Actuarial Science (ACS) Major Information Session

Hosts:
Professor Tse Yiu Kuen, PhD, FSA
Education Professor Kwong Koon Shing, PhD, FSA, CERA

Time: August 21, 3:30 – 4:15 pm
Venue: SIS SR2.4
Summary

• A second major open to all students in SMU, offered by SOE
• For students with interest in mathematics and a career in actuary, finance, insurance and risk management
• Structured after the education framework of the Society of Actuaries
• Two tracks:
  – Actuarial analyst (AA) track
  – Risk analyst (RA) track
Where does an actuary work?

• insurance industry, in life insurance, nonlife insurance (health, casualty, property and liability) and reinsurance companies
• consulting firms
• government insurance department (MAS)

Where does a risk analyst/manager work?

• insurance companies
• banks and financial institutions
• consulting firms
• health care, transport, manufacturing industries, etc
Compulsory courses for AA track

1. STAT 101 Introductory Statistics or STAT 151 Introduction to Statistical Theory
2. STAT 201 Probability Theory and Applications
3. STAT 203 Financial Mathematics
4. STAT 310 Life Contingent Risks
5. STAT 311 Risk Theory and Loss Models
6. STAT 314 Statistical Methods for Actuarial Analysis
7. ECON 101 Intermediate Microeconomics
8. ECON 102 Intermediate Macroeconomics
9. ECON 107 Applied Econometrics
10. ECON 207 Intermediate Econometrics
11. ACCT 101/111 Financial Accounting
12. FNCE 101 Finance
13. FNCE 102 Financial Instruments, Institutions and Markets or FNCE 201 Corporate Finance
14. FNCE 305 Analysis of Derivative Securities or QF 301 Structured Finance
Compulsory courses for RA track

1. STAT 101 Introductory Statistics or STAT 151 Introduction to Statistical Theory
2. STAT 201 Probability Theory and Applications
3. STAT 203 Financial Mathematics
4. STAT 310 Life Contingent Risks
5. STAT 311 Risk Theory and Loss Models
6. STAT 314 Statistical Methods for Actuarial Analysis
7. ECON 101 Intermediate Microeconomics
8. ECON 102 Intermediate Macroeconomics
9. ECON 107 Applied Econometrics
10. ECON 207 Intermediate Econometrics
11. ACCT 101/111 Financial Accounting
12. FNCE 101 Finance
13. FNCE 102 Financial Instruments, Institutions and Markets or FNCE 201 Corporate Finance
14. FNCE 305 Analysis of Derivative Securities or QF 301 Structured Finance
• In addition, select any three from the following
  – Risk Management and Insurance (FNCE215)
  – Enterprise Risk management (FNCE309)
  – Computing Technology for Finance (QF205)
  – Global Financial Risk Management (QF305)
  – Life Contingent Risks (STAT310)
  – Quantitative Risk Analysis (STAT313)
How many courses you need to do to complete the ACS major?

If you are a BSc (Econ) student, the min is 38.

If you are a BBM student the min is:

- ACS (AA track)
  - 40 if 1\textsuperscript{st} major is FNCE
  - 41 if 1\textsuperscript{st} major is QF

- ACS (RA track)
  - 38 if 1\textsuperscript{st} major is FNCE
  - 39 is 1\textsuperscript{st} major is QF
Which track to choose?

• If you want to become a professional actuary (ASA, FSA), choose AA track
• If you want to be in risk management and be a professional risk manager/analyst (CERA), choose RA track
• If you just want to learn some statistics, economics and finance relevant for working in any financial institution, choose either.
• Strong industrial linkage and partnership,
  o Singapore Actuarial Society General-Insurance partnership
  o Career fair