IUL 151 - INTRODUCTION TO UNIVERSITY LIFE

Course Code	Course Name		Semester	
CENG 151	Introduction to University Life		Fall ☒ Spring ☐ Summer ☐	
Hours			**Credit**	**ECTS**
Theory	**Practice**	**Lab**	2	2
2	0	0		

Course Details	
Department	Software Engineering
Course Language	English
Course Level	Undergraduate ☒ Graduate ☐
Mode of Delivery	Face to Face ☒ Online ☐ Hybrid ☐
Course Type	Compulsory ☒ Elective ☐
Course Objectives	The aim of this course is to equip students with essential knowledge and skills for successfully adapting to university life while fostering their ability to thrive in an academic environment. It also seeks to introduce and enhance digital competencies, enabling students to utilize technology and software tools effectively in their academic pursuits. This course further provides foundational knowledge in the fields of Computer Science and Software Engineering, covering topics such as algorithms, networks, and database management systems. By integrating aspects of university life orientation and an introduction to computer and software engineering, the course bridges these domains to prepare students for both their academic and professional journeys. The objectives of this course can be summarized as follows: • Equip students with basic information technology skills. • Provide knowledge about university services and departments. • Raise awareness of fundamental technical topics such as software, algorithms, and computer networks. • Develop proficiency in using digital tools and resources to enhance university life efficiency. • Offer insights into ethical issues and software development processes. • Teach teamwork skills and prepare students to work collaboratively on projects. • Engage students in activities focused on their **Innovation Pathway**, guiding them through potential milestones and challenges over their four-year university journey. • Develop presentation and communication skills to effectively share ideas and solutions.

	• Provide an overview of current trends in the software industry, helping students understand the evolving landscape of technology and innovation.
Course Content	This course provides a comprehensive introduction to university life and foundational knowledge in computer and software engineering. It covers the OSTIM Foundation and university systems, equipping students with essential tools like the Student Information System (SIS) and introducing them to academic and administrative units. Students will also gain basic IT skills, including proficiency in office software (Word, Excel, PowerPoint), and learn foundational concepts such as number systems, algorithms, and flowcharts. In addition, the course emphasizes teamwork, with a focus on the 4-Year Innovation Pathway and the benefits of collaborative work. Key technical topics include database management systems, computer networks, software types, and software development processes like Agile and Waterfall. Students will also develop their presentation skills through short talks on trending topics in computer and software sciences, fostering both technical and communication proficiency.
Course Method/ Techniques	Lecture ☒ Question & Answer ☒ Presentation ☒ Discussion ☒
Prerequisites/ Corequisites	
Work Placement(s)	No work placement is required for this course

Textbook/References/Materials

Primary Resources:

1. The Pragmatic Programmer - Andy Hunt & Dave Thomas
2. Introduction to the Theory of Computation - Michael Sipser
3. Learning How to Learn: Powerful Mental Tools to Help You Master Tough Subjects - Barbara Oakley
4. Introduction to Networking: How the Internet Works - Dr. Charles Severance (Coursera Lecture Notes)
5. Digital Minimalism - Cal Newport
6. OSTİM Technical University Website: https://www.ostimteknik.edu.tr/

Supplementary Resources:

1. How to Win Friends and Influence People - Dale Carnegie
2. Algorithms Unlocked - Thomas H. Cormen
3. A Mind for Numbers: How to Excel at Math and Science - Barbara Oakley
4. Presenting to Win: The Art of Telling Your Story - Jerry Weissman
5. Designing Your Life: How to Build a Well-Lived, Joyful Life - Bill Burnett & Dave Evans
6. Academic articles and blogs from platforms such as Medium and Harvard Business Review.
   - ✓ Online platforms and tools (Codecademy, W3Schools, Khan Academy, LinkedIn Learning)

Course Category				
Mathematics and Basic Sciences	☒		Education	☒
Engineering	☒		Science	☐
Engineering Design	☐		Health	☐
Social Sciences	☒		Profession	☒

Weekly Schedule		
No	**Topics**	**Materials/Notes**
1	OSTIM Foundation and OSTIM Technical University Model and University Units	Introduction to OSTIM Foundation, OSTIM Model, and academic and administrative units of the university.
2	University Systems and Software for Students	Overview of the Student Information System (SIS), its usage, Erasmus program details, application processes, and email communication etiquette.
3	Introduction to Computer and Software Engineering	Introduction to the basic concepts of Computer and Software Engineering, including an overview of its subfields and career opportunities.
4	Teamwork and the Four-Year Innovation Pathway	Importance of teamwork, benefits of collaborative work, an overview of the 4-Year Innovation Pathway for Software Engineering students, and forming international student teams.
5	Office Programs	Microsoft Word (basic editing, document creation, and spelling check), Microsoft Excel (data entry, formulas, charts), and Microsoft PowerPoint (presentation design, slide animations).
6	Number and Coding Systems	Basics of number systems, including binary, octal, decimal, and hexadecimal systems.
7	Algorithms and Flowcharts	Definition of algorithms, rules for writing algorithms, and techniques for analysis and optimization of algorithms.
8	Midterm Exam	Evaluation of understanding from the first half of the course.
9	Database Management Systems	Introduction to databases, how DBMS works, and basic SQL queries.
10	Computer Networks	Fundamentals of computer networks, including network protocols, IP addressing, LAN, and WAN concepts.
11	Software Types	Overview of application and system software, along with licensing and distribution types.
12	Software Development Processes	Explanation of the Software Development Life Cycle, including methodologies such as Agile, Waterfall, and others.
13	Teamwork and Project Presentations	Students present a 5-minute talk on trending topics in Computer and Software Sciences.
14	Teamwork and Project Presentations	Students present a 5-minute talk on trending topics in Computer and Software Sciences.
15	Teamwork and Project Presentations	Students present a 5-minute talk on trending topics in Computer and Software Sciences.
16	Final Exam	Comprehensive evaluation of all course topics.

Assessment Methods and Criteria		
In-term studies	**Quantity**	**Percentage**
Attendance		
Lab		
Practice		
Fieldwork		
Course-specific internship		
Quiz/Studio/Criticize		
Homework		30 %
Presentation / Seminar		50 %
Project		
Report		
Seminar		
Midterm Exam		20 %
Final Exam		
	Total	**100%**
Contribution of Midterm Studies to Success Grade		50 %
Contribution of End of Semester Studies to Success Grade		50 %
	Total	**100%**

ECTS Allocated Based on Student Workload			
Activities	**Quantity**	**Duration (Hrs)**	**Total Workload**
Course Hours	14	1	14
Lab			
Practice			
Fieldwork			
Course-specific Work Placement			
Out-of-class study time			
Quiz/Studio/Criticize			
Homework	2	5	10
Presentation / Seminar	1	10	10
Project			
Report			
Midterm Exam and Preparation for Midterm	1	20	20
Final Exam and Preparation for Final Exam			
Total Workload			**54**
Total Workload / 25			**2,16**
ECTS Credit			**2**

Course Learning Outcomes	
No	**Outcome**
L1	Understand the fundamental principles of university life, including the structure of academic and administrative units and the services provided.
L2	Demonstrate proficiency in using essential university systems and tools, such as the Student Information System (SIS), email platforms, and digital communication resources.
L3	Recognize the basic concepts of computer and software engineering, including key subfields and potential career pathways.
L4	Develop teamwork skills and understand the importance of collaboration in academic and professional environments.
L5	Apply digital tools such as Microsoft Word, Excel, and PowerPoint for academic and professional tasks.
L6	Understand number systems (binary, octal, decimal, hexadecimal) and their relevance in computer science.
L7	Create and analyze algorithms and flowcharts to solve problems systematically.
L8	Understand the basic concepts of database management systems, including database structure and SQL queries.
L9	Explain the fundamentals of computer networks, including protocols, IP addressing, and LAN/WAN concepts.
L10	Identify different types of software and understand licensing and distribution models.
L11	Demonstrate knowledge of software development methodologies, including Agile and Waterfall, and their applications in real-world projects.

Contribution of Course Learning Outcomes to Program Competencies/Outcomes

Contribution Level: 1: Very Slight, 2: Slight, 3: Moderate, 4: Significant, 5: Very Significant

	P1	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**	**P10**	**P11**	**P12**	**P13**	**P14**	**P15**	**Total**
L1	2	2	1	1	1	1	3	3	2	4	3	3	4	3	2	38
L2	3	2	2	2	1	1	2	4	3	4	3	3	4	3	3	42
L3	5	4	5	4	4	3	4	3	3	3	3	3	3	4	3	59
L4	4	4	4	4	4	5	5	5	5	5	4	4	4	4	4	64
L5	3	3	2	3	3	3	4	5	5	5	4	4	4	4	4	55
L6	5	4	5	5	5	4	4	3	2	2	3	3	2	3	3	56
L7	5	5	5	4	4	4	4	3	3	3	3	3	2	3	3	60
L8	4	4	5	4	3	3	3	3	3	3	3	2	3	3	3	55
L9	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	53
L10	3	3	2	2	3	3	3	3	3	2	3	3	2	3	3	45
L11	5	5	5	4	4	4	4	3	3	3	4	3	3	3	4	59
Total																586