CE4901 - Undergraduate Research - I

Credit Distribution: C:9 L:3 T:0 P:0 E:0 O:6 TH:0

Course Type: Project

Description: A student may like to explore different areas before pursuing a project. The objective is to allow such motivated students to pursue independent work closely supervised by a faculty member. While these courses are called an undergraduate research, they need not necessarily be a research in the sense that applies to post-graduate students.

Examples of such activity are projects being pursued by many students in the Centre for Innovation and IITM Satellite effort etc. The idea is to enable the student to a learn to learn, while getting something useful accomplished.

Course Content: A student should sign up with a faculty member with a specific proposal of what (s)he expects to accomplish during the course of the semester, including some milestones along the way. This should be a detailed document, which will be submitted to the HoDs office, signed off by the faculty supervisor, before registration. It is therefore expected that some effort has already gone into thinking of a realistic plan of work. The supervisor should ensure that the proposal entails an amount of work appropriate for the credit received. An undergraduate research course should involve about 105 hours of work over the duration of a semester, including report writing.

A report, due at the end of the course, should also serve as a useful experience in documentation and technical writing. Students spend significant time on such projects and pick-up valuable skills in core engineering. They also experience the power of teamwork, and hone soft skills in the form of making presentations, explaining their work to a general audience etc. Such activity currently receives no academic credit; and the undergraduate research courses are a way of allowing students to involve themselves head-on into such work without overloading themselves. These undergraduate research credits can also be earned as part of a team project, and such teamwork should be encouraged whenever possible. However, a clear division of responsibility in the initial proposal, as well as individual final reports, emphasizing their personal contributions to the project should be sought for evaluation. Evaluation criteria should be left to the discretion of the departments. We propose that a B-Tech student be allowed to sign up for a maximum of 3 such courses over the duration of his/her programme and should be allowed to do so even during the summer term. These credits should count towards free electives.

Textbooks: NIL

Reference Books: NIL

Prerequisite: NIL

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