

Unit of Study Guide: ICT5201 Research Methodology and Data Analysis

Overview

ICT5201 Research Methodology and Data Analysis introduces students to fundamental areas of research methodology and data analysis. The unit begins with an introduction to the research process, identification of appropriate research questions and a consideration of the principles of research ethics. Students develop skills required for selecting appropriate quantitative and qualitative methodologies to answer applied research questions and skills for presenting, analysing and interpreting data. Students demonstrate their understanding of research methodology by developing a research proposal to answer an applied research question important for industry. By the completion of the unit students are equipped to undertake supervised research.

Course(s)	Master of Information Technology
Core or Elective	Core: Master of Information Technology
Credit Points	8 credit points
Duration	12 weeks (10 teaching weeks; 1 study week; 1 final assessment week)
Level	Postgraduate Advanced
Student Workload	Students should expect to spend approximately 13 hours per week over 12 weeks (totalling approximately 156 hours) on learning activities for this unit.
Essential Requirements	Microsoft Excel
Mode(s) of Delivery	On campus, online, blended
Pre-Requisites	ICT5250 – Computer Networks and Security
Unit Coordinator	As per current timetable
Contact Information	Consultation: 1 hour scheduled session

Unit Learning Outcomes

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

ULO1 Define key elements of research and their interrelationships, including research design, ethics, sampling, and analysis.

ULO2 Critically evaluate the literature and alternative research methodologies for answering applied research questions.

ULO3 Identify and explain ethical issues that may arise in conducting applied research studies.

ULO4 Appraise, critique and synthesise the findings of previous research to justify an applied research question and a research methodology to investigate the research question.

Weekly Schedule

Detailed information for each week's activities can be found in the unit's weekly modules in Canvas.

Week	Topic
Week 1	Introduction to the Research process and Expectations and Purpose
Week 2	Major Research Paradigms
Week 3	Conducting Interviews and Focus Groups
Week 4	Thematic and content analysis
Week 5	Survey Research
Week 6	Descriptive Statistics
Week 7	Multivariate analysis and Correlational Research Designs
Week 8	Multivariate Analysis and Time-series and Interrupted Time-series Designs
Week 9	Data Presentation
Week 10	Designing and Conducting a Program Evaluation, Research Integrity, Research Ethics, Sampling and Recruitment and Bringing It All Together
Week 11	Revision
Week 12	Final Assessments

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.

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

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Assessment Task	Type	Weight	Length	Due	ULOs Assessed
Assessment 1: Research Plan 1. Students identify an individual research area and discuss it with his lecturer or present in the class (subject to total enrolment). 2. write a research plan with a timeframe	Individual  Invigilated 	20%	600 words	Week 4	ULO1 ULO4
Assessment 2: Structured Literature Review Conducting a critical review of the literature for a topic/area of interest, identifying knowledge gaps and defining an appropriate research question and objectives	Individual 	20%	1500 words	Week 7	ULO1 ULO2 ULO3
Assessment 3: Research Design Identifying appropriate research design and methods to achieve the research objectives.	Individual 	20%	1000 words	Week 10	ULO2 ULO3
Assessment 4: Research Proposal (Report) Creating a research proposal that includes a research methodology, data analysis strategy, ethical considerations.	Individual 	25%	3000 words	Week 12	ULO1 ULO2 ULO3 ULO4
Assessment 5: Research Proposal Presentation Presenting the research proposal	Individual  Invigilated 	15%	10 minutes presentation (equiv. 1000 words)	Week 12	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 Reserves

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):

Saunders, M, Lewis, P, & Thornhill, A 2019, *Research Methods for Business Students*, Pearson Education, Limited, Harlow.

Recommended Readings:

Paul, J. and Criado, A.R. (2020) The art of writing literature review: What do we know and what do we need to know? *International Business Review*, vol. 29, no. 4, pp.101-117.

Xiao, Y. & Watson, M. (2019) Guidance on conducting a systematic literature review. *Journal of Planning Education and Research*, vol. 39, no. 1, pp.93-112.

Fisch, C. & Block, J. (2018) Six tips for your (systematic) literature review in business and management research. *Managerial Review Quarterly*, vol. 68, pp.103–106.

Ragab, M.A. & Arisha, A. (2018) Research methodology in business: A starter's guide. *Management and Organizational Studies*, vol. 5, no. 1, pp.1-14.

Other Recommended Resources:

Project Management Journal: <https://journals.sagepub.com/home/pmx>

Harvard Business Review: www.hbr.com

Project Smart: <http://www.projectsart.com/>

Project Management Institute: <https://www.pmi.org/>

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

<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 13th May 2024.