

Universiti Tunku Abdul Rahman			
Form Title: Teaching Plan			
Form Number : FM-LKCFES-FMC-AC-001	Rev No : 1	Effective Date: 07/12/2016	Page No : Page 1 of 3

Part A:

1.	Course Code & Course Title:	UECS3294 Advanced Web Application Development
2.	Year of Study (Programme):	Y3 (Bachelor of Science (Hons) Software Engineering) - Core
3.	Credit Hour:	4
4.	Lecturer:	Ooi Ean Huat
5.	Tutor:	Ooi Ean Huat
6.	Year and Trimester:	201801
7.	Objectives:	<ol style="list-style-type: none"> 1. To introduce requirements for development and approach to implementation of wireless applications. 2. To train students to recognize technical and development issues for wireless devices and examine different techniques in resolving such issues.
8.	Course Outcomes (CO):	<p>Course Outcomes: upon completion of this course, a student shall be able to:</p> <ol style="list-style-type: none"> 1. Build interactive and database-driven web applications using a web application framework and model-view-controller (MVC) software architecture 2. Build web applications with user authentication and authorization using cookies, session and role-based access control (RBAC) 3. Use tools to manage application dependencies, assets and data migrations 4. Develop client-side scripts using a JavaScript library
9.	References:	<p>Main References:</p> <ol style="list-style-type: none"> 1. Stauffer, M. 2016. <i>Laravel: Up and Running: A Framework for Building Modern PHP Apps</i>. Sebastopol, CA: O'Reilly 2. Nutile, A. 2016. <i>Laravel 5.x Cookbook</i>. Birmingham, UK: Packt Publishing <p>Additional References:</p> <ol style="list-style-type: none"> 1. Lockhart, J. (2015). <i>Modern PHP: New Features and Good Practices</i>. Sebastopol, CA: O'Reilly 2. Tatro, K., MacIntyre, P., Lerdorf, R. (2013). <i>Programming PHP</i>. Sebastopol, CA: O'Reilly 3. Duckett, J. (2014). <i>JavaScript and JQuery: Interactive Front-End Web Development</i>. Indianapolis, IN: Wiley

Part B: Methods of Assessment

No.	CO	Programme Outcomes (PO)	Domain & Taxonomy Level [#] (e.g. A2 / C3 / P5)	Delivery Methods (e.g. L, T, P, Case Study, Site Visit, etc.)	Assessment Methods & Mark Breakdown*							
					Test		Practical Assessment			Assignment		Final exam
					Q1	Q2	Q1	Q2	Q3	Part A	Part B	
					7.5%	7.5%	4%	8%	8%	5%	10%	
1	CO1	PO6	C3	L, P	x			x		x		x
2	CO2	PO6	C3	L, P		x					x	x
3	CO3	PO2	P5	L, P			x					
4	CO4	PO6	C3	L, P					x			x

[#] Domain – Affective (A), Cognitive (C), Psychomotor(P); Taxonomy Level – A (Level 1 – 5), C (Level 1 – 6), P (Level 1 – 7)

* Assessment methods and the mark breakdown must be tally with the teaching workload approved by Senate

** One assessment method can be mapped to ONLY one CO.

*** Assignment TLT =
$$\frac{\# \text{ weeks} \times 3 \text{ hrs/w}}{\# \text{ students in group}}$$

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Part C: Lecture, Tutorial & Assignment Plan


Week	Lecture Topic	Practical Topic	Assessments / Specific Tasks
1	Topic 1: Overview of Web Application Frameworks <ul style="list-style-type: none"> Web Application Frameworks. Features of Web Application Frameworks. Model-View-Controller Software Architecture. 	Lab 1: Developing a web application with a Web Application Framework	
2	Topic 2: Routes, Controllers and Views <ul style="list-style-type: none"> Routes. Controllers and Actions. Requests and responses. Redirects 	Lab 1: Developing a web application with a Web Application Framework	
3	Topic 2: Routes, Controllers and Views <ul style="list-style-type: none"> Building views with templating engines. 	Lab 2: Building Views using a Templating Engine	
4	Topic 3: Databases and Object-Relational Mapping (ORM) <ul style="list-style-type: none"> Models and Active record. 	Lab 3: Working with Databases and Object-relational Mapping (ORM)	Assignment: Release of question on 7 Feb 2018 Specific Task: Construct a web application using Laravel web application framework.
5	<i>Chinese New Year</i>		
6	Topic 3: Databases and Object-Relational Mapping (ORM) <ul style="list-style-type: none"> Query builder. Raw SQL queries. 	Lab 3: Working with Databases and Object-relational Mapping (ORM)	
7	Topic 4: Forms <ul style="list-style-type: none"> Creating forms without models Creating forms with models Cross-site Request Forgery (CSRF) protection. 	Lab 4: Working with forms	
8	Topic 5: Maintaining State <ul style="list-style-type: none"> Cookies Sessions 	Lab 5: Maintaining state	
9	Topic 6: User Authentication and Authorization <ul style="list-style-type: none"> Authentication options Authorization Role-based Access Control (RBAC) 	Lab 6: User Authentication and Authorization	
10	Topic 8: Managing Application Dependencies, Assets and Data Migration <ul style="list-style-type: none"> Managing application dependencies. Managing assets. Data migration. 	Lab 8: Managing Application Dependencies, Assets and Data Migration	Mid-term Test: 21 Mar 2017

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11	Topic 7: Client-side Scripting with JavaScript Library <ul style="list-style-type: none"> • Introduction to JavaScript Libraries. • Adding a JavaScript Library to an application. • Building dynamic and interactive client-side features with a JavaScript Library. Asynchronous JavaScript and XML (Ajax).	Lab 7: Using JavaScript Library	Practical Assessment: 26, 27 & 28 Mar 2018 Specific Task: Construct a web application using Laravel web application framework and use the appropriate tools to manage application dependencies and data migration
12	Topic 7: Client-side Scripting with JavaScript Library <ul style="list-style-type: none"> • Introduction to JavaScript Libraries. • Adding a JavaScript Library to an application. • Building dynamic and interactive client-side features with a JavaScript Library. Asynchronous JavaScript and XML (Ajax).	Lab 7: Using JavaScript Library	
13	Topic 7: Client-side Scripting with JavaScript Library <ul style="list-style-type: none"> • Introduction to JavaScript Libraries. • Adding a JavaScript Library to an application. • Building dynamic and interactive client-side features with a JavaScript Library. Asynchronous JavaScript and XML (Ajax).	Lab 7: Using JavaScript Library	Assignment: Submission deadline on 11 April 2018
14	<i>Revision</i>		

(Please ensure your course teaching plan covers all of the topics as per syllabus)

This Teaching Plan is:

Prepared by:  _____ (Name: OOI EAN HUAT) Course Coordinator	Moderated by: _____ (Name: DR VICTOR TAN) Moderator	Approved by: _____ (Name: DR MADHAVAN NAIR) Head of Department
Date: 27 DEC 2017	Date: _____	Date: _____