

32144 Technology Research Preparation

Course area UTS: Information Technology

Delivery Autumn 2016; City

Credit points 6cp

Result type Grade and marks

Subject coordinator

A/Prof Barry Jay

Building 11, Floor 7, Room 105

Phone: (02) 9514 1814

Email: Barry.Jay@uts.edu.au

Teaching staff

Dr Lu Qin Email: Lu.Qin@uts.edu.au

Associate Professor Barry Jay Email: Barry.Jay@uts.edu.au

Subject description

This subject provides postgraduate technology students with professional communication skills appropriate to their course. The subject begins with the techniques necessary to develop a literature review and professional ethics is taught in the research context. The class breaks into two streams. Those undertaking research degrees take the Research Stream and produce a complete literature review. Those undertaking coursework degrees take the Professional Stream and produce a project proposal, suitable for implementation in 32933 Research Project.

Subject objectives

Upon successful completion of this subject students should be able to:

1. Conduct research at a level appropriate to the student's program of studies.
2. Search effectively for industry and academic texts (Professional Stream), or academic texts (Research Stream).
3. Critically evaluate textual sources of information.
4. Demonstrate research ethics by drawing upon other's words and ideas fairly and honestly with appropriate citation and referencing.
5. Construct a research report based on a review of the literature which demonstrates synthesis of information, critical thinking and the logical arguing of the students' point of view.
6. Present clearly, both formally and informally, on their research.
7. Produce a project proposal (Professional Stream).
8. Demonstrate professional research skills, including the keeping of a research journal, the maintenance of a database of scholarly articles using bibliographic software, critical note-taking, and the provision of constructive support for fellow researchers (Research Stream).

Teaching and learning strategies

Each student will attend between nine and thirteen one-and-a half-hour lectures (depending on their Stream), and eleven one-and-a half-hour tutorials, in addition to a hands-on session in the Library. The first six lectures will be common to all students. The later lectures will be in two streams.

Tutorial groups will be streamed throughout. Each tutorial will focus on work either prepared beforehand by students or completed in class, using concepts taught in the previous lecture.

Self-study: Students will be expected to produce written work each week, for tutorials, based upon their reading and searching.

Content

The various aspects of IT industry or scholarly reading and writing will be integrated into the creation of a full project proposal or a complete literature review, according to the stream. Common topics include: search strategies; evaluating sources of information; reading critically; reference lists and citation; writing critically and making an argument; producing a literature review; research ethics; and oral presentations.

The Professional Stream will also cover development of a proposal, including: aims; background; significance; methodology; editing; and proposal integrity (or consistency of the various parts of the proposal). The Research Stream will also cover: stating and arguing a thesis; identification of research questions from gaps in the literature; significance of the research; and editing.

Program

Week/Session	Dates	Description
1	21 Mar	Reading Critically, Evaluating Sources of Information and Note-taking Notes: Tutorial: Your Research Interests and Skills Assessment 1 commences: <i>Building Research Skills</i>
2	28 Mar	Library Hands-on Session. Students will be advised how to book a session. Notes: No Lecture or Tutorial
5	4 Apr	Writing Well: Synthesizing Information; Quoting versus Paraphrasing; Writing a Good Paragraph Notes: Tutorial: Referencing and Citation
6	11 Apr	Structuring a Literature-Based Report; Arguing Your Point of View Notes: Tutorial: Paraphrasing and Paragraphing
7	18 Apr	Critical Writing Notes: Tutorial: Writing an Abstract or Executive Summary Assessment 2 due: <i>Literature-Based Report</i>

9	25 Apr	Stu Vac No Lecture or Tutorial
8	2 May	Professional Stream: The Project Hypothesis Research Stream: Editing Notes: Tutorial: Presentation Skills (Professional Stream); Editing Assignment 2 (Research Stream) <i>Assessment 2 returned</i>
10	9 May	Professional Stream: Project Aims, Objectives and Significance Research Stream: Identifying the Knowledge Gap Notes: Tutorial: Preparing for Your Research (Professional Stream); Building a table of keywords versus papers (Research Stream)
11	16 May	Professional Stream: Project Methodology, Research Ethics Research Stream: Ethics Notes: Tutorial: Project Significance (Professional Stream); Identifying ethical risks in your work (Research Stream)
12	23 May	<i>Assessment 3 commences: Research Presentations</i> No Lecture (Professional Stream) Notes: Students present their research in their Tutorials (Professional and Research Streams) and in the Lecture time (Research Stream)
13	30 May	<i>Assessment 3 continues: Research Presentations</i> No Lecture (Professional Stream) Notes: Students present their research in their Tutorials (Professional and Research Streams) and in the Lecture time (Research Stream)

No Lecture for Professional Stream students unless there are Research Presentations that need to be finished.

Notes:

Students present their research in their Tutorials (Professional and Research Streams) and in the Lecture time (Research Stream). If there is insufficient time in tutorials for all Professional Stream students to present, then some teams may present in the Lecture Theatre in Week 14.

Assessment 4 due: Project Proposal (Professional Stream); Literature Review (Research Stream)

Assessment

Assessment task 1: Building Research Skills

Intent: To become an independent researcher. To develop the skills of working collaboratively and talking informally about research.

Objective(s): This assessment task addresses the following subject learning objectives:

1, 3, 4, 6 and 8

This assessment task contributes to the development of the following course intended learning outcomes:

.1, .2 and .6

Type: Exercises

Groupwork: Individual

Weight: 10%

Task: Demonstrate an independent approach to the mastery of foundational research skills. Contribute to in-class discussions.

Due: Not applicable; see Further information

Criteria: Please note: Assessment criteria weighting is approximate - for detailed criteria please see assessment guide, attached.

Criteria linkages:	Criteria	Weight (%)	SLOs	CILOs
	Demonstrated ability to present informally on one's research.	25	1, 3, 6	.1
	Demonstrated ability to formulate questions and support other students talking about their research	25	6	.1
	Demonstrated ability to reference	25	4	.2
	Timely submission of required deliverables	25	1, 8	.6

Further information: **Due Date:** Every week beginning in Week 1.
Students will complete this assessment individually.

Assessment task 2: Literature-Based Report

Intent: To establish search skills and the ability to evaluate the appropriateness of the articles chosen. To develop the skills of critical analysis and synthesis, direct and indirect citation, referencing and the writing of a complete report.

Objective(s): This assessment task addresses the following subject learning objectives:

1, 2, 4 and 5

This assessment task contributes to the development of the following course intended learning outcomes:

.1, .2 and .6

Type: Report

Groupwork: Individual

Weight: 30%

Task: Conduct a search of the literature and write a literature review which includes title page, table of contents, introduction, critical evaluation of the sources, literature review, conclusion, reference list and appendix.

Due: Monday 18 April 2016

Criteria: Please note: Assessment criteria weighting is approximate - for detailed criteria please see assessment guide, attached.

Criteria linkages:	Criteria	Weight (%)	SLOs	CILOs
	Logical and professional report structure (Organization & presentation)	13	5	.1
	Quality of critical synthesis. analysis and relevance of literature	67	1, 2	.1, .6
	Correct citation of sources and use of referencing tools	20	2, 4	.2, .6

SLOs: subject learning objectives
CILOs: course intended learning outcomes

Further information: **Professional Stream:** Assessment to be completed by teams of 3 students. All students are required to complete the Peer Assessment form. The completed form from each student should be folded in half and stapled so that the contents are not visible to the other students in the team. All the Peer Assessment forms should then be stapled to the front of the hard copy of the Assessment to be handed to the tutor. For Peer Assessment the mark of each member will be weighted by their peers in the team. This means that students will receive an individual mark according to their contribution to the Assessment.

If you have trouble with the operation of your team, ask your tutor for advice (preferably ask as a group). If some of the team members feel that other members are not contributing, the tutor should be informed and a group meeting held to produce a solution. In extreme cases a team member may be asked by the subject coordinator to withdraw from the subject, do extra work or accept a lower mark. No complaints about team operation will be considered after the assignment has been submitted.

Research Stream: Assessment to be completed individually.

All Students - Submission: The assignment will be submitted through UTS online submission system where it will be subjected to the plagiarism detection software *Turnitin*, as well as a hardcopy submitted in tutorials to the tutor. All hard copy assignments must have attached to the front a signed Assignment Cover sheet which is available in the Assignments folder on UTSONline. Late submissions which have not been approved prior to the submission date will be penalized by the loss of 10% for each day overdue. After seven days of lateness, a zero mark will be awarded. Special consideration, for late submission, must be arranged before the due date with the Subject Co-ordinator or the Tutor when the student's performance has been affected by extenuating or special circumstances beyond their control (work, family or health problems). Original documentation to support the claim will need to be shown. Students do not need to formally apply for special consideration unless they are unhappy with the outcome of their request to the Subject Co-ordinator or Tutor.

Assessment task 3: Research Presentation

Intent: To develop the skills of presenting orally about research.

Objective(s): This assessment task addresses the following subject learning objectives:

1, 3, 4, 6 and 8

This assessment task contributes to the development of the following course intended learning outcomes:

.1, .2 and .6

Type: Presentation

Groupwork: Individual

Weight: 15%

Task: Give a presentation based on key aspects of Assessment 4 (Project Proposal or Literature Review).

Due: Not applicable; see Further information

Criteria: Please note: Assessment criteria weighting is approximate - for detailed criteria please see assessment guide, attached.

Criteria linkages:	Criteria	Weight (%)	SLOs	CILOs
	Present clearly and formally on research	46	6, 8	.1
	Demonstrated ability to research at a level appropriate to student's program of study	54	1, 3, 4, 8	.2, .6

SLOs: subject learning objectives

CILOs: course intended learning outcomes

Further information: **Due Date:** 23rd May or 30th May or 6th June, 2016. **Professional Stream:** The presentation will be delivered by teams of 3 students. The same procedures regarding marking, Peer Assessment and team complaints apply as in Assessment 2, except that the Peer Assessment forms will be handed in hard copy to the tutor at the beginning of the tutorial in which the students present.

Research Stream: The presentation will be delivered individually.

Assessment task 4: Professional Stream: Project Proposal; Research Stream: Literature Review

Intent: To develop student's ability to generate a project proposal (Professional Stream) or to demonstrate the ability to write a scholarly literature review (Research Stream).

Objective(s): This assessment task addresses the following subject learning objectives:

1, 2, 3, 4, 5 and 7

This assessment task contributes to the development of the following course intended learning outcomes:

.1, .2 and .6

Type: Report

Groupwork: Individual

Weight: 45%

Due: Monday 6 June 2016

Criteria: Please note: Assessment criteria weighting is approximate - for detailed criteria please see assessment guide, attached.

Criteria linkages:	Criteria	Weight (%)	SLOs	CILOs
	Logical and professional report structure (Organisation & presentation)	13	2, 5	.1
	Quality of research report appropriate to student's program of study	67	1, 2, 3, 5, 7	.1, .2, .6
	Correct citation of sources and use of referencing tools	20	2, 4	.2, .6

SLOs: subject learning objectives

CILOs: course intended learning outcomes

Further information: **Professional Stream:** *Project Proposal* to be completed by teams of 3 students. The assignment will be submitted through UTS online submission system, where it will be subjected to the plagiarism detection software *Turnitin*, as well as a hardcopy submitted in tutorials to the tutor. The same procedures regarding marking, Peer Assessment, team complaints and late submission apply as in Assessment 2.

Research Stream: *Literature Review* to be completed individually. The assignment will be submitted to the student's **supervisor** for marking. The same procedure regarding late submission apply as in Assessment 2.

Minimum requirements

Students must submit all Assessments in order to pass this subject. Failure to submit an Assessment will result in automatic failure of the subject.

To pass the subject students must also attain a final mark of 50% or more. If students have obtained a mark of $\geq 50\%$ for the subject, but have failed to submit any assessment task, they will be awarded a Fail (X) grade for the subject.

Required texts

All students are required to obtain a copy of the following set of notes available from the Towers Market Place, Activate Market Place, Level 3, the Tower:

32144 Technology Research Preparation Study Guide

Hours of opening of the shop are Mon to Fri 9 am to 5 pm. If copies run out, students may order a pre-paid copy. One copy is also available in the UTS Library. Students must quote the course notes number when purchasing their copy and this will be made available soon.

References

Zobel, Justin. 2004, Writing for computer science, 2nd ed., Springer-Verlag, London. (UTS Library Open Reserve)

Rugg, G. & Petre, M. 2010, The unwritten rules of PhD research, Open University Press, Maidenhead, UK. (UTS Library online)

Hart, Chris. 2002, Doing a literature review: Releasing the social science imagination, Sage, London, Thousand Oaks, New Delhi. (UTS Library Open Reserve)

Other resources

Useful links and resources are available on the subject's UTS online site. Other learning materials will be provided in class. For further information regarding your candidature:

my.feit.uts.edu.au/modules/myfeit/downloads/StudentGuide_Online.pdf

Graduate attribute development

For a full list of the faculty's graduate attributes, refer to the [Student Guide](#).

Academic liaison officer

Academic Liaison Officers (ALOs) are academic staff in each faculty who assist three groups of students: students with disabilities and ongoing illnesses; students who have difficulties in their studies because of their family commitments (e.g. being a primary carer for small children or a family member with a disability); and students who gained entry through the UTS Educational Access Scheme or Special Admissions.

ALOs are responsible for determining alternative assessment arrangements for students with disabilities. Students who are requesting adjustments to assessment arrangements because of their disability or illness are requested to see a Disability Services Officer in the Special Needs Service before they see their ALO.

The ALO for UG students is:

Chris Wong

Phone: +61 2 9514 4501

The ALO for PG students is:

Dr Prasanthi Hagare

Phone: +61 2 9514 1952

Disclaimer

This outline serves as a supplement to the Faculty of Engineering and Information Technology Student Guide. On all matters not specifically covered in this outline, the requirements specified in the [Student Guide](#) apply.