



# Course Directive

## IN607: Introductory Application Development Concepts

### Semester Two, 2021

#### Course Information

Credits: 15 Credits  
Prerequisite: IN511: Programming 2  
Timetable: Tuesday 10 AM D202 & Friday 1 PM D202

#### Lecturers

Name:	Adon Moskal (Principal Lecturer)	Grayson Orr (Lecturer & Second/Third-Year Coordinator)
Office:	D205b	D311
Email:	adon.moskal@op.ac.nz	grayson.orr@op.ac.nz

#### Course Dates

Term 1: 19 July - 1 October (11 weeks)  
Mid Semester Break: 04 October - 15 October (2 weeks)  
Term 2: 18 October - 19 November (5 weeks)

#### 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 Outcomes

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

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

## Provisional Schedule

Week	Date	Session Topics
1	19-07-2021	PHP Basics 1 - Variables, Control Structures, Loops, Functions, Error Handling & File Processing
2	26-07-2021	PHP Basics 2 - Classes, Inheritance & Interfaces
3	02-08-2021	Laravel API 1 - Introduction, Composer, Artisan, MySQL, Model, Controller, Eloquent, Route & Postman
4	09-08-2021	Laravel API 2 - Validation, Relationships, Seeder & Appending Values to JSON
5	16-08-2021	Laravel API 3 - API Resources, Caching, Observer & Rate Limits
6	23-08-2021	Laravel API 4 - Sanctum, Heroku, PostgreSQL
7	30-08-2021	Laravel API 5 - Postman Documentation
8	06-09-2021	Project 1: Laravel API
9	13-09-2021	Project 1: Laravel API
10	20-09-2021	React 1 - Create-React-App, JSX, Components & Props
11	27-09-2021	React 2 - Hooks, Axios, List, Keys & Conditional Rendering
Mid Term Break		
12	18-10-2021	React 3 - Forms & Events
13	25-10-2021	React 4 - Jest
14	01-11-2021	Project 2: React CRUD
15	08-11-2021	Project 2: React CRUD
16	15-11-2021	Project 2: React CRUD

## Assessments

Assessment	Weighting	Due Date	Learning Outcomes
Practical: API Testing Research	20%	20-10-2021	1
Project 1: Laravel API	30%	17-09-2021	1
Project 2: React CRUD	50%	19-11-2021	1

## Resources

### Software

This paper will be taught using **Laragon & Microsoft Visual Studio Code**. An installer for **Laragon & Microsoft Visual Studio Code** is available - <https://laragon.org/download> & <https://code.visualstudio.com/download>. Please refer any problems with downloads or installers to Rob Bradley in D205a.

### Readings

There is no textbook for the course.

# 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** 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 course lecturer 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 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 course lecturer.

## Plagiarism

Plagiarism is submitting someone else's 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 course lecturer 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 course lecturer 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 has a formal process for academic appeals if necessary.

## Other Documents

Regulatory documents relating to this course can be found on the **Otago Polytechnic** website.