

**Program Progression Guide**

**Disclaimer:** The 2019-2020 Purdue West Lafayette catalog is considered the source for academic and programmatic requirements for students entering programs during the Fall 2019, Spring 2020, and Summer 2020 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.

<b>University Degree Requirements</b>		
Minimum 2.0 Cumulative GPA	Minimum 120 Credits that fulfill degree requirements	32 Residency Credits (30000 and above) at a Purdue University campus
<b>University Core Curriculum**</b>		
<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>	
<b>Required Major Program Courses</b>		
<p>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 AND A or B in major courses excluding MGMT 20000 and 20100 AND 3.5 Average GPA in major courses marked with a • and pass two SOA exams.</p> <p><b>3.3 Graduation GPA required for Bachelor of Science degree.</b></p>		
<b>College of Science Core Curriculum</b>		
<ul style="list-style-type: none"> <li>• Freshman Composition: 3-4 credits</li> <li>• Technical Writing and Presentation: 3-6 credits</li> <li>• Teaming &amp; Collaboration (NC)</li> <li>• General Education - 9 credits</li> </ul>	<ul style="list-style-type: none"> <li>• Foreign Language &amp; Culture: 0-9 credits</li> <li>• Great Issues - 3 credits</li> <li>• Laboratory Science: 6-8 credits</li> <li>• Multidisciplinary: 0-3 credits</li> </ul>	<ul style="list-style-type: none"> <li>• Mathematics: 6-10 credits</li> <li>• Statistics: 3 credits</li> <li>• Computing: 3-4 credits</li> </ul>
<b>Degree Electives</b>		
<p>Any Purdue or transfer course approved to meet degree requirements in accordance with individual departmental policies. Consult the <u>No Count course list</u> for courses which may not be used to meet any College of Science degree requirement.</p>		

\* 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.

## 2019-20 Actuarial Science Honors Degree Progression Guide

The Mathematics Department has *suggested* the following degree progression guide for the Actuarial Science Honors Degree. Students will work with their academic advisors to determine their best path to degree completion. Course pre-requisites are specific to this degree plan.

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
4-5	Calculus I Option <sup>CC</sup>	ALEKS 85+	4-5	Calculus II Option	Calculus I, C- or higher
3-4	ECON 25100		3	MA 37300 <sup>CC</sup>	Calculus I, C- or higher
3-4	Science Core Option		3-4	Science Core Option	
3-4	Science Core Option		3-4	Science Core Option	
2	Free Elective (MA/STAT 17000)	Co-req Calc I	0-2	Free Elective	
1	Free Elective (MA 10800 or STAT 19000 1 <sup>st</sup> Year Seminar)				
<b>16-18</b>			<b>15-16</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 <sup>CC</sup> Probability	Calculus III, C- or higher
3	ECON 25200 - Macroeconomics		3	MGMT 20100 Management Accounting I	MGMT 20000, C- or higher
3	STAT 35000 Introduction to Statistics	Calculus II, C- or higher	2-3	Free elective (STAT 25000 Recommended)	
3-4	Science Core Option		3-4	Science Core Option	
			0-1	Free Elective	
<b>16-18</b>			<b>15</b>		

Credit	Fall 3rd Year	Prerequisite	Credit	Spring 3rd Year	Prerequisite
3	STAT 47301 • Intro to Arbitrage-Free Pricing of Financial Derivatives	MA 37300 and MA/STAT 41600, each C- or better	4	STAT 47901 • Loss Models	MA/STAT 41600 or STAT 41700, each C- or higher
3	STAT 41700 • Statistical Theory	STAT 35000 and MA/STAT 41600, each C- or higher	3	STAT 51200 Applied Regression Analysis	Jr/Sr Standing; STAT 35000, C- or higher
3	MGMT 31000	ECON 25100 & MGMT 20100 & STAT 35000 or STAT 41600, C- or higher/MGMT 30400 no restrictions	3	MGMT 41100 Investments Management - Honors Version Required if Offered	MGMT 31000 or MGMT 30400, C or higher
3-4	Science Core Option		3-4	Science Core Option	
3	Free Elective		3	Science Core Option	
<b>15-16</b>			<b>16-17</b>		

Credit	Fall 4th Year	Prerequisite	Credit	Spring 4th Year	Prerequisite
4	STAT 47201 • Actuarial Models-Life Contingencies	MA 37300 and MA/STAT 41600, each C- or better	3	STAT 42000 Introduction to Time Series	STAT 35000 and MA/STAT 41600, each C- or higher
4	MA 36600 Differential Equations	MA 35100, C- or higher/may be concurrent	3	Science Core Option	
3	Science Core Option		2	Elective (STAT 47500 recommended)	
3	Free elective (Science, Technology & Society Selective Course)		3	Elective (Data Science or Stochastic Processes recommended)	MA/STAT 41600 or STAT 41700, each C- or higher
2	Free elective (Data Science Recommended)		3	Free Elective	
<b>16</b>			<b>15</b>		

Superscript of <sup>CC</sup> (eg Calculus I Option<sup>CC</sup>) indicates a Critical Course

### 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
Freshman Composition <sup>UC</sup> Computing (CS 17700 or CS 15900)/Teamwork Foreign Language and Culture <sup>UC</sup> (3 courses needed) Laboratory Science (2 course sequence)	Technical Writing and Presentation <sup>UC</sup> (COM 217 recommended) Multidisciplinary Experience <sup>UC</sup> General Education <sup>UC</sup> (2 courses needed + MGMT 20000) Great Issues

<sup>UC</sup> 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.