DEPARTMENT of INDUSTRIAL ENGINEERING
COURSE CATALOGUE FORM

Course Code: INDE1001				**Course Title**: Industrial Engineering Orientation			
Semester	**L + R + L**	**Credits**	**AKTS**	**Language**	**Category**	**Instructional Methods**	**Prerequisites**
1	1 + 0 + 0	1	2	English	Required	Lecture	-

Course Objectives	To introduce the engineering profession and education
Course Content	Introduction to general engineering concepts. In depth overview of Industrial Engineering curriculum of Işık University. Tools and career perspectives with emphasis on social, ethical and legal aspects.
Course Learning Outcomes	Upon successful completion of the course, the student is able to: 1. Use the knowledge of engineering profession, disciplines and career. [11] 2. Define the social, ethical, professional responsibilities and tools in fullfilling these duties of Industrial Engineering. [11] 3. Identify the rules and regulations of Işık University. [*Note: Numbers in brackets are indicating the related program outcomes*]
ISCED Category of the course	52 Engineering
Textbook	Class handouts
Supplementary Material	1. “Exploring Engineering: An Introduction to Engineering and Design”; Robert T. Balmer, William D. Keat, George Wise; Academic Press. 2. “Introduction To Industrial And Systems Engineering”; Wayne C. Turner, Joe H. Mize, Kenneth E. Case; Prentice Hall.

COURSE PLAN

Week	Topics	Laboratory / Tutorial Work
1	Işık University rules and regulations	-
2	Introduction to engineering	-
3	Historical highlights	-
4	IE objectives and learning outcomes	-
5	Introduction to IE subdisciplines	-
6	Introduction to IE subdisciplines	-
7	Introduction to IE subdisciplines	-
8	Engineering tools and techniques	-
9	Engineering tools and techniques	-
10	Engineering tools and techniques	-
11	Internship basics and recommendations	-
12	Social, ethical and legal aspects of engineering	-
13	Career planning	-
14	Seminar on recent advances in engineering	-

COURSE ASSESSMENT SYSTEM

	Activities	Contribution (%)
Semester Activities	**Semester Written Exams**	-
	Homework	-
	Reports	-
	Labs	25
	Seminars	-
	Presentations	-
	Term Project	-
	Other (attendance, field trip etc.)	25
FINAL EXAM		50
Total		100

CONTRIBUTION of the COURSE on INDUSTRIAL ENGINEERING PROGRAM OUTCOMES

	Program Outcomes	Low	High
1	Adequate knowledge in mathematics, science and subjects pertaining to Industrial Engineering; ability to use theoretical and applied knowledge in these areas in complex engineering problems.		
2	Ability to identify, formulate, and solve complex Industrial Engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.		
3	Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose.		
4	Ability to devise, select, and use modern techniques and tools needed for analyzing and solving problems encountered in engineering practice; ability to employ information technologies effectively.		
5	Ability to design and conduct experiments, gather data, analyze and interpret results for investigating complex engineering problems or discipline specific research questions.		
6	Ability to work efficiently individually and in intra-disciplinary / multi-disciplinary teams.		
7	Knowledge of Turkish and English languages; ability to communicate effectively orally, inscriptive and visually by using these languages (via business methods such as reports, presentations and instructions).		
8	Recognition of the need for lifelong learning; ability to access information, to follow developments in science and technology, and to continue to educate him/herself.		
9	Consciousness to behave according to ethical principles and professional and ethical responsibility; knowledge on standards used in engineering practice.	**X**	
10	Knowledge about business life practices (management activities such as project, risk, change and quality etc.); awareness in entrepreneurship, innovation; knowledge about sustainable development.		
11	Knowledge about the global and social effects of engineering practices on health, environment, economics and safety, and contemporary issues of the century reflected into the field of engineering; awareness of the legal consequences of engineering solutions.		**X**

ECTS - WORK LOAD TABLE

COURSE ACTIVITIES	Quantity	Time (hr)	Work Load (hr)
Lectures	14	1	14
Final Exam (Preparation included)	-	-	10
Semester Written Exams (Preparation included)	-	-	-
Out of class study time	-	-	16
Homework	-	-	-
Reports	-	-	-
Labs	-	-	-
Seminar	-	-	
Presentations	-	-	-
Term Project	-	-	-
Total Load (hr)			40
ECTS Credits of the course (Total Work Load / 25)			2

Revision / Date	Coordinator / Prepared By	Approved By
5/02/2020	Çağlar Aksezer	Çağlar Aksezer