School of Information and Physical Sciences

INFT3050: Web Programming
Singapore PSB
Trimester 2 - 2024 (Singapore)

OVERVIEW

Course Description	Introduces concepts and skills needed to develop and manage small to medium web facing server systems. Covers object-oriented techniques, event-driven programming, development or effective user interfaces, database integration and server side scripting.
Academic Progress Requirements	Nil
Requisites	This course replaces INFT2008. If you have successfully completed INFT2008 you cannot enrol in this course.
Assumed Knowledge	COMP1140 Database & Information Management and either INFT2012 Application Programming or SENG1110 Object Oriented Programming.
Contact Hours	**Singapore PSB** **Computer Lab** Face to Face On Campus 2 hour(s) per week(s) for 12 week(s) starting Week 2 **Lecture** Face to Face On Campus 2 hour(s) per week(s) for 12 week(s) starting Week 1
Unit Weighting	10
Workload	Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10 unit course.

CONTACTS

Course Coordinator	**Singapore PSB**
	Dr Jacqueline Bailey
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	Consultation: by email.

Teaching Staff   Other teaching staff will be advised on the course Canvas site.

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SYLLABUS

Course Content
1. Web based server-side systems
2. Event Driven Programming
3. Server and Client-side scripting
4. Interactive Development Environments (IDE's)
5. Object-oriented design, reuse, the user interface
6. Database interfacing

Course Learning Outcomes

On successful completion of this course, students will be able to:

1. Design and develop a robust web-browser based, aesthetic and intuitive user-interface that applies the concepts of a Model-View-Controller web app.

2. Implement a comprehensive Model-View-Controller web app capable of connecting to a prototype server-side web-application that displays editable information from a database in a web browser.

3. Create a prototype multi-component server-side, end-user focused web-application that can pass data between components to present reports from a database.

4. Demonstrate both team and self-management principles typically seen in the industry to deliver a prototype Model-View-Control web app solution

Course Materials

Required Text:
- Mary Delamater & Anne Boehm, "Murach's ASP.Net Core MVC," 2 Edition, Murach Publishing, ISBN: 978-1-943873-02-9

COMPULSORY REQUIREMENTS

In order to pass this course, each student must complete ALL of the following compulsory requirements:

Course Assessment Requirements:

- Assessment 2 - Examination: Pass requirement 40% - Must obtain 40% in this assessment item to pass the course.

Students whose overall mark in the course is 50% or more, but who score less than 40% in the compulsory item and thus fail to demonstrate the required proficiency, will be awarded a Criterion Fail grade which will show as FF on their formal transcript. However, students in this position who have scored at least 25% in the compulsory assessment item will be allowed to undertake a supplementary 'capped' assessment in which they can score at most 50% of the possible mark for that item.

ASSESSMENTS

This course has 3 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Programming Assignment 1	Week 7, Sunday, 23:59 SGT. 30th June 2024	Combination	20%	1, 2, 3, 4
2	Examination*	Formal Exam Period	Individual	30%	1, 4
3	Programming Assignment 2	Week 13, Sunday 23:59 SGT. 11th August, 2024	Combination	50%	1, 2, 3, 4

* This assessment has a compulsory requirement.

Late Submissions	The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. Note: this applies equally to week and weekend days.

Assessment 1 - Programming Assignment 1

Assessment Type	Written Assignment
Purpose	Your in-progress solution demonstrated to show your progress and any potential obstacles that you are experiencing so we can provide feedback.
Description	Draft MVC Prototype Solution
Weighting	20%
Length	N/A
Due Date	Week 7, Sunday, 23:59 SGT. 30th June 2024
Submission Method	Online
Assessment Criteria	To be provided on Canvas
Return Method	Online
Feedback Provided	Online
Opportunity to Reattempt	Students WILL NOT be given the opportunity to reattempt this assessment.

Assessment 2 - Examination

Assessment Type	Formal Examination
Purpose	To test theoretical knowledge gained in the course.
Description	Will be a multiple choice and short answer exam. It will be held during the formal exam period. Questions will be based on the course content, from the prescribed textbook.
Weighting	30%
Compulsory Requirements	Pass requirement 40% - Must obtain 40% in this assessment item to pass the course.

Length	N/A
Due Date	Formal Exam Period
Submission Method	Formal Exam
Assessment Criteria	Individual, Formal Exam.
Return Method	Not Returned
Feedback Provided	No Feedback
Opportunity to Reattempt	Students WILL be given the opportunity to reattempt this assessment.

Assessment 3 - Programming Assignment 2

Assessment Type	Written Assignment
Purpose	You will submit your final working prototype solution for this case study.
Description	Final MVC Prototype Solution
Weighting	50%
Length	N/A
Due Date	Week 13, Sunday 23:59 SGT. 11th August, 2024
Submission Method	Online
Assessment Criteria	To be provided on Canvas.
Return Method	Online
Feedback Provided	Online
Opportunity to Reattempt	Students WILL NOT be given the opportunity to reattempt this assessment.

ADDITIONAL INFORMATION

Grading Scheme

This course is graded as follows:

Range of Marks	Grade	Description
85-100	High Distinction (HD)	Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives.
75-84	Distinction (D)	Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives.
65-74	Credit (C)	Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes.
50-64	Pass (P)	Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory development of skills*; and achievement of all learning outcomes.
0-49	Fail (FF)	Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action.

*Skills are those identified for the purposes of assessment task(s).

Communication Methods

Communication methods used in this course include:
- Canvas Course Site: Students will receive communications via the posting of content or announcements on the Canvas course site.
- Email: Students will receive communications via their student email account.
- Face to Face: Communication will be provided via face to face meetings or supervision.

Course Evaluation	Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential improvement.

| **Oral Interviews (Vivas)** | As part of the evaluation process of any assessment item in this course an oral examination (viva) may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the Oral Examination (viva) Procedure. In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the Student Conduct Rule. |

| **Academic Misconduct** | All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students of the University in all modes of study and in all locations. For the Student Academic Integrity Policy, refer to https://policies.newcastle.edu.au/document/view-current.php?id=35 |

Adverse Circumstances	The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s). Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where:
	1. the assessment item is a major assessment item; or
	2. the assessment item is a minor assessment item and the Course Co-ordinator has specified in the Course Outline that students may apply the online Adverse Circumstances system;
	3. you are requesting a change of placement; or
	4. the course has a compulsory attendance requirement.
	Before applying you must refer to the Adverse Circumstance Affecting Assessment Items Procedure available at: https://policies.newcastle.edu.au/document/view-current.php?id=236

| **Important Policy Information** | The Help button in the Canvas Navigation menu contains helpful information for using the Learning Management System. Students should familiarise themselves with the policies and procedures at https://www.newcastle.edu.au/current-students/respect-at-uni/policies-and-procedures that support a safe and respectful environment at the University. |

This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified and an amended course outline will be provided in the same manner as the original.

Graduate Profile Statements

The following table illustrates how this course contributes towards building the skills students will need to work in their profession.

Level of capability

- Level 1 indicates an introduction to a topic at a university level
- Levels 2 and 3 indicate progressive reinforcement of that topic
- Level 4 indicates skills commensurate with a graduate – entry to professional practice
- Level 5 indicates highly specialist or professional ability

	University of Newcastle **Bachelor of Information Technology Graduate Profile Statement**	Taught	Practised	Assessed	Level of capability
1	Demonstrate a comprehensive understanding of the discipline of information technologies with an emphasis on net-centric applications, information management, and user requirements for ethical professional practice.	X	X	X	3
2	Apply critical reasoning and systems thinking to understand and support the operation and constraints of contemporary enterprises and their dynamic environment.				
3	Work independently and collaboratively to locate, manage and organise information and resources and apply evidence-based methodologies to create, modify and maintain designs and design solutions.	X	X	X	3
4	Use creativity, problem solving skills, project management skills and technical expertise to analyse, interpret, evaluate and generate solutions to complex technical and organisational problems.	X	X	X	3
5	Demonstrate professional judgement and responsibility by communicating information technology principles, practices, standards to specialist and non-specialist audience clearly and persuasively.				