



MARMARA UNIVERSITY - FACULTY OF ENGINEERING

2017-2018 Spring

CSE4198 Engineering Project II

COURSE DESCRIPTION FORM

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| Offering Department | Department of Computer Engineering | Undergraduate must course (8th semester) | | | | | | |
| Course Code | CSE4198 | | | | | | | |
| Course Name | Engineering Project II | | | | | | | |
| Language of Instruction | English | | | | | | | |
| ECTS | 5 | | | | | | | |
| Contact Hours | Theoretical (T): 0 | Practice (U): 2 | Laboratory(L): 0 | | | | | |
| Pre-requisites | | | | | | | | |
| Instructor | Name | Academic department staff | | | | | | |
| | E-mail | | | | | | | |
| Course Materials | Mandatory | No textbooks required | | | | | | |
| | Recommended | | | | | | | |
| Course Objectives | This class aims at 1- supporting the senior students to think of taking initiative and being productive, 2- having them coordinate and utilize as a whole their potential and all knowledge they acquired throughout their professional education and 3- getting them to explore and execute a research subject recognized within the area of computer science under the supervision of their academic advisors. This is a continuation of CSE 4197 class. | | | | | | | |
| Course Content | This class encompasses to have the senior students of the department set out an individual project under the supervision of their academic advisors and process and solve a well defined engineering problem by applying all knowledge and skills they acquired from the classes they took in our department throughout their professional education. | | | | | | | |
| Learning Outcomes | LO1 | As a team member within the same discipline, to realize a complex system and product under realistic constraints using computer engineering background | | | | | | |
| | LO2 | To verify a system or product implemented using computer engineering background. | | | | | | |
| | LO3 | To write the report for project results for the system or or product developed. | | | | | | |
| | LO4 | To present project results for the system or or product developed. | | | | | | |
| | LO5 | To be aware of the contemporary issues of computer engineering | | | | | | |
| | LO6 | To describe universal and social effects and results on legal and ethical values of computer engineering solutions on health, environmental and safety issues. | | | | | | |
| | LO7 | To be informed on the research, development, innovation and entrepreneurship support programs | | | | | | |
| Program Outcomes | | LO1 | LO2 | LO3 | LO4 | LO5 | LO6 | LO7 |
| PO3 | Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way so as to meet the desired result (a); ability to apply modern design methods for this purpose (b). | a, b | | | | | | |
| PO4 | Ability to devise (a), select, and use (b) modern techniques and tools needed for engineering practice (1); ability to employ information technologies effectively (2). | 1.a, 1.b | 1.a, 1.b | | | | | |
| PO6 | Ability to work efficiently in intra-disciplinary (a) and multi-disciplinary teams (b); ability to work individually (c). | a | | | | | | |
| PO7 | Ability to communicate effectively in Turkish, both orally and in writing (a); ability to write effective reports, to understand written reports and to prepare design/production reports in a foreign language (b); ability to do effective presentations; ability to take and give clear instructions (c). | | | b | c | | | |
| PO8 | Recognition of the need for lifelong learning (a); ability to access information, to follow developments in science and technology, and to continue to educate him/herself (b). | | | | | a, b | | |
| PO9 | Awareness of professional and ethical responsibility (a); have knowledge about the standards used in engineering applications (b). | | | | | b | a | |
| PO10 | Information about business life practices such as project management, risk management, and change management (a); awareness of entrepreneurship, innovation (b), and sustainable development (c). | | | | | | | b |

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| PO11 | Knowledge about contemporary issues and the global and societal effects of engineering practices on health, environment, and safety (a); awareness of the legal consequences of engineering solutions (b). | | | a | | | | a | a, b | |
| Subjects (Knowledge, Skills and Behaviours), Contributions of Subjects to Learning Outcomes, Assessment Methods | No | Week | Subjects | LO1 | LO2 | LO3 | LO4 | LO5 | LO6 | LO7 |
| | S1 | 1-12 | Research, development, implementation and verification for engineering projects. | P | P | P | P | | | |
| | S2 | 1 | <u>SEMINAR</u> : Format of CSE4198 and ethics | A | A | | | | | |
| | S3 | 2 | <u>SEMINAR</u> : Citation and professional ethics on academic studies | | | A | | A | | |
| | S4 | 3 | Blockchain and its applications | | | | | A | | |
| | S5 | 5 | <u>SEMINAR</u> : 5G and vertical technologies | | | | | A | | |
| | S6 | 6 | <u>SEMINAR</u> : IT ethics | | | | | A | A | |
| | S7 | 8 | <u>SEMINAR</u> : Entrepreneurship support programs and sample success stories | | | | | A | | A |
| | S8 | 9 | <u>SEMINAR</u> : Cyber security | | | | | A | A | |
| | S9 | 10 | <u>SEMINAR</u> : Industry 4.0 ve digital conversion | | | | | A | A | |
| | S10 | 11 | <u>SEMINAR</u> : How to prepare and present a poster... Video preparation, writing a thesis report. | | | A | A | | | |
| | S11 | 13 | Project presentation – Poster | | | | S | | | |
| S12 | 14 | Submission of engineering project report | R | R | R | | | | | |
| Assessment Methods and Weights | No | Type | Weight | Implementation Rule | | | Make-up Rule | | | |
| | P | Project | 25% | Project groups meet the advisor regularly during the design and implementation of the project. Project schedule is strictly observed. Work done appears in the project report and presentation. | | | | | | |
| | R | Report | 20% | All engineering project work is submitted as engineering project report at the last semester week. The report is evaluated and graded by the advisor. | | | - | | | |
| | S | Presentation | 40% | In accordance with the reports prepared during the semester, the project group presents their project as a poster at the 13 th week of the semester. Department staff evaluates and grades the project content and the presentation. | | | | | | |
| | A | Attendance/Interaction | 15% | Observing the learning outcomes of the class a series of invited speakers hold seminars. Some seminars are followed by quizzes to assess the level of the students' information. The attendance to the seminars is mandatory. | | | | | | |
| TOTAL | | | 100% | | | | | | | |
| Determining Letter Grades | <ul style="list-style-type: none"> Letter grade is determined based on instructor's will. Students are required to submit their project reports at the end of the semester. Failing to submit the report or to present the poster causes the students to fail the class. | | | | | | | | | |
| | Assessment | | Project | Report | Presentation | Attendance/Interaction | TOTAL | | | |
| Weight | | 25 | 20 | 40 | 15 | 100 | | | | |
| Teaching Method, Student Work | Time Applied by the Instructor | | | | | | | | | |
| | No | Method | Explanation | | | | | | | Hours |
| 1 | Lectures | Lectures are given in class using the board or via presentations. Example | | | | | | | 8x2=16 | |

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| Load | | | questions are solved to enhance the concepts. | | |
| | 2 | Problem Session/ Practice | Problems related to the course topics are solved on the board. | | |
| | 3 | Laboratory | Experiments are done in the laboratory or theoretical concepts covered during the lectures are practiced using computer exercises. | | |
| | 4 | Interactive Courses | Questions are asked to students during lectures and they are encouraged to guess the answers (peer learning is also in this category) | | |
| | 5 | Field Work | Students attend activities outside the campus. | | |
| | 6 | Midterm | Midterm exam is given during the midterm week. | | |
| | 7 | Final | Final exam is given during the final exam week. | | |
| | Estimated Time to be Allocated by a Student | | | | |
| | 8 | Project | The students carry out research about the problem given in the project, design and implement their solution and prepare a report. | 14x5=70 Hours | |
| | 9 | Homeworks | The students solve the problems given as homework. | 15 Hours | |
| | 10 | Pre-class learning of Course Material | The students study and learn the new subjects from course materials. | 4+16=20 Hours | |
| | 11 | Review of Course Material | Students review the course subjects from course materials to prepare for the exams and homeworks. | | |
| 12 | Office Hour | Students ask questions to the instructor or the assistant during office hours. | | | |
| Total | | | 121 | | |
| Academic Honesty | Violations of scholastic honesty include, but are not limited to cheating, plagiarizing, fabricating information or citations, facilitating acts of dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. | | | | |
| | In case academic dishonesty is observed, the first authority is the instructor of the course. The instructor may decide to give the student zero for the homework(s)/lab(s)/exam(s), give the letter grade FF, or may take disciplinary action. | | | | |