STAT4010
Managing the Research Process

This course examines the key elements of undertaking a research project with an empirical flavour, and provides guidance on the use of various statistical tools and techniques in the analysis of data. The course is not designed as a replacement for more formal and deeper analysis of specific statistical methods. Rather, it is a refresher for those seeking to revive their basic research skills and also serves as an introduction for those seeking to go onto further study in specific statistical techniques. The course would be of interest to Honours and Postgraduate students and should complement studies that involve statistical method and/or research projects.

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<thead>
<tr>
<th>Mode of Delivery</th>
<th>On campus</th>
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<tbody>
<tr>
<td>Prerequisites</td>
<td>As listed in Programs and Courses</td>
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<tr>
<td>Incompatible Courses</td>
<td>As listed in Programs and Courses</td>
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SEMESTER 1
2016

http://programsandcourses.anu.edu.au/course/STAT4010
COURSE OVERVIEW

Learning Outcomes
By the end of this unit, students are expected to have attained proficiency in the following areas:
- Be able to design and deliver research proposals and reports;
- Be able to appraise research articles and presentations; and,
- Be able to locate and analyse data from a number of well-known sources.

Assessment Summary

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Value</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>1. Thesis Proposal Presentation</td>
<td>0% but required</td>
<td>During the week of March 21</td>
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<tr>
<td>2. Thesis Timeline</td>
<td>5%</td>
<td>Thursday March 24</td>
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<tr>
<td>3. Written Thesis Proposal</td>
<td>50%</td>
<td>Friday May 6</td>
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<tr>
<td>4. Seminar Reports (3)</td>
<td>15% each</td>
<td>Report 1 by March 31</td>
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<td>Report 2 by April 29</td>
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<td>Report 3 by May 31</td>
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Research-Led Teaching
Through putting together a thesis proposal, as well as critiquing three seminars, students will gain valuable research skills.

Feedback
Staff Feedback
Students will receive both written and verbal feedback from their advisors throughout the semester.

Student Feedback
ANU is committed to the demonstration of educational excellence and regularly seeks feedback from students. One of the key formal ways students have to provide feedback is through Student Experience of Learning Support (SELS) surveys. The feedback given in these surveys is anonymous and provides the Colleges, University Education Committee and Academic Board with opportunities to recognise excellent teaching, and opportunities for improvement.

For more information on student surveys at ANU and reports on the feedback provided on ANU courses, go to
http://unistats.anu.edu.au/surveys/selt/students/ and
http://unistats.anu.edu.au/surveys/selt/results/learning/

Policies
ANU has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University’s academic standards, and implement them. You can find the University’s education policies and an explanatory glossary at: http://policies.anu.edu.au/

Students are expected to have read the Academic Misconduct Rules 2014 before the commencement of their course.
Other key policies include:
• Student Assessment (Coursework)
• Student Surveys and Evaluations

Required Resources
Throughout the semester we will make use of R (https://www.r-project.org) and R-studio (https://www.rstudio.com). Both are open source/freely available.

Prescribed Text
Honours Guide
SANU Academic Skills & Learning Centre
https://academicskills.anu.edu.au/node/35381

RSFAS Honours Guide
Will be made available on Wattle

COURSE SCHEDULE
There are no formal class meetings for this course. For specific assessment dates see the assessment summary.

ASSESSMENT REQUIREMENTS

Assessment Tasks

Assessment Task 1: Thesis Proposal Presentation
Details of task: Students are required to make a 10-15 minute presentation outlining their thesis/research essay topic, with a particular focus on the question being asked, the motivation behind the study, as well as the contribution of the research. The primary purpose of the presentation is to facilitate feedback to the student. It is for this reason that, following each presentation, staff will be given 5 minutes to ask questions pertaining to the previous proposal.

Assessment Task 2: Thesis Timeline
Details of task: There are a number of distinct stages involved in the completion of an Honours thesis/research essay. The length of time required to complete each stage varies considerably by the topic area. Due to this variation, it is often difficult for students themselves, but also for supervisors, to gauge progress. To provide an indication of progress it is a requirement that students construct, in conjunction with their supervisor, a mutually agreeable timeline. Timelines should be submitted online via Wattle as well as to individual advisors. This will be graded as 5% or 0% depending on whether a student appropriately completes the task.

Assessment Task 3: Written Thesis Proposal
Details of task: Students are required to write a thesis proposal. Proposals should be no longer than 10 pages in length, double spaced and Times Roman size 12 font. The content of the thesis proposal must cover the following items:
• Introduction to the research topic question being asked, the motivation behind the study, as well as the contribution of the research
• Preliminary literature review
• Proposed methodology and data sources

Thesis proposals should be submitted online via Wattle as well as to individual advisors. Your advisors will grade them.
Assessment Task 4: Seminar Reports (3)
Details of task: Over the semester you should attend seminars in your field (either finance or statistics). For three of the seminars you attend, you are required to write a 1-2 page(s) report discussing the research presented. The reports should include the motivation and contribution of the work, the strengths and weaknesses of the work, and a discussion of the data used. The reports should be submitted online via Wattle and to your advisor. Your advisor will grade the reports.

Examination(s)
The course does not have any examinations.

Assignment submission
Online Submission: Assignments are submitted using Turnitin in the course Wattle site. You will be required to electronically sign a declaration as part of the submission of your assignment. Please keep a copy of the assignment for your records.

Extensions and penalties
Extensions and late submission of assessment pieces are covered by the Student Assessment (Coursework) Policy and Procedure.

The Course Convener may grant extensions for assessment pieces that are not examinations or take-home examinations. If you need an extension, you must request it in writing on or before the due date. If you have documented and appropriate medical evidence that demonstrates you were not able to request an extension on or before the due date, you may be able to request it after the due date.

No submission of assessment tasks without an extension after the due date will be permitted. If an assessment task is not submitted by the due date, a mark of 0 will be awarded.

Returning assignments
Your honours' advisor will return your assignments to you.

Resubmission of assignments
It will not be possible for tutorial solutions and the presentation to be resubmitted.

Referencing requirements
Appropriate referencing will be necessary for the presentations. For more information see: https://academicskills.anu.edu.au/resources/handouts/referencing-basics

Scaling
Your final mark for the course will be based on the raw marks allocated for each of your assessment items. However, your final mark may not be the same number as produced by that formula, as marks may be scaled. Any scaling applied will preserve the rank order of raw marks (i.e. if your raw mark exceeds that of another student, then your scaled mark will exceed the scaled mark of that student), and may be either up or down.

SUPPORT FOR STUDENTS
The University offers a number of support services for students. Information on these is available online from http://students.anu.edu.au/studentlife/