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Course/Office Hour	Tue 10:30-12:20, Fri 10:30 – 12:20

OBJECTIVE

The aim of this course is to enable students to develop web-based applications (client-server, multi-user, three-tier architecture) running on an Application Server. Fundamental Web concepts such as HTTP, Form processing (GET, POST, Upload), Input Validation (Regular Expression), Web Security (Hashing, XSS, CSRF, SQL Injection), Session Management (Session and Cookies), Database operations (CRUD), which are common to all Web development platforms are provided using PHP language and MySQL. Besides, advanced topics such as AJAX, CORS, REST Web API will be covered in this lecture.

RESOURCES

	Type	Title	Author	Publisher
Recomm.	Textbook	HTTP Developer's Handbook	Shiflett, C.	SAMS
Recomm.	Textbook	PHP Master – Write Cutting-Edge Code	L.Mitchell, D. Shafik, M.Turland	Sitepoint
Recomm.	Textbook	PHP and MySQL Web Development	Welling L., Thomson L.	SAMS
Recomm.	Textbook	Sam's Teach Yourself MySQL in 21 Days	Maslakowski M.	SAMS
Recomm.	Textbook	Essential PHP Security	Shiflett, C.	O'Reilly

SUBJECTS COVERED

1	WWW Architecture, HTTP Protocol
2	PHP Syntax (PHP usage, variables, arithmetic, logical, relational operators, logical and loop statements)
3	Functions, Arrays, Array operations, Modular programming (Include/Require), Date and Time, Math operations
4	Materialize CSS Framework, Web form processing, POST and GET methods
5	Client-side and Server-side Form Validations (Regular Expressions)
6	File Uploading and Form Examples
7	Object Oriented PHP (encapsulation, inheritance, polymorphism)
8	Relational Database, MySQL architecture, MySQL PDO Interface
9	MySQL: SQL DML statements, Dynamic Forms
10	Cookies and Sessions
11	Case Studies covering mysql, cookies and session
12	JSON, AJAX, CORS
13	RESTful Web Services (POST, PATCH/PUT, DELETE, GET)
14	WEB Security: HTTPS, Encryption, Filter-In-Escape-Out principle, HTML/Javascript injection, XSS attacks, CSRF, SQL injections, Session Hijacking
15	FINAL

GRADING

Midterm 1	25%	Project	15%
Midterm 2	30%	Final	30%

This course will apply the following catalog system:

Lower Boundary	Letter
40	D
45	D+
50	C-
55	C
60	C+
65	B-
70	B
75	B+
80	A-
85	A

ATTENDANCE

A student who misses **15** lecture hours will get **FZ** grade.