BIOMEDICAL IMAGE COMPUTING, MS

for the degree of Master of Science in Biomedical Image Computing

The M.S. in Biomedical Image Computing blends together the fields of biomedical imaging science and machine learning. Students will receive a rigorous training in imaging systems and analysis, computational imaging, and machine learning, in preparation for an industry career.

Admission Requirements

Applicants should have a bachelor’s degree in an engineering or other quantitative discipline from an accredited college or university. Students should have a minimum grade point average of 3.00 (A=4.00) or equivalent for the last two years of undergraduate study and show evidence of strong quantitative skills and of serious interest in imaging and machine learning through their personal statement. Students in the program do not have automatic admission to the Ph.D. program in any engineering department.

All applicants whose native language is not English must submit a minimum TOEFL score of 102 (iBT), 257 (CBT), or 613 (PBT); or minimum International English Language Testing System (IELTS) academic exam scores of 7.0 overall and 6.0 in all subsections. Applicants may be exempt from the TOEFL if certain criteria are met. Applicants with lesser scores may still apply. Limited status is granted for lesser scores and requires enrollment in English as a Second Language (ESL) courses based on an ESL Placement Test (EPT) taken upon arrival to campus.

Financial Aid

The tuition and fees for the M.S. in Biomedical Image Computing are the standard Graduate and Professional Programs rates for the College of Engineering. Students in the M.S. in Biomedical Image Computing program are not eligible for tuition-waiver generating assistantships.

Department Research

Bioengineering faculty perform research in the areas of Bio-Imaging at Multi-Scale, Molecular, Cellular and Tissue Engineering, Bio-Micro and Nanotechnology, Computational and Systems Bioengineering, and Synthetic Bioengineering. In addition to Bioengineering faculty, the Department of Bioengineering has more than 50 affiliate faculty (http://bioengineering.illinois.edu/directory/).

Other Graduate Programs in the Department of Bioengineering

degrees:

Bioengineering, MEng (http://catalog.illinois.edu/graduate/engineering/bioengineering-meng/)

optional concentrations:
- Bioinstrumentation (http://catalog.illinois.edu/graduate/engineering/bioengineering-meng/bioinstrumentation/)
- Computational Genomics (http://catalog.illinois.edu/graduate/engineering/bioengineering-meng/computational-genomics/)
- General Bioengineering (http://catalog.illinois.edu/graduate/engineering/bioengineering-meng/general-bioengineering/)

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Bioengineering, PhD (http://catalog.illinois.edu/graduate/engineering/bioengineering-phd/)

optional concentrations:
- Biomechanics (http://catalog.illinois.edu/graduate/engineering/concentration/biomechanics/)
- Cancer Nanotechnology (http://catalog.illinois.edu/graduate/engineering/concentration/cancer-nanotechnology/)
- Computational Science and Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/)

concentrations:
Biomedical Image Computing, MS

Biomechanics (http://catalog.illinois.edu/graduate/engineering/concentration/biomechanics/)

available for:

- Bioinformatics: Bioengineering, MS (http://catalog.illinois.edu/graduate/engineering/concentration/bioengineering/bioinformatics/)
- Electrical & Computer Engineering, MS (http://catalog.illinois.edu/graduate/engineering/electrical-computer-engineering-ms/)
- Electrical & Computer Engineering, PhD (http://catalog.illinois.edu/graduate/engineering/electrical-computer-engineering-phd/)
- Materials Engineering, MEng (http://catalog.illinois.edu/graduate/engineering/materials-engineering-meng/)
- Materials Science & Engineering, MS (http://catalog.illinois.edu/graduate/engineering/materials-science-engineering-ms/)
- Materials Science & Engineering, PhD (http://catalog.illinois.edu/graduate/engineering/materials-science-engineering-phd/)
- Mechanical Engineering, MS (http://catalog.illinois.edu/graduate/engineering/mechanical-engineering-ms/)
- Mechanical Engineering, MEng (http://catalog.illinois.edu/graduate/engineering/mechanical-engineering-meng/)
- Mechanical Engineering, PhD (http://catalog.illinois.edu/graduate/engineering/mechanical-engineering-phd/)
- Theoretical & Applied Mechanics, MS (http://catalog.illinois.edu/graduate/engineering/theoretical-applied-mechanics-ms/)
- Theoretical & Applied Mechanics, PhD (http://catalog.illinois.edu/graduate/engineering/theoretical-applied-mechanics-phd/)

Cancer Nanotechnology (http://catalog.illinois.edu/graduate/engineering/concentration/cancer-nanotechnology/)

available for:

- Bioinformatics: Bioengineering, MS (http://catalog.illinois.edu/graduate/engineering/concentration/bioengineering/bioinformatics/)
- Electrical & Computer Engineering, MS (http://catalog.illinois.edu/graduate/engineering/electrical-computer-engineering-ms/)
- Electrical & Computer Engineering, PhD (http://catalog.illinois.edu/graduate/engineering/electrical-computer-engineering-phd/)
- Materials Engineering, MEng (http://catalog.illinois.edu/graduate/engineering/materials-engineering-meng/)
- Materials Science & Engineering, MS (http://catalog.illinois.edu/graduate/engineering/materials-science-engineering-ms/)
- Materials Science & Engineering, PhD (http://catalog.illinois.edu/graduate/engineering/materials-science-engineering-phd/)
- Mechanical Engineering, MS (http://catalog.illinois.edu/graduate/engineering/mechanical-engineering-ms/)
- Mechanical Engineering, MEng (http://catalog.illinois.edu/graduate/engineering/mechanical-engineering-meng/)
- Mechanical Engineering, PhD (http://catalog.illinois.edu/graduate/engineering/mechanical-engineering-phd/)
- Theoretical & Applied Mechanics, MS (http://catalog.illinois.edu/graduate/engineering/theoretical-applied-mechanics-ms/)
- Theoretical & Applied Mechanics, PhD (http://catalog.illinois.edu/graduate/engineering/theoretical-applied-mechanics-phd/)

The Department of Bioengineering offers studies leading to the Master of Engineering in Bioengineering (MEng), the Master of Science in Bioengineering (MS), the Master of Science in Biomedical Image Computing (MS in BIC), and the Doctor of Philosophy (PhD) in Bioengineering. The Bioengineering Graduate Program provides students with educational and research experiences that integrate the sciences of biology and medicine with the practices and principles of engineering. For the MS and PhD programs, areas of focus include Bio-Imaging at Multi-Scale, Molecular, Cellular and Tissue Engineering, Bio-Micro and Nanotechnology, Computational and Systems Bioengineering, and Synthetic Bioengineering.