Actuarial Science MS

FOX SCHOOL OF BUSINESS AND MANAGEMENT

Learn more about the Master of Science in Actuarial Science.

About the Program

The Fox School of Business and Management has a longstanding tradition of preparing our students with the power to lead within the world of business. Actuaries specialize in the evaluation of insurance and financial risks and distinguish themselves through a combination of analytical skills, business acumen and professionalism. Temple’s Actuarial Science MS program prepares students for a successful career in the field through its rigorous coursework and exceptional opportunities for professional development. Our curriculum covers multiple professional actuarial exams and can be tailored to students’ interests and background.

We are recognized as a Center of Actuarial Excellence (CAE) by the Society of Actuaries (SOA) and as a Global Center of Insurance Excellence (GCIE) by the International Insurance Society. In 2020, we received the CAS University Award from the Casualty Actuarial Society. We participate in SOA’s University Earned Credit (UEC) program, allowing students to earn credit for all five eligible actuarial exams (ALTAM, ASTAM, FAM, FM, SRM) through their coursework at Temple.

Time Limit for Degree Completion: 6 years

Campus Location: Main

Full-Time/Part-Time Status: The degree program can be completed on a full- or part-time basis.

Affiliation(s): Research interests of Fox faculty are supported by numerous centers and institutes throughout the Fox School and Temple University.

Accreditation: The MS in Actuarial Science is accredited by the Association to Advance Collegiate Schools of Business (AACSB International).

Job Prospects: Actuaries hold positions of responsibility with consulting firms, government insurance programs, government regulatory organizations, insurance companies and investment banks. We help prepare students for these careers through our coursework and our extensive professional development opportunities, including an on-campus actuarial career fair and a resume book. The Fox Center for Student Professional Development (CSPD) provides students with additional career coaching and professional development resources that support the job search.

Non-Matriculated Student Policy: This program requires the student to be matriculated in the degree program.

Financing Opportunities: Citizens and permanent residents of the United States are considered domestic students and are typically eligible for federal student loans and alternative loans through private lenders. The Fox School grants 5% tuition scholarships to alumni who are admitted to the program.

Admission Requirements and Deadlines

Application Deadline:

Fall:

• December 15 – Early Admissions Deadline
• March 1 – Scholarship Deadline and International Deadline
• June 30 – Final Deadline

Spring:

• August 1 – Scholarship Deadline and International Deadline
• November 1 – Final Deadline

Applications are reviewed as they are received and will be considered after the deadline on a space-available basis.

APPLY ONLINE to this Fox graduate program.

Letters of Reference:

Number Required: 1

From Whom: Professional references from an immediate supervisor, current or past, are preferred. Academic references are acceptable.

Bachelor’s Degree in Discipline/Related Discipline: The equivalent of a four-year U.S. baccalaureate degree from an accredited university or college is required. For three-year degrees, mark sheets must be evaluated by WES or another NACES organization.
Statement of Goals: Essay prompts can be found in the online application portal.

Standardized Test Scores:
GRE/GMAT: Required. Scores for the GRE typically fall within the following percentile ranges: 50 to 99 Verbal; 80 to 99 Quantitative. Exam P may be accepted in place of GMAT/GRE.

Applicants who earned their baccalaureate degree from an institution where the language of instruction was other than English, with the exception of those who subsequently earned a master’s degree in a country where the language of instruction is English, must report scores for a standardized test of English that meet these minimums:

- TOEFL iBT: 90
- IELTS Academic: 7.0
- Duolingo: 110
- PTE Academic: 68

Resume: Current resume or CV is required.

Interview: Candidates are invited to interview in person or virtually. Interviews are required on a case-by-case basis.

Writing Sample: Prompts for this optional essay can be found in the online application portal.

Transfer Credit: Upper-level graduate credits from an AACSB-accredited graduate business program, but not previously applied to a conferred degree, may be transferred into the MS program. The credits must be part of the required degree program at Temple University. To be transferred, the grade must be a “B” or better. The Admissions Committee makes recommendations for transferring credits to the department chair. The maximum number of credits a student may transfer is 6.

Program Requirements

General Program Requirements:
Number of Credits Required Beyond the Baccalaureate: 30

Required Courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>AS 5101</td>
<td>Theory of Interest</td>
<td>3</td>
</tr>
<tr>
<td>AS 5102</td>
<td>Long-Term Actuarial Modeling</td>
<td>3</td>
</tr>
<tr>
<td>AS 5104</td>
<td>Short-Term Actuarial Modeling</td>
<td>3</td>
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<tr>
<td>AS 5108</td>
<td>Actuarial Analytics</td>
<td>3</td>
</tr>
<tr>
<td>BA 5687</td>
<td>Advanced Professional Development Strategies</td>
<td>0</td>
</tr>
<tr>
<td>RMI 5051</td>
<td>Managing Risk</td>
<td>3</td>
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Select two from the following:

- AS 5103: Advanced Long-Term Actuarial Modeling
- AS 5114: Advanced Short-Term Actuarial Modeling
- AS 5118: Advanced Actuarial Analytics
- AS 5190: Special Topics in Actuarial Science

Select one from the following:

- RMI 5101: Managing Human Capital Risk
- RMI 5104: Managing Property and Liability Risk

Electives:

- ACCT 5001: Accounting for Managerial and Investment Analysis and Planning
- AS 5015: Introduction to Actuarial Spreadsheets and Programming
- AS 5022: Actuarial Statistics
- AS 5103: Advanced Long-Term Actuarial Modeling
- AS 5105: Actuarial Economics
- AS 5106: Actuarial Corporate Finance
- AS 5114: Advanced Short-Term Actuarial Modeling
- AS 5116: Financial Reporting for Actuaries

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<tbody>
<tr>
<td></td>
<td></td>
<td>6</td>
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</table>

1 Core Courses

2 Electives
<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>AS 5118</td>
<td>Advanced Actuarial Analytics</td>
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<tr>
<td>AS 5126</td>
<td>Option Pricing</td>
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<tr>
<td>AS 5182</td>
<td>Independent Study ^3</td>
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<tr>
<td>AS 5190</td>
<td>Special Topics in Actuarial Science</td>
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<tr>
<td>AS 5191</td>
<td>Mentored Research ^3</td>
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<tr>
<td>AS 5685</td>
<td>Actuarial Internship</td>
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<tr>
<td>ECON 8001</td>
<td>Microeconomic Analysis</td>
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<tr>
<td>ECON 8002</td>
<td>Macroeconomic Analysis</td>
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<tr>
<td>ECON 8009</td>
<td>Econometrics I</td>
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<tr>
<td>ECON 8129</td>
<td>Time Series Econometrics</td>
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<tr>
<td>ECON 8139</td>
<td>Panel Data Econometrics</td>
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<tr>
<td>HCM 5101</td>
<td>Health Systems Organization and Development</td>
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<tr>
<td>HCM 5103</td>
<td>Financial Management of Healthcare Organizations</td>
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<tr>
<td>MKTG 5001</td>
<td>Marketing Management/Strategy</td>
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<tr>
<td>MKTG 5618</td>
<td>Quantitative Pricing and Revenue Analytics</td>
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<tr>
<td>RMI 5101</td>
<td>Managing Human Capital Risk</td>
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<tr>
<td>RMI 5102</td>
<td>Retirement Plans</td>
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<tr>
<td>RMI 5104</td>
<td>Managing Property and Liability Risk</td>
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<td>RMI 5108</td>
<td>Managing International Risk</td>
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<tr>
<td>STAT 5602</td>
<td>Visualization: The Art of Numbers and the Psychology of Persuasion</td>
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<td>STAT 5603</td>
<td>Statistical Learning and Data Mining</td>
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<tr>
<td>STAT 5607</td>
<td>Advanced Business Analytics</td>
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<td>STAT 8101</td>
<td>Stochastic Processes</td>
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<td>STAT 8108</td>
<td>Applied Multivariate Analysis I</td>
</tr>
<tr>
<td>STAT 8114</td>
<td>Survival Analysis I</td>
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<tr>
<td>STAT 8115</td>
<td>Nonparametric Methods</td>
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Total Credit Hours: 30

1 If the student has passed an actuarial exam prior to taking its corresponding course, the course must be waived:
   - Passing the ALTAM exam waives AS 5103 Advanced Long-Term Actuarial Modeling.
   - Passing the ASTAM exam waives AS 5114 Advanced Short-Term Actuarial Modeling.
   - Passing the FAM-L or LTAM exam waives AS 5102 Long-Term Actuarial Modeling.
   - Passing the FAM-S or STAM exam waives AS 5104 Short-Term Actuarial Modeling.
   - Passing the FM exam waives AS 5101 Theory of Interest.
   - Passing the SRM exam waives AS 5108 Actuarial Analytics.

Any waived course is replaced by an elective from the list above. Alternately, students may, on a case-by-case basis, select another course to replace the waived course provided that the course has sufficient academic rigor, is beneficial to the student's career, and is approved by the Academic Director.

2 With prior approval from the Academic Director, students may select alternate courses as electives.

3 Selection of AS 5182 or AS 5191 requires prior approval from the Academic Director.

Culminating Event: Successful completion of coursework is required to earn the MS degree in Actuarial Science.

Contacts

Program Web Address:
https://www.temple.edu/academics/degree-programs/actuarial-science-ms-bu-as-ms

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https://apply.temple.edu/FOX/Account/Login

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