

Chemical & Biochemical Engineering Program 5 year BS/MS Program

(Note: Much of this proposal was copied verbatim from the Graduate Council template)

Rationale

BS/MS programs are advantageous to students for several reasons. The most obvious reason is that the relatively seamless nature of such programs makes it easier to attract students to graduate study (especially in the sciences and engineering). Strong employment opportunities at the Bachelor's level in many areas of science and engineering frequently result in students electing to start their careers without ever discovering the challenge and benefits of the research experience. The existing Bachelor's/Master's joint programs have demonstrated that the ease of transition to the graduate program and the savings of approximately one year of time (compared to the completely separated Bachelor's and Master's degrees) represent sufficient enticement that more students achieve Master's degrees. A certain fraction of these students choose to continue their studies at the doctoral level. Thus, the joint program has simultaneously helped students to better select their career paths and helped the domestic research and discovery enterprise.

Admissions

- The Graduate College application is submitted to the department/Office of Admissions before the end of the junior year (semester 6).
- The Departmental Recommendation Form and the Combined Degree Program Recommendation Form are sent to Graduate Admissions prior to the student's initial semester in the joint BS/MS program (before the beginning of the student's senior year (normally semester 7 although this may occur later for students studying abroad or doing a co-operative industrial internship)).
- Requirements for application:
 - a) The student must have completed 80 s.h. of undergraduate work.
 - b) The minimum entrance GPA of 3.25.
 - c) The student must provide a letter of application/statement of purpose.
- The student must submit GRE and TOEFL (international student) scores to the Graduate College before continuing in the joint program after conferral of the Bachelor's degree. Additionally, the student must have an undergraduate GPA of 3.00 or greater at the time that s/he transitions to graduate-only status.
- The student will participate in the new graduate student orientation and advisor selection process during their first semester in the program (semester 7).

Tuition and Fees Assessment

- The student pays undergraduate tuition/fees during the first semester of joint program enrollment (normally semester 7).
- The student pays graduate tuition/fees beginning with the second semester of joint program enrollment (normally semester 8), and for all academic terms thereafter.
- The student may hold a graduate appointment beginning with the second semester of joint program enrollment.

Cross-crediting

The attached curriculum requirements for the BS degree and the MS degree outline which courses are cross credited and also the recommended sequence of course completion. Some general requirements and constraints include:

- Coursework credits to be applied toward the Master's degree must be earned after admission to the joint program. The specific classes to be cross-credited, or used as graduate-only hours, are reflected on the Course Credit Form, which is filed with the Graduate College by the department. The Graduate College, in turn, notifies the Registrar's Office, which places a designator on the student's transcript. This designator indicates pre-baccalaureate graduate credit.
- 12 hours of coursework credits will be cross-credited as listed in the attached sheets.

6 hrs of one of the following Advanced Chemistry Lecture Sequences (UG S7&8):

3 hrs of Transport or Thermo (fulfilling Engineering Elective in UG S7)

3 hrs of Literature Review and Proposal Writing (fulfilling Free Elective in UG S8)

- In semester 8 prior to receiving the BS, a student may request to take at most two courses for which only post-Bachelor's credit will be awarded (i.e. applied only to the MS degree). These requests will be considered by the Graduate College on a case-by-case basis.