

BIOINFORMATICS M.S. CHECKLIST

The following is a breakdown of how M.S. Bioinformatics students should proceed through the program until graduation.

REQUIRED COURSES

- (BI-GY 7663) Problem Solving for Bioinformatics
- (BI-GY 7453) Algorithms and Data Structures for Bioinformatics
- (BI-GY 7683) Biology and Biotechnology for Bioinformatics
- (BI-GY 7723) Statistics and Mathematics for Bioinformatics (This can be satisfied with Applied Biostatistics for Bioinformatics and or substituted with Translational Genomics and Computational Biology)
- (BI-GY 7673) Applied Biostatistics for Bioinformatics
- (BI-GY 7743) Machine Learning and Data Science for Bioinformatics
- (BI-GY 7753) Bioinformatics Guided Studies

ELECTIVES

- (BI-GY 7543) Proteomics for Bioinformatics*
- (BI-GY 7653) Next Generation Sequence Analysis for Bioinformatics
- (BI-GY 7733) Translational Genomics and Computational Biology*
- (BI-GY 7693) Population Genetics and Evolutionary Biology for Bioinformatics
- (BI-GY 7633) Transcriptomics
- (BI-GY 7573) Special Topics: Informatics in Chemical and Biological Sciences

*CAPSTONES

At least three credits of Capstone course (BI-GY 7753 BIOINFORMATICS GUIDED STUDIES) is required to fulfill the M.S. in Bioinformatics requirement for graduation.

To fulfill graduation requirements for the M.S. in Bioinformatics, each student must fulfill the 30 credit requirement with a cumulative 3.0 GPA, at minimum. This also includes at minimum 3.0 credits of Capstone course work.

COURSE SCHEDULE

Typical Course Offering Schedules:

FALL

- (BI-GY 7663) Problem Solving for Bioinformatics
- (BI-GY 7673) Applied Biostatistics for Bioinformatics
- (BI-GY 7683) Biology and Biotechnology for Bioinformatics
- (BI-GY 7653) Next Generation Sequence Analysis for Bioinformatics
- (BI-GY 7633) Transcriptomics
- (BI-GY 7723) Statistics and Mathematics for Bioinformatics
- (BI-GY 7753) Bioinformatics Guided Studies

SPRING

- (BI-GY 7543) Proteomics for Bioinformatics*
- (BI-GY 7743) Machine Learning and Data Science for Bioinformatics
- (BI-GY 7693) Population Genetics and Evolutionary Biology for Bioinformatics
- (BI-GY 7733) Translational Genomics and Computational Biology*
- (BI-GY 7673) Applied Biostatistics for Bioinformatics
- (BI-GY 7753) Bioinformatics Guided Studies

SUMMER

- (BI-GY 7573) Special Topics: Informatics in Chemical and Biological Sciences
- Any Elective that will have at least 10 students register
- (BI-GY 7753) Bioinformatics Guided Studies



COURSE CHECK-OFF LIST

(BI-GY 7453) Algorithms and Data Structures for Bioinformatics

(BI-GY 7663) Problem Solving for Bioinformatics

(BI-GY 7673) Applied Biostatistics for Bioinformatics

(BI-GY 7683) Biology and Biotechnology for Bioinformatics

(BI-GY 7653) Next Generation Sequence Analysis for Bioinformatics

(BI-GY 7633) Transcriptomics

(BI-GY 7723) Statistics and Mathematics for Bioinformatics

(BI-GY 7543) Proteomics for Bioinformatics

(BI-GY 7743) Machine Learning and Data Science for Bioinformatics

(BI-GY 7693) Population Genetics and Evolutionary Biology for Bioinformatics

(BI-GY 7733) Translational Genomics and Computational Biology

(BI-GY 7573) Special Topics: Informatics in Chemical and Biological Sciences

(BI-GY 7753) Bioinformatics Guided Studies