

BA in Information Science and Arts

BA: ISA

Name: _____

GENERAL EDUCATION REQUIREMENTS			ISA REQUIREMENTS		
Foundations	Units	√	Core Classes	Units	√
ENGL 101/103H/107	3		ISTA 100 (Introduction to ISTA)	3	
ENGL 102/104H/108	3		ISTA 116 (Statistical Foundations of ISTA)	3	
OR ENGL 109H	3		<i>ISTA 120 (Dealing with Data)</i>	3	
TOTAL units required	3-6		ISTA 130 (Computational Thinking and Doing)	4	
MATH: Math 109C ¹ or 112	3-4		ISTA 161 (Ethics in a Digital World)	3	
Second Language: 4 th semester proficiency			ISTA 370 (Empirical Methods)	3	
First semester proficiency:	0-4				
Second semester proficiency:	0-4		Thematic Courses (Choose 3 classes, 9 units)²		
Third semester proficiency	0-4		1. Foundations, Representation & Algorithms		
Fourth semester proficiency	0-4		1 course required		
TOTAL units required:	0-16		<i>Choose one course from two different areas</i>		
Tier One Requirements³			2. Data-Intensive Computing		
TRAD/160A, 160B, 160C, or 160D	3		3. Programming and Computing Tools		
TRAD/160A, 160B, 160C, or 160D	3		4. Modeling		
INDV/150A, 150B, or 150C	3		5. Discipline-Focused Computing		
INDV/150A, 150B, or 150C	3		6. Society		
NATS/170A, 170B, or 170C	3		Major Upper Division Electives		
Total Tier 1 units required	15		Choose 9 units from at least 3 courses		
Tier Two Requirements					
Arts	3		Independent Study, Directed Research, or Internship		
Individuals & Societies	3		3 units required	3	
Humanities	3		Total units may be mixed between types.		
Natural Sciences	3		No more than 6 units of internship allowed for the BA. No more than 12 units of independent study or directed research are allowed for degree.		
Total Tier 2 units required	12		Senior Thesis or Project	3	
Diversity requirement met by:			ISTA 498 or 498H		
Minor					
ISA students are required to earn a minor in any discipline. Unit total is minor-specific.	≥18				

¹ MATH 112 is preferred because MATH 109C does not serve as a prerequisite to calculus—best to keep your options open.
² See possible classes on next page.
³ Students must take two uniquely numbered classes within each category. I.e., under the TRAD category, students are not permitted to take two classes numbered 160A.

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Thematic Courses: (Please note that courses listed in each area are not inclusive of all allowable courses across departments.)
Courses in italics have not yet been created.

Area 1 – Foundations, Representations and Algorithms: Data from different disciplines can take similar forms—they can appear as sequences, graphs, networks, and so on. Foundations courses help students learn to work with data represented in similar ways.

Students must choose one class from this list.

- Possible courses could include: *ISTA310, ISTA311, ISTA312, ISTA410, MATH202, MATH401B, MATH362, MATH443, MATH461, MATH468*

Students must choose one course from two different areas below. Feel free to consult with your advisor about alternate classes that may support your interests and goals.

Area 2 – Data-intensive Computing: These courses provide experience and tools for computing with large datasets.

- Possible courses could include: *ISTA320, CSC 345, CSC460*

Area 3 – Programming and Computing Tools: Students learn to program and use particular software packages or tools.

- Possible courses could include: *ISTA330, CSC227, CSC335, LING408, ART267, ART306, ART432A, , MUS441, MUS442*

Area 4 – Modeling: These classes provide experience with fitting data to a theoretical idea or representation of reality.

- Possible courses could include: *ISTA 312, ISTA352, ISTA360, ISTA410, CSC433, ECOL447, HWRS427, HWRS449, HWRS482, LING364, MATH479, PHIL435, ART436A, ART437A*

Area 5 – Discipline-focused Computing: These classes allow students to delve into the computational needs of specific fields.

- Possible courses could include: *LING438, LING478, PHYS308, MCB416*

Area 6 – Society: These classes help students learn how culture, philosophy, and societal institutions influence and are influenced by the information age.

- Possible courses could include: *ISTA250, ISTA260, ISTA360*

Major Upper Division Elective Courses: A minimum of 9 units total from at least 3 courses. Select from the following list and others when approved by SISTA curriculum advisory committee:

ISTA 301: Computing and the Arts

ISTA 410: Bayesian Modeling and Inference

ISTA 450: Artificial Intelligence

ISTA 451: Game Development

ISTS 454: Informatics in Biology

Other existing courses could include: *BIOC411, BIOC416, BIOC4533, BIOC496N, CSC425, CSC433, CSC437, CSC440, CSC447, ECOL335, ECOL345, ECOL418, ECOL426, ECOL447, LING322, LING364, LING388, LING408, LING439, NRSC444A, PSYC325, PSYC333, PSYC346, PSYC403C, SOC430, and others as approved.*

UNIVERSITY GRADUATION REQUIREMENTS:

120 units _____ 42 Upper division units _____ 2.00+ cum.GPA _____ 2.00+ major GPA _____

Maximum 64 Community College Units _____ Maximum 60 Correspondence or Exam units _____