

B. Program Teknologi Informasi *Web Development* (TI WD)

Overview

Web development is developing a website for the Internet (World Wide Web) or an intranet (a private network). Many aspects of creating and administering a web-based platform are involved design, programming, content production, testing, and deployment.

Web development learning is to acquire the skills and information required to build and manage websites, web applications, and other web-based products. With the growing significance of having a powerful online presence, web development has become an essential element of company and organizational operations. Aside from the actual uses, studying web programming can be a rewarding experience for people who appreciate problem-solving, creativity, and collaboration.

Exit Profile of WD Curriculum

After completing all modules, the students should be able to:

- Understand web development technologies and tools.
- Design and develop responsive and user-friendly websites and web applications.
- Build and manage databases.
- Create interactive user interfaces and experiences.
- Build server-side applications.
- Understand the basics of web security and implement security measures in their applications.
- Use version control systems to manage their code and collaborate with other developers.
- Deploy web applications.

Curriculum Contents

Semester 1

Modules	Credits
Introduction to Information Technology	3
Introduction to Information Technology Project	1
Algorithm and Programming	2
Algorithm and Programming Project	1
Relational Database Design	2
Implementing Database Design on MS SQL Server	3
Implementing Database Design on MS SQL Server Project	1
Tools and Technique for Analyzing Data	3
Tools and Technique for Analyzing Data Project	1
Operating System	2
Total Credits	19

Semester 2

Modules	Credits
Object Oriented Programming	3
Object Oriented Programming Project	1
Java Programming	3
Java Programming Project	1
Introduction to Web Programming	3
Introduction to Web Programming Project	1
Web Application	3
Web Application Project	1
Leadership and Communication Skills	2
Algorithm and Data Structure	2
Total Credits	20

Semester 3

Modules	Credits
Collaborative Development using Repository System	2
Web Programming for Mobile Devices	3
Web Programming for Mobile Devices Project	1
Advanced Database	3
Administering Database	2
Administering Database Project	1
Developing Information System	4
Developing Information System Project	1
Information Systems Architecture and Technology	2
Total Credits	19

Semester 4

Modules	Credits
Rapid Application Development using Visual C#	3
Rapid Application Development using Visual C# Project	1
Advance Web Programming using ASP.NET	3
Advance Web Programming using ASP.NET Project	1
Developing Enterprises Information System using Framework	3
Developing Enterprises Information System using Framework Project	1
Professional Ethics	2
Security Concept	2
Software Engineering	3
Total Credits	19