Identification	Subject	CMS 515 Advanced Object-Oriented Programming, 3 KU		
		/6 ECTS credits		
	Department	Computer Science		
	Program	Graduate		
	Term	Fall, 2022		
	Instructor	Javad Mehri-Tekmeh (PhD)		
	E-mail:	jmehri@khazar.org		
	Phone:	(+994 12) 421 1093 (ext. 266)		
	Classroom/hours	41 Mehseti str. (Neftchilar camp	pus), 414 old, 18:30-21:00	
Prerequisites	CMS 205 Object Oriented Programming			
Language	English			
Compulsory/Electi	Required			
ve				
Required textbooks	Core Textbook:			
and course	1 Stavan E. Latt & Dusty			
materials	I. Slevell F. Loll & Dusty I Edition Packt Publishin	σ_{2021}	eu Flogramming, Fourti	
	References.	Edition, Packt Publishing, 2021.		
	1 C Severance "Python for Everybody: Exploring Data Using Python 3"			
	CreateSpace Independent Publishing Platform, 2016.			
Course website	This course combines traditional face-to-face classes.			
Course outline	In this course, students	will get to know advanced	topics in object-oriented	
	programming. Python progra	amming language is used to bett	er understand the topics.	
Course objectives	This course is designed for the students of Computer science and Computer engineering			
	of Khazar University.			
	General objective of the Course:			
	• To meet curriculum requirements of the School			
	• Equipping students with object-oriented design and analysis patterns			
	• To acquire the skills needed to develop high quality programs			
	• Empowering students to test programs and fix bugs			
Learning outcomes	Students should be able to do	o the following by the end of the	e course:	
	Build robust and ma	intainable object-oriented Pytho	on applications	
	Write automated test	ts to verify that the program is w	vorking	
	• Use built-in exception	ons and structures in Python		
	• Write an object-orier	nted program using design patte	rns	
	• Write a program that	t responds to external events usi	ng multi-core processors	
Teaching methods	Lecture		X	
	Group discussion		X	
	Experiential exercise			
Evolution	Course paper Mothods	Data/daadlinas	A Dorcontago (%)	
Evaluation	Midterm Exam	Date/deadimes	30	
	Assignment and quizzes		30	
	Final Exam		40	
	Total		100	
Policy	 Preparation for class 			
U	The structure of this course emphasizes the importance of independent study and			
	preparation outside of class. The lecture material will concentrate on the key points			
	raised in the text. Reading the assigned chapters and becoming acquainted with			
	them prior to class will aid your understanding of the lecture. Following the lecture,			

ی Date/Day		Topics	Textbook
Tentative Schedule			
		be punished accordingly.	
		Use of any electronic devices is not allowed in the classroom and	violators will
	All cell phones must be turned off and stowed away before entering class.		
		Students should not arrive in late to class.	
	•	Ethics	
		forbidden.	
		professional environment. Unauthorized conversations and unethic	al behavior are
		During class, students must act in a way that fosters a positive academic and	
	•	Professional behavior guidelines	
		without further consideration.	
		will lead to paper cancellation. In this case, the student will r	receive a zero (0)
		Cheating or other plagiarism during the Quizzes, Mid-term and F	inal Examinations
	•	Cheating/plagiarism	
		the following term or year.	_
		at least 60%. In the event of failure, he or she will be required to	repeat the course
		Applied Science. As a result, a student is normally expected to pa	ss with a grade of
		This course strictly adheres to the grading policy of the School o	f Engineering and
		Withdrawal (pass/fail)	
		sessions will take place during the regular class times.	
		We will also have many review sessions throughout the semes	ter. These review
		chapter's end, as well as sample exam questions.	
		you should review your notes and work on relevant problems and	nd cases from the

c,	Date/Day	Topics	Textbook
M -	(tentative)		
1	20 Sep.		Ch. 1-2
	2022	• Recall. An overview of core concepts in OOP	
		• Python. Getting started	Lecture notes
2	27 Sep. 2022	Introductory OOP in Python. Assignment (5 points).	Ch. 3-6
3	4 Oct. 2022	<u>Quiz</u> (5 points) + Python Data Structures. Tuples, Dictionaries, Lists,	Ch. 7
		Sets, Queues.	
4	11 Oct.	Functions. Assignment Due	Ch. 8
	2022		
5	18 Oct.	File I/O.	Ch. 8
	2022		
6	25 Oct.	Quiz (5 points) +Strings, Regular Expressions.	Ch. 9
	2022		
7	1 Nov.	Review for Midterm exam & Exercise.	
	2022		
8	8 Nov.	Midterm Exam.	
	2022		

9	15 Nov.	File Path.	Ch. 9
	2022		
10	22 Nov.	The Iterator Pattern.	Ch. 10
	2022		
11	29 Nov.	Design Patterns. Assignment (5 points)	Ch. 11
	2022		
12	6 Dec.	Quiz (5 points) + Advanced Design Patterns.	Ch. 12
	2022		
13	13 Dec.	Testing. Assignment Due	Ch. 13
	2022		
14	20 Dec.	Quiz (5 points) + Concurrency.	Ch. 14
	2022		
15	27 Dec.	Review for the final exam & Exercise	
	2022		
	TBA		
		Final Exam	

This syllabus is a guide for the course and any modifications to it will be announced in advance.