SAI0030 Python Programming and Lab

Fall 2025
School of Electronics and Computer Engineering
Chonnam National University

Course Info	SAI0030-6 Python Programming and Lab First-year required major course
Instructor	Hyung-Il Kim (Web) [Email: hyungil.kim@jnu.ac.kr] from the School of ECE Engineering Building #6-717 (ext. 1762)
Class Meetings	Monday & Wednesday 15:00-17:00 Engineering Building #6-720
Office Hours	Google calendar appointment slots (Link)
Class Objectives	This course introduces fundamental concepts of computer science & engineering using the Python programming language. Students will develop problem-solving and algorithmic thinking skills by designing, implementing, and testing Python programs.
Prerequisites	No prerequisites
Textbook	Python Programming: An Introduction to Computer Science by John M. Zelle • (번역본) 파이썬으로 시작하는 컴퓨터 과학 입문 by 심효섭 (프로그래밍인사이트) (Reference) Python for Everybody by Charles Severance (Reference) Do it! 점프 투 파이썬 by 박응용 (이지스퍼블리싱)
Topics	Problem-solving strategies, Python syntax, control structures, functions, data structures, object-oriented programming, and introductory algorithms
Evaluation	Midterm exam (30%), Final exam (30%), Lab (15%) Homework (15%), Attendance (5%), Participation (5%)

Lab During the lab sessions, students will review and practice the concepts introduced in lectures through hands-on exercises, and complete assigned individual tasks. All Python programming will be carried out using Google Colab.

Schedule The following course schedule is subject to change depending on the progress of the course.

Week	Contents	Homework
1	Course Introduction, Computers and Programs	
2	Writing Simple Programs, Starts with Google Colab	
3	Computing with Numbers	HW#1
4	Objects and Graphics	
5	Sequences: Strings, Lists, and Files	
6	Defining Functions	HW#2
7	Decision Structures	
8	Midterm exam	
9	Loop Structures and Booleans	
10	Simulation and Design	
11	Defining Classes	HW#3
12	Data Collections	
13	Object-Oriented Design	HW#4
14	Algorithm Design and Recursion	
15	Final exam	