CS322 Web Application Development				INFORMATION SYSTEMS ENGINEERING	
Semester	**Credit Structure**				
	Lecture	***Practice***	***Laboratory***	***National Credits***	***ECTS***
Summer	6	-	-	3	6

Level of Course	First Cycle	**Language**	English
Type of Course	Compulsory/Elective	**Mode of Delivery**	Face to Face
Prerequisites	ECC006 Webpage Design and Programming		
Catalog Description	Beginning server programming using PHP, Expressions and Control Flow in PHP, PHP Functions-Objects and Arrays, MySQL, Accessing MySQL Using PHP, Form Handling, Cookies, Sessions and Authentication, JavaScript, JavaScript Functions-Objects and Arrays, AJAX and Web Services.		
Course Objectives	Objective of this course is to provide students with an introduction to server-based Web scripting and dynamic Web application development.		
Course Outcomes	At the end of the course the student should be able to **1.** Plan, develop, debug, and implement interactive server-side web applications. **2.** Evaluate and validate web applications for conformance to the latest W3C markup standards. **3.** Analyze and evaluate web applications for conformance to section W3C accessibility standards.		

Course Category by Content (%)		
	Mathematics and Basic Sciences	10
	Engineering	30
	Engineering Design	50
	General Education	10

Textbook and /or References	
	1. Robin Nixon, Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5, 5th Edition, O'Reilly Media, 2018.

Assessment Criteria		**Quantity**	**Percentage**
	Attendance		
	Quiz		
	Homework	20	50
	Project	1	50
	Term Paper		
	Laboratory Work		
	Other		
	Midterm Exams		
	Final Exam		

Student Workload	***Activities***	***Quantity***	***Duration (hour)***	***Total Workload***
	Course duration in class (including Exam weeks)	8	6	48
	Labs and Tutorials			
	Homework	20	1.5	30
	Project/Presentation/Report	1	(6w*9h=) 54	54
	E-learning activities			
	Quizzes			
	Midterm Examination Study			
	Final Examination Study			
	Self-Study	8	6	48
	Total Workload (hours)			180
	Total Workload / 30 (hours)			6
	ECTS Credit of the Course			6

Course Plan	
Week	***Topics***
1	Introduction to Dynamic Web Content, Setting Up a Development Server, Introduction to PHP
2	Expressions and Control Flow in PHP, PHP Functions and Objects, PHP Arrays, Practical PHP
3	Introduction to MySQL, Mastering MySQL, Accessing MySQL Using PHP.
4	Form Handling; Cookies, Sessions, and Authentication; Exploring JavaScript
5	Expressions and Control Flow in JavaScript; JavaScript Functions, Objects, and Arrays; JavaScript and PHP Validation and Error Handling
6	Using Ajax, Accessing CSS from JavaScript, Introduction to jQuery

7	Introduction to jQuery Mobile, Bringing It All Together
8	Review of the Semester, Presentations

Relationship between the Course and Program Learning Outcomes		
Program Outcomes		***C***
i.	Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied knowledge in these areas in complex engineering problems.	2
ii.	Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.	3
iii.	Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose.	5
iv.	Ability to devise, select, and use modern techniques and tools needed for analyzing and solving complex problems encountered in engineering practice; ability to employ information technologies effectively.	5
v.	Ability to design and conduct experiments, gathers data, analyze and interpret results for investigating complex engineering problems or discipline specific research questions.	4
vi.	Ability to work efficiently in intra-disciplinary and multi-disciplinary teams; ability to work individually.	3
vii.	Ability to communicate effectively in Turkish, both orally and in writing; knowledge of a minimum of one foreign language; ability to write effective reports and comprehend written reports, prepare design and production reports, make effective presentations, and give and receive clear and intelligible instructions.	5
viii.	Recognition of the need for lifelong learning; ability to access information, to follow developments in science and technology, and to continue to educate him/herself.	5
ix.	Consciousness to behave according to ethical principles and professional and ethical responsibility; knowledge on standards used in engineering practice.	5
x.	Knowledge about business life practices such as project management, risk management, and change management; awareness in entrepreneurship, innovation; knowledge about sustainable development.	3
xi.	Knowledge about the global and social effects of engineering practices on health, environment, and safety, and contemporary issues of the century reflected into the field of engineering; awareness of the legal consequences of engineering solutions.	3
C (Contribution of the course): 1: None 2: Weak, 3: Medium, 4: Strong, 5: Very Strong		

Prepared by: Assist. Prof. Dr. Kaan Uyar **Date** : 29.05.2018