

# University Award Program session

*2021 CAS Annual Meeting*

Stefanos Orfanos

Risk Management & Insurance

Georgia State University

# Overview

## Topics:

- Actuarial Science @ GSU
- Course highlights
- Demographics
- Student organizations
- Scholarships and incentives

# Actuarial Science @ GSU

Note the low math requirements to enter the major.  
Some students even start with College Algebra!

## Key Courses for the Actuarial Science pre-major

1st semester	2nd semester	3rd semester	4th semester
<b>MATH 1113</b> Precalculus	<b>MATH 2211</b> Calculus I	<b>MATH 2212</b> Calculus II	<b>MATH 2215</b> Multivariate Calculus
<b>ECON 2105</b> Macroeconomics VEE	<b>ECON 2106</b> Microeconomics VEE	<b>ACCT 2101</b> Accounting I	<b>ACCT 2102</b> Accounting II VEE
<b>POLS 1101</b> US Government	<b>BUSA 1105</b> Business, Value & You	<b>CIS 2010</b> Information Systems Excel, SQL, R	<b>HIST 2110</b> US History

The next two years are more intense, with lots of exam coverage and technical skills courses. Not shown: standard business and liberal studies courses.

### Key Courses for the Actuarial Science major – CY 2022

	5th semester		6th semester		7th semester		8th semester	
	<b>MATH 4751</b> Math Statistics I		<b>MATH 4752</b> Math Statistics II VEE		<b>RMI 4680</b> Regression Modeling SRM/MAS I, R		<b>RMI 4990</b> Predictive Analytics SRM/MAS II, R	
	<b>AS 3230</b> Financial Math (+Lab) FM		<b>AS 4140</b> Probability (+Lab) P		<b>AS 4320</b> Loss Models & Credibility FAM/MAS II		<b>Actuarial Elective</b> AS 4350, 4600 ALTAM, 5/ASTAM	
	<b>FI 3300</b> Corporation Finance VEE		<b>Insurance Elective</b> RMI 4020, 4400, 4700 Python		<b>AS 4340</b> Life Contingencies FAM/MAS I		<b>BUSA 4980-90</b> Strategic Managmt Exit Exam	

# Course highlights

We mention a few interesting courses for actuarial science majors:

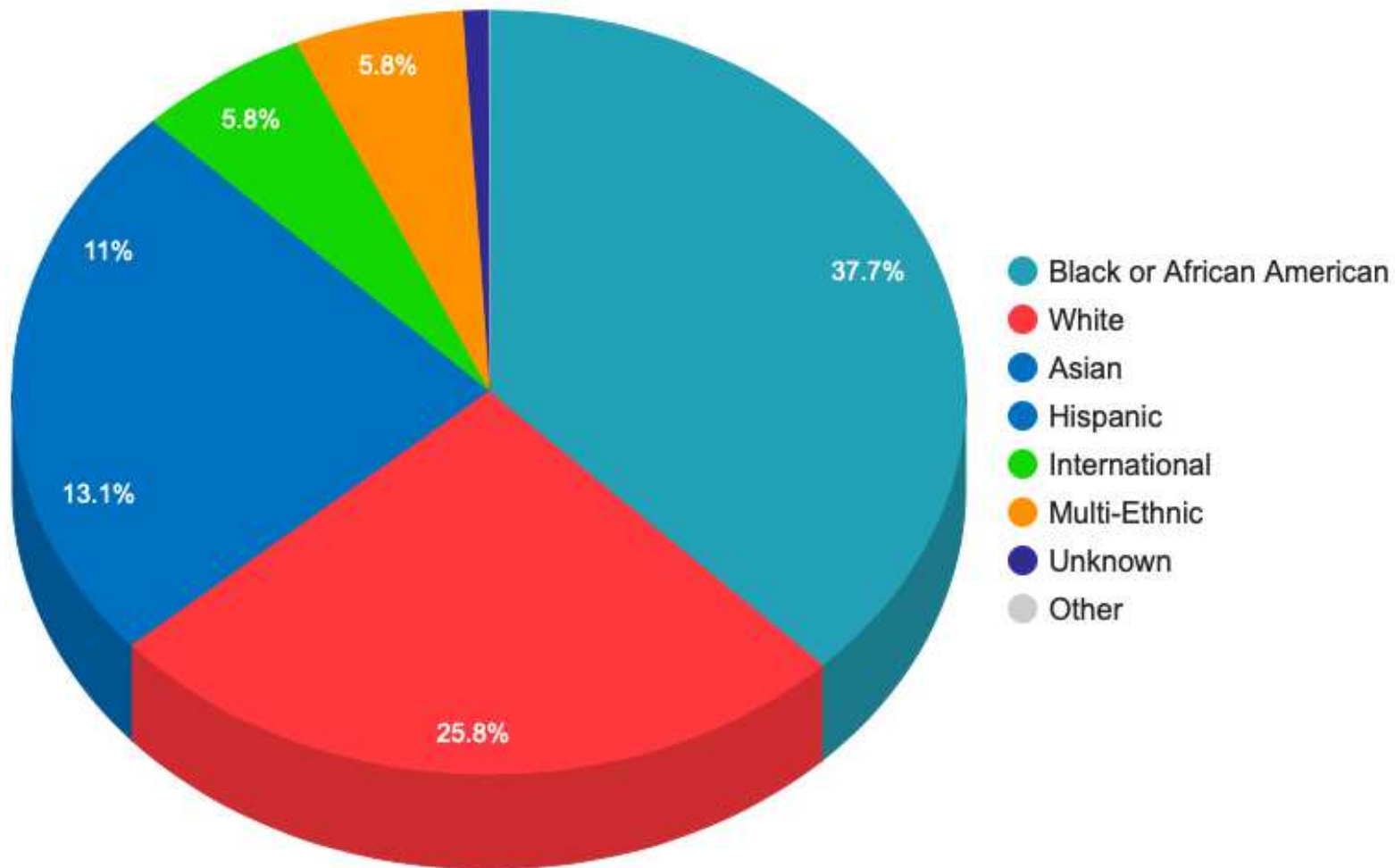
- **AS 4360—Ratemaking and Loss Reserving**
  - introduction to P&C insurance and terminology
  - development triangles
  - chain-ladder, expected loss ratio, Bornhuetter-Ferguson, Cape Cod techniques
  - on-level premium and losses, expenses, profit
  - rate indications, classification ratemaking, advanced classification techniques
  - reinsurance
  - catastrophe pricing

- **RMI 4020—Property and Liability Insurance**
  - major types of property and liability insurance
  - structure, scope, and limitations of commercial property and liability contracts
  - emphasis on coverage principles
- **RMI 4400—InsurTech: New Technology in Insurance Markets**
  - Internet of Things in insurance markets
  - micro-duration and gig economy insurance
  - automated underwriting, claims processing, and verification
  - insurance applications of blockchain
  - big data/machine learning and applications to insurance telematics
  - ethical issues

- **RMI 4700—Insurance Operations**
  - marketing and distributions systems
  - underwriting
  - claims
  - principles of ratemaking
  - reinsurance
  - financial analysis
  - regulatory and public policy issues

# Demographics

**Georgia State University Student Racial-Ethnic Diversity Breakdown**





Georgia State University annually graduates more African American students than any other public or nonprofit higher-education institution. 53% of students receive Federal Pell Grant Aid.

The Risk Management & Insurance department also has a very diverse student population:

	BBA		
	AS	RMI	Department
AmlIndian/NativeAlask	1%		1%
Asian Am	20%	18%	19%
Black/African Am	20%	24%	22%
Hispanic	9%	11%	10%
NativeHawa/PacificIslander	1%		1%
White	27%	32%	30%
Multi	7%	5%	6%
Unknown		2%	1%
INTL	15%	8%	11%
Pell	34%	38%	36%
N	96	97	193

\* Data is from 2020

# Student organizations

- **Actuarial Student Association**

website: `GSUactuarial.club`

1. Biweekly industry meetings with employers
2. Actuarial Ambassador Program (NYL, IABA)
3. Exam P, FM study groups
4. Math Motivators

- **Gamma Iota Sigma – Zeta Chapter**

national org website: `gammaiotasigma.org`

1. More industry events
2. Nationwide network and conferences
3. Broader scope (RMI)
4. Peer mentoring

# Scholarships and incentives

- **Internal scholarships**
  1. Assurant Group Scholarship
  2. Robert W. Batten Scholarship and Award
  3. Bermuda Scholarship Fund
  4. David M. Holland Scholarship
  5. James W. Morton Jr. Scholarship
  6. C.V. Starr Scholarship
  7. Sam & Joyce Turner Scholarship
  8. New York Life Scholarship
  9. Andrea T. Sellars Scholarship
  10. Floyd S. Harper Actuarial Science Award
  11. Eli A. Zubay Actuarial Science Award
  12. Riskies Student of the Year Award

- **External scholarships**
  1. Actuarial Diversity Scholarship
  2. IABA Scholarship
  3. OLA Scholarship+ a lot more! (see `GSUactuarial.club`)
- **Exam preparation:** Every student that enrolls in the labs for Exams P or FM gets a complimentary `coachingactuaries` subscription.
- **Exam reimbursement:**
  - SOA Exams P, FM, IFM, SRM, LTAM, STAM
  - CAS Exams MAS I-II, 5, 6
- **Incentives for early pass of exams:**
  1. Extra \$300 for freshmen
  2. Extra \$200 for sophomores
  3. Extra \$100 for juniors