Arab Academy for Science and Technology and Maritime Transport
Computer Science Curriculum
Course Syllabus

Course Code: CS401	**Course Title:** Project I	**Classification:** R	**Coordinator's Name:** Dr. Mohamed Mostafa **Lecturer's name:** <supervisor name>	**Credit Hours:** 3
Pre-requisites: GPA=2.0 & 96 CR or more	**Co-requisites:** None	**Schedule:** Lecture: 2 hours		

Office Hours: (Room 308)
Saturday 10:30 a.m. -12:30 p.m.

Course Description:

The graduation project challenges students to go beyond the learning skills and knowledge they obtained from their educational program by developing projects that demonstrate their intellectual, technical and creative abilities. Students shall complete their projects in areas of concentrated study under the direction and supervision of faculty members. Project 1 will demonstrate the students' ability to identify a problem domain, define the problem, conduct analysis of current related projects/ commercial tools/ research, identify and specify requirements, perform analysis and design for the proposed solution.

Textbook:

References:

Course Objective/Course Learning Outcome:	**Contribution to Program Student Outcomes:**

1. Explain and identify the applications of the projects and its association with real and industrial life.	(SO 1) Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions
2. Demonstrate the ability of student to survey the main background and sketch comparative literature among different related models, tools and techniques.	(SO 1) Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
3. Apply the phases of requirements, analysis and design in the software development life cycle and illustrating considerations of professional and ethical responsibilities.	(SO 1) Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions (SO 2) Design, implement and evaluate a computing based solution to meet a given set of computing requirements in the context of program's discipline. (SO4) Recognize professional responsibilities and make informed judgements in computing practice based on legal and ethical principles.
4. Demonstrate effective technical writing, communication and presentation skills	(SO 3) Communicate effectively in a variety of professional contexts.
5. Demonstrate the ability to work effectively as a member of a development team and under guidance, manage his/her own learning and development including task breakdown, time management, planning and organizational skills.	(SO 5) Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

Course Outline:

1. **Week 1:** Formulate Problem definition(Problem Statement)
2. **Week 2:** Formulate Problem definition(Problem Statement) continued
3. **Week 3:** Determine Motivation and Applications
4. **Week 4:** Articulate Project Aims and Objectives
5. **Week 5:** Conduct Literature Survey
6. **Week 6:** Conduct Literature Survey continued
7. **Week 7:** Plan for the project (Scope definition and task breakdown, time management)
8. **Week 8:** Gather Requirements
9. **Week 9:** Write the requirements specification document
10. **Week 10:** Systems analysis of processes and data
11. **Week 11:** Perform systems analysis of processes and data
12. **Week 12:** Design the required features and operations in detail and produce design artifacts
13. **Week 13:** Design the required features and operations in detail and produce design artifacts continued
14. **Week 14:** Develop a Proof-of-Principle Prototype
15. **Week 15:** Project 1 Defense (Oral presentation)

Grade Distribution:

Upon successful completion of the course the student will be evaluated by the supervisor(s) and exam committee according to his/her performance. Supervisors place 60% of the mark and the examiners 40%. The formula is as follows:

Supervisor 60%(Group evaluation + Individual evaluation) + Average 20%(Examiners' individual evaluations) + Average 20%(Examiners' Group evaluations

Policies:

Attendance:
AASTMT Education and Study Regulations (available at aast.edu)

Academic Honesty:
AASTMT Education and Study Regulations (available at aast.edu)