SCIENCE AND TECHNOLOGY

Actuarial Sciences

Objectives
To prepare professionals able to analyze and solve financial, economic, demographic, statistical, administrative, and social-security problems, by applying mathematics, statistics, and computer science.

Student Profile
The student in this program should:
- Like mathematics;
- Be able to analyze and synthesize;
- Enjoy doing research;
- Be creative and persevering;
- Be organized.

Areas for Potential Employment
Graduates of this program will be able to develop a career in insurance and reinsurance companies; banks, brokerage firms, and leasing companies; consulting firms; universities and other schools; government departments and companies with computer-science services, among others.

First Semester
-College Algebra
-Differential and Integral Calculus I
-Financial Mathematics I
-Analytical Geometry
-Mathematical Logic

Second Semester
-Linear Algebra I
-Differential and Integral Calculus II
-Introduction to Computer Science
-Financial Mathematics II
-Personal Insurance

Third Semester
-Linear Algebra II
-Differential and Integral Calculus III
-Programming Language
-Probability I
-Damages Insurance

Fourth Semester
-Actuarial Calculus I
-Differential and Integral Calculus IV
-Differential Equations
-Statistics I
-Data Structure
-The Philosophy of Science

Fifth Semester
-Mathematical Analysis
-Philosophical Anthropology
-Databases
-Actuarial Calculus II
-Statistics II
-Microeconomics

Sixth Semester
-Actuarial Calculus III
-Finance I
-Operations Research I
-Macroeconomics
-Probability II
-Systems Programming

Seventh Semester
-Administration I
-Numerical Analysis
-Actuarial Calculus IV
-General Accounting
-Research Methodology
-Elective

Eighth Semester
-Socioeconomic Aspects of Mexico
-Professional Ethics
-Sampling
-Elective
-Elective
-Elective

Elective Subjects
-Administration II
-Risk Management
-Analysis of Financial Statements
-Regression Analysis
-Systems Analysis I
-Systems Analysis II
-Demographics
-Econometrics
-Finance II
-Artificial Intelligence
-Operations Research II
-Insurance Law
-Retirement Pensions I
-Retirement Pensions II
-Financial Planning
-Linear and Non-Linear Programming
-Statistics Seminar
-Decisions and Risk-Taking Theory
-Graphics and Networks Theory