

# Actuarial Science Major Forum



7:00 PM – 8:30 PM  
Thursday August 25, 2022  
101 Thomas

*While you wait...*

Scan the QR Code below  
to register your  
attendance and view [new  
students dashboard](#) on  
club website



Pay club dues:  
\$20 Venmo (@rvs6009 or scan  
QR Code below), include name  
and PSU ID (abc1234), or pay  
with cash (see Roshan Shah)



# Club Officers

Officer	Position
Mandy Hammell	Head of Actuarial Science Program
Max Cohen	President
Erin Studdert	Vice President
Srikar Sunil	Director of Corporate Outreach
Justin Morrison	Assistant Director of Corporate Outreach
Roshan Shah	Director of Finance
Owen Staff	Director of Communications
Sophia Massaro	Assistant Director of Communications
Angela Bao	Director of Student Engagement
Xinyi Chen	Assistant Director of Student Engagement
Chad Stein	Director of Technical Workshops & Databases
Christopher Miller	Assistant Director of Technical Workshops & Databases
Sarah Hunt	CAS Student Ambassador

\*Feel free to email officers in addition to your mentor - contact information on [psuactsci.com](http://psuactsci.com)\*

# Agenda

- Introduction to Actuarial Science and PSU's program
- What's being an actuarial science student at PSU all about?
  - Academics
  - Exams
  - Career
  - Community
- PSU Actuarial Science Club upcoming events and programs
- Questions

# Majoring in Actuarial Science

## Great Major!

- # 7 Best Business Job in US ([per CNBC](#))
- # 1 School for Recruiters ([per WSJ](#)) and # 2 [in producing CEOs per CNBC](#)
- One of the largest Actuarial Program in US
- About 150 exam passers per year
- About half from Smeal, half from Eberly (Math & Stat)
- Center of Actuarial Excellence – only 19 in US

## But It's Difficult

- Challenging exams required to become a credentialed actuary
- 1+ internship, 2+ exams, >3.2 GPA in college to get a job
- Students with A's and high B's in Calculus and Probability: pass exams, get jobs

# Faculty

## Amanda Hammell, FSA

- Faculty-in-Charge of Actuarial Science Program
- VP & Actuary at Prudential
- Teaches RM 410 (Financial Math), RM 214 (Probability) & RM 494H (Honors Course) in Fall/Spring

## Zhongyi Yuan, PhD & ASA

- Teaches RM 422 (Adv topics in STAM) in Fall (first offering Fall 2023)
- Teaches RM 420 (FAM-S material/ P&C Insurance) in Spring

## Nan Zhu, PhD & FSA

- Teaches RM 411 (FAM-L material/Long term Actuarial Mathematics) in Fall
- Teaches RM 412 (Adv topics in LTAM) in Spring

## Amin Hassan Zadeh, PhD & ASA

- Visiting professor
- Teaching RM 412 (Adv Topics in LTAM) in Fall 2022
- Teaching RM 420 (FAM-S material/ P&C Ins) in Spring 2023

## Lisa Posey, PhD & Dave Cather, PhD

- Teach Insurance and Risk Management (RM 320W, RM 302, & RM 430)

# The Good We Do for the World

**Actuaries help predict future events so people don't have to worry about:**

- Needing an expensive medical operation
- Your kid's financial needs if you or your spouse die early
- Becoming disabled
- Needing a new car (or health care) after a collision
- Your home burning down, or flooded by a hurricane
- Outliving your assets in retirement
- Getting sued



# Where Do Actuaries Work?

## Industry

- **Insurance**
  - Rotational programs
  - Competitive study programs
  - Clear reporting structure (one boss)
  - Reasonable hours
- **Consulting, Investment, Accounting Firms**
  - Dynamic work environment
  - Longer hours during busy season
- **Government & Academia**
- **Large companies, unions, churches, non-profits**

## Practice Area

- Life/Annuities
- Health
- Retirement
- Property/Casualty
- Reinsurance
- Finance/Investment

# Keys to Success as an Actuarial Student at PSU:

1. **Academics**
2. Exams
3. Career
4. Community





# Majoring in Actuarial Science at PSU

## Three ways to major in Actuarial Science:

1. Smeal - **Actuarial Science**
2. Eberly - **Mathematics** (Actuarial Option)
3. Eberly - **Statistics** (Actuarial Option)

*Personal preference, all three include core actuarial courses*

- **Smeal**: official home of the program, more business courses
- **Mathematics**: more upper level, theoretical math courses
- **Statistics**: more coding and statistics courses

# Core Actuarial Courses

Course	Exam/Content	Fall or Spring?
RM 214	P/1: Intro to Probability	Both
RM 410	FM/2: Financial Mathematics	Both
RM 320W	Risk Management and Insurance	Fall
RM 430	Life and Health Insurance	Fall
RM 411	FAM-L: Fundamentals of Actuarial Mathematics (Long-Term)	Fall
RM 422	ASTAM: Advanced Short-Term Actuarial Mathematics	Fall
RM 302	Risk and Insurance	Spring
RM 412	ALTAM: Advanced Long-Term Actuarial Mathematics	Spring
RM 420	FAM-S: Fundamentals of Actuarial Mathematics (Short-Term)	Spring

# Resources to Help You Pick the Right Major & Courses

- Advisors (See [Starfish](#))
- [PSU Bulletin](#)
- Mentors, Board Members, and Amanda Hammell
- Actuarial Science Club Website
  - [Scheduling Page](#)
  - Actuarial Science Club Mentor

# Keys to Success as an Actuarial Student at PSU:

1. Academics
2. **Exams**
3. Career
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SOCIETY OF  
ACTUARIES®



# Actuarial Exams Overview

- Exam topics: math (probability, financial), investments/financial markets, insurance products, regulation
- Two organizations give actuarial exams in US, **choose exam path based on industry**
  - **SOA (Society of Actuaries)**: Life, Health, Pensions, Finance, ERM
    - ASA (Associate of Society of Actuaries), FSA (Fellow of Society of Actuaries)
  - **CAS (Casualty Actuarial Society)** : Property/Casualty (Home, Auto, etc.)
    - ACAS (Associate of Casualty Actuarial Society), FCAS (Fellow of Casualty Actuarial Society)
- Preliminary exams given via CBT (computer-based testing) centers across the country
- **The first two exams are the same for both tracks, so you have some time to choose path**

# Why Take Actuarial Exams?

- **Help you get summer internships, required for full-time jobs**
  - 1+ exams recommended for summer internship
  - 2+ exams recommended for full-time job
- Demonstrates your actuarial qualifications to employers
  - Goal: Become a credentialed actuary (ASA/FSA or ACAS/FCAS)
- Earn as you learn
  - Employers provide paid study time & exam resources to full-time employees
  - Employees receive raises for each exam passed
  - PSU Students are eligible for up to \$250 per exam passed

# Validation by Educational Experience (VEE)

- VEE = Courses offered at PSU required by SOA, CAS, and Employers
- Courses required to graduate:
  - VEE Economics: ECON 102, ECON 104
  - VEE Corporate Finance: ACCTG 211, FIN 301
  - VEE STAT 415 (Mathematical Statistics)
- Must receive a grade of B- or better for VEE credit
  - Or 4 or 5 on AP tests
- Can also get credit by exam through
  - ACTEX for Finance & Applied Stat VEE's
  - CLEP for Econ VEE

# Resources to Help You Learn About & Pass Exams

## Passing Exams:

- PSU Actuarial Courses
  - RM 214, RM 410, RM 411/420, RM 412/422, STAT 380/462/463, STAT 440
- Study Manuals
  - Coaching Actuaries, The Infinite Actuary, ACTEX
- Club and Department Reimbursements
  - Submit online reimbursement form when you pass an exam to receive partial reimbursement for exam fees
  - Discounts on study materials via Club

## Learning More:

- Online
  - PSU Actuarial Science Club Website – [Exams Page](#)
  - SOA, CAS websites
- Actuarial Science Club Mentor & Board Members



# Guidance on SOA Exam Path Changes

- Overview of Changes – Full Details on SOA website ([here](#))
  - IFM eliminated after Nov. 2022
    - ATPA (advanced predictive analytics) exam offered since June 2022 (to replace IFM)
  - LTAM and STAM split into FAM (fundamentals) and ALTAM or ASTAM after June 2022
  - 2 new Foundations modules, FAP reduced to 5 modules starting Jan 2025

# ASA Curriculum Changes

## ASSOCIATE OF THE SOCIETY OF ACTUARIES

CURRENT PATHWAY



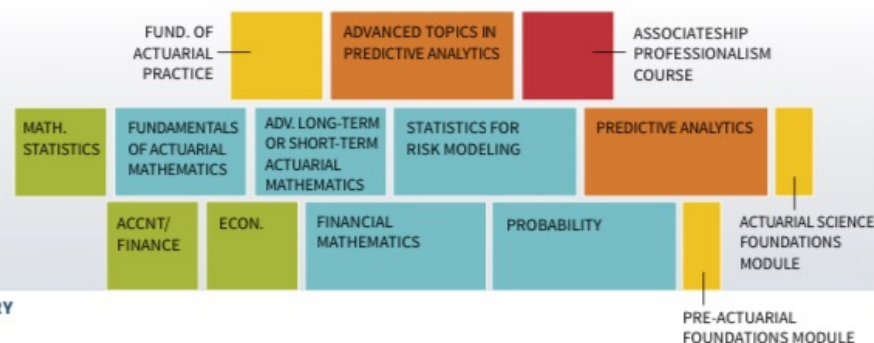
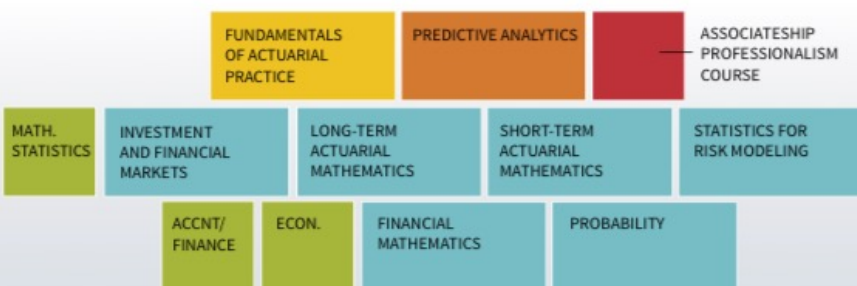
The changes **do not**  
increase travel time to  
ASA and keep the rigor  
of the SOA exams.

## ASSOCIATE OF THE SOCIETY OF ACTUARIES

NEW PATHWAY

ADVANCED

INTRODUCTORY



VEE

Validation by  
educational experiences

EXAM

Multiple choice or  
written answer

EXAM/PROJECT

Project-based assessment

E-LEARNING

Self-paced modules with  
take-home assessments

SEMINAR

Virtual or in-person

# THE CAS PATH TO SUCCESS:



# Keys to Success as an Actuarial Student at PSU:

1. Academics
2. Exams
3. **Career**
4. Community



# Internships and Jobs

- Goals:
  - One or more summer actuarial internships
  - Accept a full-time actuarial job offer before you graduate
- What employers are looking for:
  - >3.2 GPA
  - 1+ exam for internship, 2+ exams for job
  - Technical and soft skills
  - Extracurricular engagement and leadership experiences

# Resources to Get an Internship/Job

- **Actuarial Science Club Career Fair**
- **Club Resume Book**
- **Actuarial Science Club Boot Camp**

## **Other Resources**

- Club Events: Professionalism Workshop
- Club Website
- Club Mentor
- BoA Career Services Center
- Business Career Center

# Actuarial Science Club Career Fair

**Monday 9/12/22 from 5 to 8 PM in the Business Building Atrium (instructions will be on the club website)**

- Historically ~ 30 companies (i.e., Prudential, Aetna, Highmark, and Cigna)
- Great place to find Externships, Internships and Full Time Jobs
- 1<sup>st</sup> year students can get internships/externships
- Check [Nittany Lion Careers](#)
- Some firms don't attend Career Fairs
  - Apply on their websites
- Information Sessions
  - Check club website for dates
  - Companies may offer on-campus interviews after event
- Recruiters also contact students via our resume books to schedule interviews and/or encourage them to attend their booth

# Actuarial Science Club Boot Camp

- Pipeline to getting internships and jobs
- Recognition in resume book
- Great experience to learn applicable skills outside of the classroom

Anyone who did not participate last year can apply!



**ACTUARIAL  
SCIENCE  
BOOTCAMP  
2022**

**ACTUARIAL SCIENCE CLUB**

**We're Ready For You.**

**WHAT IT IS:**

The boot camp to all Penn State students interested in Actuarial Science and is THE pipeline to the best actuarial jobs at the most competitive firms.

Throughout this **one semester program**, you will develop the most important skills that companies are looking for in Penn State students.

You will grow professionally, technically, and socially while graduating from the boot camp as one of the actuarial program's most sought after students.

**Applications found on**  
[psuactsci.com/boot-camp](https://psuactsci.com/boot-camp)  
**Deadline: 11:59 PM**  
**August 29<sup>th</sup>**  
**\$10 Fee to Join**

**BENEFITS:**

- Direct email to top sponsors with a list of all boot camp graduates at the end of the program
- Special designation in the resume books
- Perfect Resume Builder, giving students the opportunity to learn many applicable skills outside of the classroom
- Complete instruction on how to obtain the most competitive actuarial jobs
- Guaranteed interview for Actuarial Science Club Executive board on graduation from the program
- Graduation ceremony/gift bag (club sticker, candy, etc.)



# Keys to Success as an Actuarial Student at PSU:

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4. **Community**



# Mentorship Program

- Opportunity to meet and learn from older students
- Get advice on:
  - Resumes
  - Career Fair
  - Interviews
  - Exams/Schedule Planning

**Sign up to be a mentor/mentee  
on our club website!!**  
(under the resources tab)

# Meeting Other Students in the Major

- RM Classes
- Club Events
- Group Chats:



[Freshmen](#)



[General](#)



[CAS Peer Group](#)

# International Students

## Getting a job in the US

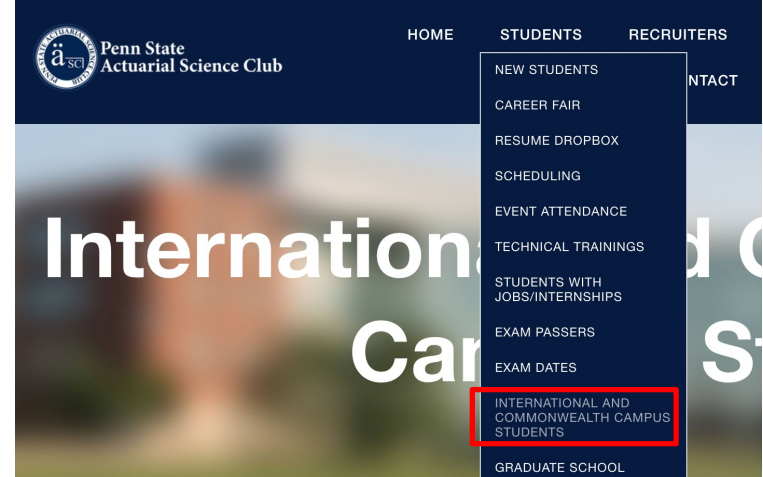
- Easiest way: do an internship & get return offer
  - CPT/OPT/H1B/Green cards

## How?

- Pass at least one exam for an internship (preferably Exam P)
- Reach out to alumni or recruiters on LinkedIn or contacts
- Attend corporate connecting events
- Practice communication skills
- Expand your connections
- Check with DISSA to ensure that you remain in line with your visa requirements

## Other options?

- Look for internship in your home country
- Graduate school
  - Can continue looking for opportunities
  - More time to pass exam
  - Gives you more experiences



# Upcoming Club Events and Opportunities

- **Actuarial Science Club Career Fair (9/12, Business Building Atrium 5-8pm)**
- **Actuarial Science Club Boot Camp (8/29 Application Deadline)**
- General Body Meeting (8/28, Thomas 117 1-2pm)
- Freshman Orientation Night (8/30, Thomas 201 7-8pm)
- Professional Development Night (8/31 6-7pm)
- Submit resume to Resume Books (9/5)
  - Schedule review via [Bookings page](#)
  - **Submit your resume by 9/3**
- International Student Social (9/7 7-8pm)
- \*Merch Order Form: Next week's email

# New Board Positions

- Senior Year Positions
- Freshman and Sophomore Associates
  - Flexible position
  - Associates would have first choice on Director and Assistant Director Positions
- Niche Positions
  - Ex. CAS Student Ambassador

**\*\*Club's goal is to add more engagement and improve the overall club**

These are great opportunities to get involved in the club and use the skills gained for internships

# Website Demo

[www.psuactsci.com](http://www.psuactsci.com)

# Questions?

Thanks for coming!