<table>
<tr><td>Module designation</td><td>IF330 Web Programming</td></tr>
<tr><td>Semester(s) in which the module is taught</td><td>4</td></tr>
<tr><td>Person responsible for the module</td><td>Alexander Waworuntu</td></tr>
<tr><td>Language</td><td>Indonesian</td></tr>
<tr><td>Relation to curriculum</td><td>Compulsory</td></tr>
<tr><td>Didactic methods</td><td>- Lecture
- Problem-Based
- Demonstration
- Hands-on</td></tr>
<tr><td>Workload (incl. contact hours, self-study hours)</td><td>Total workload: 136.08 hours
Theory
- 23.34 hours of synchronous lecture.
- 56.04 hours of Self-study and assignments
- 11.34 hours related to exam and self study
Lab
- 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</td></tr>
<tr><td>Credit points</td><td>3 SKS (5.04 ECTS)</td></tr>
<tr><td>Required and recommended prerequisites for joining the module</td><td>Required:
- IF231 Introduction to Internet Technology</td></tr>
<tr><td>Module objectives/intended learning outcomes</td><td><table><tr><th rowspan="2">Course Learning Outcome</th><th colspan="2">Related ELOs</th></tr><tr><th>ELO</th><th>Performance Indicator</th></tr><tr><td>Students can build web applications that run on the server-side using PHP programming.</td><td>I</td><td>Ability to develop and integrate software and hardware as scalable distributed systems that incorporate various device types for the purpose of solving engineering problems.</td></tr></table></td></tr>
<tr><td>Content</td><td>This course covers web programming using server side scripting (eg. PHP) and database.
Specifically, this course contains these topics:</td></tr>
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	1. Server-side web applications 2. Basic programming with PHP 3. PHP variables & Functions 4. Object Based Programming with PHP 5. File Upload and File Manipulation 6. CRUD operations with PHP and MySQL 7. Application Security 8. PHP Framework: Laravel 9. Laravel Controllers & Views 10. Laravel Model & Migration 11. Eloquent Relationship 12. Forms, File Uploads, Validation 13. User Authentication 14. API Development
Examination forms	- Written Test - Product Based - Portfolio
Study and examination requirements	The total average score for the activities (quiz(20%), assignments(10%), presentation(10%)), midterm (25%), and final (35%) exams must be more than or equal to 55 (C).
Reading list	Main: 1. Robin Nixon. 2021. Learning PHP, MySQL & JavaScript: A Step-by-Step Guide to Creating Dynamic Websites. O'Reilly Media. 2. Luke Welling & Laura Thompson. 2017. PHP and MySQL Web Development (5th ed). Pearson Education. 3. Matt Stauffer. 2019. Laravel Up & Running: A Framework for Building Modern PHP Apps. O'Reilly Media. Supporting: 1. https://www.w3schools.com/ 2. https://laravel.com/docs/8.x 3. Alexander Waworuntu. 2020. Rancang Bangun Aplikasi e-Commerce Dropship Berbasis Web. Ultimatics: Jurnal Teknik Informatika.