

MATHEMATICS (ACTUARIAL SCIENCE AND INSURANCE) - BACHELOR OF SCIENCE

The concentration in Actuarial Science and Insurance draws on courses from mathematics and business to prepare students for a mathematical career in insurance. The coursework in this emphasis focuses on the analysis of risk and its applications to insurance finance. Students fulfilling the requirements for the Actuarial Science and Insurance Concentration earn a minor in Risk Management and Insurance.

Students must complete all University degree requirements, which include: General Education requirements, Viewing a Wider World requirements, and elective credits to total at least 120 credits with 48 credits in courses numbered 300 or above. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

| Prefix | Title | Credits |
|------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------|
| General Education | | |
| <i>Area I: Communications</i> | | |
| <i>English Composition - Level 1</i> | | |
| ENGL 1110G | Composition I | 4 |
| <i>English Composition - Level 2</i> | | |
| Choose one from the following: | | 3 |
| ENGL 2130G | Advanced Composition | |
| ENGL 2210G | Professional and Technical Communication | |
| ENGL 2215G | Advanced Technical and Professional Communication | |
| <i>Oral Communication</i> | | |
| Choose one from the following: | | 3 |
| ACOM 1130G | Effective Leadership and Communication in Agriculture | |
| COMM 1115G | Introduction to Communication | |
| COMM 1130G | Public Speaking | |
| HNRS 2175G | Introduction to Communication Honors | |
| <i>Area II: Mathematics</i> | | |
| MATH 1511G | Calculus and Analytic Geometry I (Departmental/College Requirement) ¹ | 4 |
| or MATH 1511H | Calculus and Analytic Geometry I Honors | |
| <i>Area III/IV: Laboratory Sciences and Social/Behavioral Sciences</i> | | |
| ECON 2110G | Macroeconomic Principles | |
| ECON 2120G | Principles of Microeconomics Honors | |
| Area III: Laboratory Science Course (4 credits) ² | | |
| <i>Area V: Humanities</i> ² | | |
| <i>Area VI: Creative and Fine Arts</i> ² | | |
| <i>General Education Elective</i> | | |
| MATH 1521G | Calculus and Analytic Geometry II (Departmental/College Requirement) | 4 |
| or MATH 1521H | Calculus and Analytic Geometry II Honors | |
| Viewing a Wider World ³ | | 3 |
| Departmental/College Requirements | | |
| MATH 1531 | Introduction to Higher Mathematics | 3 |
| MATH 2415 | Introduction to Linear Algebra | 3 |
| MATH 2530G | Calculus III | 3 |

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| MATH 3110 | Introduction to Modern Algebra | 3 |
| or MATH 3120 | Introduction to Analysis | |
| STAT 3110 | Statistics for Engineers and Scientists | 3 |
| STAT 4210 | Probability: Theory and Applications | 3 |
| STAT 4220 | Statistics: Theory and Applications | 3 |
| <i>Departmental Electives</i> | | |
| Select at least an additional 9 credits of approved upper-division courses prefixed MATH or STAT (6 credits must be 400-level), excluding the following: | | 9 |
| MATH 3997 | Directed Readings | |
| MATH 4991 | Undergraduate Research | |
| MATH 4997 | Directed Reading | |
| STAT 400 | Undergraduate Research | |
| Non-Departmental Requirements (in addition to Gen.Ed/VWW) ⁴ | | |
| ACCT 2110 | Principles of Accounting I | 3 |
| ACCT 2120 | Principles of Accounting II | 3 |
| BLAW 316 | Legal Environment of Business | 3 |
| or BLAW 385V | Employment and Consumer Law | |
| CSCI 1720 | Computer Science I | 4 |
| BFIN 322 | Principles of Insurance | 3 |
| BFIN 341 | Financial Analysis and Markets | 3 |
| Select one option from the following three: | | 9 |
| OPTION 1 | | |
| BFIN 323 | Life/Health/Employee Benefits | |
| Select two courses from the following: | | |
| BFIN 303V | Personal Financial Planning and Investing in a Global Economy | |
| or BFIN 452 | Personal Financial Planning for Professionals | |
| BFIN 324 | Property and Liability Insurance | |
| BFIN 391 | Finance Internship and Cooperative Education I | |
| OPTION 2 | | |
| BFIN 324 | Property and Liability Insurance | |
| Select two courses from the following: | | |
| BFIN 303V | Personal Financial Planning and Investing in a Global Economy | |
| or BFIN 452 | Personal Financial Planning for Professionals | |
| BFIN 323 | Life/Health/Employee Benefits | |
| BFIN 391 | Finance Internship and Cooperative Education I | |
| OPTION 3 | | |
| BFIN 326 | Business Risk Management | |
| Select two courses from the following: | | |
| BFIN 303V | Personal Financial Planning and Investing in a Global Economy | |
| or BFIN 452 | Personal Financial Planning for Professionals | |
| BFIN 323 | Life/Health/Employee Benefits | |
| BFIN 324 | Property and Liability Insurance | |
| BFIN 391 | Finance Internship and Cooperative Education I | |
| Second Language Requirement: (not required) | | |
| Electives, to bring the total credits to 120 ⁵ | | 25 |
| 6 credits must be upper division | | |
| Total Credits | | 120 |

¹ MATH 1511G Calculus and Analytic Geometry I is required for the degree but students may need to take any prerequisites needed to enter MATH 1511G first.

² See the General Education (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/>) section of the catalog for a full list of courses.

³ See the Viewing a Wider World (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext>) section of the catalog for a full list of courses. Note one of the VWW requirements will be satisfied using the 9 hour rule with the FIN courses that are required for the degree.

⁴ A grade of C- or better must be earned.

⁵ Elective credit may vary based on prerequisites, dual credit, AP credit, double majors, and/or minor coursework. The amount indicated in the requirements list is the amount needed to bring the total to 120 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.

Second Language Requirement

For the Bachelor of Science with a major in Mathematics with a Concentration in Actuarial Science and Insurance, there is no second language requirement for the degree.