

## Policy for Counting EGN4912 Credits in BME Specialization Track

**Adoption Date: Summer 2017**

**Last Review Date: n/a**

### Primary Guidelines

Undergraduate students may take up to 3 credits of EGN4912 toward the completion of their specialization track requirement, provided the following conditions are met:

1. Research activities must be supervised by a primary biomedical engineering faculty or a biomedical engineering affiliate faculty. Research activities in laboratories outside of the biomedical engineering faculty may be approved by on a case-by-case basis by the undergraduate programs committee; however, these approvals should be obtained prior to initiation of the research activities (See petition guidelines below).
2. Two days prior to the drop/add deadline, the EGN4912 Plan of Study form that includes an outline of laboratory expectations (time commitments, reporting expectations, lab meeting presentations, etc.) AND the [EGN4912 Registration Form](#) with signatures (can be completed electronically) must be submitted to [undergrad@bme.ufl.edu](mailto:undergrad@bme.ufl.edu) (see plan of study guidelines below).
  - Please title email “Plan of Study for EGN4912 Specialization Track.”
  - Plans will be reviewed by the Associate Chair for Undergraduate Studies, Undergraduate Coordinator, or a designated member of the Undergraduate Programs Committee for compliance with guidelines outlined below.
  - Failure to comply with departmental guidelines may result denial of credits toward the completion of the specialization track.
3. By the last day of the semester, a final report must be submitted to the research advisor for grading, as well as to [undergrad@bme.ufl.edu](mailto:undergrad@bme.ufl.edu) for compliance evaluation (see final report guidelines below).
  - Please title email “Final Report for EGN4912 Specialization Track.”
  - Reports will also be reviewed by the Associate Chair for Undergraduate Studies, Undergraduate Coordinator, or a designated member of the Undergraduate Programs Committee for compliance with guidelines outlined below. While failure to comply with guidelines will not affect the grade assigned in EGN4912 by the evaluating professor, failure to comply with departmental guidelines may result denial of credits toward the completion of the specialization track.
4. Laboratory research must meet the departmental expectations for undergraduate research commitment per credit hour assigned for the specialization track, wherein:
  - 1 credit is equivalent to approximately 4 hrs of laboratory work per week (60 hrs of work in the lab during the term).
  - 2 credits are equivalent to approximately 8 hrs of laboratory work per week (120 hrs of work in the lab during the term).
  - 3 credits are equivalent to approximately 12 hrs of laboratory work per week (180 hrs of work in the lab during the term).

Documentation of time is not required; and, projects will commonly require higher workloads during specific times of the semester, and lower workloads during other times. However, the plan

of study and final report guidelines should reflect contact time and laboratory commitments that correlate to this scale. Failure to comply with these contact hour assessments per credit hour may result denial of credits toward the completion of the specialization track.

5. Credits in EGN4912 must reflect active research activities, including design of experiments, prototype development, data collection, data analysis, and/or presentations. While students are expected to participate in general laboratory activities (such as washing dishes, cleanup) that are in conjunction with being a typical laboratory member, educational activities in the plan of study and report should reflect active research activities only, and not general laboratory citizenship.
6. To count toward the specialization track, students should plan to take a total 3 credits in EGN4912 prior to graduation. These credits may be completed as a single 3 credit assignment or broken across multiple semesters (1 credit in one semester and 2 in succeeding semester, or 2 credits in one semester and 1 in succeeding semester). If credits are broken across multiple semesters, a plan of study and final report must be submitted for each semester of credit.
  - Since specialization track courses are typically 3 credit hours each, failure to complete a total of 3 credits in EGN4912 will likely require the student complete more than 15 credits of work to complete the specialization track.
  - Petitions for 2 and 1 credit specialization track courses to count toward the specialization track are highly unlikely to receive approval by the department's undergraduate program committee. Approval of specialization track courses is solely based on scientific and academic content, not student preference or convenience toward completion the specialization track requirements for graduation.

### **Petition Guidelines for Research Activities Outside of Biomedical Engineering**

If a student wants to conduct research activities for the specialization track in a laboratory outside of the biomedical engineering faculty (primary or affiliate), approval must be obtained from the undergraduate program committee (UPC) prior to the initiation of research activities for credit in the BME specialization track. Please note, research activities are always encouraged in BME students, and activities may still be sought by students in laboratories outside of BME without UPC approval as technical electives. The UPC approval process is only for counting of these credits toward the BME specialization track.

To petition the committee, the 1 pg plan of study (see below) should be submitted to the UPC for review in the preceding semester. The UPC meets once per month, and petitions must be received prior to the last meeting of the preceding semester. Please submit petitions to [undergrad@bme.ufl.edu](mailto:undergrad@bme.ufl.edu), and note the UPC meeting schedule available in the BME office.

## **Plan of Study Guidelines**

If the research is for academic credit in the specialization track, a 1 pg plan of study should be submitted that includes the following:

1. Your first and last name in the top right corner. Indicate the lab you will be working in below your name.
2. A detailed description of how the student will participate in active research activities in the laboratory, such as design of experiments, prototype development, data collection, data analysis, and/or presentations.
3. An outline of laboratory expectations that align with departmental expectations for undergraduate research commitment per credit hour assigned (see above).
4. A description of how the student will be evaluated and which activities, reports, and presentations are expected for the activity. It is also recommended that the student perform a midterm and final presentation in the group's laboratory meeting.

## **Final Report Guidelines**

If the research is for academic credit in the specialization track, a final report must be submitted to both the research advisor for grading and to [undergrad@bme.ufl.edu](mailto:undergrad@bme.ufl.edu) for compliance evaluation.

*Minimum* reports length are as follows:

- 2 pgs for 1 credit hours
- 4 pgs for 2 credit hours
- 6 pgs for 3 credit hours
- Title page, references, and appendices do not count toward the page length requirement.

The contents of the report should describe progress and participation in active research activities in the laboratory, focusing on skills and training in design of experiments, prototype development, data collection, and/or data analysis. Progress in all areas is not required, but final report should document active research activities and the training in these laboratory skills, and should not include laboratory activities related to general laboratory citizenship (ordering supplies, cleaning up, organizing samples, etc.)

To insure minimum page length requirements are met, reports should have margins of exactly 1 in, have line spacing of 1.5 lines exactly (single spaced and double spaced is not acceptable), and font size of exactly 12 pt.