ACST3001
Special Topics in Actuarial Studies

This course covers the details and practical understanding of the operations and regulation of the general insurance industry and the actuarial management of risks undertaken by general insurance companies. Topics include an introduction to the classes of insurance products and insurance operations, the processes for determining premium rates and pricing, the valuation of liabilities and the measurement and management of solvency.

<table>
<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>
</tr>
<tr>
<td>Incompatible Courses</td>
<td>As listed in Programs and Courses</td>
</tr>
<tr>
<td>Co-taught Courses</td>
<td>Graduate students attend joint classes with undergraduates (honours students) but are assessed separately</td>
</tr>
<tr>
<td>Course Convener:</td>
<td>Jananie William</td>
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<td>02 6125 7311</td>
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<td><a href="mailto:Jananie.william@anu.edu.au">Jananie.william@anu.edu.au</a></td>
</tr>
<tr>
<td>Office hours for student consultation:</td>
<td>Wednesday 12-2pm</td>
</tr>
<tr>
<td>Research Interests</td>
<td>Actuarial applications in general insurance, health, public policy and human services.</td>
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<tr>
<td>Administrator</td>
<td>Smriti Bajracharya</td>
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SEMESTER 1
2018
COURSE OVERVIEW

Learning Outcomes

Upon successful completion of the requirements for this course, students should have the knowledge and skills to:

- Explain the main classes of general insurance and the operations of general insurance companies
- Understand and apply the processes for determining premium rates and pricing of general insurance policies, including reinsurance
- Communicate the processes for estimation of general insurance liabilities and apply a range of valuation techniques
- Communicate the issues of measurement and management of solvency and the concept of risk based capital for general insurance

Assessment Summary

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Value</th>
<th>Due Date</th>
<th>Date for Return of Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Online quiz (optional)</td>
<td>0%</td>
<td>Week 6</td>
<td>30/03/2018</td>
</tr>
<tr>
<td>2. Assignment</td>
<td>20%</td>
<td>Monday 30th April 3pm (Week 9)</td>
<td>18/05/2018</td>
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<tr>
<td>3. Final Exam</td>
<td>100% or 80%</td>
<td>TBA</td>
<td>TBA</td>
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Research-Led Teaching

The course will address current issues of interest and current approaches to actuarial practice in general insurance. It will cover some parts of the Actuaries Institute Part III syllabus for General Insurance. It will be informed by practical examples and case studies of relevance to professional and research issues currently faced by the profession.

Feedback

Staff Feedback

Students will be given feedback in the following forms in this course:

- There will be immediate feedback following the online quiz.
- Following the assignment, feedback will be given to the whole class about the general performance on the assignment.
- In addition, students will also have the opportunity to speak with the lecturer and seek comments from the lecturer about their individual performance in the assignment.
- Students may also submit written solutions to exercises and case studies studied in class to the lecturer for feedback.

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 Rule before the commencement of their course.

Other key policies include:

- Student Assessment (Coursework)
- Student Surveys and Evaluations

Required Resources

Additional course costs

None.

Examination material or equipment

The exams will NOT be open book. However you will be permitted to bring in 2 A4 pages of your own notes (the specific conditions will be advised during semester), a calculator, and a dictionary if required to each exam. Further information will be provided to students in lecture time and on Wattle.

Recommended Resources

Students will be required to supply a calculator. A basic understanding of the use of MS Excel is assumed and an overview of R will be given in class. Instructions on how to download R are given on Wattle. The use of MS Excel and R may be required for the completion of the assignment and exercises in this course. MS Excel and R may be used on campus or on the students’ personal computers or laptops. Students may find it beneficial to bring a laptop to the lecture time to follow along with MS Excel and R examples, although this is not a requirement. The use of other office software (such as MS Word) is required for the completion of the assignment.

Comprehensive lecture notes and lecture slides will be made available on Wattle. There are no prescribed texts besides the lecture notes. However, selected parts of the text ‘Actuarial Practice of General Insurance’ (Hart, Buchanan and Howe, 2007) will be made available on Wattle. In addition, several other required readings will be placed on Wattle for some weeks of the course and these will make up a major component of the material you are expected to be familiar with and be assessed on.
### COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Week</th>
<th>Summary of Activities</th>
<th>Assessment</th>
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<tbody>
<tr>
<td>1</td>
<td>General insurance market, products and operations</td>
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<tr>
<td>2</td>
<td>General insurance market, products and operations</td>
<td></td>
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<tr>
<td>3</td>
<td>General insurance valuation techniques and estimation of liabilities</td>
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<tr>
<td>4</td>
<td>General insurance valuation techniques and estimation of liabilities</td>
<td></td>
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<tr>
<td>5</td>
<td>Valuation case studies</td>
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<tr>
<td>6</td>
<td>General insurance premium rating and pricing</td>
<td>Online quiz (optional)</td>
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<tr>
<td>7</td>
<td>General insurance premium rating and pricing</td>
<td></td>
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<tr>
<td>8</td>
<td>Pricing case studies</td>
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<tr>
<td>9</td>
<td>Capital and Reinsurance</td>
<td>Assignment due (Monday 30/4/2018 3pm)</td>
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<tr>
<td>10</td>
<td>Solvency</td>
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<tr>
<td>11</td>
<td>Solvency</td>
<td></td>
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<tr>
<td>12</td>
<td>Managing the business / Review</td>
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<tr>
<td></td>
<td>Examination period</td>
<td>Final Exam (TBA)</td>
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### ASSESSMENT REQUIREMENTS

As a further academic integrity control, students may be selected for a 15 minute individual oral examination of their written assessment submissions.

Any student identified, either during the current semester or in retrospect, as having used ghost writing services will be investigated under the University’s Academic Misconduct Rule.

**Assessment Tasks**

**Assessment Task 1: Online quiz (optional)**

**Details of task:**

An online quiz will be available for students to complete from Week 4 to Week 6. This is for their own learning on the first two topics of the course and is not assessable.

- **Value:** 0%
- **Due date:** Friday 30th March 3:00pm (Week 6)
- **Estimated return date:** Friday 30th March 3:00pm (Week 6)

**Assessment Task 2: Assignment (redeemable)**
Details of task:

This assignment may be completed individually or in groups of two students. The assignment will cover the first three topics of the course and more details will be provided to students in lecture time and on Wattle.

Value: 20% (redeemable)
Due date: Monday 30th April 2018 3:00pm (Week 9)
Estimated return date: Friday 18th May 2018

Assessment Task 3: Final Examination

Details of task: 15 minute reading time; 3 hour writing time

Please note that the final exam is compulsory and non-redeemable. The final exam will cover all the material in the course. The exam will NOT be open book. However you will be permitted to bring in 2 A4 pages of your own notes (the specific conditions will be advised during semester), a calculator, and a dictionary if required to each exam. Further information will be provided to students in lecture time and on Wattle.

Value: 80% or 100%

Examination(s)
The course includes formal examination through a mid-semester and final examination as described above.

Assignment submission

Hard Copy Submission: All assignments must be submitted to the School Office on level 4 of the CBE building and must include a cover sheet. Email and fax submissions are not acceptable. You must keep a copy of assessment materials submitted for your records. Assignments must include the cover sheet available on Wattle.

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
Marked assignments will be returned as soon as they are marked, at the next available lecture time, or you will be able to collect them from the School Office on level 4 of the CBE building.

Resubmission of assignments
Students will not be permitted to resubmit assignments.

Referencing requirements
Accepted academic practice for referencing sources that you use in presentations can be found via the links on the Wattle site, under the file named “ANU and College Policies,
Program Information, Student Support Services and Assessment”. For a more interactive guide on what this is all about, please see http://library.acadiau.ca/tutorials/plagiarism/.

**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.

**Privacy Notice**
The ANU has made a number of third party, online, databases available for students to use. Use of each online database is conditional on student end users first agreeing to the database licensor’s terms of service and/or privacy policy. Students should read these carefully.

In some cases student end users will be required to register an account with the database licensor and submit personal information, including their: first name; last name; ANU email address; and other information.

In cases where student end users are asked to submit ‘content’ to a database, such as an assignment or short answers, the database licensor may only use the student’s ‘content’ in accordance with the terms of service – including any (copyright) licence the student grants to the database licensor.

Any personal information or content a student submits may be stored by the licensor, potentially offshore, and will be used to process the database service in accordance with the licensors terms of service and/or privacy policy.

If any student chooses not to agree to the database licensor’s terms of service or privacy policy, the student will not be able to access and use the database. In these circumstances students should contact their lecturer to enquire about alternative arrangements that are available.

**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/