**Application Design and Development – Unit Outline**

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| **Day** | **Lecture** | **Workshop** | **Outcome** |
| **1** | Agile Methodology (Scrum)   * Introduction to Scrum and Project * Stakeholders, Scope & Specification, prioritisation, and estimation * Release and Sprint Planning | * Form Teams & Choose a Project * Start Requirements Specification * Refine Requirements & Start Estimation * Refine Requirements & Start Prioritisation * Finalise Priorities & Sprint Planning | * User stories & and plans |
| **2** | System Architecture and Implementation   * Capability Modelling * UML | * Sprint Review & Sprint Planning * First release * Mid-iteration demo | * Capability models and architecture * Data models and process models |
| **3** | System Architecture and Implementation   * SOA | * Sprint Review & Sprint Planning * Second release * Mid-iteration demo | Second release |
| **4** | Database Design  System Testing  User Interface and Design | * Sprint Review & Sprint Planning * Third release * Retrospective | Third release |
| **5** | Conflict Resolution and Team Work | Sprint Review & Final Demo | Final Release, Portfolio, Peer & Tutor Review |

Preparations:

* Git

<https://git-scm.com/download/win>

<https://help.github.com/articles/generating-an-ssh-key/>

* Acquire git accounts

<https://github.com/>

* Acquire Jira evaluation accounts

<https://www.atlassian.com/software/jira/try>

[https://www.atlassian.com/licensing/purchase-licensing#evaluations-1](https://www.atlassian.com/licensing/purchase-licensing" \l "evaluations-1)

<https://confluence.atlassian.com/adminjiraserver071/installing-jira-applications-on-windows-802592170.html>

<https://confluence.atlassian.com/adminjiraserver071/running-the-setup-wizard-802592199.html>

* Install Selenium

<http://www.seleniumhq.org/>

* Setup Amazon EC2
* Sketch tools
* Visual Paradigm

<https://www.visual-paradigm.com/download/community.jsp>

Mule Anypoint Studio

<https://www.mulesoft.com/platform/studio>