

Unit of Study: BIS3003 IS Capstone Industry Project A

Trimester 3, 2022

Overview:

IS Capstone Industry Project A and IS Capstone Industry Project B together comprise the capstone for the Bachelor of Information Technology, providing students with the opportunity to integrate, apply and demonstrate the skills and knowledge acquired throughout the course.

In IS Capstone Industry Project A students' work as team to plan an IT project to address a real-world industry problem. By investigating current well-established approaches and applying a suitable project management methodology student devise a justifiable technical solution to the industry problem.

During this unit students undertake a detailed requirement analysis and propose a preliminary design that is validated via a feasibility analysis. The students then develop an implementation plan that they will undertake in IS Capstone Industry Project B.

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| Course(s) | Bachelor of Business Information Systems Bachelor of Information Technology |
| Credit Points | 6 credit points |
| Duration | 12 weeks (10 teaching weeks; 1 revision week; 1 final assessment week) |
| Level | Undergraduate Advanced |
| Student Workload | Students should expect to spend approximately 10 hours per week over 12 weeks (totalling approximately 120 hours) on learning activities for this unit. |
| Mode(s) of Delivery | On campus, Blended |
| Pre-Requisites | BIS2003 IS Project Management, BUS2003 Sustainability and Ethics |
| Unit Coordinator | As per current timetable |
| Contact Information | Consultation: 1 hour scheduled session |

Unit Learning Outcomes

On successful completion of this unit, students will be able to:

- ULO1 Justify the selected approach to solve an IT problem.
- ULO2 Apply appropriate project management approaches to solve an IT problem.
- ULO3 Devise a technical solution to an IT problem using intellectual independence and judgement.
- ULO4 Persuade stakeholders of appropriate solutions in a clear and coherent manner.
- ULO5 Critically reflect on approaches taken and performance of the team in the development of a solution to an applied project.

Weekly Schedule

Detailed information for each week's activities can be found on Unit's Weekly Modules in Canvas.

| Week | Topic |
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| Week 1 | Introduction to the unit, expectations and purpose |
| Week 2 | Collecting the Evidence, Evaluating the evidence and finding a project – Part 1 |
| Week 3 | Collecting the Evidence, Evaluating the evidence and finding a project – Part 2 |
| Week 4 | Preparing a critical review and project proposal – Part 1 |
| Week 5 | Preparing a critical review and project proposal – Part 2 |
| Week 6 | The project plan – Part 1 |
| Week 7 | The project plan – Part 2 |
| Week 8 | The design solution – Part 1 |
| Week 9 | The design solution – Part 2 |
| Week 10 | Review and reflection |
| Week 11 | Project Presentations – Part 1 |
| Week 12 | Project Presentations – Part 2 |

Assessments






- All assessments are compulsory.
- To pass the unit students must:
 - achieve a total of 50% or more of marks offered; and
 - pass all individual invigilated assessments; and
 - have attempted all assessments.

Where one or more of these requirements are not met, the Board of Examiners will consider a student's overall progress towards meeting the unit learning outcomes and any special circumstances before reaching a decision.

- The Board of Examiners may grant a supplementary assessment where a student:
 - achieves a total of 45% or more; and
 - has passed all individual invigilated assessments in the unit; and
 - has attempted all assessments; and
 - has a recommendation for supplementary assessment by the Unit Coordinator and the Head of Discipline.

Where one or more of these requirements are not met, the Board of Examiners will consider a student's overall progress towards meeting the unit learning outcomes and any special circumstances before reaching a decision. Attendance and engagement in class will be considered.

- APIC awards common result grades as set out in the [Award of Grade Policy](#).
- Detailed information for each assessment can be found on the Unit's Home Page and in the Assessment Brief.

| Assessment Task | Type | Weighting | Due | Length | ULO |
|--|--|-----------|---|--|------------------------------|
| Assessment 1: Project Definition and Scope The report defines the problem, describing the background and context, and detailing the scope of the project to be undertaken. | Individual  | 10% | Week 3 | 1500 words | ULO1 ULO2 |
| Assessment 2: Requirements Analysis Students submit a report covering their requirements analysis for the project. | Individual  | 20% | Week 6 | 1500 words | ULO2 ULO3 |
| Assessment 3: Project Reflection Reflection on the student's journey in the unit focused on (a) the skills and knowledge they were able to draw on from earlier parts of the course; (b) the areas where they needed development and how they addressed those; (c) how they would approach a project like this next time; (d) considerations for <i>BIS3006 IS Capstone Industry Project B</i> | Individual  | 30% | First: Week 7 and Second: Week 12 | 2x1000 words | ULO5 |
| Assessment 4: Report and Oral Defence Students prepare and the Project Design, Feasibility Analysis, and Initial Implementation Plan and present and defend their solution design through an oral defence. | Group  Invigilated  | 40% | Week 11 | 3000 words Presentation 15 minutes maximum; 15 slides maximum (1500-word equiv.) | ULO1 ULO2 ULO3 ULO4 |

equiv. – equivalent word count based on the Assessment Load Equivalence Guide. It means this assessment is equivalent to the normally expected time requirement for a written submission containing the specified number of words.

Course Reserve

Course Reserve includes all required resources and reading material for the unit of study. You can access Course Reserve via [APIC Library](#) or via the Course Reserve link on the unit's homepage.

Prescribed text(s):

Sommerville, I 2020, *An Introduction to Modern Software Engineering*, University of St Andrews, Scotland.

Open Textbook Library 2021. Think Java: How To Think Like a Computer Scientist. 2nd edn. Open Textbook Library. <https://open.umn.edu/opentextbooks/textbooks/285>.

CaCasola, V, Benedictis, AD & Rak, M 2020, *Testing Software and Systems*, vol. 12543, Springer International Publishing, Cham. https://hal.inria.fr/hal-03239808/file/IFIPLNCS12543DL_2020_BookFrontmatter.pdf

Recommended Readings:

Satzinger, J, Jackson, R & Burd, S 2017, *Systems Analysis and Design in a Changing World*, 7th edn, Cengage Learning, Australia.

Sommerville, I 2016, *Software Engineering*, University of St Andrews, Scotland.

Gaddis, T 2019, *Starting Out with Java: from Control Structures Through Objects*, eBook, 7th Edition, Pearson Education, Limited, Harlow. (Hard copy)

Open Textbook Library 2019. *Blueprints: Creating, Describing, and Implementing Designs for Larger-Scale Software Projects - Version 2.3*. Open Textbook Library. <https://open.umn.edu/opentextbooks/textbooks/842>

Hoffer, J, Venkataraman, R, Topi, H, & Invernizzi, M 2019, *Modern Database Management*, eBook, Global Edition, Pearson Education, Limited, Harlow. <https://ebookcentral.proquest.com/lib/apicollege/detail.action?docID=5785543>

Laudon, K, & Laudon, J 2019, *Management Information Systems: Managing the Digital Firm*, eBook, Global Edition, Pearson Education, Limited, Harlow. <https://ebookcentral.proquest.com/lib/apicollege/detail.action?docID=5785543>

Gaddis, T 2019. *Starting out with python*. 4th edn. Pearson. United Kingdom. <https://ecalibrary.on.worldcat.org/v2/oclc/1065111176>

Other Recommended Resources:

How to Write a Vision Statement:

<https://www.youtube.com/watch?v=7yBUBmciQBk>

UML Use Case Diagram Tutorial

https://www.youtube.com/watch?v=zid-MVo7M-E&list=PL_RvSWIduMYEZd6M7M0e5vSM_e0Jw5hUJ&index=2

UML Class Diagram Tutorial

<https://www.youtube.com/watch?v=jtWj-rreoxs>
<https://www.youtube.com/watch?v=UI6lqHOVHic>

How to Make a UML Sequence Diagram

https://www.youtube.com/watch?v=18_kVIQMavE
<https://www.youtube.com/watch?v=pCK6prSq8aw>
<https://www.youtube.com/watch?v=cxG-qWthxt4>

UML 2.0 Activity Diagrams

https://www.youtube.com/watch?v=XFTAij2N2Lc&list=PL_RvSWIduMYEZd6M7M0e5vSM_e0Jw5hUJ&index=6

UML 2 Component Diagrams

https://www.youtube.com/watch?v=KQUGFFN4M90&list=PL_RvSWIduMYEZd6M7M0e5vSM_e0Jw5hUJ&index=7

UML 2 Deployment Diagrams

https://www.youtube.com/watch?v=nTtQwGoUUNc&list=PL_RvSWIduMYEZd6M7M0e5vSM_e0Jw5hUJ&index=8

UML 2 State Machine Diagrams

https://www.youtube.com/watch?v=_6TFVzBW7oo&list=PL_RvSWIduMYEZd6M7M0e5vSM_e0Jw5hUJ&index=9

Academic integrity

Ethical conduct and academic integrity and honesty are fundamental to the mission of APIC and academic misconduct will not be tolerated by the College. It is the responsibility of every student to make sure that they understand what constitutes academic misconduct and to refrain from engaging in it. Please refer to APIC's [Academic Integrity Policy](#) for further details.

Other Important Information and Links

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| <p>Special consideration</p> <p>If your academic work is impacted by significant documented illness, hardship, or other adverse circumstances beyond your control, you may make an application for Special Consideration. Please refer to the Assessment Policy for further details.</p> | <p>Late submission</p> <p>Penalties apply when work is submitted after the due date without approval. Please refer to the Assessment Policy for information about late submission.</p> |
| <p>Assessment appeals</p> <p>If you are concerned about a mark you have received for an assessment or final grade, you may apply to formally appeal the grade. Please see the Assessment Policy for further details.</p> | <p>Award of grades</p> <p>APIC awards common result grades, set out in the Award of Grade Policy.</p> |
| <p>Expectations of student conduct</p> <p>Students are expected to conduct themselves in a manner that is consistent with a safe and respectful study environment. More information can be found in the Student Code of Conduct.</p> | <p>Study resources</p> <p>APIC Library and Student Learning Support resources and services can be accessed via the Student Lounge or your Dashboard on the OLS (Canvas).</p> |
| <p>Student Services</p> <p>The Student Services team provides administrative support for students and handles enquiries about enrolment, timetables, important dates and submitting forms. More information can be found on the Student Services page on the OLS (Canvas).</p> | <p>Key dates</p> <p>Key dates through the academic year, including teaching periods, census, payment deadlines and exams can be found on the Academic Calendar section of the APIC website.</p> |

Changes and Updates to the Unit of Study Guide

This Unit of Study Guide may be updated and amended from time to time. Students will be notified of any changes to the unit via the Online Learning System (Canvas) space for the unit.

This Unit of Study Guide was last modified on 31st August 2022.