AGU Department of Computer Engineering

COURSE RECORD

Code	COMP 101
Name	Art of Computing
Hour per week	3+2 (Theory + Practice)
Credit	4
ECTS	5
Level/Year	Undergraduate
Semester	Fall
Type	Compulsory
Prerequisites	
Description	The course aims to teach the essentials of computer programming to students who have little or no background in programming. The students will learn how to write computer programs using SNAP and Java languages. The course will introduce the fundamental concepts and techniques of programming using the graphical programming language SNAP and the contemporary general-purpose programming language Java.
Objectives	O1. To develop knowledge of the fundamentals of computer programming.
	O2. To solve a problem by creating an algorithm.
	O3. To comprehensively develop programming skills in software design.
	O4. Apply the concepts learned to a real problem from top to bottom.
Learning Outcomes	*By the end of the course, the student will be able to*
	LO1. Explain what a computer programming language and an algorithm are.
	LO2. Understand how to formulate a problem into an algorithm that can be programmed in a computer
	LO3. Gain an understanding of how computer programs work.
	LO4. Build a script in the SNAP language and write a program in the Java language.

CONTRIBUTION TO PROGRAMME OUTCOMES*

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	PO15
LO1	5	5	5	3	5	5	3	3	1	0	4	5	5	2	4
LO2	5	5	5	2	4	2	2	4	5	3	5	4	5	2	5
LO3	4	5	3	1	1	0	4	1	1	0	5	3	5	2	5
LO4	5	5	5	4	5	4	1	5	5	3	4	5	5	2	5

* Contribution Level: 0: None, 1: Very Low, 2: Low, 3: Medium, 4: High, 5: Very High

COURSE CONTENT DETAILS

Topics	Outcomes
W1 Introduction to Art of Computing	LO1, LO2
W2 Introduction to Programing Languages, snap.berkeley.edu, Hackerrank	LO1, LO2
W3 Intro to JAVA, eclipse installation, snap questions, Blocks Desing Principles	LO1, LO2
W4 Variables, IO operations	LO1, LO2, LO3
W5 Conditional Statements - Snap	LO1, LO2, LO3
W6 Conditional Statements - Java	LO1, LO2, LO3
W7 Loops, nested loops - Snap	LO1, LO2, LO3
W8 Loops, nested loops - Java	LO1, LO2, LO3
W9 Methods - Snap & Java	LO1, LO2, LO3, LO4
W10 Methods - Snap & Java	LO1, LO2, LO3, LO4
W11 Lists, 2D Lists in SNAP	LO1, LO2, LO3, LO4
W12 Arrays, 2d Arrays - Java	LO1, LO2, LO3, LO4
W13 Classes and Objects	LO1, LO2, LO3, LO4
W14 Overall Recap	LO1, LO2, LO3, LO4

AGU Department of Computer Engineering

DERS BİLGİLERİ

Kodu	COMP 101
İsmi	Programlama Sanatı
Haftalık Saati	3 + 2 (Teori + Pratik)
Kredi	4
AKTS	5
Seviye/Yıl	Lisans
Dönem	Güz
Dersin Dili	İngilizce
Tip	Zorunlu
Ön Şart	-
İçerik	Bu ders,, programlama konusunda bilgisi olan veya hiç bilgisi olmayan öğrencilere bilgisayar programlamanın temellerini öğretmeyi amaçlamaktadır. Öğrenciler, SNAP ve Java dillerini kullanarak bilgisayar programlarının nasıl yazılacağını öğreneceklerdir. Derste, grafik programlama dili SNAP ve çağdaş genel amaçlı programlama dili Java'yı kullanarak programlamanın temel kavramlarını ve tekniklerini tanıtacaktır.