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| https://i0.wp.com/www.webiusdigital.com/wp-content/uploads/2018/03/Antalya-Bilim-%C3%9Cniversitesi-Logo.jpg?fit=300%2C300&ssl=1 | **ECTS Course Description Form** |
| **PART I ( Senate Approval)** |
| **Offering School**  | **College of Engineering**  |
| **Offering Department** | **Industrial Engineering** |
| **Program(s) Offered to** | **Industrial Engineering** |  |
|  |  |
|  |  |
| **Course Code**  | **IE 102** |
| **Course Name** | **Introduction to Industrial Engineering** |
| **Language of Instruction** | **English** |
| **Type of Course** | **Mandatory** |
| **Level of Course** | **Undergraduate** |
| **Hours per Week** | **Lecture: 2** | **Laboratory:** | **Recitation:**  | **Practical:**  | **Studio:** | **Other:** |
| **ECTS Credit** | **2** |
| **Grading Mode** | **Letter grade** |
| **Pre-requisites** | **-** |
| **Co-requisites** | **-** |
| **Registration Restriction** | ***-*** |
| **Course Description** | **This course covers the main Industrial Engineering concepts; production and service operations along with many subtopics. The course content includes all the mandatory courses that students will take on their following years and gives out basic terminology and introduces the students to the basics of these topics.** |
| **Learning Outcomes**  | **LO1** | 1. **The student will learn Industrial Engineering terminology.**
2. **The student will develop understanding of common problems Industrial Engineers work with.**
3. **The students will develop solutions to realistic problems**
4. **Students will be introduced to real-life cases where Industrial Engineers are employed.**
 |
| **LO2** |
| **LO3** |
| **LO4** |
|  |
|  |
|  |
| **Basic Outcomes (University-wide)** |
| **Basic Outcomes (University-wide)****Faculty Specific Outcomes** |  | **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****Discipline Specific Outcomes (program)** | **PO7** |  |
| **PO8** |  |
| **PO9** |  |
| **PO10** |  |
| **PO11** |  |
| **PO12** |  |
| **Discipline Specific Outcomes (program)****PART III ( Department Board Approval)** | **PO13** |  |
| **PO14** |  |
| **PO15** |  |
| **PO16** |  |
| **PO17** |  |
| **PO18** |  |
| **PART III ( Department Board Approval)** |
| **Course Subjects, Contribution of Course Subjects to Learning Outcomes, and Methods for Assessing Learning of Course Subjects** | **S1** | **Week** |  | **LO1** | **LO2** | **LO3** | **LO4** |  |  |
| **S2** | **1** | **Introducing the course** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** |  |  |
| **S3** | **2** | **Introducing the Industrial Engineering Concepts** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** |  |  |
| **S4** | **3** | **Definitions and Concepts of Systems** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** |  |  |
| **S5** | **4** | **Systems Engineering** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** |  |  |
| **S6** | **5** | **Systems Engineering** | ***A1-A2-A3-A8*** | ***A1-A2-A3-A8*** | ***A1-A2-A3-A8*** | ***A1-A2-A3-A8*** |  |  |
| **S7** | **6** | **Productivity & Modelling - Idea to Product** | ***A1-A2-A3-A8*** | ***A1-A2-A3-A8*** | ***A1-A2-A3-A8*** | ***A1-A2-A3-A8*** |  |  |
| **S8** | **7** | **Forecasting**  | ***A1-A2-A3*** | ***A1-A2-A3***  | ***A1-A2-A3*** | ***A1-A2-A3*** |  |  |
| **S9** | **8** | **Linear Programming**  | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** |  |  |
| **S10** | **9** | **Capacity Decisions** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** |  |  |
| **S11** | **10** | **Location Decisions**  | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** |  |  |
| **S12** | **11** | **Inventory Decisions** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** |  |  |
| **S13** | **12** | **Scheduling** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** | ***A1-A2-A3*** |  |  |
| **S14** | **13** | **Project Management**  | **A7** | **A7** | **A7** | **A7** |  |  |
| **No.** | **14** | **Case Study** | **A7** | **A7** | **A7** | **A7** |  |  |
| **Assessment Methods, Weight in Course Grade, Implementation and Make-Up Rules** **Evidence of Achievement of Learning Outcomes** |  | **Type** | **Weight** | **Implementation Rule** | **Make-Up Rule** |
| **A1** | **Exam** | ***40%*** | ***No electronic devices are allowed in the examinations except for calculators.*** | **If the reason for not taking the exam is justified by the school, the student is informed about the time of the make-up exam.** |
| **A2** | **Homework** | ***30%*** | ***Homework are given by announcing deadline. Homework that are submitted after the deadline are not accepted.*** | **There is no compensation for the Homework.** |
| **A3** | **Case Study** | ***20%*** | ***Case Study topic requires the knowledge students obtain through the course and requires team work.*** | **There is no compensation for the Case Study.** |
| **A4** | **Project** |  |  |  |
| **A5** | **Report** |  | - | - |
| **A6** | **Presentation** |  | - | - |
| **A7** | **Attendance/ Interaction** | ***10%*** | - | - |
| **A8** | **Class/Lab./****Field Work** |  | - | - |
| **TOTAL** | **Other** |  |  |  |
| **Letter grades determined by weighting on the specified percentages on the grades that are taken from exams, quizzes and homework by the students. The teaching staff can make changes in the student's grades.** | **100%** |
| **Method for Determining Letter Grade** |

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| **Activities** | **Case Study** | **Attendance** | **Homework** | **Final Exam**  |
| **Quantity** | **1** | **14** | **3** | **1** |
| **Effects on Grading, %)** | **20** | **10** | **30** | **40** |

 |
| **Teaching Methods, Student Work Load** | **No** |
| **Teaching Methods, Student Work Load****IV. PART** | **No** | **Method** | **Explanation** | **Hours** |
| ***Time applied by instructor*** |
| **1** | **Lecture** | **Lecturing and utilizing chalkboard/whiteboard. Sample questions and answers to strengthen learning. In class exams.** | **2x14** |
| **2** | **Interactive Lecture** |  | **-** |
| **3** | **Recitation** |  | **-** |
| **4** | **Laboratory** |  | **-** |
| **5** | **Practical** |  |  |
| **6** | **Field Work** |  | **-** |
| ***Time expected to be allocated by student*** |
| **7** | **Project** | **Case Study topic requires the knowledge students obtain through the course and requires team work.** | ***30*** |
| **8** | **Homework** | **Homework are given by announcing deadline.** | **30** |
| **9** | **Pre-class Learning of Course Material**  | **New subjects are learned by watching videos or reading course notes before class.** | **42** |
| **10** | **Review of Course Material** |  | **2x14** |
| **11** | **Studio** |  | **-** |
| **12** | **Office Hour** |  | **2x14** |
| **TOTAL** |  ***186*** |
| **IV. PART** |
|  | **Name** | **Semail Ülgen** |
| **Instructor** | **E-mail** | **semail.ulgen@antalya.edu.tr** |
| **Phone Number** |  |
| **Office Number** |  |
| **Office Hours** |  |
| **Mandatory** | **-** |
| **Course Materials****Other** | **Recommended** | **Blanchard, B.S and Fabrycky W.J.,”*Systems Engineering and Analysis, (4th ed.)”* : NJ Prentice Hall, 2006** |
| **Scholastic Honesty** |  |
| **Other** | **Students with Disabilities** | **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 for of scholastic dishonesty is a serious academic violation and will result in a disciplinary action.** |
| **Safety Issues**  | **Reasonable accommodations will be made for students with verifiable disabilities.** |
| **Flexibility** | **The course does not require any special safety precautions.** |
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