



# MODULE HANDBOOK

## Object Oriented Programming

**BACHELOR DEGREE PROGRAM**  
**DEPARTMENT OF MATHEMATICS**  
**FACULTY OF SCIENCE AND DATA ANALYTICS**  
**INSTITUT TEKNOLOGI SEPULUH NOPEMBER**

# MODULE HANDBOOK

## Object Oriented Programming

Module name	<b>Object Oriented Programming</b>	
Module level	Undergraduate	
Code	KM184303	
Course (if applicable)	Object Oriented Programming	
Semester	Fall (Ganjil)	
Person responsible for the module	Dr. Budi Setiyono, S.Si, MT	
Lecturers	Dr. Budi Setiyono, S.Si, MT Alvida Mustika Rukmi, S.Si, M.Si Drs. Daryono Budi Utomo, M.Si Dr. Dwi Ratna Sulistyoningrum, S.Si, MT	
Language	Indonesia and English	
Relation to curriculum	Undergraduate degree program, <b>mandatory</b> , 3 <sup>rd</sup> semester.	
Type of teaching, contact hours	Lectures, <60 students	
Workload	<ol style="list-style-type: none"> <li>1. Lectures : 3 x 50 = 150 minutes per week.</li> <li>2. Exercises and Assignments : 3 x 60 = 180 minutes (3 hours) per week.</li> <li>3. Private learning : 3 x 60 = 180 minutes (3 hours) per week.</li> </ol>	
Credit points	3 credit points (sks)	
Requirements according to the examination regulations	A student must have attended at least 80% of the lectures to sit in the exams.	
Mandatory prerequisites	Algorithms and Programming	
Learning outcomes and their corresponding PLOs	<p>Course Learning Outcome (CLO) after completing this module,</p> <p>CLO-1 Be able to understand the basic concepts of object-oriented programming.</p> <p>CLO-2 Be able to understand and design class diagrams with Unified Modeling Language (UML).</p> <p>CLO-3 Be able to apply object oriented programming to design and develop a program to solve a problem using JAVA programming language, individual or in a group.</p>	
Content	Object-oriented programming is a course that discusses the basic concepts of object-oriented programming. And also about making algorithms with an object-oriented paradigm in solving a problem and implementing it with the JAVA programming language. The material provided includes: object-oriented programming concepts,	

	UML diagrams, encapsulation, inheritance, polymorphism, comparability, exception handling, and data structures.
Study and examination requirements and forms of examination	<ul style="list-style-type: none"> <li>• In-class exercises</li> <li>• Assignment 1, 2</li> <li>• Mid-term examination</li> <li>• Final examination</li> </ul>
Media employed	LCD, whiteboard, websites (myITS Classroom), zoom.
Reading lists	<p>Main :</p> <ol style="list-style-type: none"> <li>1. Y. Daniel Liang, "Java Programming Comprehensive", 10<sup>th</sup> edition, Pearson Education, Inc., publishing as Prentice Hall, 2013</li> <li>2. Paul Deitel, Harvey Deitel, "Java: How to Program", 9<sup>th</sup> edition, Prentice Hall, 2012</li> </ol> <p>Supporting :</p> <ol style="list-style-type: none"> <li>1. Abdul Kadir, "Algoritma &amp; Pemrograman Menggunakan Java", Andi Offset, 2012</li> <li>2. C. Thomas Wu, An Introduction to Object-Oriented Programming with Java, 4<sup>th</sup> Edition, Mc Graw Hill, 2006.</li> </ol>

