TISHK INTERNATIONAL UNIVERSITY
FACULTY OF SCIENCE
Department of INFORMATION TECHNOLOGY,
2020-2021 Fall
Course Information for IT 350 WEB TECHNOLOGIES

Course Name:	WEB TECHNOLOGIES

Code	Course type	Regular Semester	Theoretical	Practical	Credits	ECTS
IT 350	2	7	2	2	3	

Name of Lecturer(s)-Academic Title:	Rebin M. Ahmed – Assistant Lecturer.
Teaching Assistant:	Islam AbdulAziz
Course Language:	English
Course Type:	Non-area Elective
Office Hours	Thursday 10:00 – 12:00 (264)
Contact:	Email: rebin.mohammed@tiu.edu.iq
Teacher's academic profile:	BSc. Computer Engineering – Tishk International University MSc. Software Engineering – University of Kurdistan-Hawler
Course Objectives:	The main objective of the course is to present the basic web technology concepts that are required for developing web applications. The key technology components are Laravel as an MVC Framework, PHP as a server-side programming language, and Bootstrap as a framework for client-side programming elements. Besides, the course gives specific content that is beneficial for developing web-based solutions, like relational database communication basics and information security principles and approaches.
Course Description (Course overview):	On completion of this course, a student will be familiar with client-server architecture, Model–view–controller patterns, and the Lifecycle of a complete web application, and able to develop a web application using PHP. Students will gain the skills and project-based experience needed for entry into a web application and development career.

COURSE CONTENT

Week	Hour	Date	Topic
1	2	8-12/10/2017	Overview and Introduction to MVC and Laravel.
2	2	15-19/10/2017	Laravel Directory Structure (Root and App Directory).
3	2	22-26/10/2017	Architecture Concepts, Request Lifecycle.
4	2	29/10-2/11/2017	Routing and Controllers: A Quick Introduction to HTTP Verbs, and REST.
5	2	5-9/11/2017	Routing and Controllers: Route Definitions, Route Groups, Views
6	2	12-16/11/2017	Routing and Controllers: Controllers, Resource Controllers
7	2	19-23/11/2017	**Midterm Exam**
8	2	26-30/11/2017	Blade Templating: Echoing Data, Control Structures, Template Inheritance, Binding Data.
9	2	3-7/12/2017	Databases and Eloquent: Configuration and Connection, Migrations.
10	2	10-14/12/2017	Databases and Eloquent: Introduction to Eloquent, Creating, and Defining Eloquent Models.
11	2	17-21/12/2017	Databases and Eloquent: Retrieving Data with Eloquent, Inserts, and Updates with Eloquent, Deleting with Eloquent.
12	2	24-28/12/2017	Collecting and Handling User Data: Route Data, Validation, Form Requests
13	2	31/12/2017-4/1/2018	User Authentication and Authorization: The User Model and Migration, The Auth Controllers(Register, Login, Reset Password, Forget Password, Email Verification), Auth routes.
14	2	7-11/1/2018	Testing: The Testing Environment, Simple Unit Tests, HTTP Tests, Database Tests
15	2	14-18/1/2018	**Final Exam**
16	2	21-25/1/2018	**Final Exam**

COURSE/STUDENT LEARNING OUTCOMES

1	Students can convert a static website into dynamic website
2	Students can change the content of website via collected information from user
3	Students can collect multiple pages into one united structure via URL encoding
4	Students can connect a website to a database and build a simple database for the need
5	Students can perform four essential progresses (Create/Read/Update/Delete) on the database

COURSE'S CONTRIBUTION TO PROGRAM OUTCOMES

(Blank : no contribution, I: Introduction, P: Proficient, A: Advanced)

	Program Learning Outcomes	Cont.
1	An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution	A
2	An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs	A
3	An ability to function effectively on teams to accomplish a common goal	P
4	An understanding of professional, ethical, legal, security, social, and economic issues and responsibilities	I
5	An ability to analyze the local and global impact of computing on individuals, organizations, and society	A
6	An ability to use current techniques, skills, and tools necessary for computing practice	I
7	An ability to use and apply current technical concepts and practices in the core information technologies of human computer interaction, information management, programming, networking, web systems and technologies	I
8	An ability to identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems	A
9	An ability to effectively integrate IT-based solutions into the user environment	P
10	An ability apply problem solving skills, core IT concepts, best practices, and standards to information technologies	I
11	An ability to identify and evaluate organizational requirements and current and emerging technologies	P
12	An ability to select, design, integrate and administer IT-based solutions into the organizational environment	A

Prerequisites (Course Reading List and References):	IT 240 - Web design, IT 326 - Web Programming, IT 311- OBJECT ORIENTED PROGRAMMING I
Student's obligation (Special Requirements):	Students are required to join the related Edmodo class and follow all the updates from there.

Weekly Laboratory/Practice Plan:

Week	Hour	Date	Topics
1	2	8-12/10/2017	Setting Up a Laravel Development Environment.
2	2	15-19/10/2017	Laravel Directory Structure (Root and App Directory), Configurations, the .env File, Up and Running.
3	2	22-26/10/2017	Request Lifecycle
4	2	29/10-2/11/2017	A Quick Introduction to HTTP Verbs, and REST
5	2	5-9/11/2017	Routing and Controllers: Route Definitions, Route Groups, Views.
6	2	12-16/11/2017	Routing and Controllers: Controllers, Resource Controllers
7	2	19-23/11/2017	**Midterm**
8	2	26-30/11/2017	Blade Templating: Echoing Data, Control Structures, Template Inheritance, Binding Data.
9	2	3-7/12/2017	Databases and Eloquent: Configuration and Connection, Migrations.
10	2	10-14/12/2017	Databases and Eloquent: Introduction to Eloquent, Creating, and Defining Eloquent Models.
11	2	17-21/12/2017	Databases and Eloquent: Retrieving Data with Eloquent, Inserts, and Updates with Eloquent, Deleting with Eloquent
12	2	24-28/12/2017	Collecting and Handling User Data: Route Data, Validation, Form Requests.
13	2	31/12/2017-4/1/2018	User Authentication and Authorization: The User Model and Migration, The Auth Controllers(Register, Login, Reset Password, Forget Password, Email Verification), Auth routes.
14	2	7-11/1/2018	Testing: The Testing Environment, Simple Unit Tests, HTTP Tests, Database Tests.
15	2	14-18/1/2018	**Final Exam**
16	2	21-25/1/2018	**Final Exam**

Course Book/Textbook:	• Matt Stauffer, 2019. Laravel: Up & Running: A Framework for Building Modern PHP Apps. O'Reilly Media. • Dayle Rees, 2016. Laravel: Code Smart.
Other Course Materials/References:	Laravel.com, Laracasts.com, Php.net, W3schools.com
Teaching Methods (Forms of Teaching):	Lectures, Practical Sessions, Presentation, Project

COURSE EVALUATION CRITERIA

Method	**Quantity**	**Percentage (%)**
Attendance and Participation	1	5
Quiz	5	10
Assignment	10	10
Project	1	15
Midterm Exam(s)	1	20
Lab/Practical Exam(s)		
Final Exam	1	40
Total		**100**

Examinations: True-False, Multiple Choices, Short Answers

Extra Notes:

ECTS (ALLOCATED BASED ON STUDENT) WORKLOAD

Activities	**Quantity**	**Duration (Hour)**	**Total Work Load**
Course Duration (Including the exam week: 16x Total course hours)			0
Hours for off-the-classroom study (Pre-study, practice)	2	hours	0
Assignments Mid-terms	1		0
Final examination	1		0
Other			0
Total Workload			**0**
ECTS Credit (Total workload/25)			**0**

Peer review

Signature:	Signature:	Signature:
Name:	Name:	Name:
Lecturer	Head of Department	Dean