Bioinformatics Ph.D. Minor

The purpose of the Ph.D. Minor in Bioinformatics is to lay a foundation in bioinformatics knowledge, methods, and techniques to solve practical biological problems for current Ph.D. students from other disciplines at IUPUI. This minor will assist graduate students with a background in biology, computer science, or another basic science to gain additional interdisciplinary training that is useful for research in their own discipline.

Admission Requirements

To be admitted to the Ph.D. minor in Bioinformatics, students must be currently enrolled as a doctoral student in good academic standing in any IU or Purdue school. Students in other departments of the School of Informatics and Computing at IUPUI are also welcome to apply.

Application Procedure

Students who would like to apply to the Ph.D. minor in Bioinformatics must submit via email to Elizabeth Bunge (ebunge@iupui.edu) an application package (PDF) containing a

- Resume, including an indication of the IU or Purdue Ph.D. program in which the student is currently enrolled
- University student ID
- Personal statement (1 page)
- A brief message from the student's primary advisor who approves the student's request

Accepted students will be notified promptly.

Plan of Study (12 cr.)

The Ph.D. Minor in Bioinformatics is a 12-credit hour program.

Required Course (3 cr.)

- INFO B519 Introduction to Bioinformatics (3 cr.)

Specialization Courses (9 cr.)

Select nine credit hours of the following:

- INFO B529 Machine Learning in Bioinformatics (3 cr.)
- INFO B556 Biological Database Management (3 cr.)
- INFO B573 Programming for Chem/Life Science (3 cr.)
- INFO I590 High Throughput Data in Biology (3 cr.)
- INFO I590 Next Generation Sequencing (3 cr.)
- INFO I590 Computational Methods for Analyzing High-Throughput Data in Biomedicine (3 cr.)
- INFO I590 Topics in Informatics (1 cr.)
- INFO B619 Structural Bioinformatics (3 cr.)
- INFO B636 Next Generation Genomic Data Analytics (3 cr.)
- INFO B646 Computational System Biology (3 cr.)
- INFO B656 Translational Bioinformatics Applications (3 cr.)
- INFO B698 Research in Informatics (1–3 cr.)
- GRAD G848 Bioinformatics, Genomics, Proteomics, and Systems Biology (2 cr.)

Other bioinformatics-related graduate courses upon the approval of the Program Director and the Minor Advisor. Currently, most of the courses have online in addition to classroom sections; therefore, at the student's discretion, the Ph.D. Minor coursework may be completed entirely online in a minimum of one and a half years. Please refer to the IUPUI Registrar website for the detailed schedule of courses.

Grading Policy

A minimum of B (3.0) is required in each course that is to count toward the minor. If a minimum of B (3.0) is not earned in a course, that course must be retaken. A course may only be retaken *once*. Students who fail to achieve the minimum grade of B (3.0) the second time they take a course will not be able to earn the Ph.D. minor.

Qualifying Exam

The Ph.D. minor in Bioinformatics does not require a Qualifying Exam.