## THE ACTUARIAL STUDIES PROGRAM COMMITTEE

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**Actuarial Website:** 

http://mathstat.fiu.edu/academic-programs/actuarial-studies/

#### For further information please contact:

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## CERTIFICATE PROGRAM IN ACTUARIAL STUDIES



Department of Mathematics and Statistics

#### THE ACTUARIAL PROFESSION

The "Jobs-Rated Almanac" recently rated this as one of the top careers in America. The demand for actuaries continues to exceed the supply. This is a way to use your mathematics skills in financial situations. Actuaries can expect high starting salaries, and to become respected leaders, often in upper management positions. They generally enjoy what they do; whether working in insurance companies, consulting firms, or government. They make a wide variety of quantitative decisions such as the price of insurance, employee benefits, estimated costs of a major hurricane and the effects of seatbelt laws.

#### IS IT FOR YOU?

Are you self-motivated, curious, a problemsolver? Are you an above-average student who excels in mathematics courses? Are you interested in historical, social, and political issues?

Most actuaries major in mathematics or statistics, but this not necessary. They receive much of their non-mathematical training during employment. This certificate program emphasizes the mathematics of actuarial science. A list of required course work follows. Professional actuarial societies award titles based on their own examinations, which are not to be confused with this certificate.

### **COURSE WORK:**

The Certificate in Actuarial Studies is designed to provide a focus for those students who are interested in pursuing a career in the actuarial sciences. The primary emphasis of the Certificate program is on the mathematical and statistical background that forms the foundation of the work in this area.

The program is most obviously suitable for those students who are majoring in Mathematics or Statistics. It would also be valuable for those who wish eventually to enter the actuarial field, but choose to major in an allied discipline, such as Business or Computer Science. In addition, it allows access to persons in the community who are currently working in this area and wish to develop or upgrade their skills.

Upon completion of the following requirements, a student may apply for the Certificate in Actuarial Studies. The Certificate will be awarded at the time of awarding a Bachelor's degree, or upon completion of this work if the student already has a Bachelor's degree. This certificate program is open to degree seeking students only.

## Statistics and Mathematics required courses:

a) MAC 2311	Calculus I	1
		-
b) MAC 2312	Calculus II	4
c) MAC 2313	Calculus III	4
d) MAS 3105	Linear Algebra	3
e) MAT 3930	Special Topics-	1
	Mathematics	
f) STA 4321	Mathematical	
	Statistics I	3
g) STA 3930	Special Topics-	
9	Statistics	1

# Four options from the following list:

a) STA 4322	Mathematical Statistics II	3
b) MAD 3401	Numerical Analysis or	
MAD 5405 c) STA 4603	Numerical Methods Mathematical	3
	Techniques of Operations Research or	
MAP 5236 d) STA 4234	Operations Research Introduction to Regression Analysis	3
STA 5236	or Regression Analysis	3
e) ECO 2013	Principles of Macro- Economics	3
f) ECO 2023	Principles of Micro- Economics	3
g) ECO 4237	Money, Interest, and Capital	3
h) ACG 2021	Accounting for	

i) ACG 3024	Decisions Accounting for Managers and	3
j) FIN 3403 k) COP 2210	Investors Financial Management Introduction to Programming	3
COP 3337	or Intermediate Programming	3

#### TOTAL CREDITS

An overall average of B  $(3.0\ GPA)$  or better in the 32 semester-hours of course work listed above is required with a grade of C or better in each

course. A minimum of 12 of these semester-hours must be earned in courses taken at the University.

Students should consult with a faculty advisor about scheduling classes.

## THE MATHEMATICS AND STATISTICS DEPARTMENTS

The Mathematics and Statistics Departments monitor the certificate program through a committee of three faculty members. The Mathematics Department also offers a Master of Science degree and has research interest in many areas, especially analysis, differential geometry, applied mathematics and logic. The Statistics Department also offers a Master of Science degree with emphasis in Applied Statistics and has research interest in many areas, especially in reliability theory, distribution theory and goodness-of-fit tests, applied probability, nonparametric, quality control, classification and Bayesian.

For further information about Florida International University, Department of Mathematics, or Department of Statistics please visit the following websites:

### http://www.fiu.edu

http://mathstat.fiu.edu