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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 |
|  |  |
|  |  |
| **Course Code**  | IE 420 |
| **Course Name** | Independent Study II |
| **Language of Instruction** | English |
| **Type of Course** | Departmental Area Elective Course |
| **Level of Course** | Undergraduate |
| **Hours per Week** | **Lecture:** 3 hour | **Laboratory:** | **Recitation:**   | **Practical:**  | **Studio:** | **Other:** |
| **ECTS Credit** | 6 |
| **Grading Mode** | Letter Grade |
| **Pre-requisites** | 4rd year student |
| **Co-requisites** |  |
| **Registration Restriction** |  |
| **Educational Objective** | The course aims to teach students how to prepare a scientific project report . Describe the problem by collecting and analyzing data and using industrial engineering approach. |
| **Course Description** | To define the problem with data, How to read and understand research paper and problemsSelect the most appropriate method for project, Report a study in research paper format |
| **Learning Outcomes**  | LO1 | * Describe the problem by collecting and analyzing data and using industrial engineering approach
* Learn how to make a project plan.
* Choose the appropriate method for problem
* Access problem and solution methods using publications such as books and articles
* Analyze the publications
 |
| **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** |  |
| **PO8** |  |
| **PO9** |  |
| **PO10** |  |
| **PO11** |  |
| **PO12** |  |
| **Discipline Specific Outcomes (program)** | **PO13** |  |
| **PO14** |  |
| **PO15** |  |
| **PO16** |  |
| **PO17** |  |
| **PO18** |  |
| **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** | 1 | Introduction  | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 |  |
| **S2** | 2-4 | To define the problem with data | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 |  |
| **S3** | 5-7 | How to read and understand research paper and problems | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 |  |
| **S4** | 7-8 | Select the most appropriate method for project | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 |  |
| **S5** | 9-12 | Report a study in research paper format  | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 |  |
| **S6** | 13-14 | Presentations | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 | A1, A2, A3 |  |
| **Assessment Methods, Weight in Course Grade, Implementation and Make-Up Rules**  | **No.** | **Type** | **Weight** | **Implementation Rule** | **Make-Up Rule** |
| **A1** | **Exam** | 40% | *No electronic devices are allowed in the examinations except for calculators.* | *If an exam is missed, a make-up exam may be granted if student’ absence from the exam is because of a valid and documented excuse.* |
| **A2** | **Quiz** |  |  |  |
| **A3** | **Homework** | 10% | *Submission by the deadline* | *Late homework is penalized by a percentage* |
| **A4** | **Projects** |  50%- | *Submission by the deadline -* | *No compensation, no makeup* |
| **A5** | **Report** | - | - | - |
| **A6** | **Presentation** | - | - | - |
| **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** | *(14 weeks) × (3 hrs per week)* | *42* |
| **2** | **Interactive Lecture** |  |  |
| **3** | **Recitation** |  |  |
| **4** | **Laboratory** |  |  |
| **5** | **Practical** |  |  |
| **6** | **Field Work** |  |  |
| ***Time expected to be allocated by student*** |
| **7** | **Project** | *(14 weeks) × (5 hrs per week)* | *70* |
| **8** | **Homework** | *(14 weeks) × (1 hrs per week)* | *14* |
| **9** | **Pre-class Learning of Course Material**  | *(14 weeks) × (1 hr per week)* | *14* |
| **10** | **Review of Course Material** | *(14 weeks) × (1 hrs per week)* | *14* |
| **11** | **Studio** |  |  |
| **12** | **Office Hour** | *(14 weeks) × (3 hrs per week)* | *42* |
| **TOTAL** |  196 |
| **IV. PART** |
| **Instructor** | **Name** | *Assist.Prof. M.Fatih AK* |
| **E-mail** | *fatih.ak@antalya.edu.tr* |
| **Phone Number** |  |
| **Office Number** | *AG-05* |
| **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. |