# ACTUARIAL SCIENCE, CAPSTONE CERTIFICATE

## REQUIREMENTS

### GRADE REQUIREMENTS

Student must have a minimum GPA of 2.00

### REQUIRED COURSES

Students must complete 12 credits of coursework from the courses listed below. Students can elect to take courses that meet the SOA/CAS Validation by Educational Experience (VEE) requirements with approval from the capstone director.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT SCI 303</td>
<td>Theory of Interest</td>
<td>3</td>
</tr>
<tr>
<td>ACT SCI 650</td>
<td>Fundamentals of Long-Term Actuarial Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ACT SCI 652</td>
<td>Fundamentals of Short-Term Actuarial Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ACT SCI 640</td>
<td>Actuarial Statistics for Risk Modeling</td>
<td>3-4</td>
</tr>
<tr>
<td>or ACT SCI 651</td>
<td>Advanced Long-Term Actuarial Modeling</td>
<td></td>
</tr>
<tr>
<td>or ACT SCI 653</td>
<td>Advanced Short-Term Actuarial Modeling</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**: 12

### Optional Supporting Courses

The following courses are recommended as preparation for an actuarial career:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 15100</td>
<td>Introductory Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT SCI 654</td>
<td>Regression and Time Series for Actuaries</td>
<td>2-3</td>
</tr>
<tr>
<td>ACT SCI 655</td>
<td>Health Analytics</td>
<td>3</td>
</tr>
<tr>
<td>ACT SCI 657</td>
<td>Risk Analytics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 101</td>
<td>Principles of Microeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON 102</td>
<td>Principles of Macroeconomics</td>
<td>3-4</td>
</tr>
<tr>
<td>FINANCE/ECON 300</td>
<td>Introduction to Finance</td>
<td>3</td>
</tr>
<tr>
<td>GEN BUS 656</td>
<td>Machine Learning for Business Analytics</td>
<td>3</td>
</tr>
<tr>
<td>RM I 655</td>
<td>Risk Financing Techniques</td>
<td>3</td>
</tr>
</tbody>
</table>

Review courses for actuarial examinations:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT SCI 300</td>
<td>Probability for Actuaries</td>
<td>1</td>
</tr>
</tbody>
</table>

## MINIMUM REQUIREMENTS FOR CAPSTONE CERTIFICATE COMPLETION

- Students must earn a minimum grade of C in each course used to meet Capstone Certificate requirements.
- Courses in which a student elects the pass/fail or audit option will not count toward completion of Capstone Certificate requirements.
- All of the Capstone Certificate credits must be earned “in residence” (which includes on campus and distance-delivered courses) at UW-Madison.
- All of the Capstone Certificate credits must be earned while enrolled in the Capstone Certificate program.

Individual Capstone Certificate programs may have additional requirements for completion, which will be listed above as/if applicable.