

Student ID: _____
 Student Name: _____
 Adviser Name: _____

Catalog: Semester Catalog 2016-2017
 Program: Minor in Bioinformatics and Computational
 Biology (BINF)
 Minimum Credits Required: _____

Minor in Bioinformatics and Computational Biology (BINF)

The Bioinformatics and Computational Biology (BINF) minor creates a strong foundation in knowledge and applications of software programs and databases commonly used by bioinformaticists and computational biologists. The student will gain an understanding of how bioinformatics data are organized and utilized to gain insights into molecular life science. The BINF minor trains students in the fundamentals of design of algorithms and implementation of computer programs that analyze biological data.

A total of 19 units are required. Successful completion requires a 2.0 overall grade point average in the BINF minor, good academic standing, and completion of all minor courses by the time students earn their baccalaureate.

Requirements for the Minor (19 units)

Lower Division Required Courses (8 units)

Course Name	Credits:	Term Taken	Grade	Gen Ed
BIOL 1100 - Principles of Biology I	(5)			
CS 2011 - Introduction to Programming I	(3)			
or				
CIS 2830 - Introduction to Application Programming	(3)			

Upper Division Required Courses (7 units)

Probability or Statistics Required Course (3 units)

(Select 3 units from the following)

Course Name	Credits:	Term Taken	Grade	Gen Ed
BIOL 3000 - Biostatistics	(3)			
ECON 3090 - Applied Business and Economic Statistics II	(3)			
MATH 4740 - Theory of Probability	(3)			

BINF Required Courses (4 units)

Course Name	Credits:	Term Taken	Grade	Gen Ed
BINF 4000 - Bioinformatics and Computational Biology	(3)			
BINF 4500 - Advanced Topics in Bioinformatics and Computational Biology	(1)			

Upper Division Electives (4 units)

Course Name	Credits:	Term Taken	Grade	Gen Ed
BINF 4010 - Data Mining Applications in Molecular Life Sciences	(2)			
BINF 4020 - Phylogenomic Analysis	(2)			
BINF 4540 - Special Topics in Bioinformatics	(1-3 units)			

Note

With advisor approval, other programming courses may fulfill the lower division programming requirement. With advisor approval, upper division probability or statistics courses from other disciplines may fulfill the probability or statistics course requirement. With advisor approval, students may select other available upper division courses in bioinformatics and computational biology to substitute for one or more electives listed above.

Notes:

