CYPRUS INTERNATIONAL UNIVERSITY

Computer Engineering - English - Undergraduate
Course Syllabus
2024-25 Spring

Code(s)	Course Name	Type	Weekly Course Hours			Credits	ECTS
			T	A	L		
CMPE313 ISYE313	OBJECT ORIENTED PROGRAMMING	Course	3	0	2	4	7

Prerequisite		CMPE111	Language of Instruction	English

Course Lecturer / Extension	Assoc. Prof. Dr. Yöney KIRSAL EVER / 2463

E-mail	yever@ciu.edu.tr	Office Hours	-

Teaching Assistant(s)	Res. Asst. Ashkan MOHEBALI

Textbooks and/or References

Book / Reference 1	Java for Students, 5th Edition, Pearson, 2010
Book / Reference 2	Java How To Program, 9th Edition, Deitel P & Deitel, 2011
Book / Reference 3	Head First Java, 2nd Edition, O'Reilly Media, 2005

Week(s)	Topics	Learning Outcomes	Solo Taxonomy Weight
Week 1	Introduction to the course/Ice breaking.	Design and develop non-trivial programs using appropriate object oriented design and development methods	-
Week 2	What is object oriented programming? The difference between Object Oriented Programming (OOP) and structured programming?	Use UML Class diagrams efficiently for object oriented software design	-
Week 3	Java Basics, Swing Library,	Apply principles of object oriented programming for flexibility, re-use and maintenance purposes	-
Week 4	Variables and I/O, Dialog Boxes, Structured Programming Components: Sequence (Functions), Selection (Decision Making) and Iteration (Loops)	Practice layered architecture model and develop gradually expanding object oriented programs	-
Week 5	Unified Modelling Language (UML):		-
Week 6	Class definitions, static keywords and class relations.Objects and Classes		-
Week 7	Class definitions, static keywords and class relations.Objects and Classes		-
Week 8	Midterm Exam		-
Week 9	Midterm Exam		-
Week 10	Inheritance and Multiple Inheritance and Abstract classes		-
Week 11	Interfaces and Polymorpism		-
Week 12	GUI Programming: JFrame Class, Labels, Buttons, TextBoxes, Checkboxes, RadioButtons, ComboBoxes		-

Week 13	GUI Programming: JMenu, JMenuItems, JMenuBar, Picture Boxes, Customizing Components		-
Week 14	Multiple Forms		-
Week 15	Revision and Exercises		-
		Solo Taxonomy Average	0.00

#	Learning Outcomes
LO1	Design and develop non-trivial programs using appropriate object oriented design and development methods
LO2	Use UML Class diagrams efficiently for object oriented software design
LO3	Apply principles of object oriented programming for flexibility, re-use and maintenance purposes
LO4	Practice layered architecture model and develop gradually expanding object oriented programs

#	Program Outcomes
PO1	Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied knowledge in these areas in complex engineering problems.
PO2	Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modelling methods for this purpose.
PO3	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.
PO4	Ability to devise, select, and use modern techniques and tools needed for analysing and solving complex problems encountered in engineering practice; ability to employ information technologies effectively
PO5	Ability to design and conduct experiments, gather data, analyse and interpret results for investigating complex engineering problems or discipline specific research questions
PO6	Ability to work efficiently in intra-disciplinary and multi-disciplinary teams; ability to work individually.
PO7	Ability to communicate effectively in Turkish, both orally and in writing; knowledge of a minimum of one foreign language; ability to write effective reports and comprehend written reports, prepare design and production reports, make effective presentations, and give and receive clear and intelligible instructions.
PO8	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
PO9	Consciousness to behave according to ethical principles and professional and ethical responsibility; knowledge on standards used in engineering practice.
PO10	Knowledge about business life practices such as project management, risk management, and change management; awareness in entrepreneurship, innovation; knowledge about sustainable development.
PO11	Knowledge about the global and social effects of engineering practices on health, environment, and safety, and contemporary issues of the century reflected into the field of engineering; awareness of the legal consequences of engineering solutions.