Georgia Institute Of Technology
Wallace H. Coulter Department Of Biomedical Engineering

BME Depth/Technical Elective Credit for Undergraduate Research with Non-BME Faculty

Undergraduate research credit [i.e. 2699/4699 courses] performed for faculty outside the Coulter Department may be used to sastify up to a total of 6 credit hours of BME depth/technical elective requirements, provided that the research: (1) was conducted in the same lab over a period of at least two semesters [2698/4698 courses can be used to satisfy the two-semester requirement], and (2) has a significant engineering component that relates to the student's studies in the BME curriculum. Otherwise, the credit can be used to satisfy only BME free-elective requirements.

Once a research project has been defined and a faculty member has agreed to serve as the research mentor, the student is strongly encouraged to verify that the proposed research will meet requirements for BME depth/technical elective credit. To do this, the student should complete the following steps **before registering** for the 2699/4699 course.

1. Prepare, in consultation with your research mentor, brief decriptions of the research area and work to be completed and enter them on the form on page 2 of this document.
2. Obtain your faculty research mentor's signature. You will also need to sign this form.
3. Submit the form to the BME Undergraduate Academic Adviser.

The BME Undergraduate Academic Advisor will give the form to the Associate Chair for Undergraduate Studies for assessment. The Associate Chair will either approve the credit to be used for depth elective credit, or will not approve it, and will return the form to the BME Undergraduate Academic Advisor. The advisor will notify the student of the decision.

If approved, the student then registers through the other department, not through the BME department. The student must coordinate with the other department's advisor to receive a permit to register the research. **Note: When registering for the course, students must manually change the number of credit hours to the agreed upon number of credits. The system defaults to one credit, and if the number of credits are not changed, the student's transcript will show one credit for the research.**

In order to be eligible to receive BME depth elective credit for the research, a final report must be submitted to the BME Undergraduate Advisor **no later than the end of Final Exam week.** This report, typically ~ 4 pages in length with 1.5-line spacing, should provide a description of the work completed by the student and will be used to verify that the work performed is consistent with that originally proposed. Summary reports that contain only vague descriptions of tasks accomplished are not acceptable.

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Request to Use Non-BMED Undergraduate Research to Satisfy BME Depth/Technical Elective Requirements

Student's Name: Mahdi Al-Husseini **Student Number:** 902997754

Course: BMED4699 **Term:** Spring **Year:** 2018 **Credit hours:** 3

Faculty research mentor: Dr. Alessandro Veneziani
Faculty research department: Math/CS Emory and BME GA Tech

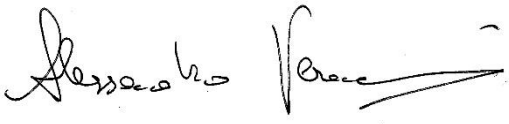
List previous semesters working in this lab for credit or pay: Fall 2017

Research Statement (general description of research, including its relationship to BME; < 3000 characters):

At E(CM)^2, I work with Dr. Alessandro Veneziani to construct the geometries of new, hypothetical surgical procedures. These geometries are meshed and subjected to the Navier-Stokes weak-formulation. The developed finite system is visualized to determine the turbulence of blood flow through relevant blood vessels.

Signatures

4 Jan 2018



5th Jan 2018

Student Date Faculty Research Mentor Date

Approval

BME Associate Chair for UG Studies Date