Course Directive
Intermediate Application Development Concepts/Tāura o Te Taupānga Tukutuku
Semester Two, 2022

Course Information

Level:	6
Credits:	15
Prerequisite:	ID607001: Introductory Application Development Concepts/Pia o Te Taupānga Tukutuku
Timetable:	Monday 8 AM Online & Wednesday 3 PM D207
Tutorials:	Monday & Thursday 8.30 PM - 10.00 PM

Teaching Staff

Name:	Grayson Orr
Position:	Lecturer & Second/Third-Year Coordinator
Office Location:	D318
Email Address	grayson.orr@op.ac.nz

Course Dates

Term 1:	Monday 18 July - Friday 30 September
Mid Semester Break:	Monday 3 October - Friday 14 October
Term 2:	Monday 17 October - Friday 18 November

Public Holidays & Anniversary Days

A list of public holidays & anniversary days can be found here - https://www.op.ac.nz/students/importantdates

Aims

To extend the concepts of application development including algorithms, data structures & design patterns that are required to use a complex, industry-relevant frameworks or libraries.

Learning Outcome

At the successful completion of this course, learners will be able to:

1. Apply design patterns & programming principles using software development best practices.
2. Design & implement full-stack applications using industry relevant programming languages.

Assessments

Assessment	Weighting	Due Date	Learning Outcomes
Practical: Skills-Based	20%	27-10-2022 (Thur at 10.00 AM)	1
Assessment 1: Node.js RESTful API - Open Trivia DB	45%	17-10-2022 (Mon at 7.59 AM)	1 & 2
Assessment 2: Next.js Application - The Movie DB	35%	09-11-2022 (Wed at 2.59 PM)	1 & 2

Provisional Schedule

Week	Date Starting	Topics
1/Tahi	18-07-2022	Refactoring & Development Workflow
2/Rua	25-07-2022	HTTP
3/Toru	01-08-2022	Authentication & Authorization
4/Whā	08-08-2022	Optimisation
5/Rima	15-08-2022	API & Integration Testing
6/Ono	22-08-2022	Assessment 1 Work
7/Whitu	29-08-2022	React Recap & Styling
8/Waru	05-09-2022	Context API & React Query
9/Iwa	12-09-2022	Component Testing & Storybook
10/Tekau	19-09-2022	Next.js
11/Tekau mā tahi	26-09-2022	Assessment 1 Work
Mid Term Break		
12/Tekau mā rua	17-10-2022	Assessment 1 Code Defence
13/Tekau mā toru	24-10-2022	Practical: Skills-Based
14/Tekau mā whā	31-10-2022	Assessment 2 Work
15/Tekau mā rima	07-11-2022	Assessment 2 Work
16/Tekau mā ono	14-11-2022	Assessment 2 Code Defence

Resources

Software

This paper will be taught using **Microsoft Visual Studio Code** & **Node.js**. An installer for **Microsoft Visual Studio Code** & **Node.js** are available - https://code.visualstudio.com/download & https://nodejs.org/en/download. Please refer any problems with downloads or installers to **Rob Broadley** in D205a.

Readings

No textbook is required for this course. URLs to useful resources will be provided in the lecture notes.

Course Requirements & Expectations

Learning Hours

This course requires **150 hours** of learning. This time includes **64 hours** of timetabled class time, & **86 hours** of self-directed reading, preparation & completion of assessments.

Criteria for Passing

To pass this paper, you must achieve a cumulative pass mark of **50%** over all assessments. There are no reassessments or resits.

Attendance

- Learners are expected to attend all classes, including lectures & labs.
- If you cannot attend for a few days for any reason, contact the course.

Communication

Microsoft Outlook/Teams are the official communication channels for this course. It is your responsibility to regularly check **Microsoft Outlook/Teams** & GitHub for important course material, including changes to class scheduling or assessment details. Not checking will not be accepted as an excuse.

Snow Days/Polytechnic Closure

In the event **Otago Polytechnic — Te Kura Matatini ki Otago** is closed or has a delayed opening because of snow or bad weather, you should not attempt to attend class if it is unsafe to do so. It is possible that the teaching staff will not be able to attend either, so classes will not physically be meeting. However, this does not become a holiday. Rather, the course material will be made available on GitHub for classes affected by the closure. You are responsible for any course material presented in this manner. Information about closure will be posted on the **Otago Polytechnic — Te Kura Matatini ki Otago Facebook** page https://www.facebook.com/OtagoPoly.

Group Work & Originality

Learners in the **Bachelor of Information Technology** programme are expected to hand in original work. Learners are encouraged to discuss assessments with their fellow learners, however, all assessments are to be completed as individual works unless group work is explicitly required (i.e. if it doesn't say it is group work then it is not group work - even if a group consultation was involved). Failure to submit your original work will be treated as plagiarism.

Referencing

Appropriate referencing is required for all work. Referencing standards will be specified by the teaching staff.

Plagiarism

Plagiarism is submitting someone elses work as your own. Plagiarism offences are taken seriously & an assessment that has been plagiarised may be awarded a zero mark. A definition of plagiarism is in the Student Handbook, available online or at the school office.

Submission Requirements

All assessments are to be submitted by the time, date, & method given when the assessment is issued. Failure to meet all requirements will result in a penalty of up to **10%** per day (including weekends).

Extensions

Extensions are only available for unusual circumstances. These must be applied for, & approved, before the submission date.

Impairment

In case of sickness contact the teaching staff or **Head of Information Technology (Michael Holtz)** as soon as possible, preferably before the assessment is due. The policy regarding the granting of a mark that considers impaired performance requires a medical certificate & a medical practitioner's signature on a form. You may refer to the guide on impaired performance on the student handbook.

Appeals

If you are concerned about any aspect of your assessment, approach the teaching staff in the first instance. We support an open-door policy & aim to resolve issues promptly. Further support is available from the **Head of Information Technology (Michael Holtz)** & **Second/Third-Year Coordinator (Grayson Orr)**. **Otago Polytechnic — Te Kura Matatini ki Otago** has a formal process for academic appeals if necessary.

Other Documents

Regulatory documents relating to this course can be found on the **Otago Polytechnic — Te Kura Matatini ki Otago** website.