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|  | | | | | **ECTS Course Description Form** | | | | | | | | | | | | | | | | | | | | | | |
| **PART I ( Senate Approval)** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Offering School** | College of Engineering | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Offering Department** | Industrial Engineering | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Program(s) Offered to** | Industrial Engineering | | | | | | | | | | | | | Compulsory | | | | | | | | | | | | | |
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| **Course Code** | GEN 404 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Course Name** | Innovation and Entrepreneurship | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Language of Instruction** | English | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Type of Course** | Mandatory Course | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Level of Course** | Undergraduate | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Hours per Week** | **Lecture**: 2 hour | | | | | **Laboratory:** | | | | **Recitation:** | | **Practical:** | | | | | **Studio:** | | | | | **Other:** | | | | | |
| **ECTS Credit** | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Grading Mode** | Letter Grade | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Pre-requisites** |  | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Co-requisites** |  | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Registration Restriction** |  | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Educational Objective** |  | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Course Description** |  | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Learning Outcomes** | **LO1** | | |  | | | | | | | | | | | | | | | | | | | | | | | |
| **LO2** | | |
| **LO3** | | |
| **LO4** | | |
| **LO5** | | |
| **PART II ( Faculty Board Approval)** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Basic Outcomes (University-wide)** | | **No.** | Program Outcomes | | | | | | | | | | **LO1** | | | **LO2** | | | **LO3** | | **LO4** | | | | **LO5** | | **LO6** |
| **PO1** | Ability to communicate effectively and write and present a report in Turkish and English. | | | | | | | | | | 🗸 🗸 🗸 🗸 🗸 🗸  🗸 🗸 🗸 🗸 🗸 🗸  🗸 🗸 🗸 🗸 🗸 🗸  🗸 🗸 🗸 🗸 🗸 🗸  🗸 🗸 🗸 🗸 🗸 🗸  🗸 🗸 🗸 🗸 🗸 🗸  🗸 🗸 🗸 🗸 🗸 🗸  🗸 🗸 🗸 🗸 🗸 🗸  🗸 🗸 🗸 🗸 🗸 🗸  🗸 🗸 🗸 🗸 🗸 🗸  🗸 🗸 🗸 🗸 🗸 🗸  🗸 🗸 🗸 🗸 🗸 🗸 | | | | | | | | | | | | | | |
| **PO2** | Ability to work individually, and in intra-disciplinary and multi-disciplinary teams. | | | | | | | | | |
| **PO3** | Recognition of the need for life-long learning and ability to access information, follow developments in science and technology, and continually reinvent oneself. | | | | | | | | | |
| **PO4** | Knowledge of project management, risk management, innovation and change management, entrepreneurship, and sustainable development. | | | | | | | | | |
| **PO5** | Awareness of sectors and ability to prepare a business plan. | | | | | | | | | |
| **PO6** | Understanding of professional and ethical responsibility and demonstrating ethical behavior. | | | | | | | | | |
| **Faculty Specific Outcomes** | | **PO7** | Ability to develop, select and use modern techniques and tools necessary for engineering applications and ability to use information technologies effectively. | | | | | | | | | |
| **PO8** | Recognition of the effects of engineering applications on health, environment and safety in the universal and societal dimensions and the problems of the time and awareness of the legal consequences of engineering solutions. | | | | | | | | | |
| **PO9** | Ability to identify, define, formulate and solve complex engineering problems; and electing and applying appropriate analysis and modeling methods for this purpose. | | | | | | | | | |
| **Discipline Specific Outcomes (program)** | | **PO10** | Sufficient knowledge in mathematics, science and civil engineering; and the ability to apply theoretical and practical knowledge in these areas to model and solve engineering problems. | | | | | | | | | |
| **PO11** | Ability to design a complex system, process, device or product to meet specific requirements under realistic constraints and conditions of economic, environmental, sustainability, manufacturability, ethics, health, safety, social and political issues; and the ability to apply modern design methods for this purpose. | | | | | | | | | |
| **PO12** | Ability to design experiments, conduct experiments, collect data, analyze and interpret results for the examination of industrial engineering problems. | | | | | | | | | |
| **Specialization Specific Outcomes** | | **PO N….** |  | | | | | | | | | |
| **PART III ( Department Board Approval)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Course Subjects, Contribution of Course Subjects to Learning Outcomes, and Methods for Assessing Learning of Course Subjects** | | | **Subjects** | **Week** | | | |  | | | | | | **LO1** | | | **LO2** | | | **LO3** | | **LO4** | | | | **LO5** | | **LO6** | |
| **S1** |  | | | |  | | | | | |  | | |  | | |  | |  | | | |  | |  | |
| **S2** |  | | | |  | | | | | |  | | |  | | |  | |  | | | |  | |  | |
| **S3** |  | | | |  | | | | | |  | | |  | | |  | |  | | | |  | |  | |
| **S4** |  | | | |  | | | | | |  | |  | | |  | |  | | | |  | |  | | |
| **S5** |  | | | |  | | | | | |  | |  | | |  | |  | | | |  | |  | | |
| **S6** |  | | | |  | | | | | |  | |  | | |  | |  | | | |  | |  | | |
| **S7** |  | | | |  | | | | | |  | |  | | |  | |  | | | |  | |  | | |
| **S8** |  | | | |  | | | | | |  | |  | | |  | |  | | | |  | |  | | |
| **S9** |  | | | |  | | | | | |  | |  | | |  | |  | | | |  | |  | | |
| **S10** |  | | | |  | | | | | |  | |  | | |  | |  | | | |  | |  | | |
| **S11** |  | | | |  | | | | | |  | |  | | |  | |  | | | |  | |  | | |
| **Assessment Methods, Weight in Course Grade, Implementation and Make-Up Rules** | | | **No.** | **Type** | | | | | | **Weight** | | **Implementation Rule** | | | | | **Make-Up Rule** | | | | | | | | | | | | |
|  | | | **A1** | **Midterm Exam** | | | | | |  | |  | | | | |  | | | | | | | | | | | | |
| **A2** | **Quiz** | | | | | |  | |  | | | | |  | | | | | | | | | | | | |
| **A3** | **Homework** | | | | | |  | |  | | | | |  | | | | | | | | | | | | |
| **A4** | **Project** | | | | | |  | |  | | | | |  | | | | | | | | | | | | |
| **A5** | **Presentation** | | | | | |  | |  | | | | |  | | | | | | | | | | | | |
| **A6** | **Final Exam** | | | | | |  | |  | | | | |  | | | | | | | | | | | | |
| **A7** | **Attendance/ Interaction** | | | | | |  | |  | | | | |  | | | | | | | | | | | | |
| **A8** | **Class/Lab./**  **Field Work** | | | | | |  | |  | | | | |  | | | | | | | | | | | | |
| **A9** | **Other** | | | | | |  | |  | | | | |  | | | | | | | | | | | | |
| **TOTAL** | | | | | | | **100%** | | | | | | | | | | | | | | | | | | | |
| **Evidence of Achievement of Learning Outcomes** | | | *%70 course attendance and gaining 70% or more on taken exams and other assignments.* | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Method for Determining Letter Grade** | | | *The %70 total attendance is required otherwise student will fail the course due to absenteeism. Letter grades are determined by applying catalogue system on student’s total weighted grade. Following is an example:*  ≥ 97% A+  [93 97) A  [90 93) A-  [87 90) B+  [83 87) B  [80 83) B-  [77 80) C+  [73 77) C  [70 73) C-  [67 70) D+  [60 67) D  < 60 F | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Teaching Methods, Student Work Load** | | | **No** | **Method** | | | | | **Explanation** | | | | | | | | | | | | | | | **Hours** | | | | | |
| ***Time applied by instructor*** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **1** | **Lecture** | | | | |  | | | | | | | | | | | | | | |  | | | | | |
| **2** | **Interactive Lecture** | | | | |  | | | | | | | | | | | | | | |  | | | | | |
| **3** | **Recitation** | | | | |  | | | | | | | | | | | | | | |  | | | | | |
| **4** | **Laboratory** | | | | |  | | | | | | | | | | | | | | |  | | | | | |
| **5** | **Practical** | | | | |  | | | | | | | | | | | | | | |  | | | | | |
| **6** | **Field Work** | | | | |  | | | | | | | | | | | | | | |  | | | | | |
| ***Time expected to be allocated by student*** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **7** | **Project** | | | | |  | | | | | | | | | | | | | | |  | | | | | |
| **8** | **Homework** | | | | |  | | | | | | | | | | | | | | |  | | | | | |
| **9** | **Pre-class Learning of Course Material** | | | | |  | | | | | | | | | | | | | | |  | | | | | |
| **10** | **Review of Course Material** | | | | |  | | | | | | | | | | | | | | |  | | | | | |
| **11** | **Studio** | | | | |  | | | | | | | | | | | | | | |  | | | | | |
| **12** | **Office Hour** | | | | |  | | | | | | | | | | | | | | |  | | | | | |
| **TOTAL** | | | | | |  | | | | | | | | | | | | | | | | | | | | |
| **IV. PART** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Instructor** | | | **Name** | | | | | |  | | | | | | | | | | | | | | | | | | | | |
| **E-mail** | | | | | |  | | | | | | | | | | | | | | | | | | | | |
| **Phone Number** | | | | | |  | | | | | | | | | | | | | | | | | | | | |
| **Office Number** | | | | | |  | | | | | | | | | | | | | | | | | | | | |
| **Office Hours** | | | | | |  | | | | | | | | | | | | | | | | | | | | |
| **Course Materials** | | | **Mandatory** | | | | | |  | | | | | | | | | | | | | | | | | | | | |
| **Recommended** | | | | | |  | | | | | | | | | | | | | | | | | | | | |
| **Other** | | | **Scholastic 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. Any form of scholastic dishonesty is a serious academic violation and will result in a disciplinary action. | | | | | | | | | | | | | | | | | | | | |
| **Students with Disabilities** | | | | | | Reasonable accommodations will be made for students with verifiable disabilities. | | | | | | | | | | | | | | | | | | | | |
| **Safety Issues** | | | | | | The course does not require any special safety precautions. | | | | | | | | | | | | | | | | | | | | |
| **Flexibility** | | | | | | Circumstances may arise during the course that prevents the instructor from fulfilling each and every component of this syllabus; therefore, the syllabus is subject to change.  Students will be notified prior to any changes. | | | | | | | | | | | | | | | | | | | | |