Course Objective and Outcome Form

Department of Electrical and Computer Engineering
School of Engineering and Physical Sciences
North South University, Bashundhara, Dhaka-1229, Bangladesh

1. **Course Number and Title:** CSE299 - Junior Design Project
2. **Number of Credits:** 1.0
3. **Type:** Core
4. **Prerequisites:** Completion of 60 credits
5. **Contact Hours: 1.5 hour/week**
6. **Faculty Name:** Dr. Sifat Momen (SfM1)
7. **Room:** SAC 911
8. **Office Hours:** TBA (Check the notice on my door)
9. **Email:** sifat.momen@northsouth.edu
10. **Course Summary:**

This is an intermediate level design course, after a student has gathered sufficient experiences on programming, algorithms, data structures up to 200 level core courses, core math, and core science courses. This "Junior Design Course" involves multidisciplinary teams of students who build and test IOT devices, websites, mobile apps (IOS and android) or engineering processes. Design projects selected from proposal submitted by the students, or recommended by the course instructor, or text book design problems. The instructor acts as supervisor and assists the students in design team formation and organization, design proposal preparation, implementation of design process, project scheduling and management, design reviews, design simulation and testing, preparation of drawings, specifications, etc. Performances are evaluated by oral presentation of proposal and demonstration of completed projects, report writing, effective use of computing knowledge, design process, project management and scheduling etc.

11. **Course Objectives:**

The objectives of this course are

a. To Supervise student groups finding appropriate computing/engineering problem and design solution using the computing/engineering knowledge

b. To develop a clear and quantifiable statement of performance requirements.
c. Develop technical specifications for the performance requirements
d. To Select and implement the desirable solution and evaluate the results.
e. To organize student meetings, teach taking journal notes and maintain teamwork in group environment
f. To teach writing proposal and complete project reports, presentation and demonstration of project
g. To train how to manage finance and scheduling of time while working in multidisciplinary team

12. **Course Outcomes (COs):**

Upon Successful completion of this course, students will be able to:

Sl.	**CO Description**	**Weightage (%)**
1.	To identify an engineering and/or computing problem	25%
2.	build appropriate platform/software to solve the problem in a systematic way with given constraints of resources, budget, time etc.	15%
3.	**select** appropriate software/tools to implement the solution	15%
4.	write proposal and project reports, give presentation and demonstrate project findings	25%
5.	develop realizable timeline for a successful completion of project	10%
6	**Perform** as a team member in designing, developing and implemetaing the project	10%

13. **Mapping of CO-PO:**

Sl.	**CO Description**	**POs**	**Bloom's taxonomy domain/level**	**Delivery methods and activities**	**Assessment tools**
CO1	To identify an engineering and/or computing problem	**b**	Cognitive/ Apply	Lecture, Presentation	Proposal Presentation Report
CO2	build appropriate platform/software to solve the problem in a systematic way with given constraints of resources, budget, time etc.	**c**	Cognitive/ Create	Lecture, Meeting	Project Demonstration

CO3	**select** appropriate software/tools to implement the solution	**e**	Psychomotor/ Precision	Lecture, Meeting	Meeting Record
CO4	write proposal and project reports, give presentation and demonstrate project findings	**j**	Cognitive/ Understand, Affective/ Valuing	Lecture, Report Review	Journal, Report, Demonstration
CO5	develop realizable timeline for a successful completion of project	**k**	Cognitive/ Understand	Lecture, Meeting	Report, meeting
CO6	**Perform** as a team member in designing, developing and implementing the project	**i**	Affective/ Attitude	Lab	Project / presentation

14. **Weightage Distribution among Assessment Tools**

Assessment Tools	**Weightage (%)**
Project Report	20%
Weekly Tasks	80%
Total	100%

15. **Grading policy:** As per NSU grading policy available in

http://www.northsouth.edu/academic/grading-policy.html