FIRST-YEAR WORKSHOP

Bruin Actuarial Society
Agenda

1. Introduction to the Actuarial Career
2. Majors: What to Study
3. Exams
4. Skills
5. Recruitment
Introduction to the Actuarial Career
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</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>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, Willis Towers Watson</td>
</tr>
</tbody>
</table>
What to Study
Major: What to Study

- Financial Actuarial Mathematics:
  - Prerequisites: Math 31A to 33B; Math 11N, 42, 61, or 70; MGMT 1A; Econ 1, 2, 11; Pic 10A, 10B or 16A
  - Major (12 Courses): More Math

During your first year,
- Take Math 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
Other Majors

- 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 math and economics courses</td>
</tr>
<tr>
<td>Data Theory</td>
<td>16 math and statistics courses</td>
</tr>
<tr>
<td>Statistics</td>
<td>13 statistics courses, including a capstone project</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 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, R</td>
</tr>
<tr>
<td>Math (For Non-Math Majors)</td>
<td>5 courses that can be any upper division math courses</td>
</tr>
</tbody>
</table>
Exams
Exams

For Health, Life, & Retirement
Exam P
Exam FM

For Property and Casualty
Exam 1
Exam 2
Exams

- Exams are often more important than grades
  - Don’t ignore your grades
- Computer Based Testing
  - 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 or junior year)
Exam P/1 - Probability

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

<table>
<thead>
<tr>
<th>Exam Name</th>
<th>CBT Dates</th>
<th>Paper/Pencil Dates*</th>
<th>Registration Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mar. 10-21, 2022</td>
<td>None</td>
<td>Feb. 8, 2022</td>
</tr>
<tr>
<td></td>
<td>May 13-24, 2022</td>
<td>May 13, 2022</td>
<td>Apr. 12, 2022</td>
</tr>
<tr>
<td></td>
<td>July 15-26, 2022</td>
<td>None</td>
<td>June 14, 2022</td>
</tr>
<tr>
<td></td>
<td>Nov. 11-22, 2022</td>
<td>None</td>
<td>Oct. 11, 2022</td>
</tr>
</tbody>
</table>
Exam FM/2 – Financial Mathematics

- Corresponds to Math 177
- Can also be taken as a first exam

<table>
<thead>
<tr>
<th>Exam Name</th>
<th>CBT Dates</th>
<th>Paper/Pencil Dates*</th>
<th>Registration Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam FM, Financial Mathematics</td>
<td>Dec. 2-13, 2021</td>
<td>None</td>
<td>Nov. 2, 2021</td>
</tr>
<tr>
<td></td>
<td>Feb. 10-21, 2022</td>
<td>Feb. 10, 2022</td>
<td>Jan. 11, 2022</td>
</tr>
<tr>
<td></td>
<td>Apr. 1-12, 2022</td>
<td>None</td>
<td>Mar. 1, 2022</td>
</tr>
<tr>
<td></td>
<td>June 10-21, 2022</td>
<td>June 10, 2022</td>
<td>May 10, 2022</td>
</tr>
<tr>
<td></td>
<td>Aug. 3-14, 2022</td>
<td>None</td>
<td>July 5, 2022</td>
</tr>
<tr>
<td></td>
<td>Dec. 1-12, 2022</td>
<td>None</td>
<td>Nov. 1, 2022</td>
</tr>
</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 Manual: ACTEX, ASM
  - Online Seminars: Coaching Actuaries, The Infinite Actuary
  - 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
Skills
Skills

Math Skills
- Quantitative major/minor
- 3.0 GPA or above (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
Your Best Friend – BAS!!

<table>
<thead>
<tr>
<th>Mentorship Program</th>
<th>Ask your mentor if you have any questions or concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Workshops</td>
<td>Learn how to use Excel, R, and VBA</td>
</tr>
<tr>
<td>Professional Development Workshops</td>
<td>Learn about career paths, exams, and more (We already held our resume and interviewing workshops, but you can find the slides on our website: <a href="http://www.math.ucla.edu/~actuary/events.html">www.math.ucla.edu/~actuary/events.html</a>)</td>
</tr>
<tr>
<td>Case Competition</td>
<td>Build your technical and communication skills and 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>
Timeline

First Year
- GPA
- Programming
- Network
- Resume & LinkedIn
- Communication skills
- CASE COMP

Second Year
- Attend Career Fair
- Pass exam(s)
- CASE COMP
- Finish pre-major courses
- Interviewing Skills

Third Year
- Attend Career Fair
- Internship
- Interview
- Pass Exam(s)

Fourth Year
- Attendance Career Fair
- Internship
- Interview
- Pass Exam(s)
Recruitment
General Resume Tips

- Be concise
- Make sure each bullet points answers:
  - What?
  - How?
  - So what?
- Use past tense verbs
- Make it look organized
- It is okay to include high school experience for freshman
- Review Resume Workshop and our Handbook for more tips
Networking Tips

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

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

- This is where on-campus interviews take place
- Located on third floor of the Strathmore Building at Strathmore and Westwood Plaza
- Come in early to sign in
- Virtual Services
  - Events and workshops
  - Career advising
LinkedIn

- Social media for working professionals
- Connect with friends and colleagues (classmates, BAS, Firm reps)

Choose a professional profile picture
Write informative headline
Write a professional summary
Describe your Experience
Describe your education
Describe your Volunteer Experience
Keywords and phrases for skills
Join groups to stay connected
Handshake

- LinkedIn for students
- Companies post job openings here
Questions?