Actuarial Science

Summary

A course in actuarial sciences equips you to scientifically assess risk in various fields, but mainly in insurance, business and finance. Actuaries are an important component of risk-assessment as well as risk-management for any organization. They use various statistical, mathematical and computational methodologies to give their assessment. Some of the job responsibilities of this job profile in life and general insurance business include designing and pricing of policies, monitoring the funds, recommending fair rate of bonus where applicable, insurance risks like legal liability, loss of profit, etc.

Career Opportunities in Actuarial Science

- **Insurance Sector**
- **Business Sector**
- **Banking and Financial Services**
- **Health and Medical Sector**

How to Become an Actuary?

	Stream	Graduation	After Graduation	After Post Graduation
path 5	Commerce/Science with Math	Graduation in Mathematics, Statistics, Economics or Related Subjects	Masters in Applied Actuarial Science/ M.Sc. in Actuarial Sciences/ PG Program in Actuarial Science	-
path 4	Commerce/Science with Math	Graduation in Any Discipline	Give Actuarial Common Entrance Test (ACET) and complete: 1. Certificate in Actuarial Technique (CAT) (2) Diploma in Actuarial Technique (DAT) 2. Apprenticeship 3. Fellowship	-

	Stream	Graduation	After Graduation	After Post Graduation
path 3	Commerce/Science with Math	- Bachelor in Mathematics/ Statistics, - Bachelor in Economics, - Bachelor in Computer Science	M.Sc. in Actuarial Sciences/ MBA in Actuarial Sciences	-
path 2	Commerce/Science with Math	B.Sc. in Actuarial Sciences	M.Sc. in Actuarial Sciences/ MBA in Actuarial Sciences 1 year diploma course *PG Program in Actuarial Science	-
path 1	Clear Class XII in any stream	Give Actuarial Common Entrance Test (ACET) and complete 1. Certificate in Actuarial Technique (CAT) 2. Diploma in Actuarial Technique (DAT) 3. Apprenticeship 4. Fellowship	Practice as an Actuary	-

Important Facts

- Except the ACET exam, all other colleges offering courses in actuarial science have mathematics or related subjects as their minimum eligibility criteria
- Maths is mandatory for most college admissions.

Leading Institutes

Top Actuarial Science Institutes in India

College	Location	Website
Institute of Actuaries of India	Mumbai	http://www.actuariesindia.org/subMenu.aspx?id=4&val=ACET Copy
Department of Statistics, University of Mumbai	Mumbai	http://mu.ac.in/portal/distance-open-learning/faculty/department-of-statics-science/ Copy
Institute of Insurance and Risk Management	Telangana	http://www.iirmworld.org.in/ Copy
Christ University	Karnataka	http://www.christuniversity.in/ Copy
Shivaji University	Maharashtra	http://www.unishivaji.ac.in/ Copy
University of Madras	Tamil Naidu	http://www.unom.ac.in/ Copy
Bishop Herber College	Tamil Naidu	http://www.bhc.edu.in/ Copy
PSGR Krishnammal College for Women	Tamil Naidu	http://www.psgrkc.com/ Copy
DS Actuarial Education Services	Maharashtra	www.dsacted.com/ Copy

Actuarial Science Entrance Exams

Undergraduate

College	Tentative Date	Important Elements	Website
ACET	April/October.	-	http://www.actuariesindia.org/subMenu.aspx?id=4&val=ACET Copy

Work Description

- Use statistical models to analyse data and calculate the probability of and costs associated with product failure, accidents, property damage, injury and death
- Estimate the likelihood of catastrophic events, such as hurricanes, earthquakes, pandemics and terrorist attacks, as well as assess the risk exposure of insurance companies
- Design investment and pension plans for financial services
- Aid businesses lower their insurance premiums by reducing their risk exposure
- Do exhaustive data analysis and statistical modelling?
- Ensure that premium rates are set accurately and adequate funds exist to meet claims
- Be Responsible for legislative and advisory work
- Manage staff and report financial forecasts to management

Pros & Cons of a Career in Actuarial Science

Pros

- **High Income: Actuaries** make above average salary. It is one of the highest paying jobs.
- **Job Security:** Chances of finding a higher job security is more with experience and expertise.

Cons

- It is one of the most difficult courses.
- If your mathematical aptitude is not brilliant, this field is not for you.
- The job can be very stressful due to long working hours and greater responsibility.