

BIOINFORMATICS MINOR

Bioinformatics is a rapidly expanding interdisciplinary field focused on collecting, processing, and analyzing vast amounts of biological and biomedical data and has become an indispensable component of biomedical research. The Minor in Bioinformatics offers an opportunity for students majoring in other disciplines to acquire the foundations of the field and add in-demand skills to their portfolio.

Requirements

Prerequisites ¹

Code	Title	Credits
CIST 1400	INTRODUCTION TO COMPUTER SCIENCE I	3
BIOL 1450	BIOLOGY I	5
Total Credits		8

Required Courses

Code	Title	Credits
Core Courses ¹		
BIOI 1000	INTRODUCTION TO BIOINFORMATICS	3
BIOI 2000	FOUNDATIONS OF BIOINFORMATICS	3
BIOI 3000	APPLIED BIOINFORMATICS	3
Elective Courses ¹		
Select 9 hours from the following:		9
BIOI 3500	ADVANCED BIOINFORMATICS PROGRAMMING	
BIOI 4500	INDEPENDENT STUDY ²	
BIOL 4050	SUPERVISED RESEARCH IN BIOLOGY ²	
BIOI 4860	BIOINFORMATICS ALGORITHMS	
BIOI 4870	DATABASE SEARCH AND PATTERN DISCOVERY IN BIOINFORMATICS	
BIOI 4890	COMPUTERIZED GENETIC SEQUENCE ANALYSIS	
BIOI 4950	SPECIAL TOPICS IN BIOINFORMATICS	
BIOI 4970	SENIOR PROJECT IN BIOINFORMATICS I	
BIOI 4980	SENIOR PROJECT IN BIOINFORMATICS II	
BIOL 2140	GENETICS	
BIOL 3020	MOLECULAR BIOLOGY OF THE CELL	
BIOL 4130	MOLECULAR GENETICS	
BIOL 4140	CELLULAR BIOLOGY	
CSCI/MATH 4150	GRAPH THEORY & APPLICATIONS	
CSCI 4850	DATABASE MANAGEMENT SYSTEMS	
Total Credits		18

¹ Students are responsible for completing the prerequisites for all courses taken for the Bioinformatics minor.

² The number of combined credits from BIOI 4500 and BIOL 4050 cannot exceed 3.