### WEB LINKS

http://bioe.rice.edu/ (general website)  
http://bioengineering.rice.edu/undergrad/degree_requirements.aspx

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### FRANK ADVICE

Don’t try to rush through this 4-year program. Prerequisites are very important for BIOE classes; since some courses are offered once a year, failure to get the correct prerequisites can put you behind an entire year. You must take ELEC 243 before BIOE 383/5, and MECH 211 before BIOE 372. Get involved in research.

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### ADVICE FOR STUDENTS WITH AP CREDIT

Take BIOC 201 or a more advanced math (e.g., MATH 211) during your first year. Consider ENGI 120 or ENGI 128.

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### ALTERNATIVE CURRICULA

If you are a pre-med student, consult with Health Professions Advising in the Office of Academic Advising. There are a few “extra” courses above the BIOE major that you must complete as a pre-med student.

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### BS VERSUS BA

BIOE only offers a B.S. degree.

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### NOT REQUIRED BUT HIGHLY RECOMMENDED COURSES

BIOE 202 Advances in Bioengineering; take this one hour course in the spring of your freshman year. A series of guest lectures will help you find out what bioengineering is all about.
| **RESEARCH** | Over 70% of our students participate in research either at Rice or at an institution in the Texas Medical Center. When participating in research at Rice, students can either receive credit as BIOE 400 or BIOE 401, or they can be paid. Students conduct research during the school year as well as during the summer. Contact a faculty member directly if you are interested in working in his/her laboratory. |
| **INTERNSHIPS** | Internships in industry and other universities are available for all levels of students. Rice BIOE also offers several summer research internship opportunities. |
| **STUDY ABROAD** | The best time to study abroad is during the spring semester of the sophomore year; a few students go during the spring semester of the junior year. Typically, students complete technical coursework while abroad. Consult a BIOE advisor early if you are interested in study abroad opportunities. |
| **PROFESSIONAL ORGANIZATIONS** | The Biomedical Engineering Society (BMES) has a student chapter at Rice. They plan activities throughout the year that focus on professional development as well as social interactions between all levels of students and faculty. [http://www.ruf.rice.edu/~bmes/index.html](http://www.ruf.rice.edu/~bmes/index.html) |
| **INTERESTING COURSES FOR NON-MAJORS** | The Beyond Traditional Borders program offers a minor in Global Health Technologies. Selected courses for non-majors include GLHT 201, GLHT 361, GLHT 360, GLHT 451, GLHT 452. |
B.S. In Bioengineering

Specializations: None Available. Students select technical electives to suit their academic interests and career plans.

Sample Degree Plan

THIS IS ONE EXAMPLE OF MANY POSSIBLE SCHEDULES. CONSULT A DIVISIONAL OR DEPARTMENTAL ADVISOR TO CUSTOMIZE YOUR DEGREE PLAN.

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<td>BIOE 320 Systems Physiology Lab 1</td>
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<td>BIOE 330 Bioreaction Engineering 3</td>
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<td>BIOE 385 Biomed Eng Instr Lab 1</td>
<td>BIOE 342 Tissue Culture Lab 1*</td>
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<tr>
<td>BIOE 370 Biomaterials 3</td>
<td>BIOE 372 Biomechanics 3</td>
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<td>BIOE 341 Cell Biology 3</td>
<td>BIOE 332 Thermodynamics 3</td>
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* In addition to class hours, these courses have a regularly scheduled lab that must fit into your schedule.
Basic requirements

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<tr>
<th>General Math &amp; Science Courses</th>
<th>Core Courses in Major</th>
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<tr>
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<td>PHYS 101/111/125</td>
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<td>PHYS 102/112/126</td>
<td>Electricity and Magn. w/Lab</td>
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<td>General Chemistry II w/Lab</td>
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<td>CAAM 210</td>
<td>Introduction to Engineering Computation (pre-req to BIOE 252)</td>
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<td>Engineering Mechanics (pre-req to BIOE 372)</td>
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<td>ELEC 243</td>
<td>Introduction to Electronics (pre-req to BIOE 383)</td>
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<td>Systems Physiology Lab Module</td>
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<td>BIOE 322</td>
<td>Fundamentals of Systems Physiology</td>
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<td>Biomedical Eng Instrumentation (pre-req to BIOE 451)</td>
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<td>BIOE 44X</td>
<td>Advanced Bioengineering Labs (2 of 7, see GA)</td>
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Elective requirements

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Minimum credit required for the B.S. 134

Of the 134 total degree credits, the BS in Bioengineering requires 94 credits in general math and science courses and core and elective engineering courses.

**Major Requirements**

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** Must have 6 engineering points within 3 TECH elective courses.