

## **Graduate Certificate in Bioinformatics**

### **Director and Contact Information**

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### **Broad Description of Program**

This certificate program will provide bioinformatics training for students from diverse backgrounds with interests in applications of mathematics and computer programming in biology. With an interdisciplinary approach, students will be introduced to the use of computational skills, mathematical modeling, and computing techniques to study biology relevant to basic and biomedical sciences in agricultural, environmental, or health-related areas. The training is appropriate for those who have taken introductory courses in biology, mathematics, and computer programming during their undergraduate studies.

### **Criteria for Admittance**

Admission to the program requires admission to the graduate school. Prerequisites to admission include Molecular Cell Biology (BIOL 3314), Elementary Data Structures (CS 2401), and Elementary Statistical Methods (STAT 2480), or equivalents, with a minimum grade of "B" in each course.

### **Courses**

This certificate program requires completion of 15 credit hours of courses: Bioinformatics I (BINF 5351), Bioinformatics II (BINF 5352), plus 6 credit hours of elective courses from the prescribed list below, and a 3-credit hour free elective course approved by the graduate advisor.

BINF 5110, 5111, 5112, 5113, 5341, 5354  
BIOL 5316, 5326, 5329, 5340, 5342, 5343, 5344  
CHEM 5329, 5339, 5342  
CS 4342, 5341, 5350, 5351, 5353, 5383  
MATH 5330, 5335  
STAT 5329, 5336, 5386, 5388, 5390, 5391, 5392, 5428