Specific Track Program

Requirements

36 credit hours, minimum

Core course requirements (18 credits)

- BMI 501 Survey of Biomedical Informatics (3 credits)
- BMI 502 Biomedical Application Domains and Ethics 3 credits)
- BMI 503 Systems, Databases and Other Software Development Methods for Biomedical Informaticians (3 credits) or equivalent coursework
- BMI 504 Statistical Data Analysis and Research Methods for Biomedical Informaticians (3 credits) or equivalent coursework
- BMI 510 Faculty-mentored Research or Practicum Projects (6 credits)

Selective course requirements (6 credits)

Each student must take the Selective course for his/her chosen track, **plus** one additional Selective course to
complement that track:

- BMI 505 Bioinformatics and Translational Research Informatics (3 credits) or
- BMI 506 Clinical Population Research and Public Health Informatics (3 credits) or
- BMI 507 Clinical Informatics and Decision Support (3 credits) or
- BMI 508 Biomedical Ontology (3 credits) or
- BMI 509 Sociotechnical and Human-centered Design for Biomedical Informaticians (3 credits)
- BMI 577/CSE577 Processing of Strings and Sequences (3 credits) held on UB's north

Specific Track Program

Requirements, cont'd.

Elective course requirements (6 credits minimum)

Each student must complete elective courses totaling 6-7 credit hours (e.g.: two 3 credit courses, three 2 credit courses, or one 3 credit course and two 2 credit courses).

Options for these courses include:

- Additional selective courses BMI 505 – 509 (3 credits each) and/or
- BMI 605 Organizational Leadership and Change Management for Biomedical Informaticians (2 credits) and/or
- BMI 698 Special Topic Elective in Biomedical Informatics (2 or 3 credits) and/or
- BMI 699 Mentored Research Project in Biomedical Informatics (2 or 3 credits) and/or
- Graduate course(s) in other UB departments, selected in consultation with the student's faculty advisor

MS Thesis or final Practicum Project requirement (6 credits)

BMI 510 BMI Thesis or Mentored Research project (6 credits)

Questions, please contact

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University at Buffalo The State University of New York
Jacobs School of Medicine and Biomedical Sciences

Biomedical Informatics

Master's Degree Program

Why study biomedical informatics?

To Jump Start your:

- ✓ **Healthcare Career**
- ✓ **IT Career**
- ✓ **Business Career**
- ✓ **Research Career**
- ✓ **Your Future!**

Biomedical informatics offers students the opportunity to blend the health sciences with the computational sciences, fostering the solution of complex biological system questions. Students will develop technical skills that have the potential to impact the future of patient care, whether at the bedside, in the C-suite, or in the lab.

Master's Degree Program in Biomedical Informatics

The Department of Biomedical Informatics (BMI), based in UB's Jacobs School of Medicine and Biomedical Sciences, offers the Master of Science (MS) degree to educate and train biomedical informaticians for leadership positions in healthcare, business, academics, and biomedical research. The program's goal is to serve as the foundation for a challenging and successful career.

The Department's graduate training programs emphasize self-study, collaboration, and problem solving around five core areas:

- Bioinformatics and Translational Research Informatics
- Clinical Informatics and Decision Support
- Clinical Population Research and Public Health Informatics
- Biomedical Ontology
- Sociotechnical and Human-centered Design

In addition to the core faculty, BMI includes 31 primary and adjunct faculty members with a broad range of informatics research interests from many different UB departments in the Schools of Medicine, Dental Medicine, Public Health and Health Professions, Pharmacy, Nursing, Engineering, Management, and the College of Arts and Sciences.

General Program Requirements

Without a Specific Track

36 credit hours, minimum

Core course requirements (18 credits)

- BMI 501 Survey of Biomedical Informatics (3 credits)
- BMI 502 Biomedical Informatics Application Domains and Ethics (3 credits)
- BMI 503 Systems, Databases and Other Software Development Methods for Biomedical Informaticians (3 credits) or equivalent coursework
- BMI 504 Statistical Data Analysis and Research
- Methods for Biomedical Informaticians (3 credits) or equivalent coursework
- BMI 510 Faculty-mentored Research or Practicum Projects (6 credits)

Selective course requirements (6 credits)

Each student must select two of the following (3 credit courses) within each of the five BMI department divisions:

- BMI 505 Bioinformatics and Translational Research Informatics (3 credits)
- BMI 506 Clinical Population Research and Public Health Informatics (3 credits)
- BMI 507 Clinical Informatics and Decision Support (3 credits)
- BMI 508 Biomedical Ontology (3 credits)
- BMI 509 Sociotechnical and Human-centered Design for Biomedical Informaticians (3 credits)
- BMI 577/CSE577 Processing of Strings and Sequences (3 credits) held on UB north campus

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General Requirements, cont'd.

Elective course requirements (6 credits minimum)

Each student must complete elective courses totaling 6-7 credit hours (e.g.: two 3 credit courses, three 2 credit courses, or one 3 credit course and two 2 credit courses.

Options for these courses include:

- Additional selective courses BMI 505 - 509, (3 credits each) AND/OR
- BMI 605 Organizational Leadership and Change Management for Biomedical Informaticians (2 credits) AND/OR
- BMI 698 Special Topic Elective in Biomedical Informatics (2 or 3 credits) AND/OR
- BMI 699 Mentored Research Project in Biomedical Informatics (2 or 3 credits) AND/OR

Graduate course(s) in other UB departments, selected in consultation with the student's faculty advisor

MS Thesis or final Practicum Project requirement (6 credits)

- BMI 510 BMI Thesis (6 credits) or Mentored Research

Visit us on the Web

http://medicine.buffalo.edu/departments/biomedical-informatics.html