PURDUE UNIVERSITY

Interdisciplinary Science – Concentration in Statistics
College of Science

SCI-INTRD-BS
Code-IDSC, STAT
120 Credits
Fall 2016

Departmental/Program Major Courses (85-108 credits)

Required Interdisciplinary Core Courses (67-77 credits):

Required Biology Courses (7-8 credits):

_____ (4) BIOL 11000 Fundamentals of Biology ***(satisfies Science Selective for core)***
_____ (4) BIOL 11100 Fundamental of Biology ***(satisfies Science Selective for core)***
OR
_____ (2) BIOL 12100 Biology I: Diversity, Ecology, and Behavior ***(satisfies Science Selective for core)***
_____ (3) BIOL 13100 Biology II: Development, Structure, and Function of Organisms ***(satisfies Science Selective for core)***
_____ (2) BIOL 13500 First Year Biology Laboratory ***(satisfies Science Selective for core)***

Required Chemistry Courses (5-10 credits):

_____ (4-5) CHM 11500 General Chemistry or CHM 12500 Introduction to Chemistry I ***(satisfies Science Selective for core)***
_____ (4-5) CHM 11600 General Chemistry or CHM 12600 Introduction to Chemistry II or CHM 13600 General Chemistry Honors ***(satisfies Science Selective for core)***
OR
_____ (5) CHM 12901 General Chemistry with Biology Focus

Required Computing Option (3-4 credits):

_____ (3-4) CS 15800 C Programming or CS 15900 Programming Applications for Engineers or CS 17700 Programming With Multimedia Objects or CS 18000 Problem Solving and Object-Oriented Programming

Required Earth, Atmospheric, and Planetary Science Courses (3 credits):

_____ (3) EAPS 10000 Planet Earth or EAPS 10900 The Dynamic Earth or EAPS 11100 Physical Geology or EAPS 22100 Survey of Atmospheric Science or EAPS 22500 Science of The Atmosphere ***(Select courses COULD satisfy Science Selective for core)***

Required Mathematics Courses (8-10 credits):

_____ (4-5) MA 16100 Plane Analytic Geometry And Calculus I or MA 16500 Analytic Geometry And Calculus I ***(satisfies Quantitative Reasoning for core)***
_____ (4-5) MA 16200 Plane Analytic Geometry And Calculus II or MA 16600 Analytic Geometry And Calculus II ***(satisfies Quantitative Reasoning for core)***

Required Physics Selective Courses (8 credits):

_____ (4) PHYS 22000 General Physics ***(satisfies Science Selective for core)***
_____ (4) PHYS 22100 General Physics ***(satisfies Science Selective for core)***
OR
_____ (4) PHYS 17200 Modern Mechanics ***(satisfies Science Selective for core)***
_____ (4) PHYS 27200 Electric and Magnetic Interactions or PHYS 24100 Electricity and Optics AND PHYS 25200 Electricity and Optics Laboratory ***(satisfies Science Selective for core)***
_____ OR
_____ (4) PHYS 23300 Physics For Life Sciences I
_____ (4) PHYS 23400 Physics For Life Sciences II

Required Statistics Courses (3 credits):

_____ (3) STAT 35000 Introduction to Statistics or STAT 50300 Statistical Methods For Biology or STAT 51100 Statistical Methods

Required STATISTICS Primary Area Courses (12-13 credits):

_____ (3) STAT 22500 Introduction to Probability Models or STAT 31100 Introductory Probability or STAT 41600 Probability or STAT 51600 Basic Probability and Applications
_____ (3-4) STAT 41700 Statistical Theory or STAT 51300 Statistical Quality Control or STAT 51400 Design of Experiments or MA 26100 Multivariate Calculus
_____ (3) STAT 51200 Applied Regression Analysis
_____ (3) STAT 51300 Statistical Quality Control or STAT 51400 Design of Experiments
NOTE: STAT 51300 AND STAT 51400 can only be one time each to meet primary area course requirements

Required Supporting Area Courses (18 credits): MUST BE APPROVED BY COLLEGE

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Other Departmental /Program Course Requirements (18-31)

_____ Within Major Calculus I Option – Select from MA 16100, MA 16500 ***(satisfies Quantitative Reasoning for core)*** CC
_____ Within Major Calculus II Option – Select from MA 16200, MA 16600 ***(satisfies Quantitative Reasoning for core)***
_____ (3-4) ENGL 10600 or ENGL 10800 - ***(satisfies Written Communication and Information Literacy for core)***
_____ (0-4) Language I Option* ***(Select courses COULD satisfy Human Cultures Humanities for core)***
_____ (0-4) Language II Option* ***(Select courses COULD satisfy Human Cultures Humanities for core)***
_____ (0-4) Language III/Culture/Diversity Option* ***(Select courses COULD satisfy Human Cultures Humanities for core)***
_____ (3-6) Technical Writing Option and Technical Presenting Option ***(Select courses COULD satisfy Oral Communication for core)***
_____ Within Major Laboratory Science I Option ***(satisfies Science Selective for core)***
_____ Within Major Laboratory Science II Option ***(satisfies Science Selective for core)***
_____ (3) General Education I Option ***(Select courses COULD satisfy Human Culture Behavioral/Social Science or Humanities for core)***
_____ (3) General Education II Option ***(Select courses COULD satisfy Human Culture Behavioral/Social Science or Humanities for core)***
_____ (3) General Education II Option ***(Select courses COULD satisfy Human Culture Behavioral/Social Science or Humanities for core)***
_____ Within Major STAT 35000 Introduction To Statistics
_____ Within Major Computing Option
_____ (0-4) Teambuilding and Collaboration Experience*
_____ (3) Great Issues Option
_____ (0-3) Multidisciplinary Experience* ***(Select courses COULD satisfies Science, Technology, and Society Selective for core)***

*Requirement may be met with a zero credit experiential learning option. See your advisor for more information

Electives (2-35 credits)

_____ ( ) _____ _____ ( ) _____ _____ ( ) _____ _____ ( ) _____

University Core Requirements

Human Cultures Humanities	☐		*Science, Technology & Society Selective*	☐	
Human Cultures Behavioral/Social Science	☐		*Written Communication*	☐	
Information Literacy	☐		*Oral Communication*	☐	
Science Selective	☐		*Quantitative Reasoning*	☐	
Science Selective	☐				

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

(Degree Works) MyPurduePlan is knowledge source for specific requirements and completion

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Interdisciplinary Science – Concentration in Statistics

Suggested Arrangement of Courses:

Credits	**Fall 1st Year**	**Prerequisite**	Credits	**Spring 1st Year**	**Prerequisite**
4-5	MA 16100 or MA 16500	ALEKS 85	4-5	MA 16200 or MA 16600	MA 16100 or 16500 C- or higher
3-4	ENGL 10600/10800		3-4	Language II Option	Language I
3-4	Language I Option		3	Free Elective	
4	Physics Selective I	ALEKS 85	4	Physics Selective II	Physics I
1	Free Elective		1	Free Elective	
15-18			**15-17**		

Credits	**Fall 2nd Year**	**Prerequisite**	Credits	**Spring 2nd Year**	**Prerequisite**
3-4	Option course of MA 26100, STAT 41700, 51300, or 51400	MA 16200 or 16600 C- or higher	3	STAT 35000	Calculus II C- or higher
3	Supporting Area Course		3	Supporting Area Course	
3-4	Language III/Culture/Diversity Option	See Course Info	3-4	Computing Option	
3	EAPS Selective		3	COM 21700 or Technical Presentation	
3	Free Elective		3	General Education I Option	
			3-4	Teambuilding and Collaboration Experience	
15-17			**15-16**		

Credits	**Fall 3rd Year**	**Prerequisite**	Credits	**Spring 3rd Year**	**Prerequisite**
3	STAT 22500, 31100, 41600, or 51600	Calculus II C- or higher	3	Option course of STAT 41700, 51300, or 51400	Varies
3	Supporting Area Course		3	Supporting Area Course	
4-5	General Chemistry Selective I	Calculus	4-5	General Chemistry Selective II or Free Elective	Varies
3	General Education II Option		3	General Education III Option	
2	Free Elective		3	Free Elective	
15-16			**16-17**		

Credits	**Fall 4th Year**	**Prerequisite**	Credits	**Spring 4th Year**	**Prerequisite**
3	STAT 51200	STAT 35000 or equivalent C- or higher	3	STAT 51300 or STAT 51400	STAT 35000 or equivalent C- or higher
3	Supporting Area Course		3	Supporting Area Course	
3	Multidisciplinary Experience		3	Great Issue Option	Jr/Sr Standing; may require COM or ENGL
4	Biology Selective I		3-4	Biology Selective II	Biology I
3	Technical Writing or Free Elective		0-2	Biology Selective II or Free Elective	
0-2	Free Elective		3	Free Elective	
15-18			**15-18**		

120 semester credits required for Bachelor of Science degree.

2.0 Graduation GPA required for Bachelor of Science degree.

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