

Module designation	IF433 Object Oriented Programming		
Semester(s) in which the module is taught	3		
Person responsible for the module	Wirawan Istiono		
Language	English & Indonesian		
Relation to curriculum	Compulsory		
Teaching methods	Lecture, Demonstration		
Workload (incl. contact hours, self-study hours)	<p>Total workload: 136.08 hours</p> <p>Theory</p> <ul style="list-style-type: none"> - 23.34 hours of synchronous lecture. - 56.04 hours of Self-study and assignments - 11.34 hours related to exam and self study <p>Lab</p> <ul style="list-style-type: none"> - 23.35 hours of lab module (and in-class assistance) - 16.34 hours of self-lab and assignments - 5.67 hours related to exam and self study 		
Credit points	3 SKS (5.04 ECTS)		
Required and recommended prerequisites for joining the module	<p>Required:</p> <ul style="list-style-type: none"> - IF232 Algorithms & Data Structure 		
Module objectives/intended learning outcomes	Course Learning outcome	Related ELOs	
		ELO	Performance Indicator
	Students are able to apply Object Oriented approaches in programming to solve simple problems.	J	Understand algorithms and mathematical principles upon which the computer system is founded to solve engineering problems.
Content	<p>This course covers the algorithms, elements, preparation methods, processing, and data manipulation in a large scale setup with modern structured programming languages. It also includes examples of choosing the proper data structures based on the given cases.</p> <p>Specifically, this course contain these topics:</p> <ol style="list-style-type: none"> 1. Introduction to Object oriented programming and Java programming language 2. Control structure in Java 3. Array dan Enhanced for loops 4. Class and Object in Java 5. Inheritance and polymorphism 		

	<ol style="list-style-type: none">6. UML diagrams7. Abstraction8. Multiple Inheritance9. Final keyword and Java Typecasting10. Exception Handling11. File Handling12. Software Design Pattern
Examination forms	Written test, Project
Study and examination requirements	Total score ≥ 55 must be satisfied. The total score is the weighted average of the assignments (30%), the midterm exam (30%), and the final exam (40%).
Reading list	<ol style="list-style-type: none">1. Liang, Y. Daniel, 2014, Introduction to Java Programming, 10th Edition, Pearson Education.