

COURSE PROFILE

Course Name	Code	Semester	Term	Theory+PS+Lab (hour/week)	Local Credits	ECTS
Server Side Programming	IT235	Fall	4	3 + 0 + 2	4	7

Prerequisites	None
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Course Language	English
Course Type	Required
Course Lecturer	Assist. Prof. Dr. Cüneyt Sevgi
Course Assistant	Tayfun Yalçinkaya
Course Objectives	This course aims to give IT people the awareness for server-side applications' needs and corresponding key concepts.
Course Learning Outcomes	<p>After successfully completing the course, the student will be able to:</p> <ul style="list-style-type: none"> • understand and apply the fundamental Web concepts such as HTTP, Form processing, Data Validation, Session Management, Database operations, which are common to all Web development platforms • learn how to integrate PHP as programming language and MySQL as database management system • set up domain names with DNS.
Course Content	<p>Today's websites are undergoing more and more dynamic nature due to adoption of Web, the most killer application on the Internet. Pages are no longer static HTML files but instead generated by scripts and database reads and writes. This course teaches students how to build dynamic websites using MySQL, and PHP (XAMPP), one of today's most popular frameworks.</p> <p>This course will describe commonly used libraries of PHP, client request handling, dynamic content generation, HTTP response headers manipulation, database integration. Form Data manipulation is one of the most important key concepts. Students will also learn how to set up domain names with DNS, how to structure pages with XHTML and CSS, how to program in PHP, how to configure Apache and MySQL, how to design and query databases with SQL.</p>

COURSE CONTENT

Week	Subjects	Related
1	HTML Review	
2	How Server-Side Programming (i.e., PHP) Works ? How Client-Side Programming (i.e, JS) Works ?	
3	HTML Form Elements	
4	WWW architecture, HTTP Protocol, Scripting Languages, Introduction to PHP, About XAMPP, (syntax, variables, statements, operators) Configuring your installation, How PHP and MySQL works together Integrating HTML and PHP Using constants and variables Single-line and multiple-line comments in PHP Usage of <i>include</i> , <i>include once</i> , <i>require</i> , <i>require once</i>	
5	Variables in PHP, Variable Syntax, Types of Variables PHP's Operators - Logical, Arithmetic, Comparison Constants How to transmit the data from the form Using GET or POST	
6	Transmitting the data from the form Receiving Form Data in PHP Hidden fields Allowing Users to Upload Files Allowing Users to Input Multiple-Valued empty() , isset() function	
7	Passing Variables through a URL with Sessions with Cookies with HTML Forms (POST and GET method)	
8	Expressions and Control Flow in PHP Relational Operators Conditionals 3 types of nonlooping conditionals (if, switch statement, ? Operator) while Loops, for loops, do...while Loops	
9	Midterm Exam	
10	Functions Creating & Calling Functions That Take Arguments Passing Parameters by Reference Function and Variable Scope PHP Constants PHP Arrays Array sorting	

Week	Subjects	Related
11	String Strings Concatenation Comparing Strings Finding Substrings PHP functions to manipulate HTML tags within PHP string variables Working with the Date and Time Math functions Redirection (header)	
12	Files and Directories Permissions file_exists(), touch(), Writing to Files, Locking Files, Reading from Files, Handling File Uploads, Navigating Directories, Creating Directories, Reading Files Incrementally	
13	Using the MySQL Client Connecting to MySQL Creating & Selecting a Database Validating DBs through PhpMyAdmin Creating a Table Dropping a Table Inserting Data into a Database Retrieving Data from a Database Deleting Data in a Database Updating Data in a Database	
14	Creating a PHP Session Browser and Session Integration Accessing Session Variables Deleting a Session Invalidate the session cookie Send E-Mail CRUD Operations	

Course Textbook	Internet & World Wide Web: How to Program" (4th Edition) Paul Deitel
Recommended References	"Beginning PHP6, Apache, MySQL Web Development" Timothy Boronczyk, Elizabeth Naramore, Jason Gerner, "Learning PHP, MySQL, and JavaScript" 1st Edition Robin Nixon "PHP: The Good Parts" Peter B. MacIntyre 1st Edition O'Reilly Media, Inc. "PHP Solutions: Dynamic Web Design Made Easy", 2nd Edition, 2010 David Powers www.apress.com "Plug-in PHP 100 Power Solutions", 2010 Robin Nixon, McGraw-Hill Companies.

Semester Requirements	Number	Percentage of Grade
Attendance/Participation		
Laboratory		20
Application		
Special Course Internship (Work Placement)		
Quizzes/Studio Critics		
Homework Assignments		
Presentation		
Project		20
Seminar/Workshop		
Midterms/Oral Exams		25
Final/Resit Exam		35
Total		100

PERCENTAGE OF SEMESTER WORK		65
PERCENTAGE OF FINAL WORK		35
Total		100

Course Category	Core Courses	X
	Major Area Courses	
	Supportive Courses	
	Media and Management Skills Courses	
	Transferable Skill Courses	

COURSE'S CONTRIBUTION TO PROGRAM

#	Program Qualifications / Outcomes	* Level of Contribution				
		1	2	3	4	5
1	A foundation in mathematics and basic sciences and ability to apply acquired knowledge as they relate to the study and practice of information technology	X				
2	An ability to analyze a problem, identify and define the computing requirements appropriate to its solution, to understand, select and use appropriate technology, tools, standards, protocols, building blocks, and components to solve the problem				X	
3	An ability to propose, analyze, design, develop, test and maintain an information technology system including software solutions, security model, computer and network infrastructure, information systems etc. to solve information technology problems			X		
4	An ability to analyze local and global impact of computing on individuals, organizations and society; and the ability to apply information technology techniques, skills, and tools for regular computing practices as well as to improve effectiveness of current methodologies				X	
5	An ability to effectively communicate in oral and written media with all kinds of related audiences; and prepare documentation for this purpose as required	X				
6	An understanding of professional, ethical, legal, and social issues and responsibilities of information technology profession			X		
7	A taste and breadth of knowledge across several social topics outside the immediate requirements of the information technology profession, and the ability to work within heterogeneous teams to accomplish a common goal including people from the information technology area as well as other disciplines				X	
8	An ability to engage in life-long learning and professional development for personal improvement to follow contemporary information technology issues				X	

*1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION

Activities	Number	Duration (Hours)	Total Workload
Course Hours (Including Exams)	14	3	42
Tutorials			
Laboratory	14	2	28
Application			
Special Course Internship (Work Placement)			
Field Work			
Study Hours Out of Class	14	5	70
Presentations / Seminar			
Project			
Preparatory reading	14	3	42
Homework Assignments			
Quizzes			
Midterm Exams	1	3	3
Final / Resit Exam	1	3	3
		Total Workload	188

COURSE CATEGORY

ISCED GENERAL AREA CODES	GENERAL AREAS	ISCED BASIC AREA CODES	BASIC EDUCATIONAL AREAS	
1	Education	14	Teacher Training and Educational Sciences	
2	Humanities and Art	21	Art	
2	Humanities and Art	22	Humanities	
3	Social Sciences, Management and Law	31	Social and Behavioural Sciences	
3	Social Sciences, Management and Law	32	Journalism and Informatics	
3	Social Sciences, Management and Law	38	Law	
4	Science	42	Life Sciences	
4	Science	44	Natural Sciences	
4	Science	46	Mathematics and Statistics	
4	Science	48	Computer	60
5	Engineering, Manufacturing and Civil	52	Engineering	40
5	Engineering, Manufacturing and Civil	54	Manufacturing and Processing	
5	Engineering, Manufacturing and Civil	58	Architecture and Structure	
6	Agriculture	62	Agriculture, Forestry, Livestock, Fishery	
6	Agriculture	64	Veterinary	
7	Medicine and Welfare	72	Medical	
7	Medicine and Welfare	76	Social Services	
8	Service	81	Personal Services	
8	Service	84	Transport Services	
8	Service	85	Environment Protection	
8	Service	86	Security Services	