

# BIOENGINEERING: COMPUTATIONAL GENOMICS, MENG

for the degree of Master of Engineering in Bioengineering, Computational Genomics Concentration

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**overview of admissions & requirements:** <https://bioemeng.illinois.edu/admissions/>  
**overview of grad college admissions & requirements:** <https://grad.illinois.edu/admissions/apply> (<https://grad.illinois.edu/admissions/apply/>)  
**department website:** <https://bioengineering.illinois.edu>  
**program website:** <https://bioemeng.illinois.edu>  
**college website:** <https://grainger.illinois.edu/>  
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The MEng in Bioengineering is a professionally-oriented degree designed to bridge the skills gap by developing students with advanced technical know-how, a better understanding of the medical healthcare industry and more business acumen through coursework and project work, which provides students exposure to real world industry issues. Other concentrations under the MEng in Bioengineering major include Bioinstrumentation (<http://catalog.illinois.edu/graduate/engineering/bioengineering-meng/bioinstrumentation/>) and General Bioengineering (<http://catalog.illinois.edu/graduate/engineering/bioengineering-meng/general-bioengineering/>).

## Admission Requirements

Students must select one of the concentrations under the MEng in Bioengineering program to apply to and will not be able to complete multiple concentrations. Students should have an undergraduate degree in an engineering or a science related field or must have taken engineering or science related coursework. Applicants 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 the life sciences through their personal statement. Students with less than a 3.0 GPA may be considered for a limited status admission. Students in the program do not have automatic admission to the PhD program in any engineering department.

All applicants whose native language is not English are required to submit TOEFL (<http://www.toefl.org/>) or International English Language Testing System (IELTS) (<http://www.ielts.org/>) scores as evidence of English proficiency. Minimum admission requirements (<https://grad.illinois.edu/admissions/instructions/04c/>) are set by the Graduate

College. Students applying to the online program must satisfy the full status admissions requirement.

## Financial Aid

The tuition and fees for the MEng in Bioengineering are the standard Graduate and Professional Programs rates for The Grainger College of Engineering, plus a one-time \$2,000 program fee. For tuition information and external funding resources, please visit the program's tuition and fees Web site (<https://bioemeng.illinois.edu/tuition-fees/>). Students in the MEng in Bioengineering program are not eligible for Board of Trustees (BOT) tuition-waiver generating assistantships at the University of Illinois.

## 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. MEng students are able to do independent study research projects with Bioengineering faculty and affiliate faculty (<https://bioengineering.illinois.edu/directory/>) for class credit.

## Other Graduate Programs in the Department of Bioengineering

degrees:

Bioengineering, MS (<http://catalog.illinois.edu/graduate/engineering/bioengineering-ms/>)

### optional concentrations:

Biomechanics (<http://catalog.illinois.edu/graduate/engineering/concentration/biomechanics/>)|Cancer Nanotechnology (<http://catalog.illinois.edu/graduate/engineering/concentration/cancer-nanotechnology/>)

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/>)

The Department of Bioengineering offers studies leading to the Master of Engineering in Bioengineering (MEng), the Master of Science in Bioengineering (MS), 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, Cell & Tissue Engineering, Micro and Molecular Technologies, and Computational Biology.

Opportunity also exists for specializing in energy and sustainability engineering via the

Energy and Sustainability Engineering (EaSE) Graduate Certificate Option (<http://ease.illinois.edu/>)

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For additional details and requirements for all degrees, please refer to the department's Graduate Studies Web site (<https://bioengineering.illinois.edu/academics/graduate/>) and the Graduate College Handbook (<http://grad.illinois.edu/gradhandbook/>).

<b>Code</b>	<b>Title</b>	<b>Hours</b>
	Core Concentration	18
	Technical Coursework from approved list	
	Business Coursework from approved list	
	Elective Courses chosen in consultation with advisor	8
	Professional Development from approved list	6
	Total Hours	32

### **Other Requirements**

<b>Code</b>	<b>Title</b>	<b>Hours</b>
	Minimum 500-level hours required overall:	12
	Minimum GPA:	3.0
	Minimum credit hours taken from the University of Illinois at Urbana-Champaign campus:	20
	Maximum number of previous University of Illinois at Urbana-Champaign graduate-level coursework not applied to any other degree that may be transferred and applied to the major pending department and Graduate College approval	12