

CERTIFICATE IN Bioinformatics

At the intersection of biology, information technology, computer science, and genetic engineering, there is a tremendous demand for professionals who can use technology to digest the growing mass of data. Bioinformatics is the science of storing, extracting, organizing, analyzing, interpreting, and applying the immense volume of research data being generated today. It has become the backbone of leading research laboratories, hospitals, and pharmaceutical companies, as well as the driving force of biotechnology and genetic engineering. This interdisciplinary program combines advanced study in computer science and molecular biology

ADMISSION REQUIREMENTS

- Bachelor of Science degree in any science or related engineering field from an accredited undergraduate institution
- Undergraduate GPA of 3.0 or higher
- Basic knowledge of programming in C/C++, biochemistry and molecular biology, organic chemistry, and data structures and algorithms is also required
- Prerequisite requirements for all certificate courses
- Completed application form
- Official transcripts from bachelor's degree or highest degree earned
- TOEFL required for all international students
- Statement of background and goals

CREDENTIALS EARNED

- 12 Rensselaer graduate credits
- Certificate in Bioinformatics

CERTIFICATE COMPLETION REQUIREMENTS

- Status as a matriculated or non-matriculated Rensselaer student
- Completion of all four courses with a grade of "B" or better

PLAN OF STUDY

1. BIOL-696X Bioinformatics I: Sequence Analysis
2. BIOL-696X Bioinformatics II: Molecular Modeling
3. CSCI-4380 Database Systems
4. A fourth course selected with and approved in advance by the faculty adviser, in one of the following areas:
 - Molecular biology
 - Computer science
 - Applied mathematics

NOTE: This program is only available at corporate sites with sufficient enrollments.