UNDERGRADUATE PROGRAM IN COMPUTER SCIENCE
DEPARTMENT OF COMPUTER ENGINEERING
FACULTY OF INTELLIGENT ELECTRICAL AND INFORMATICS TECHNOLOGY

Module name	**Advanced Programming**	
Module level	Undergraduate	
Code	EC184201	
Courses (if applicable)	Advanced Programming	
Semester	2 / Spring (Genap)	
Contact person	Dr. Eko Mulyanto Yuniarno, S.T, M.T.	
Lecturer	Dr. Eko Mulyanto Yuniarno, S.T, M.T.	
Language	Indonesia	
Relation to curriculum	Undergraduate degree program, mandatory, 2nd semester.	
Type of teaching, contact hours	Lecture, < 60 students, 170 minutes * 3 SKS	
Workload	1. Lectures: 3 x 50 = 150 minutes (2.5 hours) per week. 2. Exercises and Assignments: 3 x 60 = 180 minutes (3 hours) per week. 3. Private study: 3 x 60 = 180 minutes (3 hours) per week.	
Credit points	3 credit points (sks).	
Requirements according to the examination regulations	A student must have attended at least 75% of the lectures to sit in the exams.	
Mandatory prerequisites		
Learning outcomes and their corresponding PLOs	CLO-1 Understand the concept of records and array records, and are able to apply it to save and read array from a record.	PLO-3 PLO-4
	CLO-2 Understand the concept of dynamic storage for standard data, arrays, records and array records.	PLO-3 PLO-4
	CLO-3 Understand the concept of objects and classes.	PLO-3 PLO-4
	CLO-4 Understand the concept of software development with code libraries.	PLO-4 PLO-5
	CLO-5 Ability to explain object-based software systems.	PLO-4 PLO-5
	CLO-6 Ability to explain data abstraction into behavior-quipped objects.	PLO-4 PLO-5
	CLO-7 Ability to model the software system as a unified object.	PLO-6

	CLO-8 Ability to build object-oriented software.	PLO-6
Content	In this course, students will learn about structured programming, data structures, dynamic storage, objects and classes, code reuse and encapsulation, and inheritance and polymorphism.	
Study and examination requirements and forms of examination	• In-class exercises • Quiz 1 and 2 • Assignment 1, 2, 3 • Mid-term examination • Final examination	
Media employed	LCD, whiteboard, websites (myITS Classroom).	
Assessments and Evaluation	CO-1: Question no 1 in midterm exam (10%) CO-2: Question no 2 in midterm exam (10%) CO-3: Question no 3 in midterm exam (10%), quiz 1 (5%) CO-4: Assignment 1 (5%), question no 4 in midterm exam (10%), Quiz 2 (5%) CO-5: Question no 1 in final exam (10%), question no 2 in final exam (10%) CO-6: Assignment 2 (5%), question no 3 in final exam (10%) CO-7: Assignment 3 (5%), question no 4 in final exam (5%)	
Reading List	1. “The C Programming Language”, Brian Kernighan and Dennis Ritchie, -, 1978 2. “Object-Oriented Programming in C++”, Fourth Edition, Robert Lafore, SAMS, 2002	