

WESTERN SYDNEY
UNIVERSITY



School of Computer, Data and Mathematical Sciences



Subject Outline

INFO7016 Postgraduate Project A
Autumn 2024

Western Sydney University acknowledges the peoples of the Darug, Dharawal, Eora and Wiradjuri nations. We also acknowledge that the teaching and learning currently delivered across our campuses is a continuance of the teaching and learning that has occurred on these lands for tens of thousands of years.

Subject Details

Subject Code:	INFO7016
Subject Name:	Postgraduate Project A
Credit Points:	10
Subject Level:	7
Assumed Knowledge:	Not Applicable

Note: Students with any problems, concerns or doubts should discuss those with the Subject Coordinator as early as they can.

Subject Coordinator

Name: Dr. Jamie Yang
Phone: +61 2 96859233
Location: ER.G.12, Parramatta South Campus
Email: J.Yang@westernsydney.edu.au

Consultation Arrangement:

Consultation hours: Monday 14:00-16:00 ER.G.12, Parramatta South; or via Zoom if necessary. Please also check vUWS site for the most up to date information on consultation arrangement in case of changes.

For subject inquiries, you can also email a staff member directly. Please note that a staff member is typically teaching multiple subjects, so make sure you start the subject line with "INFO7016 PPA" and then include a relevant subject (e.g. inquiries about project allocation, project proposal, project report, etc).

As this subject is offered for multiple disciplines (e.g. MICT, Data Science, AI, and Information Governance), in the email body, please indicate in which program you have enrolled. We need the information to recognise the individual student and provide more specialised advice. Such details also help the staff archive your inquiries or forward your inquiries to the corresponding tutors for processing.

For any subject related inquiries, you need to use your Western Sydney University student email account; we really should not correspondent with students via external email addresses as per the university policy since they are not verifiable.

In addition, the coordinator may use emails to address the subject related issues (e.g. clarifying administrative policies, providing hints to assessment tasks, presenting extra/supplementary materials for the subject studies). So please check your Western Sydney University emails regularly and carefully. It is pivotal for any student wishing to perform well to read all these emails carefully.

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Note: The relevant Subject Outline Companion supplements this document

1 About Postgraduate Project A

1.1 An Introduction to this Subject

This is a project-based subject for the Master studies in Computers, Data and Mathematical Sciences. The purpose of this subject is to develop research skills and learn how to manage a research project. Students will engage in research investigation and practical work on a topic in a field of current research interest that is of value to the candidate's professional and intellectual development. Students are expected to actively pursue their interest in an individual research area and undertake self-studies under guidance of a project supervisor. Students will identify research topics in consultation with supervisors, carry out a literature review, define research objectives, establish research methodology, and prepare a research plan. Eventually each student is required to produce a research report with preliminary findings.

1.2 What is Expected of You

Study Load

A student is expected to study an hour per credit point a week. For example a 10 credit point Subject would require 10 hours of study per week. This time includes the time spent within classes during lectures, tutorials or practicals.

Note for Summer Terms: As Summer subjects deliver the same content and classes over a shorter period of time, the subjects are run in a more intensive mode. Regardless of the delivery mode, the study hours for each subject in Summer will be around 30 hours.

Attendance

Students must participate in the regular meetings with their supervisor(s).

Approach to Learning

This is a project-based subject for postgraduate studies. The learning approach of this subject includes workshops, learning sessions for the research project, regular consultation with academic supervisors, and other activities (e.g., program design, surveys, procurement of instrument, seminars) necessary to complete the research project.

Workshops (On-campus class OR Online session [via Zoom or Blackboard Collaborate Ultra]):

One workshop in week 1 is provided to assist students in starting up literature survey, defining research objectives and scope, establishing research methodology and preparing a research plan etc.

Project allocation:

As students are from different programs, the research projects also come from different disciplines and in different shapes. In practice, students in each specific program will work on topics in their discipline and will be guided by supervisors with expertise in the field. That is, Master of Information and Communications Technology (ICT) and Master of Information and Communications Technology (Advanced) students will carry out ICT projects. Similarly, Master of Data Science, Master of Artificial Intelligence, and Master of Information Governance students will work on Data Science, Artificial Intelligence, and Information Governance projects respectively.

Students are required to get a research topic and submit the Supervision Agreement Form by week 3. According to the timeline of the semester and the time management for the research activities, three weeks is long enough to select a research topic from a given list. After week 3, if a student cannot pair with a supervisor on a research project, the

student's performance will be greatly affected. Some supervisors may not even accept students after week 3.

Consultation with academic supervisor(s):

Students will carry out the research projects in consultation with academic supervisors. Students should attend the regular meetings (e.g. weekly meetings) with academic supervisor(s) who will guide students throughout the project process.

As stated in the Supervision Agreement Form:

- It is students' responsibility to arrange regular meetings with their supervisors and seek the supervisor's advice on the project progress regularly.
- Students must attend regular research meetings (weekly or fortnightly) on the project progress with the supervisor at an agreed time. After meeting, both student and supervisor need to sign on the Meeting Register (to be provided on vUWS). Failure to attend any meeting may lead to the termination of the supervision arrangement and a "Fail" grade in the subject.
- Student is required to record all project work, data and results in a notebook. The supervisor may require the project notebook to be handed in at an agreed time on the meeting day to facilitate later discussion.
- For communication, it's a common courtesy and professional practice for students to respond to the supervisor's emails in time.

Learning Sessions:

Students should ensure at least two-hour learning session each week to consult vUWS, complete weekly research activities for the research project as per the research plan, work on assessment tasks.

Other activities:

e.g. program design, surveys, procurement of instrument, seminars associated with your project work. On-going research information is updated dynamically in vUWS for students' reference.

Online Learning Requirements

Subject materials will be made available on the Subject's vUWS (E-Learning) site (<https://vuws.westernsydney.edu.au/>). You are expected to consult vUWS at least twice a week, as all Subject announcements will be made via vUWS. Teaching and learning materials will be regularly updated and posted online by the teaching team.

Special Requirements

Essential Equipment:

Not Applicable

Legislative Pre-Requisites:

Not Applicable

1.3 Changes to Subject as a Result of Past Student Feedback

The University values student feedback in order to improve the quality of its educational programs. The feedback provided helps us improve teaching methods and Subjects of study. The survey results inform Subject content and design, Subject Outlines, teaching methods, assessment processes and teaching materials.

You are welcome to provide feedback that is related to the teaching of this Subject. At the end of the semester you will be given the opportunity to complete a Student Feedback on Subject questionnaire to assess the Subject. If requested by your Subject coordinator, you may also have the opportunity to complete a Student Feedback on Teaching (SFT) questionnaire to provide feedback for individual teaching staff.

As a result of student feedback, the following changes and improvements to this Subject have recently been made:

- Postgraduate Project A has replaced Master Project 1. This change has been applied to the courses 3698 (Master of Information and Communications Technology - Advanced), 3699 (Master of Information and Communications Technology), 3735 (Master of Data Science), 3765 (Master of Artificial Intelligence), and 3779 (Master of Information Governance).
- Sample project work is provided to make your project management simple.
- On-going research information is updated dynamically for students' reference.

2 Learning and Teaching Activities

Teaching Weeks	Workshop	Session	Instructions	Assessment Due
Week 1 04-03-2024	2-hour information session.			
Week 2 11-03-2024		Self-arranged two-hour learning session to consult vUWS, complete weekly research activities for the research project as per the research plan, work on assessment tasks.	Weekly meeting the project supervisor.	
Week 3 18-03-2024		Self-arranged two-hour learning session to consult vUWS, complete weekly research activities for the research project as per the research plan, work on assessment tasks.	Weekly meeting the project supervisor. Submission of Supervision Agreement Form .	- Learning Contract
Week 4 25-03-2024		Self-arranged two-hour learning session to consult vUWS, complete weekly research activities for the research project as per the research plan, work on assessment tasks.	Weekly meeting the project supervisor.	
Week 5 01-04-2024		Self-arranged two-hour learning session to consult vUWS, complete weekly research activities for the research project as per the research plan, work on assessment tasks.	Weekly meeting the project supervisor.	
Week 6 08-04-2024		Self-arranged two-hour learning session to consult vUWS, complete weekly research activities for the research project as per the research plan, work on assessment tasks.	Weekly meeting the project supervisor. Submission of Project Proposal .	- Proposal

Teaching Weeks	Workshop	Session	Instructions	Assessment Due
Week 7 15-04-2024		Self-arranged two-hour learning session to consult vUWS, complete weekly research activities for the research project as per the research plan, work on assessment tasks.	Weekly meeting the project supervisor. <i>Optional: Drafting presentation slides if project presentation is required by project supervisor (please check with your supervisor).</i>	
Week 8 22-04-2024	Intra-session break	Intra-session break	Intra-session break	
Week 9 29-04-2024		Self-arranged two-hour learning session to consult vUWS, complete weekly research activities for the research project as per the research plan, work on assessment tasks.	Weekly meeting the project supervisor.	
Week 10 06-05-2024		Self-arranged two-hour learning session to consult vUWS, complete weekly research activities for the research project as per the research plan, work on assessment tasks.	Weekly meeting the project supervisor.	
Week 11 13-05-2024		Self-arranged two-hour learning session to consult vUWS, complete weekly research activities for the research project as per the research plan, work on assessment tasks.	Weekly meeting the project supervisor.	
Week 12 20-05-2024		Self-arranged two-hour learning session to consult vUWS, complete weekly research activities for the research project as per the research plan, work on assessment tasks.	Weekly meeting the project supervisor.	

Teaching Weeks	Workshop	Session	Instructions	Assessment Due
Week 13 27-05-2024		Self-arranged two-hour learning session to consult vUWS, complete weekly research activities for the research project as per the research plan, work on assessment tasks.	Weekly meeting the project supervisor.	
Week 14 03-06-2024		Self-arranged two-hour learning session to consult vUWS, complete weekly research activities for the research project as per the research plan, work on assessment tasks.	Weekly meeting the project supervisor. Submission of the Project Report .	- Report
Week 15 10-06-2024				
Week 16 17-06-2024				
Week 17 24-06-2024				

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The above timetable should be used as a guide only, as it is subject to change. Students will be advised of any changes as they become known on the Subject's vUWS site.

3 Assessment Information

3.1 Subject Learning Outcomes

	Outcome
1	Critically analyse the relevant literature to identify potential research problems in the fields of ICT, DS, AI, and Mathematics.
2	Generate research questions and hypothesis based on the literature review and the changing landscape.
3	Justify the research proposal in relation to its significance in literature and its anticipated impact based on computational thinking, big-data thinking, and/or mathematical thinking.
4	Construct a plan and methodology to conduct research on an identified question/issue/problem.
5	Articulate research aims and findings in professional, formal and informal formats and contexts.
6	Apply self-management skills in planning and executing research within computing contexts.
7	Demonstrate research ethics in synthesising complex information from a range of sources and referencing appropriately.

3.2 Assessment Summary

The assessment items in this Subject are designed to enable you to demonstrate that you have achieved the Subject learning outcomes. Completion and submission of all assessment items which have been designated as mandatory or compulsory is essential to receive a passing grade.

To pass this Subject you must:

Complete all the required items:

- submit the Supervision Agreement (Learning Contract) via vUWS by the due date
- submit Project Proposal and Project Report of professional standard by due dates
- achieve a minimum overall mark of 50%
- maintain a meeting register and/or meeting minutes for supervisor meetings

Item	Weight	Due Date	SLOs Assessed	Mandatory	Threshold
Learning Contract	0%	By 6:00pm AEST, Friday, 22 March 2024 (week 3)	2, 6	Yes	Yes
Proposal	35%	By 6:00pm AEST, Friday, 12 April 2024 (week 6)	1, 2, 3, 4, 6	Yes	No
Report	65%	By 6:00pm AEST, Friday, 7 June 2024 (week 14)	3, 4, 5, 6, 7	Yes	No

Feedback on Assessment

Feedback is an important part of the learning process that can improve your progress towards achieving the learning outcomes. Feedback is any written or spoken response made in relation to academic work such as an assessment task, a performance or product. It can be given to you by a teacher, an external assessor or student peer, and may

be given individually or to a group of students. As a Western Sydney University student, it is your responsibility to seek out and act on feedback that is provided to you as a resource to further your learning.

Feedback for the project proposal and final report can be expected two (2) weeks after the due date.

Academic Integrity and Student Misconduct Rule

Western cares about your success as a student and in your future career. Studying with academic integrity safeguards your professional reputation and your degree. All Western students must:

- be familiar with the policies listed above;
- apply principles of academic integrity;
- act honestly and ethically in producing all academic work and assessment tasks; and
- submit work that is their own and acknowledge any sources used in their work.

Each time you submit an assessment, you will declare that you have completed it individually, unless it is a group assignment. In the case of a group assignment, each group member should be ready to document their individual contribution if needed.

The [Student Misconduct Rule](#) applies to all students of Western Sydney University including Western Sydney University programs taught by other education providers. You must not engage in academic, research or general misconduct as defined in the Rule or you may be subject to sanctions. The University considers submitting falsified documentation in support of requests to redo, resit or extend submissions, including sitting of deferred examinations, as instances of general misconduct.

More information is available in the [quick guide to academic integrity](#). It is your responsibility to apply these principles to all work you submit to the University.

Disruption to Studies and Requests for Extensions

Western recognises that there may be times when things outside of your control impact your ability to complete your studies.

You can complete the "Request an extension or apply for a Disruption to Studies Provision" to request that you are:

- granted an extension,
- excused from a compulsory teaching activity,
- provided an alternate assessment such as a supplementary, or
- awarded another [Disruption to Studies Provision](#).

Before you fill in the form, you should:

- Compile any documentary evidence that you have which demonstrates that you have been impacted by an event outside of your control.
- The [Supporting Documentation](#) website outlines the type of documents that you can submit to substantiate any impact.

Please note that if you don't have documents, you should still submit the form but you may be asked for documentation at a later stage.

Need help?

If you are having difficulties with understanding or completing an assessment task, contact your Subject Coordinator as soon as possible. Western also has a range of academic support services, including:

- **Library Study Smart:** book a one-to-one [Zoom consultation](#) with a literacy expert. You can discuss how to develop your assignment writing and study skills or seek assistance to [understand referencing and citation requirements](#). Check the Library Study Smart website for how-to [study guides and tools](#).
- **Studiosity:** Upload your assignment draft to Studiosity within vUWS to receive writing feedback within 24 hours.
- **Online workshops, programs and resources:** From maths and stats help to academic literacy and peer support programs, the University has a range of resources to assist.

Please also remember that there is a range of [wellbeing support available](#) - from counselling and disability services to welfare.

3.2.1 Learning Contract

Weight:	0%
Type of Collaboration:	Individual
Due:	By 6:00pm AEST, Friday, 22 March 2024 (week 3)
Submission:	via vUWS
Format:	Supervision Agreement Form in MS word format, which is downloadable in vUWS.
Length:	1 page
Threshold Detail:	To pass this subject you must submit your signed Supervision Agreement by the due date of Friday, Week 3.
Use of Artificial Intelligence:	Allowed

Instructions:

A copy of the Supervision Agreement Form is available for download in vUWS. You will need to complete and sign this form before re-uploading it to vUWS.

Students are required to get a research topic to work on and submit the Supervision Agreement Form by week 3. According to the time line of the semester and the time management for the research activities, three weeks is long enough to select a research topic from a given list. After week 3, if a student cannot pair with a supervisor on a research project, the student's performance will be greatly affected. Some supervisors may not even accept students after week 3.

3.2.2 Proposal

Weight:	35%
Type of Collaboration:	Individual
Due:	By 6:00pm AEST, Friday, 12 April 2024 (week 6)
Submission:	via vUWS
Format:	The proposal should follow a standard proposal format using Harvard WesternSydU Referencing Style. The students may use a different referencing style in consultation with the project supervisors. A proposal template and sample proposals are provided in vUWS.
Length:	1,500 - 2,500 words
Use of Artificial Intelligence:	Allowed

Instructions:

The project proposal provides an overview of the overall project. Students are required to submit 1,500 - 2,500 words (approx.) for the project proposal report which should provide the project title in consultation with the project supervisor and an overview of the research area, formulate objectives and aims of the project, define methodologies, develop timeline, and determine the resource requirements.

Some supervisors may require an oral presentation together with the project proposal. This is to ensure your project process on right track with appropriate planning strategies, well-defined project scope and methodologies, effective communication mechanism, feasible timeline and adequate resources etc. This turned out to be a good practice to success the project process and quality control. Please check with your supervisor whether project presentation is required. If required by your supervisor, prepare to submit the presentation slides and organise a time for presentation.

Marking Criteria:

Criteria	Rubrics	Expected Standards
Structure and Details (15 marks)	<ul style="list-style-type: none"> - Background Content (completeness of preliminary literature review, Identifying Knowledge Gap, Significance) (5 marks) - Objectives (3 marks) - Research Questions (3 marks) - Methodology and its presentation (2 marks) - Program of Work (2 marks) 	The proposal is organised following a standard research proposal format and provide details on Project Title, Project Overview/Introduction, Objectives, Methodology, and Timeline. The timeline is provided using either a Gantt Chart or a table.
Writing and Presentation (20 marks)	<ul style="list-style-type: none"> - Quality of Proposal Writing (12 marks) - Presentation of Proposal (figures/tables) (3 marks) - Referencing and Citation Style (2 marks) - Number and quality references (3 marks) - <i>Oral Presentation: please check with the project supervisor whether this is specifically required by the project supervisor for assessing the Quality of Proposal.</i> 	The proposal is well proofread, grammatically correct with no typos. The proposal is easy to read and understand. All applicable figures, graphs, charts, and drawings are accurate, correctly labelled (captioned) and cited in the text. The Harvard WesternSydU Referencing Style (or a standard referencing style [such as APA, IEEE, standard Harvard style] as agreed by the supervisor(s)) is used for citations and references. The proposal is produced using a font size of 11 or 12 and contains about 3 pages.

Some supervisors may require an oral presentation together with the project proposal. This is to ensure your project process on right track with appropriate planning strategies, well-defined project scope and methodologies, effective communication mechanism, feasible timeline and adequate resources etc. This turned out to be a good practice to success the project process and quality control. Please check with your supervisor whether project presentation is required. If required by your supervisor, prepare to submit the presentation slides and organise a time for presentation. Then the presentation will be taken into account for the proposal assessment.

3.2.3 Report

Weight:	65%
Type of Collaboration:	Individual
Due:	By 6:00pm AEST, Friday, 7 June 2024 (week 14)
Submission:	via Turnitin on vUWS
Format:	The report should follow a standard report format using Harvard WesternSydU Referencing Style. Students may use a different referencing style in consultation with their project supervisors. A report template and sample reports are provided in vUWS.
Length:	5,000 - 7,500 words (includes figures, formulas, tables)
Use of Artificial Intelligence:	Allowed

Instructions:

The project report is to demonstrate students' knowledge of previous work undertaken in the chosen field, and their ability to express the findings in a professional way and at a high standard. Please refer to the report template for INFO7016 Postgraduate Project A on vUWS for the format and requirements of the project report. The project report should contain the following Sections: Abstract, Introduction, Aims and Objectives, Literature Review, Methodology, Research Plan and Timeline, Preliminary Results (if any), Summary or Conclusions, References, and if applicable Appendix.

The project report for INFO7016 Postgraduate Project A will be the basis for INFO7017 Postgraduate Project B if you continue to study INFO7017. In this case, the project report for INFO7016 Postgraduate Project A is also called a progress report.

*There is one more option for the report writing. With the project research, if a **Springer style conference paper** (~16 pages) has been drafted out, submission of the research paper as the final report is also acceptable. This would encourage students to be more careful and selective with the report writing.*

Specific University policies on Research include: - Research Ethics policy: https://www.westernsydney.edu.au/research/research_ethics_and_integrity - Research Code of Practice: <https://policies.westernsydney.edu.au/document/view.current.php?id=166>

Marking Criteria:

Criteria	Expected Standards
Structure, Clarity of Writing and Overall Presentation (10 Marks)	<p>The report is organised following a standard research reporting format (Cover page, Abstract, Table of Content [List of Figures, Tables, and Abbreviations if appropriate], Introduction and motivation, Literature Review, Methods, Current Progress, Conclusions, References, Appendix (when necessary)).</p> <p>Clear and logical presentation throughout the report.</p> <p>The report is easy to read and understand.</p> <p>The report is well proofread, grammatically correct with no typos.</p> <p>All figures, graphs, charts, and drawings (if and when necessary) are accurate, properly labelled (captioned) and cited in the text.</p>
Aims and Objectives (10 Marks)	The aims and objective(s) and the underlined research questions are clearly articulated.
Literature Review (20 Marks)	<p>Comprehensive but concise literature review.</p> <p>Literature review clearly leads to the knowledge gap and/or the justification of the project.</p>
Methodology (10 Marks)	A methodology as appropriate for the project is clearly articulated.
Current Progress, Timeline, Resource Requirements and Conclusions (10 Marks)	<p>The current progress is described clearly.</p> <p>Resource requirements are clearly specified. For resources that are currently not available, a plan for acquiring those resources is presented.</p> <p>The timeline is provided as a Gantt Chart or a Table.</p> <p>A conclusion which captures the progress of the project is provided.</p>
Referencing (5 Marks)	<p>The Harvard WesternSydU Referencing Style (or a standard referencing style [such as APA, IEEE, standard Harvard style] as agreed by the supervisor(s)) is used for citations and references. All external sources are correctly cited and included in the list of references (bibliography). [Note: information on the Harvard WesternSydU Referencing Style can be found at https://library.westernsydney.edu.au/main/guides/referencing-citation]</p> <p>Students are encouraged to use a referencing system such as EndNote, Mendeley or RefWorks (more information is available via the library website and tutorial videos can be found on YouTube).</p>

4 Readings and Resources

4.1 Essential Readings

4.2 Recommended Readings

Additional Reading

Barnard, S., & St. James, D. (2012). *Listen, write, present : the elements for communicating science and technology*. Yale University Press.

Berger, A. A. (2008). *The academic writer's toolkit a user's manual*. Left Coast Press.

Bucchi, M., & Trench, B. (Eds.). (2008). *Handbook of public communication of science and technology*. Routledge.

Davies, J. W., & Dunn, I. K. (2011). *Communication skills a guide for engineering and applied science students* (3rd ed.). Prentice Hall.

Farquhar, J. D. (2012). *Case study research for business*. Sage publications.

Gastel, B., & Day, R. A. (2016). *How to write and publish a scientific paper* (8th ed.). Greenwood.

Gillham, B. (2010). *Case Study Research Methods* (1st ed.). Bloomsbury Publishing.

Katz, M. J. (2009). *From research to manuscript: a guide to scientific writing*. Springer.

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research : a guide to design and implementation* (4th ed.). Jossey-Bass.

Mills, A. J., Durepos, G., & Wiebe, E. (Eds.). (2010). *Encyclopedia of case study research*. London : SAGE.

Patience, G. S., Boffito, D. C., & Patience, P. A. (2015). *Communicate science papers, presentations, and posters effectively*. Academic Press.

Reeves, C. (2005). *The language of science*. Routledge.

Speight, J. G. (2012). *Clear and concise communications for scientists and engineers*. CRC Press.

Theobald, T. (2016). *Develop Your Presentation Skills* (3rd ed.). Kogan Page.

Walliman, N. (2018). *Research methods : the basics* (2nd ed.). Routledge.

Yin, R. K. (2016). *Qualitative research from start to finish* (2nd ed.). Guilford Press.

4.3 Other Teaching and Learning Resources

5 Key Teaching and Learning Policies

The University has several policies that relate to teaching and learning. Links to important policies affecting students are below. It is your responsibility to ensure you familiarise yourself with these policies so that you are aware of your rights and responsibilities.

- [Assessment Policy](#)
- [Assessment Policy - Review of Grade Procedures](#)
- [Bullying Prevention Policy](#)
- [Disruption to Studies Policy](#)
- [Enrolment Policy](#)
- [Examinations Policy](#)
- [Learning and Teaching Policy](#)
- [Progression Policy](#)
- [Student Code of Conduct](#)
- [Student Misconduct Rule](#)