

Actuarial Science -- Required Courses

Updated: 5/8/09

Requirements for the Actuarial Science Major

<u>INTRODUCTORY COURSES</u>				
<u>Course</u>	<u>Title</u>	<u>Credits</u>	<u>Frequency</u>	<u>Prerequisites</u>
ACC 205	Financial Accounting	3	Every Semester	MATH 110 (or placement) and sophomore standing
ACC 206	Managerial Accounting	3	Every Semester	ACC 205
ECON 221	Principles of Economics - Micro	3	Every Semester	None
ECON 222	Principles of Economics - Macro	3	Every Semester	None
IDS 110	Business Spreadsheet Applications	1	Every Semester	MATH 110 (or placement beyond MATH 110)
IDS 111	Business Applications Programming	1	Fall - All years	IDS 110 or CS 157
CS 128	Introduction to Programming	1	Spring - All years	MATH 110 (or placement beyond MATH 110)
MATH 131	Calculus I	4	Every Semester	MATH 114 (Pre-Calculus) or placement
MATH 132	Calculus II	4	Every Semester	MATH 131
MATH 264	Linear Algebra I	3	Fall - All years	MATH 132 or 168
<u>PROBABILITY & STATISTICS COURSES</u>				
<u>Course</u>	<u>Title</u>	<u>Credits</u>	<u>Frequency</u>	<u>Prerequisites</u>
MATH 240	Statistical Analysis	3	Every Semester	MATH 132
MATH/IDS 340 ⁽¹⁾	Statistics for Decision Making	3	Every Semester	MATH 240 or IDS 205 or CE 202 or ECE 365
ECON 325 ⁽¹⁾	Econometrics	3	Fall - All years	ECON 221 and ECON 222 and (MATH 240/IDS 205)
MATH 341	Probability	4	Spring - All years	MATH 240 and MATH 132
MATH 342	Mathematical Statistics	3	Every 3 semesters (Next: Fall '09)	MATH 341
MATH 344	Applied Probability & Statistical Decision Theory	3	Spring - Even years	MATH 240 or IDS 205
MATH 493	Seminar in Applied Statistics	3	Every 3 semesters (Next: Fall '10)	ECON 325 or MATH/IDS 340
<u>FINANCE & MODELING COURSES</u>				
<u>Course</u>	<u>Title</u>	<u>Credits</u>	<u>Frequency</u>	<u>Prerequisites</u>
FIN 304	Financial Management	3	Every Semester	ACC 205, ECON 221, and 48 credits
FIN 410	Theory of Corporate Finance	3	Fall - All years	FIN 304 and (IDS 110 or CS 157) and MATH 340 ⁽³⁾
FIN 420	Investment Management	3	Fall - All years	FIN 304 and (IDS 110 or CS 157)
FIN 425	Financial Derivatives	3	Spring - All years	FIN 420
ECON 321 ⁽²⁾	Intermediate Microeconomic Theory	3	Spring - Odd years	ECON 221
ECON 324 ⁽²⁾	Managerial Economics	3	Random	ECON 221
<u>CAPSTONE COURSE</u>				
<u>Course</u>	<u>Title</u>	<u>Credits</u>	<u>Frequency</u>	<u>Prerequisites</u>
ACRS 325	Actuarial Modeling	3	Every 3 semesters (Next: Spring '10)	MATH/IDS 340 or ECON 325

Requirements for the Actuarial Science Minor ⁽⁴⁾

<u>Course</u>	<u>Title</u>	<u>Credits</u>	<u>Frequency</u>	<u>Prerequisites</u>
ECON 221	Principles of Economics - Micro	3	Every Semester	None
ECON 222	Principles of Economics - Macro	3	Every Semester	None
MATH 341	Probability	3	Spring - All years	MATH 240 and MATH 132
FIN 410	Theory of Corporate Finance	3	Fall - All years	FIN 304 and (IDS 110 or CS 157) and MATH 340 ⁽³⁾
ACRS 325	Actuarial Modeling	3	Every 3 semesters (Next: Spring '10)	MATH/IDS 340 or ECON 325
Prerequisite Courses needed for (but not officially part of) the minor:		MATH 131, MATH 132, MATH 240, FIN 304, IDS 110, and ACC 205		

Notes

(1) One of MATH 340 or ECON 325 is required.

(2) One of ECON 321 or ECON 324 is required.

(3) MATH 340 may be taken concurrently with FIN 410

(4) In order to satisfy the minor, all of the prerequisite courses for the minor must also be satisfied.