Course Directive
ID607001: Introductory Application Development Concepts
Semester One, 2023

Course Information

Level:	6
Credits:	15
Prerequisite:	ID511001: Programming 2
Timetable:	Stream A: Monday 1.00 PM D202 & Wednesday 3.00 PM D105a

Teaching Staff

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

Course Dates

Term 1:	Monday 20 February - Thursday 06 April
Mid Semester Break:	Friday 07 April - Friday 21 April
Term 2:	Monday 24 April - Friday 23 June

Public Holidays & Anniversary Days

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

Aims

To introduce the concepts of application development including algorithms, data structures & design patterns that are required to use a simple, industry-relevant development framework.

Learning Outcome

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

1. Design & build secure applications with dynamic database functionality following an appropriate software development methodology.

Assessments

Assessment	Weighting	Due Date	Learning Outcomes
Practical: Node.js REST API Testing	20%	05-05-2023 (Friday at 4.59 PM)	1
Project 1: Node.js REST API	30%	05-05-2023 (Friday at 4.59 PM)	1
Project 2: React CRUD	50%	16-06-2023 (Friday at 4.59 PM)	1

Provisional Schedule

Week	Date Starting	Topics
1/Tahi	20-02-2023	GitHub Workflow & JavaScript Basics 1
2/Rua	27-02-2023	JavaScript Basics 2, & Development Workflow - Commitizen & Prettier
3/Toru	06-03-2023	Express Basics, Object-Relational Mapper & Postman
4/Whā	13-03-2023	Relationships, Validation & Cross-Origin Resource Sharing
5/Rima	20-03-2023	Filtering, Sorting, Pagination & Rate-Limiting
6/Ono	27-03-2023	Testing - API & Deployment
7/Whitu	03-04-2023	Practical & Project Work
Mid Term Break		
8/Waru	24-04-2023	Practical & Project Work
9/Iwa	01-05-2023	Create-React-App, JSX, Rendering Elements, Components & Lifecycle
10/Tekau	08-05-2023	Strict Mode, Props, Fragments & State
11/Tekau mā tahi	15-05-2023	Lists, Keys & Lifting Up State
12/Tekau mā rua	22-05-2023	Typechecking with Prop Types
13/Tekau mā toru	29-05-2023	Project 2 Work
14/Tekau mā whā	05-06-2023	Project 2 Work
15/Tekau mā rima	12-06-2023	Project 2 Work
16/Tekau mā ono	19-06-2023	Marking Week

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 Pūkenga** 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 Pūkenga 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.

ChatGPT

In this course, you will be encouraged to use **ChatGPT** for your assessments. Learning to use Artificial Intelligence tools is an important skill. While **ChatGPT** is a powerful tool, you must be aware of the following:

- If you provide **ChatGPT** with a prompt that is not refined enough, it may generate a not-so-useful response
- Do not trust **ChatGPT's** responses blindly. You must still use your judgement and may need to do additional research to determine if the response is correct
- Acknowledge that you are using **ChatGPT**. In the assessment's repository **README.md** file, please include what prompt(s) you provided to **ChatGPT** & how you used the response(s) to help you with your work

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 Pūkenga** 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 Pūkenga** website.