

Actuaries put a price on risk, and Actuaries are often ranked as a top ten job with high pay. The Actuarial program at Southern Illinois University provides course work in Mathematics to prepare students for work as Actuaries. Students become Actuaries by taking three Validation by Educational Experience (VEE) course sequences and by passing professional examinations given by the Society of Actuaries (SOA, see www.soa.org) and Casualty Actuarial Society (CAS, see www.casact.org). The professional exams cover probability, financial mathematics for investments including interest theory and financial derivatives, life contingencies: mathematics for life insurance, and loss models. More information about Actuaries and the professional exams can be found at (www.beanactuary.com).

Freshmen admitted to the program should have at least a 24 Math ACT score. Students can also enroll as Math majors and transfer to the Actuarial program after receiving a C or higher in Math 250.

Although one can be hired after passing one exam for about \$35,000, the best jobs tend to go to students who have met all 3 VEE requirements and who have passed at least two exams. According to the National Association of Colleges and Employers, annual starting salaries for graduates with a Bachelor's degree in Actuarial Science averaged \$56,320 in July 2009. Also see (www.dwsimpson.com/salary.html).

Actuarial students in the SIU Actuarial program take three VEE course sequences and preparation for professional Actuarial exams:

- i) Econ 240 and Econ 241: Micro and Macro (VEE Economics);
- ii) Math 484 and Math 474 Regression and Time Series (VEE Applied Statistical Methods);
- iii) FIN 330 and FIN 361 (VEE Corporate Finance);
- iv) Math 483 Introduction to Statistics: for Exam P/1: Probability (and the Statistics portion of CAS Exam 3L);
- v) Math 400 Interest Theory and Financial Derivatives: for Exam FM/2: Financial Mathematics;
and either
- vi) Math 401 and Math 402 Life Contingencies I and II for Exam MLC/3L: Life Contingencies;
or vii) Math 403 and Math 404 Loss Models I and II for Exam C/4: Construction and Evaluation of Actuarial Models.

A sample 120 hour program is shown below. Math 150,250,251 are Calc I-III. Math 222 is Linear Algebra. Math 300I, 302, and Group A,B,C classes are needed to meet degree requirements. From (<http://money.cnn.com/>), actuaries are the 6th highest paying job from a degree (click on “Best Jobs in America” below Special Reports, then click on “High Pay”).

FIRST YEAR	FALL	SPRING
MATH 150, MATH 250	4	4
ECON 240, ECON 241	3	3
ENGL 101, ENGL 102	3	3
CS 202, ACCT 208	4	3
Human Health, Fine Arts	2	3
Total	16	16

SECOND YEAR	FALL	SPRING
MATH 221	3	
MATH 251, MATH 483	3	4
ACCT 220, ACCT 230	3	3
SPCM 101, Math 400	3	4
Foreign Lang	4	4
Total	16	15

THIRD YEAR	FALL	SPRING
MATH 401, MATH 402	3	3
MATH 484, English Comp	3	3
Humanities	3	3
Science	3	3
Math 302, Group C	3	3
Total	15	15

FOURTH YEAR	FALL	SPRING
MATH 403, MATH 404	3	3
FIN 330, FIN 361	3	3
MATH 474,	3	
Multicultural, Math 300I	3	3
Group A, B	3	3
Total	15	12