

Interdisciplinary Bioengineering Degree Program Program of Study Guidelines

The Program of Study lists the coursework that a student intends to take to fulfill the degree requirements. Courses must provide advanced training in interdisciplinary skills necessary to address multidisciplinary bioengineering research topics. Courses are divided into Engineering Fundamentals, Life Sciences, Advanced Mathematics and Bioengineering and/or Electives. Engineering Fundamentals and Life Sciences are the foundations of the Bioengineering Program. These requirements are intended to provide intellectual depth. Advanced Mathematics provides a quantitative bridge between engineering and bioscience. Bioengineering and Elective courses should extend and integrate the fundamental knowledge to address interdisciplinary bioengineering problems. These courses should complement and augment skills developed in thesis research. In addition, the courses in the Program of Study should fulfill the Institute requirement of nine credit hours for a coherent minor.

A memorandum describing the rationale for the selected courses must accompany the Program of Study. The memorandum must be endorsed (signed) by the advisor. The student should indicate how the selected courses and minor integrate with the student's overall academic goals. The Graduate Committee evaluates the proposed coursework with regard to depth, breadth, relevance to research objectives, and academic rigor. The course work for the Ph.D. degree is expected to be at the graduate level (e.g. 6000 level or above). The rationale should explicitly address the need for 4000 level coursework. Georgia Tech does not allow courses below the 4000 level for either M.S. or Ph.D. degrees. Typically, the Committee looks favorably on undergraduate courses that provide fundamental knowledge for some advanced graduate level course. Several graduate level courses are counted against the six-hour maximum limit on 4000 level courses hours. These include BMED 8100 – Engineering Science I, BMED 8102 – Engineering Science III, and ISYE 6401 Statistical Modeling and Design of Experiments. Additionally, ISYE 6401 and a 4000 level course cannot both be included in Advanced Mathematics. Except in unusual circumstances, Independent Study or Special Topics courses cannot be used to fulfill Program of Study Requirements. All courses appearing on the Program of Study must be taken for a letter grade. A grade of 'C' or better must be earned in each course.

Under some circumstances, the Graduate Committee may allow courses taken for an M.S. degree (at Georgia Tech or another institution) to count for the Ph.D. Program of study. These courses must be at the graduate level and substantially similar in breadth, depth and rigor to courses offered at Georgia Tech. The student must have earned a grade of 'C' or higher in each course. The student should submit the syllabus and detailed course description for each of these 'M.S.' courses appearing on the Ph.D. Program of Study.