EUROPEAN UNIVERSITY OF LEFKE

DEPARTMENT OF COMPUTER PROGRAMMING

PROGRAMME HANDBOOK

2026

PROGRAM INFORMATION

Program Name and Degree Awarded: Computer Programming, Associate Degree

Duration of Studies: 2 years (4 semesters)

Total Credits / ECTS : 75 CREDITS/ 120 ECTS

Language of Instruction: English

Mission

To prepare highly skilled technical human resources demanded by today's globalized digital world; to equip graduates with theoretical and practical competencies in computer programming and related technologies; to foster individuals who keep up with developments in the digital and computer world; who can work effectively in teams; having strong communication, social skills, high work ethics, and high motivation.

Vision

To prepare well-prepared, industry-ready graduates who contribute to the public and private sectors, and who are capable of entrepreneurship and continuous learning in computer systems, software, and programming.

Program Objectives

- Be technically competent in both theoretical and practical aspects of computer programming, software, and systems demanded by industry and service sectors.
- Keep pace with evolving technologies in computing and digital industries; be adaptable to change.
- Have strong teamwork, communication, social skills, ethical conduct, and motivation.
- Be able to work in public or private sector organizations—especially in areas such as system import, installation, assembly, marketing, distribution of computer systems, and software development.
- Potentially start their own business given the nature of the sector.

Program Learning Outcomes

- Apply theoretical knowledge and practical skills in computer programming, software installation, system setup, and related technical tasks.

- Use project-based learning to design, develop, and maintain simple to moderately complex software or system components.

- Work effectively as part of a team and individually; communicate technical information clearly; demonstrate social and professional behavior.

- Adapt to new technologies and continuous developments in the field of computing and digital world.

- Exhibit high ethical standards, motivation, and professionalism in their work.

Curriculum:

1. YEAR FALL

COURSE CODE	COURSE NAME	(T-U-L)K	ECTS	COURSE TYPE
COMV109	MATHEMATICS	(3-0-0)3	6	COMPULSARY
COMV121	PHYSICS I	(3-0-0)3	6	COMPULSARY
CPRG117	COMPUTING FOUNDATIONS	(3-0-2)4	7	COMPULSARY
UFLE01	FOREIGN LANGUAGE ELECTIVE I (ENGLISH)	(3-0-0)3	3	ELECTIVE
ISTE101	INTRODUCTION TO TECHNOLOGY FUNDAMENTALS	(3-0-0)3	6	COMPULSARY
UHTC01	HISTORY	(2-0-0)2	2	ELECTIVE

1. YEAR SPRING

COURSE CODE	COURSE NAME	(T-U-L)K	ECTS	COURSE TYPE
CPRG124	COMPUTER PROGRAMMING	(3-0-2)4	7	COMPULSARY
CPRG104	OPERATING SYSTEMS	(3-0-3)3	7	COMPULSARY
UFRC01	UNIVERSITY ELECTIVE I	(3-0-0)3	4	ELECTIVE
UFLE02	FOREIGN LANGUAGE ELECTIVE II (ENGLISH)	(3-0-0)3	3	ELECTIVE
CPRG152	INTRODUCTION TO INFORMATION SYSTEMS	(3-0-0)3	7	COMPULSARY
UHTC02	TURKISH	(2-0-0)2	2	ELECTIVE

2. YEAR FALL

COURSE CODE	COURSE NAME	(T-U-L)K	ECTS	COURSE TYPE
CPRG205	DIGITAL LOGIC DESIGN	(3-0-2)4	6	COMPULSARY
CPRG217	DATA STRUCTURES	(3-0-2)4	6	COMPULSARY
CPRG215	DATABASE MANAGEMENT SYSTEMS	(2-2-0)3	5	COMPULSARY
UFRC02	UNIVERSITY ELECTIVE II	(3-0-0)3	4	ELECTIVE
CPRG01	TECHNICAL ELECTIVE I	(3-0-0)3	5	ELECTIVE
UFRC03	UNIVERSITY ELECTIVE II	(3-0-0)3	4	ELECTIVE

2. YEAR SPRING

COURSE CODE	COURSE NAME	(T-U-L)K	ECTS	COURSE TYPE
COMN204	ETHICS IN PROFESSION	(3-0-0)3	5	COMPULSARY
CPRG218	OBJECT ORIENTED PROGRAMMING	(3-0-2)4	6	COMPULSARY
CPRG214	INTERNET PROGRAMMING	(3-0-0)3	5	COMPULSARY
CPRG220	PROJECT WORK	(3-0-0)3	4	COMPULSARY
CPRG252	PROGRAMMING FOR MANAGEMENT INFORMATION SYSTEMS	(3-0-0)3	5	COMPULSARY
CPRG02	TECHNICAL ELECTIVE II	(3-0-0)3	5	ELECTIVE

TECHNICAL ELECTIVES :

SENG212 SOFTWARE REQUIREMENTS ANALYSIS AND SPECIFICATION

CP214 INTERNET PROGRAMMING

Laboratory and Equipment Capacity

AS104, AS106, AS108 COMPUTER LABS

Career Opportunities

Graduates of the program can be employed in all public and private sector institutions. In particular, there are employment opportunities in private companies engaged in commercial activities such as the import, assembly, hardware, installation, production, marketing, distribution, and software development of computer systems. In addition, due to the nature of the sector, it is also possible for graduates to establish their own businesses.

Contact Information

Phone: +90 392 660 2000

Fax: +90 392 727 7528

Postal Address:
European University of Lefke
Lefke, Northern Cyprus TR-10 Mersin, Turkey

Email: info@eul.edu.tr

Director:

Asst. Prof. Dr. Mehmedali Egemen

EUROPEAN UNIVERSITY OF LEFKE

COM 106 - TURKISH

SYLLABUS

Course Code	Course Name	Course Type	Weekly Course Hours			Credits	ECTS	Weekly Time Schedule
			T	A	L			
COMN106	TURKISH (For International Students)		2	0	0	2	2	
Prerequisite		Prerequisite to						

Course Lecturer	Assoc. Prof. Dr. Elnur Ağayev	Office Hours Schedule	
E-mail	eagayev@eul.edu.tr		
Phone		Office / Room No	
Teaching Assistant(s)	-	Phone	
E-mail	-	Office / Room No	

Catalogue Descriptions	Basic structure and sound features of Turkish, Turkish pronunciation, vowel harmony, Turkish sentence structure, frequently used words in Turkish, types of dialogue, English-Turkish translation studies, Turkish text reading exercises.
Course Objectives	For students whose mother tongue is not Turkish, to make them comprehend the basic features of Turkish and to enable students to use Turkish at a basic level in oral and written form through frequently used vocabulary/dialogue studies.
Learning Outcomes	1. Comprehends the basic phonetic and structural features of Turkish 2. Applies the pronunciation features of Turkish 3. Acquires the basic vocabulary of Turkish 4. Develops Turkish text reading skills 5. Can use Turkish dialogues that are frequently used in daily life.

Textbooks and/or References		
	1	Birsen Çankaya ve diğerleri. Easy Turkish Course. İstanbul: Fono Yayınları, 2006.
	2	Kurtuluş Öztopçu. Elementary Turkish. İstanbul, 2006.
	3	COM106 Turkish lecture notes/slides
	4	Doğan Günay, Özdan Fidan ve diğerleri, Yabancılar İçin Türkçe Ders Kitabı + Alıştırma Kitabı, Papatya Yay., Ankara: 2013.

WEEK	Date	TOPICS	Reference No - Section
Week 1	2.02.2026	Turkish alphabet, translation exercises examples, Turkish sounds	
Week 2	9.02.2026	Turkish sentence structure, translation exercises, vocabulary examples	
Week 3	16.02.2026	Frequently used expressions, daily language sentences 1, translation exercises	
Week 4	23.02.2026	Days, colours, numbers, months, seasons, adjectives, Frequently used verbs 1	
Week 5	2.03.2026	Turkish alphabet and its pronunciation, this/that (bu/şu/o)	
Week 6	9.03.2026	Plural suffix (-lar/-ler), interrogative particle	
Week 7	16.03.2026	How many, how much (kaç?), ordinal numbers (kaçıncı?), Frequently used verbs 2	
Week 8	23.03.2026	There is/isn't (var/yok) cont., opposite adjectives, translation exercises, vocabulary	
Week 9	30.03.2026	Present continuous, daily routine, free time activities	
Week 10	4-12/04/2026	Midterm(s)	
Week 11	13.04.2026	Reading practice, want to (-mak istemek), my family, possesive suffixes	
Week 12	20.04.2026	Countries, nationalities, languages, away from my family, kendi+possesive pronoun	
Week 13	27.04.2026	Hours, special days, translation exercises, reading practice	
Week 14	4.05.2026	Our body, permission and request sentences, revision	
Week 15	11.05.2026	Our body, permission and request sentences, revision	
Week 16	16-25/05/2026	Final Exam	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1	16-25/05/2026	60	
	Semester Evaluation				
	Midterm(s)	1	4-12/04/2026	40	
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory				
	Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction:

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	14	28,0	Applied Hours		
Midterm	1	1,0	Final	1	1,0
Midterm Study	2	6,0	Final Study	2	6,0
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation		
Other			Self Study	7	21,0
			TOTAL :	63	2,0

EUROPEAN UNIVERSITY OF LEFKE

COMN 108 - HISTORY

SYLLABUS

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMN108	HISTORY (For International Students)	Compulsory	2	0	0	2	2	
Prerequisite		Prerequisite to						

Course Lecturer	Assoc. Prof. Dr. Elnur AĞAYEV	Office Hours Schedule	Monday: 09:00-12:00
E-mail	eagayev@eul.edu.tr		
Phone		Office / Room No	
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	The course provides a detailed exposure on the history of the construction of the Turkish Republic under the light of Kemal Atatürk's principles this course is designed for Turkish speaking students. COM108 is designed for non-Turkish speaking foreign students. The aim of the course is to introduce a brief history of Turkish Republic and Cyprus. Social, economic and political aspects and effects of Western Civilization on Turkey and Cyprus. Relations with Middle East.
Objectives	In this course the students who have been studying at different departments of our university will learn how the Ottoman Empire collapsed and a new Turkish Republic was found in the early 20 th. century. At the same time the students will learn the Eastern Question, Armenian Question and Cyprus Question which were created by different policy powers in the historical period. By the end of the semester the students will be able to understand why Mustafa Kemal is an important figure in the history of Turkey and the world. Besides, they will learn the Turkish Revolution and the estabilishment philosphy of the Turkish Republic and the principles of Mustafa Kemal
Learning Outcomes	On successful completion of this course, all students will have developed knowledge and understanding of: 1. Analyzes the developments after World War I and the attitude of Mustafa Kemal and his friends in the face of these developments. 2. Understanding the Turkish Foreign Policy of the Atatürk Era. 3. They will have basic information about the political developments in Turkey and the world during and after the Second World War. 4. To have general information about the History of Cyprus.

Textbooks and/or References	1	Lewis, Bernard, **The Emergence of Modern Turkey**, London, 1967.
	2	Kinross, Patrick, **Atatürk The Rebirth of a Nation**, A Phoenix Giant Paperback Publishing, London, 1998.
	3	Luke, Harry, **Cyprus Under The Turks**
	4	COM108 History lecture notes/slides
	5	Denktash, Rauf R, **The Cyprus Triangle**, The Office of the Turkish Republic of Northern Cyprus, New York, 1988.

WEEK	Date	TOPICS	Reference No - Section
Week 1	2/4/2026	Introduction of the Bibliography	
Week 2	2/11/2026	The First World War and the Ottoman Empire	
Week 3	2/18/2026	The First World War and the Ottoman Empire	
Week 4	2/25/2026	The Turkish War of Independence and Turkish Victory (First Phase)	
Week 5	3/4/2026	The Turkish War of Independence and Turkish Victory (First Phase)	
Week 6	3/11/2026	The Turkish War of Independence and Turkish Victory (Second Phase)	
Week 7	3/18/2026	Lausanne Agreement and Proclamation of the Republic of Turkey	
Week 8	3/25/2026	The Strategical Importance of Cyprus	
Week 9	4/1/2026	Cyprus Under the Ottoman Rule	
Week 10	4-12/04/2026	**Midterm Exam**	
Week 11	4/15/2026	Cyprus Under the Ottoman Rule	
Week 12	4/22/2026	National Struggle of Turkish Cypriots	
Week 13	4/29/2026	National Struggle of Turkish Cypriots	
Week 14	5/6/2026	Cyprus Question	
Week 15	5/13/2026	Cyprus Question	
Week 16	16-25/05/2026	Cyprus Question	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		60	50.0
	Semester Evaluation				
	Midterm(s)	1		40	50.0
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory work(s)				
	Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	28	Homework		
TLH self study	7	21	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)			Tutorial		
L preparation work					
Midterm exam (ME)	1	1	Final exam (FE)	1	1
ME preparation self study	2	6	FE preparation self study	2	6
				TOTAL :	63
				Recommended ECTS Credit (Total Hours / 30) :	2.00

EUROPEAN UNIVERSITY OF LEFKE

Computer Programming

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours			Credits	ECTS	Weekly Time Schedule
			T	A	L			
COM101	English 1		3	0	0	3	3	
Prerequisite		Prerequisite to						

Course Lecturer	Mehmet Mert	Office Hours Schedule	Monday 09:00-11:00
E-mail	mmert@eul.edu.tr		
Phone		Office / Room No	AS232
Teaching Assistant(s)	-	Phone	2684
E-mail	-	Office / Room No	-

Course Objectives	This course introduces the main grammatical structures to the students and helps them to develop their listening, speaking , reading and writing skills as well as vocabulary and pronunciation. The students are provided with clear rules and example sentences. The lessons contain high frequency vocabulary that the students are likely to come across during their studies and future their future careers
Learning Outcomes	1.The students will be able to understand and use English structures accurately to express themselves. 2. The students will be able to learn and use the vocabulary learnt during the lessons.
Textbooks	1 English File, Intermediate Plus, Student's Book, Christina Latham- Koenig, et al, Oxford University Press, Third Edition
and/or	2 English File, Pre-Intermediate Plus, Workbook, Christina Latham- Koenig, et al, Oxford University Press, Third Edition

WEEK	Date	TOPICS	Reference no to learning outcomes
Week 1		Pronouns	1,2
Week 2		Making adjectives	1,2
Week 3		Adjectives	1,2
Week 4		Adjective Suffixes	1,2
Week 5		Modals of deduction	1,2
Week 6		Holidays	1,2
Week 7		Possessives, shops, services	1,2
Week 8		Past Simple / Continuous, used to, stages of life	1,2
Week 9		**MID TERMS**	
Week 10		Passives	1,2
Week 11		kinds of films	1,2
Week 12		future forms, rubbish and recycling	1,2
Week 13		1st-2nd conditionals, applying for a job-course	1,2
Week 14		Present Perfect Simple, TV (phrasal verbs)	1,2
Week 15		Present Perfect Continuous, Types of TV prog.	1,2
Week 16		**FINALS**	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1		60	100
Semester Evaluation				
Midterm(s)	1		40	100,0
Quiz(zes)				
Project(s)				
Online Homework(s)				
Laboratory				
Other				

*** *Lifelong Learning Programme (LLP)* *** | Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	
Theoretical Hours	13	13x3	39
Midterm	1	1x1	1
Self Study for midterm	1	39x1	39
Final Exam	1	1x1	1
Self Study for final	1	10x1	10
		TOTAL :	90
		Recommended ECTS Credit (Total Hours / 25) :	90/30=3

EUROPEAN UNIVERSITY OF LEFKE

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMN192	English 2		3	0		3	3	
Prerequisite		Prerequisite to						

Course Lecturer	Mehmet Mert	Office Hours Schedule	Monday 09:00-11:00
E-mail	mmert@eul.edu.tr		
Phone		Office / Room No	AS232
Teaching Assistant(s)	-	Phone	2684
E-mail	-	Office / Room No	-

Course Objectives	This course introduces the main grammatical structures to the students and helps them to develop their listening, speaking , reading and writing skills as well as vocabulary and pronunciation. The students are provided with clear rules and example sentences. The lessons contain high frequency vocabulary that the students are likely to come across during their studies and future their future careers
Learning Outcomes	1.The students will be able to understand and use English structures accurately to express themselves. 2. The students will be able to learn and use the vocabulary learnt during the lessons.
Textbooks and/or	1 English File, Intermediate Plus, Student's Book, Christina Latham- Koenig, et al, Oxford University Press, Third Edition 2 English File, Intermediate Plus, Workbook, Christina Latham- Koenig, et al, Oxford University Press, Third Edition

WEEK	Date	TOPICS	Reference no to learning outcomes
Week 1	4.02.2026	Obligation, Necessity	1,2
Week 2	11.02.2026	Prohibition, advice, DIY	1,2
Week 3	18.02.2026	can, could, be able to	1,2
Week 4	25.02.2026	vocabulary, things on the table	1,2
Week 5	4.03.2026	Phrasal verbs	1,2
Week 6	11.03.2026	verb patterns	1,2
Week 7	18.03.2026	have something done	1,2
Week 8	25.03.2026	at the hairdresser's	1,2
Week 9	1.04.2026	Passive	
Week 10	4-12/04/2026	**MID TERMS**	1,2
Week 11	15.04.2026	Reported Speech	1,2
Week 12	22.04.2026	Past Perfect	1,2
Week 13	29.04.2026	be,do,have	1,2
Week 14	6.05.2026	Auxiliary + main verbs	1,2
Week 15	13.05.2026	Question tags	1,2
Week 16	16-25/05/2026	**FINALS**	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		60	100
	Semester Evaluation				
	Midterm(s)	1		40	100,0
	Quiz(zes)				
	Project(s)				
	Online Homework(s)				
	Laboratory				
	Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	
Theoretical Hours	13	13x3	39
Midterm	1	1x1	1
Self Study for midterm	1	39x1	39
Final Exam	1	1x1	1
Self Study for final	1	10x1	10
		TOTAL :	90
		Recommended ECTS Credit (Total Hours / 25) :	90/30=3

EUROPEAN UNIVERSITY *of* LEFKE

Faculty of Engineering

… Engineering Department

2025-2026 - Spring Semester - SYLLABUS

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
ENGG434	*Engineering Ethics*	Compulsory	*3*	-	-	*3*	5	*Tuesday 15:00-17:50 (ASA100)*
Prerequisite	-	**Prerequisite to**				-		

Course Lecturer	*İbrahim Bay*	**Office Hours Schedule**	*Monday 13:00-13:50*
E-mail	*ibay@eul.edu.tr*		
Phone	*+9 0 392 660 2000 (ext: 2509)*	**Office No**	*AS301*
Teaching Assistant(s)	-	**Phone**	-
E-mail	-	**Office No**	-

Catalogue Description	Ethics and professionalism, moral reasoning, moral frameworks, ethical theories, commitment of safety, risks, workplace responsibilities, honesty, equal opportunity: non-discrimination, confidentiality and conflicts of interest, environmental ethics, green engineering, sustainable development, dilemma resolution, professional rights, whistleblowing. Code of ethics: The Institute of Electrical and Electronics Engineers, American Institute of Chemical Engineers, American Society of Civil Engineers, Software Engineering. Basic ethics training. Engineering professional training, job responsibilities and professionalism, labor law and ethics. Case studies on the topics of engineering professional ethics, labor safety, environmental protection. Computers and ethics, data protection, computer failures. Global issues.
Course Objectives	This course is designed to introduce undergraduate engineering students to the concepts, theory and practice of engineering ethics. The topics cover professionalism, moral reasoning and codes of ethics, moral frameworks, commitment of safety, workplace responsibilities, environmental ethics, green engineering, dilemma resolution. Basic ethics training, job responsibilities, labor law and ethics, case studies.
Learning Outcomes	At the end of this course student will be able to: 1 *develop comprehension of professional and ethical responsibilities of engineers, including code of ethics of professional societies,* 2 *address and resolve problems arising from questionable practice,* 3 *develop critical thinking skills and professional judgement and understand practical difficulties of bringing about change,* 4 *develop a professional ethical identity to carry forward in their working life,* 5 *recognize the existence of ethical issues.*

Program Outcomes

PO1:	*1*	**PO7:**	*5*	***(1) Strongly disagree;***
PO2:	*1*	**PO8:**	*3*	***(2) Disagree;***
PO3:	*1*	**PO9:**	*3*	***(3) Neither agree, nor disagree;***
PO4:	*1*	**PO10a:**	*3*	***(4) Agree;***
PO5:	*1*	**PO10b:**	*3*	***(5) Strongly agree.***
PO6a:	*4*	**PO11:**	*3*	
PO6b:	*4*			

Textbooks and/or References

1 *Mike W. Martin and Roland Schinzinger., "Ethics in Engineering", fourth edition, 2005*

2 *Jr. Charles E. Harris, "Engineering Ethics: Concepts and Cases", 5th Edition, Wadsworth Publishing, 2013*

3 *Charles E. Harris Jr., Michael S. Pritchard., Michael J. Rabins., "Engineering Ethics: Concepts and Cases", 4th Edition, Wadsworth Publishing, 2008*

4 Herman T. Tavani, "Ethics and Technology: Controversies, Questions, and Strategies for Ethical Computing", 4th Edition, John Wiley and Sons, 2012

WEEK	Date	TOPICS	Reference No - Section
1	03/02/2026	Introduction	1-1.1;1
2	10/02/2026	Ethics and Professionalism	1-1.1;1
3	17/02/2026	Ethics and Professionalism	1-1.2,1-1.3, 2-2.1,2-2.2;2-2.3
4	24/02/2026	Moral Reasoning and Codes of Ethics	1-1.2,1-1.3, 2-2.1,2-2.2;2-2.3
5	03/03/2026	Moral Reasoning and Codes of Ethics	3-3.1,3-3.2,3-3.3, 3-5.1,3-5.2
6	10/03/2026	Moral Frameworks	1-3.1,1.3.2
7	17/03/2026	Moral Frameworks	4-4.1,4-4.2
8	24/03/2026	Engineering Ethics Case Studies	
9	31/03/2026	Engineering Ethics Case Studies	
10	07/04/2026	**Mid-Term Exams** (04/04/2026 - 12/04/2026)	
11	14/04/2026	Engineering as social Experimentation: Informed consent, Industrial Standards	3-6,1,3-6.2
12	21/04/2026	Engineering as social Experimentation: Safety issues - Commitment to Safety	3-6,1,3-6.2
13	28/04/2026	Workplace Responsibilities and Rights	3-6,3,3-6.4
14	05/05/2026	Moral Frameworks: Honesty	3-6.5,3-6.6
15	12/05/2026	Engineers and Technological Progress & Global Issues	4-7.1,4,7.2
16	19/05/2026	**Final Exams** (16/05/2026 - 25/05/2026)	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	TBA	40	
Semester Evaluation			60	100
Midterm(s)	1	TBA	20	33,3
Quiz(zes)				
Project(s)	1	TBA	20	33,3
Homework(s)				
Participation			5	8,3
Other (Presentation)	1	TBA	15	25,0

**** Lifelong Learning Programme (LLP) ****

Language of Instruction: *English*

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical Hours	15	= 15*3= 45	Applied Hours		
Midterm	1	= 1*1= 1	Final	1	= 1*1= 1
Quiz			Project	1	= 1*25= 25
Laboratory			Homework		
Atelier			Seminar		
Field Study			Presentation	1	= 1*15= 15
Other			Self Study	15	= 15*5= 75

TOTAL = 152,0

Recommended ECTS Credit (Total Hours / 30) ≈ 5,0

"FA" will be given if the student has either poor interest (<70% attendance) or insufficient data for grading.
You need to follow the Course Portal at "https://moodle.eul.edu.tr/course/view.php?id=12372"

EUROPEAN UNIVERSITY OF LEFKE

Electrical & Electronics, Electronics & Communication and Computer Engineering Departments, Faculty of Engineering

SYLLABUS

2025-2026 Fall Term

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
EE203/ECE203/ COMP205	Digital Circuits I/Digital Circuits/Digital Logic Design	Compulsory	3	0	2	4	6	Course: Tuesday at 12:00 - 14:50 Room: ASA100 Labs: ATC building. Digital Electronics LAB
Prerequisite		Prerequisite to						

Course Lecturer	Assoc. Prof. Dr. Ahmet Yaşlı	Office Hours Schedule	
E-mail	ayasli@eul.edu.tr		
Phone	2525	Office / Room No	AS314
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	Number systems, binary, octal and hexadecimal systems, conversions. Boolean algebra – logic gates. Postulates, Laws and Theorems, truth tables, simplifications of Boolean functions using Boolean laws, map method and tabular method, product- of - Sums and Sums - of - Products expressions, Universal gates. Multiplexers and de-multiplexers, encoders and decoders, combinational logic design using logic gates, multiplexers, PROM array and PAL, Half adder/subtractor, full adder/subtractor, 4-bit parallel binary adder, NAND/NOR Latcehes, Flip Flops, Binary counters (Up-Down), Shift registers (parallel-Serial shift)
Course Objectives	This course introduces the fundamental principles of digital logic design, essential for electrical and computer engineering. Students will learn to design, analyse, and implement digital systems using combinational and sequential logic. Key topics include number systems, Boolean algebra, logic gates, combinational and sequential circuit design, simplification procedures and implementing them with different schemes. Practical skills will be developed through hands-on laboratory work.
Learning Outcomes	On successful completion of the course, students should be able to understand: (1) Boolean functions and their minimisation (2) Design a combinational logic circuit, (3) Design a Sequential logic circuits, (4) Analyse a given logic circuit to assess its function and its performance

Programme Outcome Relations			
	PO1: 3 PO2: 3 PO3: 4 PO4: 3 PO5: 4 PO6a: 1 PO6b: 1	PO7: 1 PO8: 4 PO9: 1 PO10a: 1 PO10b: 1 PO11: 3	(1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree.

Textbooks and/or References		
	1	M. Morris Mano, Digital Design, 5th Ed, Prentice Hall, 2012. ISBN-10: 0-13-277420
	2	J. F. Wakerly, Digital Design: Principles and Practices, 4th Ed, Prentice Hall, 2019. ISBN-10: 013446009X
	3	Thomas LFloyd, Digital fundamentals, Prentice Hall International.

WEEK	Date	TOPICS	Reference No - Section
Week 1	22-26/09/25	Number systems	1: 1.1-1.8
Week 2	29-03/09-10/25	Boolean algebra – Laws and Theorems, Truth tables	1: 2.1-2.5
Week 3	06-10/10/25	Logical gates	1: 2.8-2.9
Week 4	13-17/10/25	Realisation structures for product- of - Sums and Sums - of - Products expressions	1: 3.4
Week 5	20-24/10/25	Simplifications of Boolean functions using Boolean laws, map method and tabular method	1: 3.1-3.3
Week 6	27-31/10/25	Comperators, Universal Gates	1: 4.8-3.6
Week 7	03-07/11/25	Quiz, Practical examples	-
Week 8	08-16/11/25	Midterm Exam	-
Week 9	17-21/11/25	Combinational Logis Circuits, Multiplexers and de-multiplexers	1: 4.1-4.4
Week 10	24-28/11/25	Encoders and decoders	1:4.111: 4.9-4.10
Week 11	01-05/12/25	Artihmetic Circuits, Adder, and Subtractor	1: 4.5-4.6
Week 12	08-12/12/25	Sequential logic circuits, Various type of Flip flops	1: 5.1-5.4
Week 13	15-19/12/25	Counters - Shift registers	1: 6.1-6.2
Week 14	22-26/12/25	PROM, PAL	1: 6.3-6.5
Week 15	29-31/12/25	Review	
Week 16	03-11/01/26	Final Exam	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		40	
	Semester Evaluation			60	
	Midterm(s)	1		25	41.7
	Quiz(zes)	1		10	16.7
	Project(s)				
	Homework(s)	1		5	8.3
	Laboratory works	11		20	33.3
	Attendance				

*** *Lifelong Learning Programme (LLP)* ***			Language of Instruction:		English
Theoretical lecturing hours (TLH)	14	42	Homework	1	5
TLH self study	14	28	Project		
Quiz (Q)	1	1	Presentation		
Q preparation self study	1	10	Seminar		
Laboratory (L)	11	22			
L preparation work	11	24			
Midterm exam (ME)	1	2	Final exam (FE)	1	2
ME preparation self study	1	15	FE preparation self study	1	25
				TOTAL :	176
				Recommended ECTS Credit (Total Hours / 30) :	5.87

EUROPEAN UNIVERSITY OF LEFKE

Computer Engineering - Faculty of Engineering

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMP 217	Data Structures	Compulsory	3	0	2	4	7	Thusday 09:00-11:50 ASA100
Prerequisite	COMP 124	Prerequisite to						

Course Lecturer	Dr. Ferhun Yorgancıoğlu	Office Hours Schedule	Monday 14:00-16:00 Tuesday 14:00-16:00 Thursday 14:00-16:00
E-mail	fyorgancioglu@eul.edu.tr		
Phone	2508	Office / Room No	AS-314
Teaching Assistant	Mr. Ferhat Cemoğlu	Phone	
E-mail		Office / Room No	

Catalogue Descriptions	This course provides a systematic introduction to fundamental data structures and their role in efficient problem solving. It focuses on abstract data types (ADTs), data representation in memory, and the design and implementation of core data structures using the C programming language. Students study stacks, queues, linked lists, and binary trees, examining their operations, implementations, and practical applications. Recursion is introduced as a fundamental technique for problem decomposition and algorithm design. The course also covers binary trees and binary search trees, with emphasis on traversal, insertion, deletion, and structural properties. By the end of the course, students develop a solid understanding of how appropriate data structure selection affects algorithm efficiency and program design.
Objectives	To provide students with foundational knowledge to understand and implement fundamental data structures—such as stacks, queues, linked lists, and binary search trees—using C, with emphasis on selecting appropriate structures for problem solving.
Learning Outcomes	Upon successful completion of the course, students will be able to: (1) describe data types, abstract data types (ADTs), and their memory representations in C; (2) implement stack-based solutions to solve computational problems; (3) implement queue structures, including circular queues, in programming tasks; (4) define and use recursion in C programs to solve computational problems; (5) implement linked data structures (singly, doubly, and circular linked lists); (6) construct and traverse binary trees and binary search trees, including insertion and deletion operations.

Programme Outcome Relations			
	PO1: 5 **PO2: 5** **PO3: 4** **PO4: 4** **PO5: 1** **PO6a: 1** **PO6b: 1**	**PO7: 1** **PO8: 3** **PO9: 2** **PO10a: 1** **PO10b: 1** **PO11: 3**	**(1) Strongly disagree;** **(2) Disagree;** **(3) Neither agree nor disagree;** **(4) Agree;** **(5) Strongly agree.**

Textbooks and/or References		
	1	Y Langsam, MJ Augenstein, AM Tenenbaum, Data Structures using C and C++, 2nd ed., Prentice Hall, 1996.
	2	TH Cormen, CE Leiserson, RL Rivest, C Stein, Introduction to Algorithms, 4th ed., MIT Press, 2022.
	3	

WEEK	Date	TOPICS	Reference No - Section
Week 1	22-26/09/25	Data and Types: Primitive and aggregate types, memory representation	1: 1.1
Week 2	29/09-03/10/25	Abstract Data Types (ADTs), types of data structures, pointers and structures in C	1: 1.1, 1.2, 1.3
Week 3	06-10/10/25	Stack Structure I: Properties, operations, array-based implementation	1: 2.1, 2.2
Week 4	13-17/10/25	Stack Structure II: Applications (Shunting yard), coding examples in C	1: 2.3
Week 5	20-24/10/25	Queue Structure: Properties, operations, circular queues, C implementation	1: 4.1
Week 6	27-31/10/25	Linked Lists I: Introduction, types, properties, simple implementation	1: 4.2, 4.3
Week 7	03-07/11/25	Linked Lists II: Singly linked list operations, stacks and queues with linked lists	1: 4.2, 4.3
Week 8	08-16/11/25	**Midterms**	
Week 9	17-21/11/25	Linked Lists III: Circular and doubly linked lists, operations in C	1: 4.5
Week 10	24-28/11/25	Recursion: Writing recursive C functions, case study (linear vs binary search)	1: 3.1, 3.2, 3.4
Week 11	01-05/12/25	Trees I: Properties, binary trees, binary search tree basics	1: 5.1
Week 12	08-12/12/25	Trees II: Binary search tree operations, searching and traversals	1: 5.2, 5.5
Week 13	15-19/12/25	Trees III: Insertion and deletion in BSTs, iterative vs recursive methods	1: 5.2, 5.4, 5.5
Week 14	22-26/12/25	Trees IV: Advanced BST operations, case studies and examples	1: 5.2, 5.4, 5.5
Week 15	29-31/12-25	Course Review and Revision	
Week 15-16	03-11/01/26	**Finals**	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	03-11/01/26	40	
Semester Evaluation			60	
Midterm(s)	1	08-16/11/25	35	58.3
Quiz(zes)				
Project(s)				
Homework				
Laboratory works	8		25	41.7
Attendance				

*** *Lifelong Learning Programme (LLP)* *** **Language of Instruction:** English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study	14	84	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)	8	16	Tutorial		
L preparation work	8	32			
Midterm exam (ME)	1	2	Final exam (FE)	1	2
ME preparation self study	1	8	FE preparation self study	1	15
			TOTAL :		201
			Recommended ECTS Credit (Total Hours / 30) :		6.70

EUROPEAN UNIVERSITY OF LEFKE

Computer Engineering - Faculty of Engineering

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMP 218	Fundamentals of Object-Oriented Prog.	Compulsory	3	0	2	4	6	Thursday 09:00-11:50 ASA100
Prerequisite	COMP 124	Prerequisite to						

Course Lecturer	Dr. Ferhun Yorgancıoğlu	Office Hours Schedule	Tuesday 15:00-16:00 Wednesday 10:00-11:00 Thursday 14:00-16:00
E-mail	fyorgancioglu@eul.edu.tr		
Phone	2508	Office / Room No	AS-314
Teaching Assistant	Mr. Ferhat Cemoğlu	Phone	
E-mail		Office / Room No	

Catalogue Descriptions	This course introduces the C++ programming language with a focus on fundamental programming constructs and object-oriented programming (OOP) principles. Topics include console input/output, function design (inline functions, function overloading, default arguments, and reference parameters), and dynamic memory management using new and delete. The course covers standard library components such as vectors and strings, and explores core OOP concepts including abstraction, encapsulation, inheritance, and polymorphism. Students study classes and objects, member functions, data hiding, constructors and destructors, and access control mechanisms. Additional topics include operator overloading, inheritance types, virtual functions, and runtime polymorphism, providing a comprehensive foundation for object-oriented software development in C++.
Objectives	To develop students' understanding of object-oriented programming principles—abstraction, encapsulation, inheritance, and polymorphism—and to support their transition from C to C++ for solving real-world programming problems.
Learning Outcomes	Upon successful completion of the course, students will be able to: (1) apply fundamental C programming concepts effectively within the C++ programming language; (2) use standard C++ library components such as vectors and strings to manage collections and data efficiently; (3) develop and implement classes demonstrating abstraction, encapsulation, and data hiding; (4) apply inheritance and composition to promote code reuse and extensible program design; (5) implement polymorphic behavior using virtual functions to create flexible and reusable object-oriented programs.

Programme Outcome Relations			
PO1: 5 PO2: 4 PO3: 5 PO4: 4 PO5: 1 PO6a: 1 PO6b: 1	PO7: 1 PO8: 3 PO9: 2 PO10a: 1 PO10b: 1 PO11: 3	**(1) Strongly disagree;** **(2) Disagree;** **(3) Neither agree nor disagree;** **(4) Agree;** **(5) Strongly agree.**	

Textbooks and/or References		
	1	HM Deitel, PJ Deitel, C++ How to Program, 10th ed., Pearson, 2017.
	2	S Prata, C++ Primer Plus, 6th ed., Addison-Wesley, 2011.
	3	B Stroustrup, Programming: Principles and Practices using C++, 2nd ed., Addison-Wesley, 2014.

WEEK	Date	TOPICS	Reference No - Section
Week 1	02-06/02/26	Introduction to C++ Programming, Program Structure, Console I/O Operations	1: 1.6-1.9
Week 2	09-13/02/26	C++ Functions: Inline Functions, Function Overloading, Default Arguments, Reference Parameters	1: 6.1-6.4, 6.12-6.17
Week 3	16-20/02/26	Standard Library Containers: Vectors – Properties and Basic Utilities	1: 7.1-7.4
Week 4	23-27/02/26	Strings and Dynamic Memory Management: C++ Strings, new and delete	1: 8.1-8.9, 7.10, 10.1
Week 5	02-06/03/26	Classes and Objects: Class Definition, Encapsulation, Access Control, Data Hiding, Setters and Getters	1: 9.1-9.3
Week 6	09-13/03/26	Constructors and Destructors, Object Lifecycle, Interface vs Implementation Separation	1: 9.4-9.10
Week 7	16-20/03/26	Const and Static Members, Friend Functions and Friend Classes	1: 9.11, 9.13, 9.15
Week 8	23-27/03/26	Composition, Member Initializer Lists, Copy Constructor, this Pointer, Method Chaining	1: 9.12, 9.14
Week 9	30/03-03/04/26	Operator Overloading: Unary and Binary Operators, Member vs Non-member Overloading	1: 10.1-10.14
Week 10	04-12/04/26	**Midterms**	
Week 11	13-17/04/26	Advanced Operator Overloading and Design Considerations	1: 10.1-10.14
Week 12	20-24/04/26	Inheritance: Basic Concepts, Access Control, Multiple Inheritance	1: 11.1-11.5
Week 13	27/04-01/05/26	Advanced Inheritance: Virtual Base Classes and Design Issues	1: 11.1-11.5
Week 14	04-08/05/26	Virtual Functions, Runtime Polymorphism, Abstract Classes	1: 12.1-12.6
Week 15	11-15/05/26	Advanced Polymorphism: Pure Virtual Functions and Virtual Destructors	1: 12.1-12.6
Week 16-17	16-25/05/26	**Finals**	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	23/05-02/06/25	40	
Semester Evaluation			60	
Midterm(s)	1	12-20/04/25	35	58.3
Quiz(zes)				
Project(s)				
Homework(s)				
Laboratory works	10		25	41.7
Attendance				

*** *Lifelong Learning Programme (LLP)* *** **Language of Instruction:** English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study	14	56	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)	10	20	Tutorial		
L preparation work	10	40			
Midterm exam (ME)	1	2	Final exam (FE)	1	2
ME preparation self study	1	8	FE preparation self study	1	15
			TOTAL :		185
			Recommended ECTS Credit (Total Hours / 30) :		6.17

EUROPEAN UNIVERSITY OF LEFKE

Compute r Programming

SYLLABUS

2025-2026 FALL SEMESTER

Course Code	Course Title	Course Type	Weekly Course Hours			Credits	ECTS	Weekly Time Schedule
			T	A	L			
COMV109	BASIC MATHEMATICS	Compulsory	3	0	0	3	5	WEDNESDAY 15:00-17:50
Prerequisite		Prerequisite to						

Course Lecturer	Aslı BARDAK	Office Hours Schedule	TUESDAY-12:00-14:50
E-mail	abardak@eul.edu.tr		
Phone		Office / Room No	AS 304
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions	Repetition of basic algebra, fractions and partial fractions. The basic algebra and linear equations, arithmetic expression and simplification of algebraic expressions. Operations with surds and indices. The techniques for solving quadratic functions. Graph sketching for quadratic equations in Cartesian plane. Solving linear, polynomial and rational inequalities. The parallel and perpendicular lines.
Objectives	Students will be able to model and solve real-world situations found in a business environment using a variety of methods of mathematics. End of this course, student be able to learn algebraic expressions, real numbers, equations and inequalities, systems of equations. It includes also includes Pascal's triangle, exponential numbers, logarithms, and linear geometry issues.
Learning Outcomes	On successful completion of this course, all students will have developed knowledge and understanding of: (1) Ability of simplified the algebraic functions (2) Use the graph to illustrate business mathematical techniques (3) Ability to understand Rational numbers, surds and solving the equations (4) Ability to unerstand exponential numbers (5) Ability to understand equations and inequalities

Textbooks and/or References		
	1	Ernest F. Haeussler, Jr. Richard S. Paul. Introductory Mathematical Analysis, Prentice Hall, 2002
	2	Frank S. Budnick, Applied Mathematics for Business, Economics and The Social Sciences, 1994, McGraw Hill
	3	Margaret L. Lial, Raymond N. Greenwell, Nathan P. Ritchey Finite Mathematics and Calculus with Applications, 10/E, Pearson, 2016
	4	L. Bostock, S. Chandler. Core Maths for A Level, Stanley Thornes (Publishers) LTD, 1994

WEEK	Date	TOPICS	Reference No - Section
Week 1	24.09.2025	Introduction to algebraic expressions	2:1.1,
Week 2	1.10.2025	Introduction to algebraic expressions	2:1.1,
Week 3	8.10.2025	Quadratic Equations	3:R.1,2
Week 4	15.10.2025	Pascal's triangle	3:R.2
Week 5	22.10.2025	Fractions and Partial Fractions	
Week 8	25/10-16/11/2025	midterm week	
Week 6	19.11.2025	Introducing the Square root's rules	3:R.6.7
Week 7	26.11.2025	Line Equation	
Week 9	3.12.2025	Equations and Quadratic Equations	2:7.3
Week 10	10.12.2025	Function properties, inverse functions	2:4.1,4.2,6.1
Week 11	17.12.2025	Solving composite functions	02:05
Week 12	24.12.2025	Linear Inequalities	2:3.1
Week 13	31.12.2025	Quadratic Inequalities and Inequalities Systems	2:1.3, 3:R.5
Week 14	03-11/01/2026	Final Exam week	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1	03-11/01/2026	50	50,0
	Semester Evaluation			50	
	Midterm(s)	1	TBA	50	50,0
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory work(s)				
	Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	13	39	Homework		
TLH self study	13	78	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)					
L preparation work					
Midterm exam (ME)	1	2	Final exam (FE)	1	2
ME preparation self study	1	14	FE preparation self study	1	22
				TOTAL :	157
				Recommended ECTS Credit (Total Hours / 30) :	5

EUROPEAN UNIVERSITY OF LEFKE

Computer Programming

SYLLABUS

2025-2026 Fall Semester

Course Code	Course	Course Name	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMV121	PHYSICS I			Compulsory	3	0	0	3	4	Wednesday 09.00-12.00
Prerequisite				Prerequisite to						

Course Lecturer	Assist. Prof Dr Nemika CELLATOĞLU	Office Hours Schedule	TUESDAY 16.00-17.00
E-mail	ncellatoglu@eul.edu.tr		
Phone	3501	Office / Room No	AS306
Teaching Assistant		Phone	
E-mail		Office / Room No	3501

Catalogue Descriptions	This course aims to introduce the fundamental concepts of physics necessary for engineering science and to provide essential background for engineering students. The course provides deep understanding about kinematics and dynamics of one dimensional, two dimensional, circular and rotational motion.
Objectives	The main aim of this course is to introduce the fundamental concepts of motion necessary for engineering science and to provide essential background for engineering students.
Learning Outcomes	On successful completion of this course, all students will have developed knowledge and understanding of: (1) an ability to translate, interpret and extrapolate important scientific models and laws governing classical mechanics, (2) an ability to demonstrate critical thinking and problem solving skills in the area of physics, (3) an ability to perform mathematical modeling of basic problems and establish their analytic solutions in field of classical mechanics, (4) an understanding of the connection of course material to real life applications.

Programme Outcome Relations			
	PO1: 5 PO2: 4 PO3: 1 PO4: 1 PO5: 1 PO6: 1	PO7: 1 PO8: 1 PO9: 1 PO10: 1 PO11: 1	(1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree.

Textbooks and/or References		
	1	Serway, Physics for Scientists and Engineers with Modern Physics, 9/e
	2	Halliday and Resnick, Fundamentals of Physics
	3	Sears and Freedman, University Physics, 10/e
	4	Gettys, Keller and Skove, Physics: Classical and Modern

WEEK	Date	TOPICS	Reference No - Section
Week 1	24.09.2025	Introduction	Ref. 1 : 1.1,1.2,1.3,1.4,1.5,1.6
Week 2	01.10.2025	Kinematics In One Dimension: Distance, displacement, average velocity, average acceleration, instan. Velocity and acceleration	Ref. 1 :2.1, 2.2,2.3,2.4
Week 3	08.10.2025	Kinematics in One Dimension with constant acceleration: , motion on x-axis and Properties of motion on y-axis	Ref. 1 : 2.5, 2.6, 2.7, 2.8
Week 4	15.10.2025	Vectors: Unit Vector Representation and Matematical Operations with Vectors	Ref. 1 :3.1, 3.2, 3.3, 3.4
Week 5	22.10.2025	Kinematics in Two Dimension: Properties of Projectile Motion	Ref. 1 :4.1, 4.2, 4.3, 4.4, 4.5, 4.6
Week 6	5.11.2025	Laws of Motion: First, Second and Third Law of Newton	Ref 1: 5.1, 5.2, 5.3, 5.4, 5.5
Week 7	12.10.2025	Applications of Newton's Laws	Ref 1: 5.6, 5.7, 5.8
Week 8	19.10.2025	Dynamics of Circular Motion	
Week 9	25.10-16.11.2025	Midterm(s)	Ref 1: 6.1 , 6.2, 6.3, 6.4
Week 10	26.11.2025	Work and Energy	Ref 1: 7.1, 7.2, 7.3 7.4, 7.5, 7.6, 7.7, 7.
Week 11	03.12.2025	Definition of Mechanical Energy, Potential Energy, Kinetic Energy and Conservation of Mechanical Energy	Ref 1:8.1, 8.2, 8.3, 8.4, 8.5
Week 12	10.12.2025	Linear Momentum and Collisions: Definition of Linear Momentum, Conservation of Momentum in Collisions (Elastic, inelastic collisions)	Ref1: 9.1- 9.8
Week 13	17.12.2025	Properties of Rotational Motion: Kinematics of Rotational Motion	Ref1 : 10.1-10.9
Week 14	24.12.2025	Rotational Kinetic Energy, Torque and Angular Mometum	Ref1 :11.1- 11.4
Week 15	31.12.2025	REVISON	
Week-16/17		FINALS	

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		40	40,0
	Semester Evaluation			60	
	Midterm(s)	2		60	60,0
	Quiz(zes)				
	Project(s)				
	Homework(s)				
	Laboratory work(s)				
	Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	13	39	Homework		
TLH self study	13	50	Project		
Quiz (Q)	2	2	Presentation		
Q preparation self study	1	4	Seminar		
Laboratory (L)			Tutorial		
L preparation work					
Midterm exam (ME)	1	2	Final exam (FE)	1	1,5
ME preparation self study	1	10	FE preparation self study	1	12
				TOTAL :	120,5
				Recommended ECTS Credit (Total Hours / 30) :	4,02

EUROPEAN UNIVERSITY OF LEFKE

Computer Programming

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
CPRG104	Operating Systems	Compulsory	3	0	0	3	6	Wednesday@ 09:00-11:50

Course Lecturer	Asst. Prof. Dr. Zafer Erenel	**Office Hours**	Wednesday @ 10:00-14:00
E-mail/Phone/Office	zerenel@eul.edu.tr, 2521, AS-312		
Catalogue Descriptions	The history of the operating systems. The hardware and software components. Application Programming Interface. Computing environments. Process Management, Process operations, Process synchronization. Processor Scheduling Criteria and Algorithms (FIFO, RR, SJF, SRTF, PRIORITY, PREEMPTIVE, NONPREEMPTIVE ALGORITHMS). The Indefinite postponement, Deadlock prevention, detection, avoidance, recovery. The main memory, swapping, fixed partition multiprogramming, variable partition multiprogramming, paging, segmentation. The virtual memory, page replacement strategies (FIFO,LRU,OPT). Secondary Storage, Disk scheduling (First-Come-First-Served, Shortest-Seek-Time-First, SCAN, C-SCAN, FSCAN, N-Step SCAN,LOOK, C-LOOK). File Systems, Directories.		
Objectives	To teach basic algorithms used in operating systems. To help students understand how computing resources are used by the applications. To give insight to the mechanisms involved in processor scheduling, memory management and disk scheduling To provide an introduction to basic DOS and UNIX commands		
Learning Outcomes	On successful completion of the course, the student should have gained: (1) knowledge of the main fucntions of the operating systems. (2) an ability to implement deadlock avoidance, prevention and detection algorithms. (3) an ability to implement memory management algorithms for swapping, paging and virtual memory. (4) an ability to implement process scheduling algorithms. (5) an ability to implement disk scheduling algorithms.		

Programme Outcome Relations			
	PO1: 5	**PO7: 1**	**(1) Strongly disagree;**
	PO2: 5	**PO8: 5**	**(2) Disagree;**
	PO3: 1	**PO9: 1**	**(3) Neither agree nor disagree;**
	PO4: 1	**PO10: 1**	**(4) Agree;**
	PO5: 1	**PO11: 1**	**(5) Strongly agree.**
	PO6: 1		

Textbooks and/or References		
	1	A. Silberschatz, P.B. Galvin, G. Gagne, Operating System Concepts, 9th ed., Wiley, 2012.
	2	H.M. Dietel, P.J. Dietel, D.R. Choffnes, Operating Systems, 3rd ed., Pearson, 2004.
	3	A.S. Tanenbaum, H. Bos, Modern Operating Systems, Pearson, 4th ed., 2016.

WEEK	Date	TOPICS	Reference No - Section
Week 1	3.2.26	Introduction to Operating Systems	1:2.1;2.2;2.3;2.4;2.5;2.6;2.7;2.8
Week 2	10.2.26	Processes	1:3.1;3.2;3.3
Week 3	17.2.26	Processes	1:3.4;3.5;3.6;3.7
Week 4	24.2.26	CPU Scheduling	1:6.1;6.2;6.3
Week 5	3.3.26	CPU Scheduling	1:6.4;6.5;6.6;6.7;6.8
Week 6	10.3.26	Deadlocks	1:7.1;7.2;2:7.7
Week 7	17.3.26	Deadlocks	7.8;7.9;7.10
Week 8	24.3.26	Deadlocks	1:7.3;7.4;7.5
Week 9	31.3.26	Main Memory	1:8.1;8.2
Week 10	7.4.26	Main Memory	1:8.3,8.4;8.5
Week 11	14.4.26	Main Memory	2:9.8;9.9
Week 12	21.4.26	Virtual Memory	1:9.1;9.2;9.4;9.5;2:11.5;11.6
Week 13	28.4.26	Disk Scheduling	2:12.4;12.5;12.6;12.7;12.8;12.9;12.10
Week 14	5.5.26	Windows	1:19.1;19.2;19.3;19.4;19.5;19.6
Week 15	12.5.26	The Linux Systems	1:18.1;18.2;18.3;18.4;18.5;18.6;18.7;18.8

Evaluation Tools	Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
	Final Exam	1		50	
	Semester Evaluation			50	
	Midterm(s)	1		45	90,0
	Quiz(zes)				
	Project(s)				
	Homework(s)	1		5	10,0
	Laboratory work(s)				
	Attendance				

*** *Lifelong Learning Programme (LLP)* *** **Language of Instruction:** English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework	1	12
TLH self study	14	70	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)					
L preparation work					
Midterm exam (ME)	1	1	Final exam (FE)	1	1
ME preparation self study	1	24	FE preparation self study	1	24
				TOTAL :	174
				Recommended ECTS Credit (Total Hours / 30) :	5,80

EUROPEAN UNIVERSITY OF LEFKE

Computer Programming

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
CPRG 117	Computing Foundations	Compulsory	3	0	2	4	6	Monday 14:00-16:50
Prerequisite		Prerequisite to				COMP 124		

Course Lecturer	Asst. Prof. Dr. Zafer Erenel	Office Hours Schedule	
E-mail	zerenel@eul.edu.tr		
Phone	2521	Office / Room No	AS-312
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions

Introduction to general problem-solving concepts, algorithms and its applications. Computer terminology, units, and number systems. Steps in problem-solving. Problem solution, pseudocode, algorithms, flowcharts, data types, and control structures. History of computers and programming. A simple C program layout, syntax and rules. C language basics, native types, identifiers, declarations, variables, expressions, and assignments. Basic console input/output functions. Operators, unary, binary, mathematical, relational, equality and logical, precedence and associativity rules, type conversions and casting. Statements, flow of control. Sequential structure. Selective structure, if-else statement. Repetitive structure, while loop, do-while loop, break/continue statements and functions. Tracing C code.

Course Objectives

This course is designed to be taught prior to Computer Programming course to students with little or no prior experience with computer programming. In addition to an introduction to flowcharts, it aims to provide basic problem-solving strategies relevant to computer programming, by exploring the definition and use of algorithms to achieve a certain task using an input data.

Learning Outcomes

1) Understanding flowcharts
2) Producing algorithms for simple problems
3) Ability to trace programs
4) Knowledge of the basics of C programming language
5) Awareness of computer terminology

Programme Outcome Relations

PO1: 5	**PO7: 1**	**(1) Strongly disagree;**
PO2: 1	**PO8: 1**	**(2) Disagree;**
PO3: 1	**PO9: 1**	**(3) Neither agree nor disagree;**
PO4: 1	**PO10: 1**	**(4) Agree;**
PO5: 1	**PO11: 1**	**(5) Strongly agree.**
PO6: 1		

Textbooks and/or References

1. Maureen Sprankle, "Problem Solving and Programming Concepts", Pearson Prentice Hall, 2006, ISBN: 0-13-119459-3
2. Marshall Brain, "The Basics of C Programming", 2013.
3.

WEEK	Date	TOPICS	Reference No - Section
Week 1	22.9	Introduction to computers and programming	
Week 2	29.9	Computers in general, terminology, units and numbers.	1: 1
Week 3	6.10	Steps of problem solving, pseudo code	1: 1, 5
Week 4	13.10	Formalizing an algorithm, flow chart	1: 5
Week 5	20.10	Problem solving with computers, control structures.	1: 6, 7
Week 6	27.10	Problem solving with computers, control structures.	1: 5
Week 7	3.11	**MIDTERMS**	
Week 8	10.11	**MIDTERMS**	
Week 9	17.11	Brief history of computers and programming.	
Week 10	24.11	Introduction to C programming, first C program, variables and statements	2: 1, 2
Week 11	1.12	Data types, operators, details of printf and scanf formatting instructions	2: 2, 4
Week 12	8.12	Functions,Libraries, Tracing Programs	
Week 13	15.12	Conditional keywords, if, else, else if, switch/case/break.	2: 3, 5, 6
Week 14	22.12	Loops using for, while, and do/while.	2: 3
Week 15	29.12	Loops using for, while, and do/while.	2: 3

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1		55	
Semester Evaluation			45	
Midterm(s)	1		45	100
Quiz(zes)				
Project(s)				
Homework(s)				
Laboratory works				
Attendance				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	13	52	Homework		
TLH self study	13	52	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)					
L preparation work					
Midterm exam (ME)	1	2	Final exam (FE)	1	2
ME preparation self study	1	36	FE preparation self study	1	36
			TOTAL :		180
			Recommended ECTS Credit (Total Hours / 30) :		6,00

EUROPEAN UNIVERSITY OF LEFKE

Computer Engineering - Faculty of Engineering

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
COMP 124	Computer Programming	Compulsory	3	0	2	4	6	Wednesday 15:00-17:50 ASA100
Prerequisite	COMP 117	Prerequisite to				COMP 217 / COMP 218		

Course Lecturer	Dr. Ferhun Yorgancıoğlu	Office Hours Schedule	Tuesday 15:00-16:00 Wednesday 10:00-11:00 Thursday 14:00-16:00
E-mail	fyorgancioglu@eul.edu.tr		
Phone	2508	Office / Room No	AS-314
Teaching Assistant	Mr. Ferhat Cemoğlu	Phone	
E-mail		Office / Room No	

Catalogue Descriptions

This course introduces the C programming language with an emphasis on structured programming principles and fundamental programming techniques. Topics include expressions, data types, operators, and control structures such as if–else, switch–case, and iterative loops. The course covers function design, parameter passing, and scope rules, followed by arrays and strings and their use within functions. Pointers are studied in relation to arrays, pointer arithmetic, and function arguments. User-defined data types—including structures, unions, and enumerations—are introduced to support modular program design. The course also presents preprocessing directives and standard header files, providing a foundation for writing efficient and well-organized C programs.

Objectives

To equip students with structured programming skills in C by developing proficiency in control-flow constructs, functions, and derived data types—including arrays, pointers, strings, and structures—for effective problem solving.

Learning Outcomes

Upon successful completion of the course, students will be able to:
(1) explain fundamental C language concepts, including data types, operators, expressions, and evaluation order;
(2) apply control structures such as if–else, switch–case, while, for, and do–while loops to solve programming problems;
(3) implement procedural programs using C functions, including parameter passing, scope rules, and storage classes;
(4) use arrays, strings, and pointers effectively, including implementing custom string-processing functions;
(5) define and apply user-defined data types, particularly structures, within modular C programs.

Programme Outcome Relations

PO1: 5	PO7: 1	(1) Strongly disagree;
PO2: 5	PO8: 3	(2) Disagree;
PO3: 3	PO9: 2	(3) Neither agree nor disagree;
PO4: 4	PO10a: 1	(4) Agree;
PO5: 1	PO10b: 1	(5) Strongly agree.
PO6a: 1	PO11: 2	
PO6b: 1		

Textbooks and/or References

1	SG Kochan, Programming in C, 4th ed., Addison-Wesley, 2015.
2	S Prata, C Primer Plus, 6th ed., Addison-Wesley, 2014.
3	P Prinz, T Crawford, C in a Nutshell: The Definitive Reference, 2nd ed., O'Reilly Media, 2016.

WEEK	Date	TOPICS	Reference No - Section
Week 1	02-06/02/26	Introduction to C, Console I/O Operations	1: 1, 2; 2: 2, 4
Week 2	09-13/02/26	Expressions, Data Types, and Type Conversions	1: 3; 2: 3, 5
Week 3	16-20/02/26	Selection Statements: if–else, switch–case, Nesting	1: 5; 2: 7
Week 4	23-27/02/26	Iteration Statements: Loops, break, continue, Nesting	1: 4; 2: 6
Week 5	02-06/03/26	Writing Functions: Return Statements, Function Calls, Parameters vs Arguments, Call by Value	1: 7; 2: 9
Week 6	09-13/03/26	Writing Functions: Modular Function Design and Program Decomposition	1: 7; 2: 9
Week 7	16-20/03/26	Scope Rules, Storage Classes, Function Prototypes	1: 12, 14; 2: 9, 12, 16
Week 8	23-27/03/26	Arrays: Declaration, Initialization, Arrays as Function Arguments, Multi-dimensional Arrays	1: 6; 2: 10
Week 9	30/03-03/04/26	Strings: Character Arrays, Standard String-Handling Functions, String Manipulation	1: 9; 2: 11
Week 10	04-12/04/26	**Midterms**	
Week 11	13-17/04/26	Pointers: Pointer Arithmetic, Array–Pointer Relationship, Pointer Notations	1: 10; 2: 10
Week 12	20-24/04/26	Pointers as Function Arguments, Arrays of Pointers, Dynamic Memory Allocation	1: 10; 2: 10
Week 13	27/04-01/05/26	Structures and Enumerations, Structures in Functions	1: 8; 2: 14
Week 14	04-08/05/26	Structures vs Unions, Preprocessing Directives, Review of Pointers and Structures	1: 8; 2: 14
Week 15	11-15/05/26	Course Review and Revision	
Week 16-17	16-25/05/26	**Finals**	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	23/05-02/06/25	40	
Semester Evaluation			60	
Midterm(s)	1	12-20/04/25	35	58.3
Quiz(zes)				
Project(s)				
Homework(s)				
Laboratory works	8		25	41.7
Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework		
TLH self study	14	63	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)	8	16	Tutorial		
L preparation work	8	24			
Midterm exam (ME)	1	2	Final exam (FE)	1	2
ME preparation self study	1	8	FE preparation self study	1	15
				TOTAL :	172
				Recommended ECTS Credit (Total Hours / 30) :	5.73

EUROPEAN UNIVERSITY OF LEFKE

Computer Programming

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
CPRG152	Introduction to Information Systems		3	0	0	3	8	Thursday 15:00 - 17:50
Prerequisite	None	Prerequisite to				None		

Course Lecturer	Assist. Prof. Dr. Önder Onursal	Office Hours Schedule	Thursday 11:00 - 12:00, Friday: 11:00 - 12:00
E-mail	oonursal@eul.edu.tr		
Phone	2787	Office / Room No	AS103
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room	-

Course Objectives

The purpose of the course is to provide students with solid grounding in business uses of information technology in a rapidly changing environment, and to provide discussion of critical issues surrounding the use of IT in organizations. Specific learning objectives are: Recall and explain terminology and concepts related to hardware, software, and networks; Increase awareness of ethical issues related to using technology in business contexts; Use information technology as a tool to do essential business tasks.

Learning Outcomes

On successful completion of the course, the student should:
1. The student will demonstrate an understanding of the scope, purpose and value of information systems in an organization.
2. Demonstrate basic computer literacy by recalling terminology and concepts related to hardware, software, and networks
3. Organize, summarize, and analyze data, ceate meaningful and effective information
4. Analyze the impact of computers on society and on the workplace.
5.The student will demonstrate an understanding of Enterprise Information Systems as they relate to enhancing business intelligence and processes.
6. The student will demonstrate an understanding of the processes involved in developing and securing Information Systems.

Textbooks and/or References

1	Rainer, R. K., Prince, B., Splettstoesser-Hogeterp, I., Sanchez-Rodriguez, C., & Ebrahimi, S. (2020). Introduction to information systems. John Wiley & Sons.
2	Stair, R., & Reynolds, G. (2020). Principles of information systems. Cengage Learning.
3	Beynon-Davies, P. (2020). Business information systems. Red Globe Press.

WEEK	Date	TOPICS	Reference No - Section
Week 1	5.02.2026	Introduction of the Course and Syllabus	1;1
Week 2	12.02.2026	Foundation of Information Systems	1;1,2 2;1,2
Week 3	19.02.2026	E-Business	2;1,2,3
Week 4	26.02.2026	Competitive Advantage with Information Systems	1;2 2;2
Week 5	5.03.2026	IT Infrastructure	1;2,3 2;2,3
Week 6	12.03.2026	Communication and Networks	1;3 2;3
Week 7	19.03.2026	**Information System Development**	3;3,4
Week 8	2.04.2026	Social Computing	1;4 2;4
Week 9	04-12/04/2026	Midterm(s)	
Week 10	16.04.2026	Databases and Information Management	1;5 2;5 3;3,4
Week 11	23.04.2026	National Holiday	
Week 12	30.04.2026	Enterprise Applications - Improving Decision Making and Managing Knowledge	1;6 2;6 - 3;4,5
Week 13	7.05.2026	Securing Information Systems	1;7 2;7
Week 14	14.05.2026	Ethical and Social Issues in Information Systems - Future Trends in Information Systems	1;8 2;8 - 1;8,9 2;8,9
Week 15	16-25/05/2026	Final Exam(s)	
Week 16/17			-

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	16-25/05/2026	50	
Semester Evaluation			50	
Midterm(s)	1	04-12/04/2026	35	
Quiz(zes)				
Project(s)				
Homework(s)	1		15	
Laboratory				
Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	14	42	Homework	1	30,0
TLH self study	14	84	Project		
Quiz (Q)			Presentation		
Q preparation self study			Seminar		
Laboratory (L)					
L preparation work					
Midterm exam (ME)	1	1	Final exam (FE)	1	1
ME preparation self study	1	30	FE preparation self study	1	45
			TOTAL :		233
			Recommended ECTS Credit (Total Hours / 30) :		7,77

European University of Lefke

Computer Programming

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
CPRG214	Internet Programming	Elective	3			3	5	Monday: 9.00-12.00
Prerequisite		Prerequisite to						

Instructor	Assist. Prof.Dr. Feride S. Tabak	Office Hours Schedule	Monday (14-17)
E-mail	ftabak@eul.edu.tr		
Phone		Office / Room No	AS304
Teaching Assistant(s)	_	Phone	_
E-mail	_	Office / Room No	_

Catalogue Descriptions	The objective of this course to introduce the some popular client side web programming language to the students to help them to design the web applications.
Objectives	The objective of this course to introduce the some popular client side web programming languages to design the web applications and provide a communication with other services and servers
Learning Outcomes	At the end of this course student will be able to:
	1. An ability to understand the fundamental concepts of client-side web programming.
	2. An ability to understand the fundamental concepts of server-side web programming.
	3. An ability to get instant infotmation changes from sites through an API
	4.To be able to integrate client and server side programming

"Textbooks and/or References"		
	1	Porter Scobey, Pawan Lingras. Web Programming and Internet Technologies: An E-commerce Approach, september 2016
	2	w3schools.comn/php

WEEK	Date	TOPICS	Reference No - Section
Week 1	2.02.2026	introduction to internet languages	1- 2
Week 2	9.02.2026	introduction to HTML, lists, tables	1-3
Week 3	16.02.2026	HTML,form , validation	1-5
Week 4	23.02.2026	CSS, inline, embeded, external	1-4, 1-6.
Week 5	2.03.2026	CSS details, JavaScript and	1-7
Week 6	9.03.2026	JavaScript	
Week 7	16.03.2026	JavaScript	
Week 8	23.03.2026	Dynamic Objects	1-8
Week 9	30.03.2026	Bootstrap	1-8
Week 10	6.04.2026	Midterm(s)	
Week 11	13.04.2026	Php Syntax	1-8
Week 12	20.04.2026	PHP Forms,	1-9
Week 13	27.04.2026	File handling	1-9, 1-10
Week 14	4.05.2026	PHP cookies, session	
Week 15	11.05.2026	Revision	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1		50	
Semester Evaluation				
Midterm(s)	1		30	
Quiz(zes)				
Assignment(s)	2		20	
Homework(s)				
Laboratory works				
Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of Instruction: English

Evaluation Tool	Quantity	Student Workload	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	11	36	Homework		
TLH self study	11	36	Assignment	2	20
Quiz (Q)			Presentation		
Q preparation self study		10	Seminar		
Laboratory (L)					
L preparation work					
Midterm exam (ME)	1	10	Final exam (FE)	1	1
ME preparation self study		20	FE preparation self study	1	20
TOTAL :					153
Recommended ECTS Credit (Total Hours / 30) :					5,10

EUROPEAN UNIVERSITY OF LEFKE

Computer Programming

SYLLABUS

2025-2026 Fall Semester

Course Code	Course Title	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
CPRG215	Database Management Systems	Compulsory	3	0	2	4	5	Monday 13:00-16:50 AS112
Prerequisite		Prerequisite to						

Course Lecturer	Asst . Prof. Dr. Feride S. Tabak	Office Hours Schedule	Friday 10:00-12:00
E-mail	ftabak@eul.edu.tr		
Phone	2787	Office / Room No	AS103
Teaching Assistant		Phone	
E-mail		Office / Room No	

Catalogue Descriptions

Foundations of a database system: applications, purpose of database systems, view of data, data models, data abstraction, instances and schemas, database languages, database design. Relational model: tables, tuples, attributes, domains, database schema, keys, schema diagrams, relational query languages, the relational algebra. Structured Query Language (SQL): overview, basic types and schema definitions, basic structure of SQL queries, queries on a single relation, queries on multiple relations, Cartesian product, the rename operation, string operations, ordering the display of tuples, set operations, null values, aggregate functions, aggregation with grouping, the having clause, nested subqueries, set membership, set comparison, test for empty relations, test for the absence of duplicate tuples, subqueries in the from clause, the with clause, scalar subqueries, modification of the database, insertions, deletions and updates, join expressions, views, transactions, integrity constraints, SQL data types and schemas, index definition in SQL, authorization, accessing SQL from a programming language. Database design using the Entity-Relationship (E-R) model: design process, the E-R model, entity sets, relationship sets, complex attributes, mapping cardinalities, participation constraints, E-R diagrams, reducing E-R diagrams to relational schemas, extended E-R features, design issues, alternative notations.

Objectives

To place on solid foundations the fundamental concepts necessary for designing, implementing and using database systems; to help students understand the relational and the entity-relationship data models; and to teach how to query a relational database using the structured query language.

Learning Outcomes

Upon successful completion of the course, the student should have gained: (1) a general understanding of working with relational databases; (2) theoretical skills in writing queries using relational algebra; (3) practical skills in writing queries for relational databases using the Structured Query Language; (4) practice drawing an E- R diagram and reducing an E-R diagram to relational database schemas as a step towards database design; and (5) team-based project experience by developing a database application program.

Programme Outcome Relations

PO1: 5	PO7: 3	(1) Strongly disagree;
PO2: 3	PO8: 3	(2) Disagree;
PO3: 3	PO9: 1	(3) Neither agree nor disagreee;
PO4: 5	PO10: 1	(4) Agree;
PO5: 1	PO11: 1	(5) Strongly agree.
PO6: 5		

Textbooks and/or References

1. Abraham Silberschatz, Henry F. Korth, S. Sudarshan, Database Systems Concepts, 7th ed, McGraw-Hill, 2020.
2. Jeffrey A. Hoffer, Ramesh Venkataraman, Heikki Topi, Modern Database Management, 13th ed, Pearson, 2020.
3.

WEEK	Date	TOPICS	Reference No - Section
Week 1	24.09.2025	Database systems: applications, view of data, data models, database languages, database design, history	1: 1.1, 1.2, 1.3, 1.4, 1.5, 1.7, 1.8, 1.9
Week 2	1.10.2025	Relational model and algebra: structure of relational databases, database schema, keys, relational algebra	1: 2.1, 2.2, 2.3, 2.4, 2.5, 2.6
Week 3	8.10.2025	Intro. to SQL: overview, SQL data definition, basic structure of SQL queries, additional basic operations	1: 3.1, 3.2, 3.3, 3.4
Week 4	15.10.2025	Intro. to SQL: set operations, null values, aggregate functions, aggregation with grouping, having clause	1: 3.5, 3.6, 3.7
Week 5	22.10.2025	Intro. to SQL: nested subqueries, with clause, scalar subqueries, SQL and multiset relational algebra	1: 3.8
Week 6	29.10.2025	PUBLIC HOLIDAY	
Week 7	5.11.2025	Intro. to SQL: modification of the database (insert, delete, update), join expressions (types and conditions)	1: 3.9, 4.1
Week 8	12.11.2025	Midterm(s)	
Week 9	19.11.2025	Intermediate SQL: views, transactions, integrity constraints, check clause, referential integrity, assertions	1: 4.2, 4.3, 4.4
Week 10	26.11.2025	Intermediate SQL: SQL data types and schemas, user-defined types, index definition in SQL, authorization	1: 4.5, 4.6, 4.7
Week 11	3.12.2025	E-R Model: design process, E-R model, complex attributes, mapping cardinalities, primary keys	1: 6.1, 6.2, 6.3, 6.4, 6.5
Week 12	10.12.2025	E-R Model: removing redundant attributes in entity sets, reducing E-R diagrams to relational schemas	1: 6.6, 6.7
Week 13	17.12.2025	E-R Model: sample E-R diagrams to be drawn on the board, design views, extended E-R features	1: 6.1-6.7, 6.8
Week 14	24.12.2025	E-R Model: sample E-R diagrams to be drawn on the board, design views, extended E-R features	1: 6.1-6.7, 6.8
Week 15	31.12.2025	holiday	
Week 16	7.01.2026	Final Exam	

Evaluation Tools

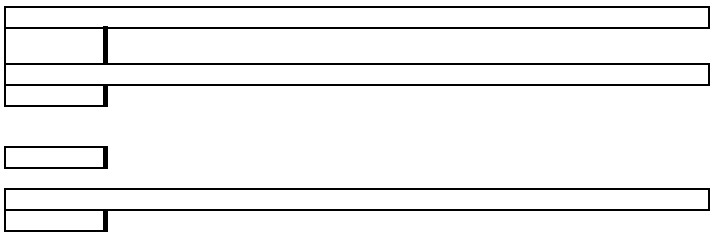
Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1	3-11/01/25	50	
Semester Evaluation			60	
Midterm(s)	1	8-16 /11/25	25	58,3
Quiz(zes)	1		5	
Project(s)	2	10 each	20	
Homework(s)				
Laboratory works	5		20	41,7
Attendance				

*** *Lifelong Learning Programme (LLP)* ***

Language of: English

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	12	36	Homework		
TLH self study	12	36	Project	2	12
Quiz (Q)	1	3	Presentation		
Q preparation self study			Seminar		
Laboratory (L)	7	14	Tutorial		
L preparation work	7	40			
Midterm exam (ME)	1	2	Final exam (FE)	1	2
ME preparation self study	1	8	FE preparation self study	1	12

TOTAL :	150
Recommended ECTS Credit (Total Hours /	5,00



EUROPEAN UNIVERSITY OF LEFKE

Computer Programming

SYLLABUS

2025-2026 Spring Semester

Course Code	Course Name	Course Type	Weekly Course Hours T	A	L	Credits	ECTS	Weekly Time Schedule
CPRG252	Programming for Management Information Systems		3	0	0	3	6	Thursday 12:00 - 15:00
Prerequisite	None	Prerequisite to				None		

Course Lecturer	Assist.Prof. Feride S. Tabak	Office Hours Schedule	-
E-mail	ftabak@eul.edu.tr		
Phone		Office / Room No	AS304
Teaching Assistant(s)	-	Phone	-
E-mail	-	Office / Room	-

Course Objectives	Introduction to general problem-solving concepts, algorithms and its applications. Computer terminology, units, and number systems. Steps in problem-solving. Problem solution, pseudocode, algorithms, flowcharts, data types, and control structures. History of computers and programming. A simple C/Phyton program layout, syntax and rules. C and Phyton language basics, declarations, variables, expressions. Basic console input/output functions. Operators, binary, mathematical, relational, equality and logical. Statements, flow of control. Sequential structure. Selective structure, if-else statement. Repetitive structure, while loop, do-while loop, break/continue statements. Basics of web coding and desgin.
Learning Outcomes	On successful completion of the course, the student should: 1) Able to understand programming and computing concepts 2) Ability to understand and solve problems 3) Develop an ability to develop algorithms for simple problems 4) Develop flowcharts 5) Knowledge of basics C programming language 6) Knowledge of basics Phyton programming language

Textbooks and/or References	1	Wang, H., & Wang, S. (2014). Programming languages for MIS: Concepts and practice. CRC Press.
	2	Stropkovics, K. (2019). Most popular programming languages 2019.
	3	Jeri R. Hanly and Elliot B. Koffman, "Problem Solving and Program Design in C", Pearson Prentice Hall, 2013, ISBN-13: 978-0-13-293649-1
	4	Knuth, D. E. (2014). Art of computer programming, volume 2: Seminumerical algorithms. Addison-Wesley Professional.
	5	Thanaki, J. (2017). Python natural language processing. Packt Publishing Ltd.
	6	McFedries, P. (2018). Web coding & development all-in-one. John Wiley & Sons, Inc.,.

WEEK	Date	TOPICS	Reference No - Section
Week 1	5.02.2026	Introduction of the Course and Syllabus	1;1
Week 2	12.02.2026	Introduction to Computers	1;1,2
Week 3	19.02.2026	Problem Solving Tecniques	3;1,2
Week 4	26.02.2026	Beginning Problems-Solving Concepts for MIS	3;2,3
Week 5	5.03.2026	Planning Solutions and Flowcharts,	3;2,3,4 3;4,5,6
Week 6	12.03.2026	Algorithms and Pseudocodes	1;4,5 2;3
Week 7	19.03.2026	Taxonomies of Computer Programming Languages	1;4,5 2;3, 2;4,5 4;3
Week 8	26.03.2026	Basics of C Programming and Online Editor for C programming, Syntax, Variables and Data Types	1;4,5 2;3, 2;4,5 4;3
Week 9	2.04.2026	Midterm(s)	
Week 10	9.04.2026	Midterm(s)	
Week 11	16.04.2026	Branching and Looping; If & Else Statements / Do & While Statements / For Statements	1;5,6 2;3 3;5,6 2;5,6 3;7
Week 12	23.04.2026	Public Holiday	
Week 13	30.04.2026	Basics in Phyton	5;1,2,3
Week 14	7.05.2026	Basics in Phyton	5;1,2,3
Week 15	14.05.2026	FINAL	

Evaluation Tools

Evaluation Tool	Quantity	Date	Weight in Total (%)	Weight in Semester Evaluation (%)
Final Exam	1		50	
Semester Evaluation				
Midterm(s)	1		30	
Quiz(zes)	2		10	
Project(s)				
Assignment(s)	1		10	
Laboratory				
Other				

*** *Lifelong Learning Programme (LLP)* *** Language of Instruction: **English**

Evaluation Tool	Quantity	Student Workload Hours	Evaluation Tool	Quantity	Student Workload Hours
Theoretical lecturing hours (TLH)	11	46	Homework	1	20,0
TLH self study	11	46	Project		
Quiz (Q)	2	10	Presentation		
Q preparation self study			Seminar		
Laboratory (L)	10	10			
L preparation work		10			
Midterm exam (ME)	1	10	Final exam (FE)	1	10
ME preparation self study	1	10	FE preparation self study	1	15
			TOTAL :		187
			Recommended ECTS Credit (Total Hours / 30) :		6,23