



Bachelor of Science In

Actuarial Science and Financial Mathematics

at

Dept of Mathematics & Statistics
King Fahd University of Petroleum
& Minerals
Dhahran

Why become an Actuary?

According to *Wall Street Journal* (Jan 5 2010)

- The Best Career in 2010
- High Salary
- High Salary Increases with Professional Exams
- Multiple job opportunities
- Better working environment

Who is An Actuary/Financial Risk Analyst?

A professional

- ◆ with high level expertise in mathematics, statistics, finance, and insurance
- ◆ who analyzes the financial consequences of risk data and makes informed decisions from it.
- ◆ who minimizes risk associated with uncertain future events such as investment returns, pension programs, and insurance.

Program Purpose:

To prepare students for work opportunities in fields such as

- financial consulting
- investment funding
- asset liability management
- Islamic banking
- industry's operations risk management.
- business
- insurance or "takaful"
- pension funding
- healthcare funding



Modeling of Stock Prices & Financial Options

Salary and Career Prospects

in Kingdom

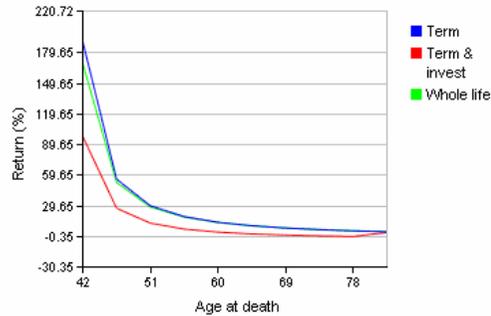
- **Projected 350- 400 new actuarial jobs over next 5 years ♣**
 - in Financial Institutions (banks, investment consulting firms etc)
 - Governmental Institutions
 - Takaful & Insurance companies
- **Starting Monthly Base Salary for BSc holders**
 - Employers surveyed mostly quote **SAR 7000 to 15,000**
 - Benefits

Overseas

- **Increasingly demanded in**
 - Financial Institutions (banks, investment consulting firms etc)
 - Governmental Institutions
 - Insurance companies
- **Starting Annual Salary for BS in Actuarial Science**
 - Mean of **USD53 574 ♥**
 - Median of **USD82 800 ♥**
 - Top 10% earn more than **USD145 600 ♥**
 - Increase with more professional exams

Sources:

- ♣ Saudi Gazette (Apr 25, 2008)
- ♥ US Bureau of Labor Statistics (May 2006)



Manage Insurance Risks for Different Policies

Main Aspects of Program:

◆ Courses in:

- Finance
- Economics
- Accounting Principles
- Computer Programming
- Mathematics
- Numerical Analysis & Mathematics of Finance
- Probability Theory & Stochastic Processes
- Statistical Modeling of Time Series Investment Data
- Actuarial Modeling of Financial Risk Data
- Islamic Finance
- Islamic Insurance (takaful)

◆ Cooperative Work Training

◆ Preparation for Professional Society of Actuaries (SOA) Examinations

◆ 4 academic years

◆ 126 total credit hours

What can you do with this degree?

- Financial Modeling
- Mathematical Modeling
- Statistical Modeling
- Actuarial Valuation & Management of Risks
- Conventional Insurance and Islamic systems
- Conventional Financial analyses and analyses based on Islamic Finance

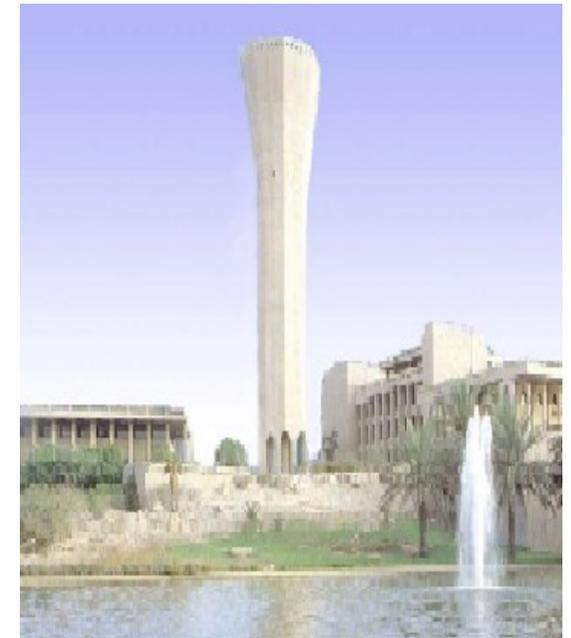


Statistical modeling of Stock Prices

Admissions requirements:

Department of Mathematics and Statistics invites exceptional students to apply for a BS degree in Actuarial Science and Financial Mathematics.

Given the rigor of the professional exams and the multi-disciplinary nature of the program, admission is highly selective.



For more details, contact:

Dept of Mathematical Sciences
 P.O. Box 540,
 King Fahd University of Petroleum and Minerals,
 Dhahran 31261, Saudi Arabia.
 Tel: (03)-860-2193
 Fax: (03)-860-2340
 Email: c-math@kfupm.edu.sa