Degree: Statistics	R S · Data	Science Co	oncentration 22-23

		tatistics, B.S.: Data Science Concentration 22-23		
Requirement Area	Course	Course Title	Prerequisites	Units
-	CC 4044	First Semester (FALL)		
E A1 or A2	GS 101A	Foundations of Success I		3
A1 or A3		Oral Communication or Critical Thinking	One from the	3
			following:	
			Satisfactory score of	
			78 or higher on	
			Mathematics	
			Placement Exam,	
			MATH 120 or MATH	
			125 (either course with grade C- or	
B4/LD Major	MATH 130	Calculus I	better).	4
C1 or C2	WATTI 130	Arts or Humanities	better).	3
D1/Code 1	_	Social Science/U.S Code (1,2)		3
DI/COUC I		Social Science/ 6.5 Code (1,2)	Total:	14
		Second Semester (SPRING)	Total.	17
		Second Semester (S. All Co)		
E	GS 101B	Foundations of Success II		1
A2		Written Communication		3
C1 or C2		Arts or Humanities		3
D2		Social Science		3
ID Major	CC 400	Decomposing for Firm		_
LD Major	CS 100	Programming for Everyone		3
Elective				2
			Total:	15
		Third Semester (FALL)	ı	
E				1
A1 or A3		Oral Communication or Critical Thinking		3
Add'l C1 or C2*		Arts or Humanities		3
B2/B3		Life Science/Laboratory Science		3
Second Composition	ENGL 200	College Writing II		3
LD Major	CS 200	Advanced Programming for Everyone	CS 100	3
			Total:	16
		Fourth Semester (SPRING)		
F		Ethnic Studies		3
B1/B3		Physical Science/Laboratory Science		3
UD Major	STAT 315	Exploring and Analyzing Data	Completion of GE	3
Elective		, , , , , , , , , , , , , , , , , , ,		3
Elective				3
Licetive			Total:	15
		Eifth Competer (EALL)	iotai.	13
LID B/Overlay		Fifth Semester (FALL)		3
UD-B/Overlay	CTAT 220	Challand Information	One of: MATH 115	
UD Major	STAT 330	Statistical Inference	One of: MATH 115,	3
Code 2		U.S. Code (1,3)		3
Concentration Elective				3
UD Free Elective				3
			Total:	15
		Sixth Semester (SPRING)		
UD-D/Overlay				3
UD Major	STAT 321	Probability Through Simulation	CS 100	3
UD Major	STAT 331	Introduction to Analysis of Variance	STAT 316 or STAT 330	3
	_			
UD Major	STAT 432	Introduction to Linear Regression and Logistic Regress	21AI 220 0[21AI 310	3
Concentration Elective	+		Tatal	3
		County County (Table)	Total:	15
		Seventh Semester (FALL)	1	
UD-C/Overlay				3
UD Major Elective				3
Concentration Elective	STAT 450	Introduction to R for Data Science	One of: STAT 110,	3
Concentration Elective	STAT 451	Introduction to Data Visualization	STAT 303 or STAT 310	3
UD Major	STAT 495	Data Analysis with SAS	STAT 330	3
			Total:	15
		Eighth Semester (SPRING)		
Concentration Elective	STAT 452	Introduction to Statistical Learning	One of: STAT 110,	3
UD Major Elective				3
UD Major Elective				3
UD Free Elective				3
	+			
UD Free Elective	+		Tatali	3
			Total:	15 120
Total Units:				

Note: No changes to, or from, the credit/no credit pattern are permitted after the Grade Type Change period. There are no exceptions to this rule. Courses in a student's major department, regardless of course prefix, may not be taken "CR/NC," unless that is the only grading pattern in the course.

Area A	Checklist	
Critical T	(9 units): Communication in the English Language &	
	Thinking (Must earn passing grade of C-/CR or better) MM 100 or 104, MLL 111	
	EL 101, 102, or 104	
A3. PHIL		
	9 units) : Scientific Inquiry & Quantitative Reasoning	
	sical Science	
☐ B2. Life		
	pratory Activity	
	ntitative Reasoning (Must earn passing grade of C-/CR or l	oett
	units): Arts & Humanities - Minimum of three different as designated by course prefix (e.g., ART, THEA, MUS)	
C1. Arts		
C2. Hum		
	onal Lower-division Area C Course in Arts (C1) or	
Humanities		
Area D (6	units) : Social Sciences - Minimum of three different	
disciplin	es as designated by course prefix (e.g., ANTH, ECON,	
	POSC)	
□ D2.	(2 miles) Lifetone Learning and Self-Development	
□ D2. Area E	(3 units) : Lifelong Learning and Self-Development	
□ D2. Area E		
□ D2. Area E □ E.	(3 units): Lifelong Learning and Self-Development Area F (3 units): Ethnic Studies	
□ D2. Area E □ E. □ F.	Area F (3 units): Ethnic Studies	
D2. Area E E. F. Second Col	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR	
□ D2. Area E □ E. □ F. Second Cor	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR Composition	
D2. Area E E. F. Second Cor U.S. Code	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR	
□ D2. Area E □ E. □ F. Second Con □ Second U.S. Code □ Code 1.	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR Composition	
□ D2. Area E □ E. □ F. Second Cor □ Second U.S. Code □ Code 1. □ Code 2.	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR Composition (American Institutions Requirement) - Two courses (6	
□ D2. Area E □ E. □ F. Second Col □ Second U.S. Code □ Code 1. □ Code 2. Upper Div	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR Composition (American Institutions Requirement) - Two courses (6 ision GE Requirements (9 units): Should be taken after	
□ D2. Area E □ E. □ F. Second Coi □ Second U.S. Code □ Code 1. □ Code 2. Upper Div	Area F (3 units): Ethnic Studies mposition: Requires completion of GE A2 with a C-/CR Composition (American Institutions Requirement) - Two courses (6 ision GE Requirements (9 units): Should be taken after pper-division Science Inquiry and Quantitative Reasoning	
□ D2. Area E □ E. □ F. Second Cool □ Second □ Code 1. □ Code 2. Upper Div □ UD-B. U □ UD-C.U;	Area F (3 units): Ethnic Studies mposition: Requires completion of GE A2 with a C-/CR Composition (American Institutions Requirement) - Two courses (6 ision GE Requirements (9 units): Should be taken after pper-division Science Inquiry and Quantitative Reasoning oper-division Arts OR Humanities	
D2. Area E E. F. Second Cool Code 1. Code 2. Upper Div UD-B. U UD-C. U UD-D. U	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR Composition (American Institutions Requirement) - Two courses (6 ision GE Requirements (9 units): Should be taken after pper-division Science Inquiry and Quantitative Reasoning oper-division Arts OR Humanities pper-division Social Sciences	
□ D2. Area E □ E. □ F. Second Cor □ Second U.S. Code 1. □ Code 1. □ Code 2. Upper Div □ UD-B. U □ UD-C.U □ UD-D. U Overlay R	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR Composition (American Institutions Requirement) - Two courses (6 ision GE Requirements (9 units): Should be taken after pper-division Science Inquiry and Quantitative Reasoning oper-division Arts OR Humanities ipper-division Social Sciences equirements (9 units): Courses may be upper or lower	
□ D2. Area E □ E. □ F. Second Coi □ Second U.S. Code □ Code 1. □ Code 2. Upper Div □ UD-B. U □ UD-C.Up □ UD-B. U Overlay R: □ Diversith	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR Composition (American Institutions Requirement) - Two courses (6 ision GE Requirements (9 units): Should be taken after pper-division Science Inquiry and Quantitative Reasoning oper-division Arts OR Humanities pper-division Social Sciences equirements (9 units): Courses may be upper or lower y (Div)	
□ D2. Area E □ F. Second Coi □ Second U.S. Code □ Code 1. □ Code 2. Upper Div □ UD-B. U □ UD-C.U □ UD-D. U Overlay R: □ Diversit: □ Social Ju	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR Composition (American Institutions Requirement) - Two courses (6 ision GE Requirements (9 units): Should be taken after pper-division Science Inquiry and Quantitative Reasoning oper-division Arts OR Humanities pper-division Social Sciences equirements (9 units): Courses may be upper or lower y (Div) ustice (SI)	
□ D2. Area E □ E. □ F. Second Coi □ Second □ U.S. Code □ Code 1. □ Code 2. Upper Div □ UD-B. U □ UD-C.U □ UD-D. U Overlay R: □ Diversit □ Social Ju	Area F (3 units): Ethnic Studies mposition: Requires completion of GE A2 with a C-/CR Composition (American Institutions Requirement) - Two courses (6 ision GE Requirements (9 units): Should be taken after pper-division Science Inquiry and Quantitative Reasoning pper-division Arts OR Humanities pper-division Social Sciences equirements (9 units): Courses may be upper or lower y (Div) ustice (SJ) sbility (S)	
D2. Area E E. F. Second Coi Second U.S. Code Code 1. Code 2. Upper Div UD-B. U UD-C.U UD-D. U Overlay R Diversity Social JL Sustaina	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR Composition (American Institutions Requirement) - Two courses (6 ision GE Requirements (9 units): Should be taken after pper-division Science Inquiry and Quantitative Reasoning pper-division Arts OR Humanities pper-division Social Sciences equirements (9 units): Courses may be upper or lower y (Div) sstice (SI) biblity (S) Data Science Concentration	
D2. Area E E. F. Second Coi Second U.S. Code Code 1. Code 2. UD-B. U UD-B. U UD-D. U Overlay R Social J. Social J. Sustains Complete f	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR Composition (American Institutions Requirement) - Two courses (6 ision GE Requirements (9 units): Should be taken after pper-division Science Inquiry and Quantitative Reasoning aper-division Arts OR Humanities pper-division Social Sciences equirements (9 units): Courses may be upper or lower y (Div) ustice (SI) biblity (S) Data Science Concentration ifteen (15) units of approved courses in Computer	
□ E. □ F. Second Coi □ Second U.S. Code □ Code 1. □ Code 2. Upper Div □ UD-B. U □ UD-C.Up □ UD-D. U Overlay R. □ Social Ju □ Sustaina	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR Composition (American Institutions Requirement) - Two courses (6 ision GE Requirements (9 units): Should be taken after pper-division Science Inquiry and Quantitative Reasoning oper-division Arts OR Humanities pper-division Social Sciences equirements (9 units): Courses may be upper or lower y (Div) ustice (SI) sibility (S) Data Science Concentration ifteen (15) units of approved courses in Computer Introduction to R for Data Science Units: 3	
□ D2. Area E □ E. □ F. Second Coi □ Second U.S. Code □ Code 1. □ Code 2. Upper Div □ UD-B. U □ UD-B. U □ UD-D. U □ UD-D. U Social Ju □ Sustaina Complete f STAT 450 - STAT 451 -	Area F (3 units): Ethnic Studies mposition : Requires completion of GE A2 with a C-/CR Composition (American Institutions Requirement) - Two courses (6 ision GE Requirements (9 units): Should be taken after pper-division Science Inquiry and Quantitative Reasoning aper-division Arts OR Humanities pper-division Social Sciences equirements (9 units): Courses may be upper or lower y (Div) ustice (SI) biblity (S) Data Science Concentration ifteen (15) units of approved courses in Computer	

An additional approved course in Computer Science or Statistics Units: 3
A second approved course in Computer Science or Statistics Units: 3

*Students are required to take a minimum of 40 semester units as upper division (includes 9 units upper division GE)