

## Program Progression Guide

**Disclaimer:** The [2023-2024 Purdue West Lafayette catalog](#) is considered the source for academic and programmatic requirements for students entering programs during the Fall 2023, Spring 2024, and Summer 2024 semesters. The Program Progression Guide assists students in the development of an individualized 8-semester plan. Students are encouraged to use this guide, myPurduePlan\* (online degree auditing tool) and the Student Educational Planner (SEP) as they work with their academic advisor towards the completion of their degree requirements.

**Notification:** Each student is ultimately responsible for knowing, monitoring and completing all degree requirements.

An undergraduate degree in the College of Science requires completion of the following degree requirements.

University Degree Requirements		
Minimum 2.0 Cumulative GPA	Minimum 120 Credits that fulfill degree requirements	32 Residency Credits (30000 and above) at a Purdue University campus
University Core Curriculum**		
<ul style="list-style-type: none"> <li>Human Cultures: Behavioral/Social Science</li> <li>Human Cultures: Humanities</li> <li>Information Literacy</li> <li>Oral Communication</li> </ul>	<ul style="list-style-type: none"> <li>Quantitative Reasoning</li> <li>Science</li> <li>Science, Technology &amp; Society Selective</li> <li>Written Communication</li> </ul>	
Civic Literacy Proficiency - <a href="https://www.purdue.edu/provost/about/provostInitiatives/civics/">https://www.purdue.edu/provost/about/provostInitiatives/civics/</a>		
Required Major Program Courses		
A minimum of 32 semester credits of upper level (30000+) required. Students must earn a 2.5 average GPA among required MA/STAT/MGMT/ECON courses excluding Calculus I, II, III, and STAT 35000.		
College of Science Core Curriculum		
<ul style="list-style-type: none"> <li>First-Year Composition: 3-4 credits</li> <li>Technical Writing &amp; Presentation: 0-3 credits</li> <li>Computing: 3-4 credits</li> <li>Cultural Diversity: 0-9 credits</li> </ul>	<ul style="list-style-type: none"> <li>General Education: 6 credits</li> <li>Great Issues in Science: 3 credits</li> <li>Laboratory Science: 6-8 credits</li> <li>Mathematics: 8-10 credits</li> </ul>	<ul style="list-style-type: none"> <li>Science, Technology, and Society: 3 credits</li> <li>Statistics: 3 credits</li> <li>Team-Building and Collaboration</li> </ul>
Degree Electives		
No Count Courses are not allowed for credit. Overlapping Course Content courses - only one course can be used for courses considered to have overlapping content. A course can only be used once in the Major Course area.		

\* This audit is not your academic transcript and it is not official notification of completion of degree or certificate requirements.

\*\* University Core Curriculum Outcomes may be met through completion of the College of Science Core curriculum. Students should consult with their academic advisors and myPurdue Plan for course selections.

## 2023-2024 Actuarial Science Degree Progression Guide

The Mathematics Department has *suggested* the following degree progression guide for the Actuarial Science Degree. Students will work with their academic advisors to determine their best path to degree completion.

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
4-5	Calculus I Option*	ALEKS 85+ or SATM 670/ACTM 29 requirement	4-5	Calculus II Option	Calculus I, C- or higher
3-4	Science Core Option		3	MA 37300 – meets multidisciplinary requirement*	Calculus I, C- or higher
3-4	Science Core Option		3-4	Programming Option	
2	Free Elective (MA/STAT 17000)	Co-req Calculus I	3-4	Science Core Option	
3	ECON 25100 - Microeconomics		0-2	Free Elective	
1	Free Elective - (MA 10800 or STAT 10100 recommended)				
<b>16-17</b>			<b>15-18</b>		

Credit	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
4-5	Calculus III Option	Calculus II, C- or higher	3	MA 35100 Elementary Linear Algebra	Calculus III, C- or higher
3	MGMT 20000 Introductory Accounting		3	MA/STAT 41600 Probability	Calculus III, C- or higher
3	ECON 25200 Macroeconomics		3	MGMT 20100 Management Accounting I	MGMT 20000, C- or higher
3	STAT 35000 or STAT 35500	Calculus II, C- or higher	3	COM 21700 Science Writing & Presentation	
3-4	Science Core Option		2-3	Elective (STAT 25000 Recommended)	
			0-1	Elective	
<b>16-18</b>			<b>15</b>		

Credit	Fall 3rd Year	Prerequisite	Credit	Spring 3rd Year	Prerequisite
4	STAT 47201 Actuarial Models-Life Contingencies – meets Teamwork requirement	MA 37300 and MA/STAT 41600, each C- or better	3	STAT 47902 Short Term Act Models	STAT 41700 C- or higher
3	STAT 41700 Statistical Theory	STAT 35000 and MA/STAT 41600, each C- or higher	3	Science Core Option	
3	MGMT 31000	MGMT 20000 C- or higher	3	STAT 42000 Introduction to Time Series	STAT 35000 and MA/STAT 41600, each C- or higher
3-4	Science Core Option		3	STAT 47401 Statistics for Risk Modeling	STAT 41700 (pre or co) C- or higher
3-4	Science Core Option		3	Free elective (MGMT 41100 recommended)	MGMT 31000 C- or higher
<b>15-17</b>			<b>15</b>		

Credit	Fall 4th Year	Prerequisite	Credit	Spring 4th Year	Prerequisite
3	MA 49000 Advanced Short Term Actuarial Mathematics (ASTAM) or STAT 47501	STAT 47201	3	STAT 47301 Introduction to Arbitrage-Free Pricing of Financial Derivatives	MA 37300 and MA/STAT 41600, each C- or better
3	STAT 49000 Statistics For Risk Modeling II	Pre-req or Co-req STAT 42000 and Pre-req STAT 47401	4	MA 36600 Ordinary Differential Equations	MA 35100 Minimum Grade of C- [may be taken concurrently]
3	Great Issues in Science		3	Science Core Option	
6	Free elective		5	Free elective	
<b>15</b>			<b>15</b>		

Superscript of \*(eg STAT 35000\*) indicates a course a student should earn a minimum of a C in these courses. Courses in ( ) are recommended.

### Science Core Curriculum Options

(one course needed for each requirement unless otherwise noted)

Options recommended for first- and second-year students	Options recommended for third- and fourth-year students
Written Communication <sup>UC</sup> Computing Cultural Diversity (Language and Culture) <sup>UC</sup> (3 courses needed) Laboratory Science (2 course sequence)	Technical Writing and Presentation <sup>UC</sup> (COM 217 recommended) Science, Technology, and Society <sup>UC</sup> General Education <sup>UC</sup> (2 courses + MGMT 20000 needed) Great Issues

UC Select courses may also satisfy a University Core Curriculum requirement; see the University Core Requirement course list for approved courses. Students must have 32 credits at the 30000 level or above taken at Purdue.