

**Program Progression Guides**

**Disclaimer:** The 2021-2022 Purdue West Lafayette catalog is considered the source for academic and programmatic requirements for students entering programs during the Fall 2021, Spring 2022, and Summer 2022 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> <p><u>University Core Curriculum Course Listing</u></p>	<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		
Departmental specific requirements: A minimum of a C is required in all Data Science Major coursework regardless of department.		
College of Science Core Curriculum		
<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 - 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>
Degree Electives		
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.		

\* 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.

## 2021-2022 Data Science - MATH Degree Progression Guide

The Mathematics Department has suggested the following degree progression guide for the Data Science - MATH 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.

Credit	Fall 1st Year	Prerequisite	Credit	Spring 2nd Year	Prerequisite
4	CS 18000 <sup>CC</sup> ***	Co-req CALC I	3	CS 18200 ***	CS 18000 & CALC I
1	MA 10800 or CS 19100 *	Co-req CS 18000	1	CS 38003 ***	CS 18000
1	CS 19300 *	Co-req CS 19100	4-5	MA 16200 or MA 16600	CALC I
4-5	MA 16100 <sup>CC</sup> or 16500 <sup>CC</sup>	ALEKS 85+	3-4	Science Core Option	
3-4	Science Core Option		3	Science Core Option	
3	Free Elective		1-2	Free Elective	
<b>16-18</b>			<b>15-18</b>		

Credit	Fall 2nd Year	Prerequisite	Credit	Spring 2nd Year	Prerequisite
3	CS/or STAT 24200 ***	CS 18200, CS 38003, & Co-req STAT 35500	3	CS 25100 ***	CS 18200 & CS/STAT 24200
3	STAT 35500 ***	CALC II	3	MA 35100 ***	CALC III
4-5	MA 26100 or MA 27101	CALC II	3	MA/STAT 41600 ***	CALC III
3-4	Science Core Option		3	Ethics Elective	Varies
1-3	Free Elective		3-4	Science Core Option	
			1-2	Free Elective	
<b>14-18</b>			<b>16-18</b>		

Credit	Fall 3rd Year	Prerequisite	Credit	Spring 3rd Year	Prerequisite
3	CS 37300 *** or MA Machine Learning	CS 25100 & Co-req STAT 35500	3	MA 37500	MA 35100
3	STAT 41700 *** or STAT 51200	STAT 35500 & STAT 41600	3	CS 348000 or MA Signal Processing and Applied Fourier Analysis	Varies
3	MA 34100 or MA 4400	MA 35100	3-4	Science Core Option	
3	Science Core Option (sugg. COM 21700)		3-4	Science Core Option	
3-4	Science Core Option		3	CS/STAT 49000 Large Scale Data Analysis	
<b>15-16</b>			<b>15-17</b>		

Credit	Fall 4th Year	Prerequisite	Credit	Spring 4th Year	Prerequisite
3	CS Elective *** (47100 or 31400 or 38100)	Varies	3	Capstone Course/or Experience ***	CS 37300
3	MA 42100		3-4	Science Core Option	
3-4	Science Core Option		3-4	Science Core Option	
3	MA 43200		3	MA 42800 or MA 44200	
3	Free Elective		3	Free Elective	
1	Free Elective		1	Free Elective	
<b>16-17</b>			<b>13-18</b>		

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>	Technical Writing and Presentation <sup>UC</sup> (COM 217 recommended)
Computing (CS 18000)	General Education <sup>UC</sup> (3 courses needed)
Foreign Language and Culture <sup>UC</sup> (3 courses needed)	Lab Science <sup>UC</sup> (2 courses needed)
Multidisciplinary Experience <sup>UC</sup>	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.

\* Enrollment in freshman seminar courses MA 10800 or CS 19100 and CS 19300 is required with CS 17700 or CS 18000. They are not degree requirements. Superscript of CC (eg CS 18000<sup>CC</sup>) indicates a Critical Course

\*\*\*All DS core courses and all track requirements, regardless of department, must be completed with a grade of "C" or higher (effective Fall 2011). All prerequisites to CS core courses and track requirements, regardless of department, must be completed with a grade of C or higher (effective Fall 2015)