
- Dieter Jaeger
- Ilya Nemenman
- Jaap de Roode
- Gordon Berman
- Bruce Levin
- Astrid Prince Jaap de Roode
- Sam Sober
- Ronald Calabrese
- Robert Liu
- Leslie Real

