#### Top Reasons To Be An Actuary

- 1. You are self-motivated, goal-oriented, have superior math and communication skills, and you seek a career in business.
- 2. You want a dynamic career with plenty of opportunities to learn skills that are transferable across multiple industries and agencies of government.
- 3. You want job-security, a highly competitive salary, excellent benefits and work-life balance.
- 4. You want a professional title similar to those of doctors, lawyers and accountants.
- 5. You want a profession that you can enter with a BS degree.

## Actuary Rated One Of The Best Careers In America!

The occupation actuary has been consistently rated one of the five best professions in the United States by the Jobs Rated Almanac in at least six of its recent editions. Occupations are ranked on the basis of several important criteria, which include environment, income, employment outlook, physical demands, job security, and stress (<a href="http://www.beanactuary.org/index.cfm?fa=Siteindx">http://www.beanactuary.org/index.cfm?fa=Siteindx</a>\*).

#### Salary

The National Association of Colleges and Employers (NACE) frequently publishes starting salary offers for college graduates. Based on its reports in 2007, the following key conclusions are worth noting. Students seeking actuarial careers with a bachelor's degree were offered an annual salary of about \$55,000. In excess of 150 majors were compared in those reports. Out of those, only a few other fields had average starting salaries higher than that of actuarial science. Students who wish to know the long-term prospects of pursuing actuarial degrees should read salary-charts of recruiting firms like D.W. Simpson (www.actuaryjobs.com) and S.C. International (www.scinternational.com). The scope for earning a six-figure salary in the first ten years of employment is vast, as documented at the websites mentioned above.

#### **Actuarial Profession**

Insurance, as the saying goes, is the oxygen of free enterprise. An actuary is a business professional who analyzes the financial consequences of risk and uncertainty that insurance companies must confront. Actuaries use tools from many fields, including mathematics, statistics and financial economics, to evaluate the chances of future adverse events and design creative ways for businesses to cope with the events. An actuary might calculate how much a company would charge as insurance premiums for protecting properties, for health care, or for providing a safety-net for the survivors of deceased persons. Consulting and corporate actuaries figure out how much money needs to be invested in a pension fund today so that there will be adequate funds to pay promised benefits to employees retiring in the future.

Actuaries specialize in life insurance, property and casualty, retirement systems, health benefit systems, financial and investment management, and other emerging areas of practice. The majority of actuaries work within the insurance industry, although a growing number of actuaries work in other fields.

For example, the Sarbanes-Oxley Federal law of 2002 made clear the necessity of independent audits. The audits of companies in several industries rely on qualified actuaries performing complete analyses of all items of an actuarial nature that appear in their financial statements. Hence, many actuaries are affiliated with auditing firms and work closely with auditors, accountants, and senior financial officers.

Some actuaries work as independent consultants, while others teach or work for the government. Insurance companies and consulting firms often have actuaries as presidents and CEOs. Due to the versatility of the profession, the demand for actuaries is strong. Relative to 2006 data, the demand has been forecasted to increase by 24% in 2016 (<a href="https://www.bls.gov/oco/ocos041.htm">www.bls.gov/oco/ocos041.htm</a>).

What sets actuaries apart from other professionals is their ability to learn and assimilate a wide range of information in problem solving. Unlike law and medicine, in the actuarial profession you can earn while you learn. If you have a strong aptitude for mathematics, it is no longer necessary or wise to restrict yourself to disciplines such as engineering in order to build your career. Indeed, actuarial science provides definite and rewarding alternative career paths for you.

#### **Actuarial Exams And Credentials**

Actuaries achieve their professional status by passing a set of examinations. In the United States, two professional societies sponsor these examinations leading to professional designations in different specialties. The Society of Actuaries (SOA), located in Schaumburg, Illinois, administers a series of actuarial examinations leading to various fields including life and health. The Casualty Actuarial Society (CAS), located in Arlington, Virginia, gives a series of examinations in the property and casualty field. Some of the preliminary examinations of the SOA and CAS are jointly sponsored by the two societies and can be taken in any order. Actuaries receive on-the-job training while enrolled in the examination process. Most employers prefer to hire people who have started the series of examinations on their own and have already passed at least one or two. Once hired, employees receive valuable support such as paid or reimbursed exam fees and regular paid studytimes to finish the exam series. SOA (www.soa.org) / CAS (www.casact.org) award professional credentials, associate and fellow, to those who meet appropriate criteria. Recently, SOA has introduced the credential Chartered Enterprise Risk Analyst (CERA). Many companies give bonuses to actuaries as they pass each examination and promote them when they achieve each professional credential of SOA/CAS.

#### Is Actuarial Science For You?

The actuarial profession is well-suited for individuals who enjoy challenges and problem solving. Choosing a career will likely be one of the most important decisions of your life. Being well-informed is the best way to decide on your career. Please visit the several links at <a href="www.beanactuary.org/onthejob">www.beanactuary.org/onthejob</a>, especially "Ask An Actuary", for a wealth of relevant information and answers to a broad range of questions that people usually have when deciding to embark on actuarial education and actuarial career paths. Useful links for minority students are at <a href="www.beanactuary.org/minority/">www.beanactuary.org/minority/</a>

#### Actuarial Science At NIU

If you are interested in becoming an actuary, you should consider doing the math major with an emphasis in actuarial science offered by NIU's Department of Mathematical Sciences/Division of Statistics. This multi-disciplinary program prepares students for careers in the actuarial profession.

<sup>\*</sup>Links to non-NIU Internet sites are provided in this brochure for general informational purposes only and do not constitute an endorsement.

## Top Ten Reasons To Pursue NIU's Actuarial Science Program

- NIU education in actuarial science is comprehensive and rigorous. Yet, the program is quite affordable. Please visit the following link for up-to-date information regarding tuition and fees: <a href="http://www.niu.edu/bursar/tuition/index.shtml">http://www.niu.edu/bursar/tuition/index.shtml</a>
- 2. Professors with PhDs and/or ASA credentials teach and mentor students. The class size in most of the required courses of the program is 20-30.
- 3. You will learn material included in the Exams P / 1 (Probability), FM / 2 (Financial Mathematics), MLC / 3L and MFE / 3F (Actuarial Models) of SOA/CAS.
- 4. A few courses relevant to Exam C/4 (Construction and Evaluation of Actuarial Models) of SOA/CAS are also available to you. Access to other optional courses in a variety of disciplines, including communications, computer science, and geography provide additional skills that will enhance your entire actuarial career.
- 5. Study groups to prepare for actuarial examinations are supported through the NIU Actuarial Club.
- 6. The program includes courses that will help you to satisfy all the Validation by Educational Experience (VEE) requirements of the SOA/CAS in corporate finance, economics, and applied statistics.
- 7. NIU nurtures student recruitment and retention through the awarding of tuition dollars and scholarships to qualified students. Details are available at www.scholarships.niu.edu
- 8. You can interact with practicing actuaries and other experts in the actuarial field by participating in the activities of the NIU Actuarial Club.
- 9. NIU's rich campus life provides you opportunities to develop leadership skills, which employers value greatly.
- 10. The northern Illinois region is home to numerous insurance, and related, companies. Students in the program typically get internships during the NIU program and, upon graduation, enter full-time careers with these companies by maintaining good grades and passing one or two actuarial exams.

#### Admission

Proper planning early in your NIU career is crucial for you to successfully complete this BS (MATH) program. For admission to this major and more information about the exams of SOA/CAS, interested students should contact the Division of Statistics/Department of Mathematical Sciences for advisement. Please schedule an appointment with an academic adviser at 815-753-6714 or send an e-mail to stat\_ugradprog@math.niu.edu

#### NIU Actuarial Club

To join, e-mail the club president at president\_actuarial@math.niu.edu



For more information, please call **815-753-6714** or email **stat ugradprog@math.niu.edu** 

Northern Illinois University Division of Statistics DuSable Hall 366 DeKalb, Illinois 60115

For up-to-date information about the program, please visit:

http://www.niu.edu/stat/actuarial/index.shtml

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### NORTHERN ILLINOIS UNIVERSITY

Department of Mathematical Sciences
Division of Statistics

Prepares Motivated Students For Careers In

# ACTUARIAL SCIENCE



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