

Programming 4

Basic Course Information			
Course Number	0100098	Subject Category	Computer Science
Class Format	Lecture	Credit Type and Number of Credits	1
Department	Mathematics	Student Category	Year 2
Period of Study	Semester 2	Classes per Week	2
Required Materials			
Instructor	Taracon Chafon	Taracon Katsamam	

Course Objective
 The course provides that students will learn basic programming concepts and techniques. Students will use Python as their programming language. Students will learn how to use modules and classes in Python.

Evaluation/Pubric	Ideal Level of Achievement (Very Good)	Standard Level of Achievement (Good)	Unacceptable Level of Achievement (Fail)
Understanding how to design object-oriented model and implements in Python	Demonstrates very good knowledge and understanding of how to	Demonstrates good knowledge and understanding of	Lacks knowledge and understanding of how to design object-oriented
Understanding how to use a module of OpenCV in python program to handle camera device and apply the module to implement recognition system	Demonstrates very good knowledge and understanding of how to use a module of OpenCV in python program to handle camera device and apply the module to implement recognition system	Demonstrates good knowledge and understanding of how to use a module of OpenCV in python program to handle camera device and apply the module to implement recognition system	Lacks knowledge and understanding of how to use a module of OpenCV in python program to handle camera device and apply the module to implement recognition system
Understanding how to use a module of Flask in python program to handle and deploy small web server	Demonstrates very good knowledge and understanding of how to use a module of Flask in python program to handle and deploy small web server	Demonstrates good knowledge and understanding of how to use a module of Flask in python program to handle and deploy small web server	Lacks knowledge and understanding of how to use a module of Flask in python program to handle and deploy small web server
Understanding how to programming with sockets and principle of Client/Server	Demonstrates very good knowledge and understanding of how to programming with sockets	Demonstrates good knowledge and understanding of how to programming with sockets	Lacks knowledge and understanding of how to use a module of Flask in python program to programming with sockets

Relationship with Learning Outcomes
CI1) Ability to operate and administer the computer software and hardware
CI2) Ability to understand the operating system and to develop software to solve specific problems.
CI3) Ability to design, process and implement IT Internet of Things systems and solutions.

Teaching Method
Outline: Lecture and practical group discussion
Class Format: Lecture, practice, quiz, and reports
Please Note :

Course Plan	Semester 2	Contents and Method of Course	Goals	Related MCC
week 1		OpenCV	Understanding the basic of OpenCV	V-1 2 107 V-1 3 108 V-1 3 109
week 2		OpenCV	Understanding the basic of OpenCV	V-1 3 107 V-1 3 108 V-1 3 109
week 3		OpenCV	Understanding how to use OpenCV	V-1 3 107 V-1 3 108 V-1 3 109
week 4		Class and object-oriented programming (OOP)	Understanding Class and OOP of python	V-1 1 14 V-1 1 15 V-1 1 16
week 5		Holiday	Holiday	
week 6		Class and object-oriented programming (OOP)	Understanding Class and OOP of python	V-1 1 14 V-1 1 15 V-1 1 16
week 7		Class and object-oriented programming (OOP)	Understanding Class and OOP of python	V-1 1 14 V-1 1 15 V-1 1 16
week 8		Prepare for Midterm Exam	Prepare for Midterm Exam	
week 9		Midterm Examination	Midterm Examination	
week 10		Midterm Examination	Midterm Examination	
week 11		Supervised Learning	Understanding Supervised Learning	V-1 2 18 V-1 2 19 V-1 2 20
week 12		Supervised Learning	Understanding Supervised Learning	V-1 2 18 V-1 2 19 V-1 2 20
week 13		Unsupervised Learning	Understanding Unsupervised Learning	V-1 2 18 V-1 2 19 V-1 2 20
week 14		Unsupervised Learning	Understanding Unsupervised Learning	V-1 2 18 V-1 2 19 V-1 2 20
week 15		Mini Project: Class and object-oriented programming (OOP)	Understanding how to use Class and OOP of python	B-1 4 7
week 16		Mini Project: Class and object-oriented programming (OOP)	Understanding how to use Class and OOP of python	B-1 4 7
week 17		Mini Project: OOP Presentation	Understanding how to use Class and OOP of python	B-1 4 7
week 18		Review before final exam	Review before final exam	
week 19		Final Examination	Final Examination	
week 20		Return Exam Papers and Feedback	Review and summarize learning	

	Examination	Quiz	Mid Project/Report/Assignment
Learn Ability	10	10	10
Method Ability	10	10	10
Understanding Ability	10	10	10

Do not