

Module Scheme

2019

Module Name:	Web Application Development		
Module Code:	CO550	Academic Year:	2019
Tutor(s):	Derek Peacock / Jon Jackson		
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Learning Outcomes:

On successful completion of the module you will be able to:

1. Display a good level of proficiency in the design and creation of consistent web forms and data-driven applications.
2. Implement and deploy web applications that provide user-friendliness, scalability, flexibility (mobile) and SEO optimisation.
3. Design a complete web and database application to automate a business process.

Assessment Summary:

<u>Assessment Task</u>	<u>Submission Dates</u>
CW1A Team Project Design - 20%	2pm, Thursday 7 th Nov 2019
CW1B Individual ASP.NET Logbook - 15%	2pm, Thursday 5 th Dec 2019
CW2 Team Project Implementation - 65%	2pm, Thursday 30 th Jan 2020

Week by Week Guide:	Teaching Activity
1: Week beginning: 30/09/2019	Module plan, Reading list, Assessment schedule; Unit 1: Introduction to ASP.NET and server-side scripting
2: Week beginning: 07/10/2019	Unit 2: Razor Pages and Capturing User Input
3: Week beginning: 14/10/2019	Unit 3: Data Modelling

4. Week beginning: 21/10/2019	Unit 4: Introducing MVC Workshop: Start ASP.NET Core Tutorial
5. Week beginning: 28/10/2019	Unit 5: ASP.NET data models, scaffolding and seeding the database Workshop: Continue ASP.NET Core Tutorial (finish first step)
6. Week beginning: 04/11/2019	Assignment workshop <u>CW1A Deadline</u>
7. Week beginning: 11/11/2019	Unit 6: Code Versioning and Collaboration with Visual Studio Workshop: Continue ASP.NET Core Tutorial
8. Week beginning: 18/11/2019	Unit 7: Customising the CRUD pages; Sorting, Filtering, Pagination and Grouping Workshop: Continue ASP.NET Core Tutorial
9. Week beginning: 25/11/2019	Unit 8: Database migrations Workshop: Tutorial & Project
10. Week beginning: 02/12/2019	Unit 9: Complex Data Models Workshop: Tutorial & Project <u>CW1B Deadline</u>
11. Week beginning: 09/12/2019	Unit 10: Wider Context of Web Applications, Progressive Web Apps and beyond Assignment workshop
12. Week beginning: 16/12/2019	Assignment workshop
13. Week beginning: 23/12/2019	Christmas
14. Week beginning: 30/12/2019	Christmas
15. Week beginning: 06/01/2020	Christmas
16. Week beginning: 13/01/2020	Assignment workshop
17. Week beginning: 20/01/2020	Assignment workshop
18. Week beginning: 27/01/2020	Assignment workshop <u>CW2 Deadline</u>

Core Text(s):

MVC5: Freeman, Adam. (2013). Pro ASP.NET MVC 5 (5th ed.). Apress/Springer.

Core 2 MVC: Freeman, Adam. (2017). Pro ASP.NET Core MVC 2 . Apress/Springer.

or

Core 2 MVC: Programming ASP.NET Core, Dino Esposito, Microsoft Press (2018)

Tutorial Core Razor Pages: [Razor Pages with Entity Framework Core in ASP.NET Core](#)

Tutorial Core MVC: [Get started with EF Core in an ASP.NET MVC web app](#)

Tutorial MVC 5: [Get Started with Entity Framework 6 Code First using MVC 5](#)

Additional Reading:

Papers:

- Shakya, S., 2018. *Cross Platform Web Application Development Using ASP. NET Core*.
- Bogárdi-Mészöly, &, Levendovszky, T., & Charaf, H. (2007). *Models for predicting the performance of ASP.NET Web applications*. Periodica Polytechnica Electrical Engineering, 51(3-4), 111-118.
- Kronis Kristiāns, & Uhanova Marina. (2018). *Performance Comparison of Java EE and ASP.NET Core Technologies for Web API Development*. Applied Computer Systems, 23(1), 37-44.

Books:

- FitzMacken, T. (2014) *Getting Started with Entity Framework 6 Database First Using MVC 5*
- Fowler, M. (2018) *UML Distilled: A Brief Guide to the Standard Object Modeling Language*, Addison-Wesley 3rd Edition
- Frahaan Hussain. (2017) *Responsive Web Design by Example: Embrace responsive design with HTML5, CSS3, JavaScript, jQuery and Bootstrap 4*, Packt Publishing
- Gaylord, J. (2013) *Professional ASP.NET 4.5 in C# and VB* Indianapolis: John Wiley and Sons
- MacDonald, M. (2013) *Beginning ASP.NET 4.5 in C#* 3rd ed. Apress
- Ritchie, C. (2008) *Relational Database Principles* 3rd ed. Continuum