

# BIOINFORMATICS

## MS IN BIOINFORMATICS

The MS in Bioinformatics offers you the opportunity to gain hands-on experience in data-driven and hypothesis-driven data analysis. Bioinformatics is a growing, interdisciplinary field that focuses on computational and statistical methods to analyze and better understand the ever-growing collection of biomedical data. The curriculum will prepare you for a career in research or industry.

### MS IN BIOINFORMATICS

The MS degree program includes coursework from biology, chemistry, computer science, mathematics, and statistics. As a student in the program, you'll gain a foundation in a wide range of fields and will have multiple opportunities to engage in data- and hypothesis-driven analysis of "big data."

The program offers two distinct tracks:

- A thesis option, which includes independent research and prepares students for research positions or PhD programs.
- A non-thesis option, which includes a professional internship and prepares students for jobs in industry.

#### PROGRAM STRUCTURE

The degree offers full- and part-time enrollment  
*Average time to completion: 2 years (full time), 3–5 years (part time)*  
 Select courses are offered online.

#### ACADEMIC & STUDENT LIFE

Because of the interdisciplinary nature of the bioinformatics field, students will have rich opportunities to become involved in academic student organizations as well as Chicago-area special interest groups in the field, such as Chicago's Computational Science and Molecular Systems group.

#### EXPECTATIONS AFTER GRADUATION

Bioinformatics is a young and growing field. Graduates of the program will find ample opportunity for careers in industry, the public sector, and academia. In fact, one estimate (by *Research and Markets*), suggested that the bioinformatics field would grow by more than 20% between 2012 and 2017.

Potential employers include research institutions, government agencies, hospitals, the pharmaceutical industry, the biotech market, insurance companies, research and development in a variety of sectors, and software engineering firms.

#### PROGRAM DISTINCTIONS

Loyola's MS in Bioinformatics program is one of the few programs in the Midwest.

Our students actively participate in all aspects of the academic and research process while developing critical thinking skills, scientific writing skills, and presentation skills.

**FACULTY** While deeply engaged in research and the pursuit of knowledge, Loyola faculty members are dedicated teachers. The Bioinformatics faculty is well-versed in the latest developments in the field and routinely apply bioinformatic approaches in their research.

Faculty research interests are diverse, including:

- Biological & Clinical Data Mining
- Systems Biology
- Microbiology & Infectious Disease
- Systematics

**PREREQUISITES** An undergraduate bachelor of science degree, including completed courses (or their equivalent) in: genetics, biostatistics, algorithms, and biochemistry. Students lacking these prerequisites will be accepted conditionally (as post-baccalaureate students) and required to complete these courses before beginning the MS program.

**FINANCIAL AID** Begin the financial aid process by completing your Free Application for Federal Student Aid (FAFSA) at [fafsa.ed.gov](https://fafsa.ed.gov).

The Graduate School has limited funds available for financial assistance. Financial aid from Loyola's Financial Aid Office will not impact your ability to apply for financial aid through the Graduate School. To learn more about these financial aid opportunities, visit [LUC.edu/finaid/graduateschool](https://LUC.edu/finaid/graduateschool).

In addition to university funding, other sources of funding may be available from either the faculty advisor (for students pursuing the thesis option) or as part of the internship experience (for non-thesis option students). Students are encouraged to contact the program director and/or faculty members for which they are interested regarding additional funding opportunities.

## LEARN MORE

APPLY

[gpem.LUC.edu/apply](https://gpem.LUC.edu/apply)

*For all application requirements and deadlines, please visit [LUC.edu/gpem/info](https://LUC.edu/gpem/info).*

CONTACT INFORMATION

*For further information about the academic program or to arrange a visit, please contact:*

Bioinformatics Program  
Loyola University Chicago  
1032 W. Sheridan Road  
Chicago, IL 60660

PHONE: 773.508.3277

EMAIL: [cputonti@LUC.edu](mailto:cputonti@LUC.edu)

ONLINE: [LUC.edu/bioinformatics](https://LUC.edu/bioinformatics)

*For questions regarding your application or the application process, please contact:*

Graduate and Professional  
Enrollment Management  
Loyola University Chicago  
820 N. Michigan Avenue  
Lewis Towers 1200  
Chicago, IL 60611

PHONE: 312.915.8950

EMAIL: [GradApp@LUC.edu](mailto:GradApp@LUC.edu)

ONLINE: [gpem.LUC.edu/apply](https://gpem.LUC.edu/apply)

