

**COURSE DIRECTIVE**

***Bachelor of Information Technology***

*ID512: Fundamentals of Web Development*

*Semester 1, 2022*

**DESCRIPTION**

In this paper, students will be introduced to industrially relevant client and server-side technologies for web-based development.

**COURSE INFORMATION**

Credits: 15 credits

Perquisites: IN510/ID510 Programming 1

**COACHES**

Name: Adon Moskal

Location: D205a

Email: [adon.moskal@op.ac.nz](mailto:adon.moskal@op.ac.nz)

**COURSE DATES**

|  |  |
| --- | --- |
| Term 1 (8 weeks) | 21 Feb – 14 Apr |
| Mid semester break | 20 Apr – 29 Apr |
| Term 2 (8 weeks) | 2 May – 23 Jun |

**AIMS**

To enable students to use basic technologies for the development of web-based functionality.

**LEARNING OUTCOMES**

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

1. Use fundamental components of web pages and basic client/server communication.
2. Develop simple web-based applications using industry relevant client/server-side programming languages.
3. Use industry relevant tools and workflows in the development of web-based applications.

**RESOURCES**

**Software**

This paper will be taught using **Microsoft Visual Studio Code**. An installer for **Microsoft Visual Studio Code** is available. See https://secure.ict.op.ac.nz/msdnaa/. Please refer any problems with downloads or installers to **Rob Broadley** in **D205a**.

**Readings**

There is a Moodle site of curated information – this is basically a textbook, and you should think about it as such. It is divided into sections that include **pre-lecture preparation**, **in-class lecture notes**, **at-home revision exercises** and **optional advanced** information.

**PROVISIONAL SCHEDULE**

|  |  |  |  |
| --- | --- | --- | --- |
| **Week** | **Date** | **Session 1** | **Session 2** |
| **1** | Feb 21 | Introduction to the web and the class etc | HTML |
| **2** | Feb 28 | The HTML document | Structure and assets |
| **3** | Mar 7 | CSS/Selectors | Box model |
| **4** | Mar 14 | Positioning | Flex/Grid |
| **5** | Mar 21 | Web design & responsiveness | Catch-up session |
| **6** | Mar 28 | JS – variables, loops & conditionals | JS – functions |
| **7** | Apr 4 | JS – Arrays | JS – Objects |
| **8** | Apr 11 | JS – DOM manipulation 1 | JS – DOM manipulation 2 |
| **9** | May 2 | JS – Events | Catch-up session |
| **10** | May 9 | APIs and fetch 1 | APIs and fetch 2 |
| **11** | May 16 | SBA practice | SBA practice |
| **12** | May 23 | SBA | SBA review |
| **13** | May 30 | Server-side 1 (Node + Express) | Server-side 2 (templating) |
| **14** | Jun 6 | Server-side 3 (Routing) | Server-side 4 (Deployment) |
| **15** | Jun 13 | Project work | Project work |
| **16** | Jun 20 | Project work | Project work |

**ASSESSMENT**

|  |  |  |
| --- | --- | --- |
| **Assessment** | **Weight** | **Due Date** |
| Project | 70% | Friday, 24th Jun |
| Skills Based Assessment | 30% | Week 12 (Week of 23rd May) |

Detailed assignment requirements, including instructions for submission, will be provided for each assessment.

**COURSE REQUIREMENTS & EXPECTATIONS**

**Learning Hours**

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

**Criteria for Passing**

To pass this paper, you must achieve an overall average of 50. There must be a genuine attempt at all assessments. There are no resits.

**Attendance**

* Students are expected to attend all classes, both lectures and labs.
* If you miss a class, you will need to get notes from another student.
* If you cannot attend for a few days for any reason, please contact your lecturer.
* You must turn up ready for assessments on the due date and at the correct time. No extra time will be scheduled. If you do not turn up, you have failed the assessment.

**Communication**

Microsoft Outlook and Teams are the official communication channels. It is your responsibility to regularly check Microsoft Outlook/Teams and GitHub for important course related 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 the 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 your instructor will not be able to attend either, so classes will not physically be meeting. However, this does not become a holiday. Rather, material will be made available on GitHub for classes affected by the closure. You are responsible for any material presented in this manner. Information about closure will be posted on the Otago Polytechnic Facebook page https://www.facebook.com/Otago.

**Group Work and Originality**

Students in the Bachelor of Information Technology degree are expected to hand in original work. Students are encouraged to discuss assessments with their fellow students, 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 own original work will be treated as plagiarism.

**Referencing**

Appropriate referencing is required for all work. Referencing standards will be specified by your lecturer.

**Plagiarism**

Plagiarism is submitting someone else’s work as your own. Plagiarism offences are taken seriously and 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, and method given when the assessment is issued. Failure to meet all requirements may 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, and approved, prior to the submission deadline.

**Impairment**

In case of sickness contact your lecturer or BIT Team Leader (Joy Gasson) as soon as possible, preferably before the assessment or exam is due. The policy regarding the granting of a mark that considers impaired performance requires a medical certificate and a medical practitioner’s signature on a form. You may should refer to the guide on impaired performance on the student handbook.

**Appeals**

If you are concerned about any aspect of your assessment, please approach the lecturer in the first instance. We support an open-door policy and aim to resolve issues promptly. Further support is available from the BIT Team Leader (Joy Gasson) and Head of College (Richard Nyhof). Otago Polytechnic has a formal process for academic appeals if necessary.

**Other Documents**

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