First-Year Workshop

Bruin Actuarial Society
1. Introduction to the Actuarial Career
2. Majors: What to Study
3. Exams
4. Skills
5. Recruitment
01. Introduction to the Actuarial Career
Actuaries analyze risks and uncertainty in...

- **Insurance**
  - How much money should an insurance company charge for car insurance?
  - How much insurance should banks buy to manage financial risk?

- **Retirement**
  - How much money should a company invest to pay for their employee’s pensions?

- **Other areas**
  - How should a company estimate the loss caused by an oil spill?
<table>
<thead>
<tr>
<th>Industries</th>
<th>Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property and Casualty (P&amp;C)</td>
<td>Allstate, CSAA, Farmers, Liberty Mutual</td>
</tr>
<tr>
<td>Health and Benefits</td>
<td>Aetna, Anthem, UnitedHealth Group</td>
</tr>
<tr>
<td>Life</td>
<td>Corebridge Financial (AIG), New York Life, Pacific Life</td>
</tr>
<tr>
<td>Retirement</td>
<td>Aon, Fidelity, Mercer</td>
</tr>
<tr>
<td>Reinsurance</td>
<td>Gen Re, Munich Re, Swiss Re</td>
</tr>
<tr>
<td>Consulting</td>
<td>Milliman, Oliver Wyman, WTW</td>
</tr>
</tbody>
</table>
02.

What to Study
What to Study: Majors

Financial Actuarial Mathematics

- Prerequisites (13 courses): Math 31A to 33B; Math 11N/42/61/70; Mgmt 1A; Econ 1, 2, 11; Pic 10A, 10B/16A
- Major (12 courses): More Math UDS

During your first year...

- Take Math courses every quarter
- Start your Econ/Mgmt/Pic requirements
- Start GE courses
  - Do not finish all of them early or you will only be taking math in your senior year
Actuaries come from all kinds of majors and minors
A quantitative background is usually preferred
Below are some potential majors:

<table>
<thead>
<tr>
<th>Major</th>
<th>Requirements (excluding prereqs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>12 pure math courses</td>
</tr>
<tr>
<td>Applied Mathematics</td>
<td>12 applied math courses</td>
</tr>
<tr>
<td>Mathematics of Computation</td>
<td>14 math and computer science courses</td>
</tr>
<tr>
<td>Mathematics/Economics</td>
<td>14 mathematics and economics courses</td>
</tr>
<tr>
<td>Data Theory</td>
<td>16 math and statistics courses, including a capstone project</td>
</tr>
<tr>
<td>Statistics</td>
<td>13 statistics courses</td>
</tr>
<tr>
<td>Business Economics</td>
<td>10 economic and management courses</td>
</tr>
</tbody>
</table>
If your major is less quantitative or you just want to study another area relevant to the actuarial career, you might consider the following minors:

<table>
<thead>
<tr>
<th>Minor</th>
<th>Course Requirements (excluding prereqs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialization in Computing</td>
<td>7 courses related to math and programming</td>
</tr>
<tr>
<td>Accounting</td>
<td>7 courses related to financial and managerial accounting, tax policies, etc.</td>
</tr>
<tr>
<td>Statistics</td>
<td>6 courses related to theoretical and applied statistics</td>
</tr>
<tr>
<td>Math (for non-math majors only)</td>
<td>5 courses (UD math)</td>
</tr>
</tbody>
</table>
03.
Exams
Preliminary Exams

- For Health, Life, & Retirement
  Exam P
  Exam FM

- For Property and Casualty
  Exam 1
  Exam 2
Exams are often more important than grades
  → But don’t ignore your grades

Computer-Based Testing (CBT)
  → Register for the exam with the SOA
  → Sign up for a spot at a Prometric Testing Center
  → Exams P and FM are both multiple choice

You can decide when to take it
  → 1 exam is often required for an internship
  → A good target is to pass an exam by the Fall of the year that you are recruiting for a summer internship (sophomore/junior year)
Exam P/1: Probability

- Corresponds to Math 170E (or Math 170A/B)
- Many students self-study before taking Exam P as well

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Nov. 11-22, 2022</td>
<td>Not Administered</td>
<td>Oct. 11, 2022</td>
<td></td>
</tr>
<tr>
<td>January 12-23, 2023</td>
<td>*January 12, 2023</td>
<td>December 13, 2022</td>
<td></td>
</tr>
<tr>
<td>March 9-20, 2023</td>
<td>Not Administered</td>
<td>February 7, 2023</td>
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<tr>
<td>May 13-24, 2023</td>
<td>*May 13, 2023</td>
<td>April 11, 2023</td>
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<tr>
<td>July 14-25, 2023</td>
<td>Not Administered</td>
<td>June 13, 2023</td>
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</tr>
<tr>
<td>September 13-24, 2023</td>
<td>*September 13, 2023</td>
<td>August 15, 2023</td>
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</tr>
<tr>
<td>November 10-21, 2023</td>
<td>Not Administered</td>
<td>October 10, 2023</td>
<td></td>
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</tbody>
</table>
Corresponds to Math 177
Can also be taken as a first exam

<table>
<thead>
<tr>
<th>Exam FM, Financial Mathematics</th>
<th>Aug. 3-14, 2022</th>
<th>Not Administered</th>
<th>July 5, 2022</th>
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</thead>
<tbody>
<tr>
<td>Dec. 1-12, 2022</td>
<td>Not Administered</td>
<td>Nov. 1, 2022</td>
<td></td>
</tr>
<tr>
<td>February 9-20, 2023</td>
<td>*February 9, 2023</td>
<td>January 10, 2023</td>
<td></td>
</tr>
<tr>
<td>April 1-12, 2023</td>
<td>Not Administered</td>
<td>February 28, 2023</td>
<td></td>
</tr>
<tr>
<td>June 9-20, 2023</td>
<td>*June 9, 2023</td>
<td>May 9, 2023</td>
<td></td>
</tr>
<tr>
<td>August 9-20, 2023</td>
<td>Not Administered</td>
<td>July 11, 2023</td>
<td></td>
</tr>
<tr>
<td>October 3-14, 2023</td>
<td>*October 3, 2023</td>
<td>September 5, 2023</td>
<td></td>
</tr>
<tr>
<td>December 1-12, 2023</td>
<td>Not Administered</td>
<td>October 31, 2023</td>
<td></td>
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</tbody>
</table>
Studying for Exams

→ Official recommended study time = 100 hours per exam hour
  → 3-hour test = 300 hours of studying

→ Some study resources:
  → Paper Manuals: ACTEX, ASM
  → Online Seminars: Coaching Actuaries (CA), The Infinite Actuary (TIA)
  → Free Resources: Dr. Finan’s study manual for P/FM, old manual from Boelter Library
    • Warning... may be outdated as exams have changed in recent years

→ Exam Prep tab on our website: https://www.math.ucla.edu/~actuary/examPrep.html
  → Contains reviews of study resources as well as links to those that are free
04. Skills
Skills

- **Math Skills (+ Academics)**
  - Quantitative major/minor
  - 3.0+ GPA (3.5 to be competitive)
  - 1 exam passed

- **Computer Skills**
  - Object-oriented languages
  - SQL (database manipulation language)
  - Excel (PivotTables, formulas, macros)

- **Professional skills**
  - Resume
  - Interview skills
  - Prepare answers to common questions
  - Communication skills
<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentorship Program</td>
<td>Ask your mentor if you have any questions or concerns</td>
</tr>
<tr>
<td>Technical Workshops</td>
<td>Learn how to use Excel, R, VBA, etc.</td>
</tr>
<tr>
<td>Professional Development Workshops</td>
<td>Learn about career paths, exams, etc.</td>
</tr>
<tr>
<td>Career Fair</td>
<td>Network with various insurance and actuarial firms and connect with recruiters to learn more about internship and career opportunities</td>
</tr>
<tr>
<td>Case Competition</td>
<td>Build your technical and communication skills</td>
</tr>
<tr>
<td></td>
<td>Gain industry knowledge by tackling an actuarial problem</td>
</tr>
<tr>
<td>Our Handbook</td>
<td>Look on our website for a detailed guide on writing a resume, interviewing, taking actuarial exams, creating a 4-year plan, and more!</td>
</tr>
</tbody>
</table>

10/25/2022
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Timeline

First Year

- GPA
- Programming
- Network
- Resume & LinkedIn
- Communication skills
- Case competition (Winter Quarter)

Second Year

- Attend Career Fair
- Pass exam(s)
- Case Competition (Winter Quarter)
- Finish pre-major reqs & officially declare major
- Interviewing Skills

Third Year

- Attend Career Fair
- Summer internship
- Pass Exam(s)
- Case Competition (Winter Quarter)
- Interviewing Skills

Fourth Year

- Secure a full-time position after graduating
- Get your degree!

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05. Recruitment
General Resume Tips

- Be concise
- Make sure each bullet point answers:
  - What?
  - How?
  - So what? (Why?)
- Use past tense verbs
- Make it look organized
- It’s okay to include high school experience for freshmen only
- Review our Resume Workshop slides and our BAS Handbook for more tips
Networking Tips

- Prepare a short self-introduction (1 minute max)
  - Name, Year, Major(s), Minor(s)
  - Relevant past experience(s)
  - Career-specific experience(s)

- Network
  - Meet reps! They’re actuaries and recruiters at the same time
  - Take one – Ask for their business card (or email/LinkedIn if virtual)
  - Give one – Ask to present your resume
Career Center

- This is where on-campus interviews take place
- Located on 3rd floor of the Strathmore Building at Strathmore and Westwood Plaza
- Virtual services
  - Events and workshops
  - Career advising
  - Online resources and tools
- Career Center website: [https://career.ucla.edu/](https://career.ucla.edu/)
LinkedIn

- Social media for working professionals
- Connect with friends and colleagues (classmates, BAS officers, firm reps/recruiters)

Choose a professional profile picture
Write informative headline
Write a professional summary
Describe your work experience

Describe your education
Describe your volunteer experience
Keywords and phrases for skills
Join groups to stay connected
LinkedIn for students
Companies post job openings here
KEY TAKEAWAYS
✓ Attend BAS workshops and events to develop technical and professional skills
✓ Work on building your resume/network/professional profile
✓ Consider taking exams (the earlier the better)

ANNOUNCEMENTS
✓ TIA Info Session with Lee Gibson on Thursday 10/27 in MS 6627
✓ Actuarial Fields/Career Paths Workshop on Tuesday 11/1 in MS 6627
✓ Basic Excel Workshop on Tuesday 11/8 in MS 6627

ATTENDANCE
https://forms.gle/NkVN1sYFbAKWLL9A

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Questions?

Q&A