MD/MS in Bioengineering

Admission Requirements
Applicants are considered on an individual basis. In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

• **Baccalaureate Field** Physical sciences, engineering, computer science, mathematics, biology, or medicine. Students must have completed math through Calculus I (MATH 180), Calculus II (MATH 181), Calculus III (MATH 210), Differential Equations (MATH 220), and Applied Linear Algebra (MATH 310) prior to entering the program.

• For MD students applying to the MS as part of the joint MD/MS in Bioengineering, academic progress in the College of Medicine’s M1 curriculum is reviewed and approved by the College of Medicine’s Senior Associate Dean for Educational Affairs or Dean’s designee.

• **Tests Required** GRE waived.

• **Letters of Recommendation** Three required.

• **Personal Statement** Required.

Degree Requirements
In addition to the Graduate College minimum requirements, students must meet the following program requirements:

• Students in the program must satisfy requirements of the Masters of Science in Bioengineering, a 36-semester-hour program, and satisfy four years of the required Medical Degree program of study.

• For the MS in Bioengineering, students must adhere to all relevant Graduate College policies, including minimum GPA requirements and limits on transfer credit.

• **Minimum Semester Hours Required**
  - **College of Engineering:** MS-BIOE 36. **College of Medicine All Campuses:** Specific courses vary by campus.
    • M1 Year—34 to 36 credit hours
    • M2 Year—44 to 48 credit hours
    • M3 Year—48 credit hours
    • M4 Year—32 to 38 credit hours, with opportunity for shared hours
    • A maximum of 8 hours of credit of MS-BIOE courses may be applied as a research elective in M4 elective requirement. With proper planning and prior approval by the MS-BIOE advisor, joint degree students may take a nonclinical medical elective during their M4 year and receive independent study credit toward the MS degree. Per Graduate College policy, 600-level courses cannot be applied to the MS-BIOE. No more than 8 total hours will consist of shared course work.

• **Course Work for MS in Bioengineering** At least 28 hours (with thesis) or 36 hours (course work only). With thesis, at least 12 hours must be at the 500 level, excluding BIOE 595 and BIOE 598. With course work only, at least 16 hours must be at the 500 level, excluding BIOE 595 and BIOE 596. Limited credit hours in BIOE 596 are allowed upon departmental approval.

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>BIOE 595</td>
<td>Seminar on Bioengineering (1 hour)</td>
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Additional required courses vary by area; contact the department for the specific requirements of each area.

• **Comprehensive Examination** None.

• **Thesis, Project, or Course-Work-Only Options** Thesis or course work only. No other options are available.
  • **Thesis:** Students must earn at least 8 hours in BIOE 598.
  • **Course Work Only:** Students must earn 36 hours from course work only as described in Course Work heading above, with the addition that 16 of the 36 hours must be BIOE course offerings at the 500-level.

• **Other Requirements** None.