# Bachelor of Science: Actuarial Science Major Curriculum Guide

#### UNIVERSITY GENERAL EDUCATION

#### 10-13 Credits

#### International Perspectives (3)

Select from University approved list.

## **US Cultures and Communities (3)**

Select from University approved list.

US Cultures and Communities might also count as 3 of 9 credits of Humanities & Social Sciences.

ENGL 1500 Critical Thinking and Communication (3)
ENGL 2500 Written, Oral, Visual Electronic Composition (3)

LIB 1600 Introduction to College Research (1)

## FOUNDATION COURSES 21 Credits

BUSAD 1020/1030 Orientation (1)

BUSAD 2030 Professional Development in Business (1)
COM S 1130 Introduction to Spreadsheets and Databases (3)

MATH 1650 Calculus I (4) \*

ECON 1010 Principles of Microeconomics (3)
ECON 1020 Principles of Macroeconomics (3)
STAT 2260 Introduction to Business Statistics (3)

ACCT 2840 Financial Accounting (3)

Strongly recommended that Foundation courses be completed within student's first 2-3 semesters.

## BUSINESS CORE 27 Credits

ACCT 2850 Managerial Accounting (3) ENTSP 3100 Entrepreneurship and Innovation (3)

FIN 3010 Principles of Finance (3) MGMT 3710 Organizational Behavior (3)

MGMT 3720 Responsible Management & Leadership in Business (3)

MIS 3010 Management Information Systems (3)

MKT 3400 Principles of Marketing (3) SCM 3010 Supply Chain Management (3)

Credit or enrollment in all core courses (except MGMT 3720) and senior standing required to take:

MGMT 4780 Strategic Management (3)

[taken senior year]

# Notes Pertaining to the Curriculum:

No courses taken for the business degree can be taken Pass-Not Pass (only non-business "free" electives may be taken P-NP).

Course prerequisites are monitored and will be enforced.

#### IVY GENERAL EDUCATION

18-21 Credits

ENGL 3020 Business Communication (3)

SPCM 3120 Business and Professional Speaking (3)

#### **Humanities & Social Sciences (9)**

Select from College approved list.

## **Global Perspectives (6)**

Select from University approved International Perspectives list. International Perspectives may count as 3 of 6 credits here.

#### Natural Science (3)

Select from College approved list.

# SUPPORTING COURSES 17 Credits

PHIL 2300 Moral Theory and Practice (3)

MATH 1660 Calculus II (4) \*
MATH 2650 Calculus III (4) \*

MATH 2070 Matrices and Linear Algebra (3)
ACCT 2150 Legal Environment of Business (3)

\*Requires C- or better

## **ACTUARIAL SCIENCE MAJOR**

23 Credits

MATH 2400 Mathematics of Investment & Credit (3)
STAT 3410 Intro to Theory of Probability & Statistics I (4)

ACSCI 4010 Loss Models I (3)
FIN 4550 Risk Modeling (3)
ACSCI 4020 Credibility Theory (3)

STAT 3420 Intro to Theory of Probability & Statistics II (4)

MATH 4410 Life Contingencies I (3)

## ELECTIVES 0-3 Credits

ACSCI 3910 or 3920 (1 cr each); FIN 3100 or 4240; MATH 4420 (3 cr each) are recommended electives (if needed) to reach 122 credits.

## **Additional Graduation Requirements:**

- 1. Minimum of 122 credits total,
- 2. 42 credits of 3000-level or higher coursework from a four-year institution,
- Grade of "C or better" in ENGL 2500 and grade of "C or better" in ENGL 1500 or ENGL 3020,
- Grade of "C or better" in at least 30 credits applied to Business Core and major,
- 50% of required business courses must be earned at Iowa State University,
- Last 32 credits applied to a degree must be taken at Iowa State University (exceptions for study abroad and internship may be requested),
- All 3000-level and higher business courses must be earned at a four-year college or university.
- 8. Cumulative GPA of at least 2.0 with no Quality Point Deficiencies,
- 9. Multiple business majors must have at least 15 distinct credits in each.

<sup>\*</sup>Requires C- or better