

**Departmental/Program Major Courses (79-102 credits)**

**Required Major Courses (43-46 credits):** Average GPA in courses must be 2.00

- \_\_\_\_\_ (4-5) Calculus I Selective – Select from MA 16100, MA 16500 (*satisfies Quantitative Reasoning for core*)
- \_\_\_\_\_ (4-5) Calculus II Selective – Select from MA 16200, MA 16600, MA 17300, MA 18100 (*satisfies Quantitative Reasoning for core*)
- \_\_\_\_\_ (4-5) Calculus III Selective – Select from MA 26100, MA 17400, MA 18200, MA 27100 (*satisfies Quantitative Reasoning for core*)
- \_\_\_\_\_ (3) MA 35100 Elementary Linear Algebra
- \_\_\_\_\_ (3) MA 37500 Introduction To Discrete Mathematics
- \_\_\_\_\_ (4) MA 36600 Ordinary Differential Equations
- \_\_\_\_\_ (3) CS 24000 Programming In C
- \_\_\_\_\_ (6) MA Selective I: MA 35300 - Linear Algebra II With Applications/MA 38500 - Introduction To Logic / MA 45300 - Elements Of Algebra I or MA 45000 - Algebra Honors
- \_\_\_\_\_ (3) CS 25100 Data Structures And Algorithms
- \_\_\_\_\_ (3) CS 31400 Numerical Methods
- \_\_\_\_\_ (3) MA/STAT Selective: MA 34100 - Foundations Of Analysis/MA 36200 - Topics In Vector Calculus/MA or STAT 41600 – Probability/MA 42100 - Linear Programming And Optimization Techniques/MA 42500 - Elements Of Complex Analysis/MA 46200 - Elementary Differential Geometry/STAT 42000 – Introduction to Time Series/MA 45300 - Elements Of Algebra I or MA 45000 - Algebra Honors/MA 44000 - Real Analysis Honors/MA 44200 - Multivariate Analysis I Honors/MA 51800 - Advanced Discrete Mathematics
- \_\_\_\_\_ (3) CS Selective: CS 38100 - Introduction To The Analysis Of Algorithms/CS 33400 - Fundamentals Of Computer Graphics/CS 48300 - Introduction To The Theory Of Computation/CS 51400 - Numerical Analysis/CS 51500 - Numerical Linear Algebra/CS 52000 - Computational Methods In Optimization

**Other Departmental /Program Course Requirements (36-56 credits)**

- \_\_\_\_\_ (3-4) ENGL 10600 or ENGL 10800 - (*satisfies Written Communication and Information Literacy for core*)
- \_\_\_\_\_ (3-4) Language I Selective – [LINK](#)
- \_\_\_\_\_ (3-4) Language II Selective – [LINK](#)
- \_\_\_\_\_ (3-4) Language and Culture III Selective – [LINK](#) (*Select courses COULD satisfy Human Cultures Humanities for core*)
- \_\_\_\_\_ (0-3) Technical Writing Selective [LINK](#) (*Select courses COULD satisfy Oral Communication for core*)
- \_\_\_\_\_ (0-3) Technical Presenting Selective [LINK](#) (*Select courses COULD satisfy Oral Communication for core*)
- \_\_\_\_\_ (3-4) Laboratory Science I Selective [LINK](#) (*satisfies Science Selective for core*)
- \_\_\_\_\_ (3-4) Laboratory Science II Selective [LINK](#) (*satisfies Science Selective for core*)
- \_\_\_\_\_ (3) General Education Selective [LINK](#) (*Select courses COULD satisfy Human Culture Behavioral/Social Science for core*)
- \_\_\_\_\_ (3) General Education I Selective [LINK](#) (*Select courses COULD satisfy Human Culture Behavioral/Social Science for core*)
- \_\_\_\_\_ (3) General Education II Selective [LINK](#) (*Select courses COULD satisfy Human Culture Behavioral/Social Science for core*)
- \_\_\_\_\_ (3) STAT 35000 Introduction To Statistics
- \_\_\_\_\_ (3-4) Computing Selective [LINK](#)
- \_\_\_\_\_ (0-3) Teambuilding Experience [LINK](#)
- \_\_\_\_\_ (0-4) Multidisciplinary Experience [LINK](#)
- \_\_\_\_\_ (3) Great Issues Selective [LINK](#)

**Electives (18-41 credits)**

\_\_\_\_\_ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_ ( )  
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**University Core Requirements [LINK](#)**

Human Cultures Humanities	<input type="checkbox"/>	_____	Science, Technology & Society Selective	<input type="checkbox"/>	_____
Human Cultures Behavioral/Social Science	<input type="checkbox"/>	_____	Written Communication	<input type="checkbox"/>	_____
Information Literacy	<input type="checkbox"/>	_____	Oral Communication	<input type="checkbox"/>	_____
Science Selective	<input type="checkbox"/>	_____	Quantitative Reasoning	<input type="checkbox"/>	_____
Science Selective	<input type="checkbox"/>	_____			

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**The student is ultimately responsible for knowing and completing all degree requirements.**

**Degree Works is knowledge source for specific requirements and completion**

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**Mathematics with Computer Science**<http://www.math.purdue.edu/academic/undergrad/>**Suggested Arrangement of Courses:**

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
4-5	Calculus I Selective	ALEKS 75	4-5	Calculus II Selective	Calculus I
3-4	ENGL 10600/10800		4	CS 18000	
3-4	Language I Selective		3-4	Language II Selective	Language 10100
1	Free Elective MA 10800		0	Teamwork Experience	
4	Free Elective CS 17700		3	Free Elective	
			1	Free Elective	
<b>15-18</b>			<b>15-17</b>		

Credits	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
4-5	Calculus III Selective	Calculus II	3	MA 35100	Calculus III
3	STAT 3500	Calculus II	3	MA 37500	Calculus III
3-4	Language Selective III	See Course Info	3	COM 21700	
3	General Education Selective I		3	General Education Selective II	
3	Free Elective		3	Free Elective	
<b>16-18</b>			<b>15</b>		

Credits	Fall 3rd Year	Prerequisite	Credits	Spring 3rd Year	Prerequisite
4	MA 36600	Calculus III; co-req or pre MA 35100	3	Math Selective I	Varies by Class
3	CS 24000	CS 18000	3	CS 25100	CS 24000
3-4	Laboratory Science Selective I		3-4	Laboratory Science Selective II	Lab Sci Selective I
3	Free Elective		6	Free Elective	
1	Free Elective				
<b>14-15</b>			<b>15-16</b>		

Credits	Fall 4th Year	Prerequisite	Credits	Spring 4th Year	Prerequisite
3	CS 31400	CS Programming and MA 35100	3	MA/STAT Selective	Varies by Class
3	MA Selective I	Varies by Class	3	CS Selective	Varies by Class
3	General Education Selective		0-4	Multidisciplinary	
6	Free Elective		3	Great Issues	Jr/Sr Standing; may require COM or ENGL
			3-6	Free Elective	
<b>15</b>			<b>15-16</b>		

Students must earn a 2.0 average in MATH/STAT/CS courses required for major.

**120 semester credits required for Bachelor of Science degree.**

**2.0 Graduation GPA required for Bachelor of Science degree.**

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