

BME499 Capstone Biomedical Engineering Project

Level: 4

Credit Units: 10 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY SEMESTER

Synopsis:

This project course requires the analysis and synthesis of problems in the disciplines of biomedical engineering and application of the various principles learnt to solve practical biomedical engineering problems in an academic manner under the supervision of a project tutor. The project may take any one or a combination of the following forms: feasibility study, product development, computer modelling and analysis, design and construction, testing and experimental investigation. The project thesis is submitted individually.

Topics:

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Learning Outcome:

- Discuss the scope of your capstone project problem to be investigated
- Analyze the motivation / benefits / rewards of your project problem
- Review the literature to gather information about the project and the available solutions
- Examine the constraints / drawbacks in the available solutions
- Define the assumptions / conditions relevant to your project
- Formulate your project problem/ model / system
- Design/implement/simulate the system
- Test the system/model/software
- Compare your results with the solutions available in the literature
- Draft a detailed report on your project work
- Summarize the project work as a poster, defining the project problem, the solution(s), benefits of the solution(s) and any improvements that can be done
- Give an oral presentation

Assessment Strategies (Evening Class):

| Components | Description | Weightage Allocation (%) |
|-------------------------------|--------------------|--------------------------|
| Overall Continuous Assessment | PROJECT PROPOSAL 1 | 10 |
| | INTERIM REPORT 1 | 10 |
| Overall Examinable Components | Q&A | 20 |
| | Oral Exam | 20 |
| | Project | 40 |
| Total | | 100 |

