



MODULE HANDBOOK WEB APPLICATION DEVELOPMENT

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

MODULE HANDBOOK

WEB APPLICATION DEVELOPMENT

Module name	Web Application Development	
Module level	Undergraduate	
Code	KM184832	
Course (if applicable)	Web Application Development	
Semester	Spring (Genap)	
Person responsible for the module	Muhammad Luthfi Shahab, S.Si, M.Si	
Lecturer	Muhammad Luthfi Shahab, S.Si, M.Si	
Language	Indonesia and English	
Relation to curriculum	Undergraduate degree program, elective , 8 th semester.	
Type of teaching, contact hours	Lectures, <60 students	
Workload	<ol style="list-style-type: none"> 1. Lectures: 2 x 50 = 100 minutes per week. 2. Exercises and Assignments: 2 x 60 = 120 minutes (2 hours) per week. 3. Private learning: 2 x 60 = 120 minutes (2 hours) per week. 	
Credit points	2 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	Object-Oriented Programming Database System	
Learning outcomes and their corresponding PLOs	<p>Course Learning Outcome (CLO) after completing this module,</p> <p>CPMK-1</p> <p>CLO-1 Knowing and understanding the infrastructure components in web application development</p> <p>CLO-2 Able to implement client side and server side programming, and integrate them with databases for use in web application development</p> <p>CLO-3 Understand and implement frameworks and content management in web-based application development</p> <p>CLO-4 Provides basic knowledge about Service-Oriented Architecture and API</p>	
Content	This course provides understanding and ability to implement programming in relation to the development of web-based applications that are rapidly developing. This course includes material	

	on the basic concepts of web-based programming as well as the latest web development technologies such as frameworks, service-oriented architectures, and technology in search engines.
Study and examination requirements and forms of examination	<ul style="list-style-type: none"> • In-class exercises • Assignment 1, 2, 3 • Mid-term examination • Final examination
Media employed	LCD, whiteboard, websites (myITS Classroom), zoom.
Reading lists	<p>Main:</p> <ol style="list-style-type: none"> 1. Building Responsive Web Applications AJAX and PHP, Darie, C., et. All., PACKT Publishing Ltd, 2006 2. Building JavaScript, CSS, HTML, and Ajax-Based Applications for iPhone, Android, Palm Pre, BlackBerry, Windows Mobile and Nokia S60, Frederick, R. G., Lal, R. Apress, 2009 3. PHP and MySQL Web Development, Welling, L., Thomson, L., SAMS, 2001 <p>Supporting:</p> <ol style="list-style-type: none"> 1. CSS3 for web designers, Cederholm, D. Jeffrey Zeldman, 2010 2. Web Services Technologies: State of the Art definitions, Standards, Case Study, Albereshine A., Fyhrer P., Pasquier J. 2009 3. HTML5 for web designer, Keith, J., 2010 4. https://getbootstrap.com/