This program is not currently accepting applications.

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

### Thesis Option

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIOE 599</td>
<td>Thesis Research (min applied toward degree)</td>
<td>4</td>
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<tr>
<td>BIOE 504</td>
<td>Analytical Methods in Bioeng</td>
<td>4</td>
</tr>
<tr>
<td>or BIOE 505</td>
<td>Computational Bioengineering</td>
<td>4</td>
</tr>
</tbody>
</table>

**Computer Science and Informatics (choose one)**

- CS 411 Database Systems
- CS 466 Introduction to Bioinformatics
- CS 473 Algorithms
- CPSC 565 Perl & UNIX for Bioinformatics
- IS 455 Database Design and Prototyping
- IS 542 Data, Statistical Models and Information
- STAT 428 Statistical Computing
- STAT 440 Statistical Data Management
- STAT 448 Advanced Data Analysis
- STAT 480 Data Science Foundations
- STAT 525 Computational Statistics

**Fundamental Bioinformatics (choose one)**

- ANSC 542 Applied Bioinformatics
- ANSC 545 Statistical Genomics
- CHBE 571 Bioinformatics
- CPSC 567 Bioinformatics & Systems Biol
- CS 466 Introduction to Bioinformatics
- IB 467 Principles of Systematics
- MCB 432 Computing in Molecular Biology

**Biology (choose one)**

- ANSC 441 Human Genetics
- ANSC 444 Applied Animal Genetics
- ANSC 446 Population Genetics
- BIOP 401 Introduction to Biophysics
- BIOP 550 Biomolecular Physics
- CPSC 452 Advanced Plant Genetics
- CPSC 466 Genomics for Plant Improvement
- CPSC 563 Chromosomes
- CPSC 564 Molecular Marker Data Analyses
- CPSC 566 Plant Gene Regulation
- MCB 400 Cancer Cell Biology
- MCB 450 Introductory Biochemistry
- MCB 501 Advanced Biochemistry
- MCB 502 Advanced Molecular Genetics

One course in systems biology from departmental list (http://bioengineering.illinois.edu/graduate-programs/prospective-graduate-students/bioengineering-courses-illinois/#electives)

### Non-Thesis Option

<table>
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<tr>
<th>Code</th>
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<tr>
<td>BIOE 504</td>
<td>Analytical Methods in Bioeng</td>
<td>4</td>
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</tr>
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</table>

**Computer Science and Informatics (choose one)**

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- MCB 400 Cancer Cell Biology
- MCB 450 Introductory Biochemistry
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- MCB 502 Advanced Molecular Genetics

One course in systems biology from departmental list (http://bioengineering.illinois.edu/graduate-programs/prospective-graduate-students/bioengineering-courses-illinois/#electives)
### Elective Courses

| Requirement                                                                 | Description                                                                 |
|                                                                           | 17 Total Hours                                                               |

### Other Requirements

| Requirement and Conditions may overlap                                    | Description                                                                 |
|                                                                           | A concentration is required.                                                 |
|                                                                           | A minimum of 12 500-level credit hours overall applied toward the degree,    |
|                                                                           | with 8 hours being Bioengineering courses; a maximum of 2 hours of seminar   |
|                                                                           | courses can be counted towards these 12 hours.                              |
|                                                                           | The non-thesis option is only available with permission of the advisor.     |
|                                                                           | Requirements include an additional 8 hours of elective courses which, with   |
|                                                                           | the approval of an advisor, may include supervised research experiences      |
|                                                                           | including internships and projects.                                          |
|                                                                           | Minimum GPA: 3.0                                                             |

Information listed in this catalog is current as of 10/2019