

# MISSISSIPPI STATE UNIVERSITY M DATA SCIENCE

## Computational Agriculture and Natural Resources

			Year O
		Fall Semester	
EN	1103	English Composition I	
MA	1713	Calculus I	
CSE	1284	Intro to Programming	(
DSCI	2013	Data Science Literacy	
		Lab Based Science	7 [

r (	One				
	Spring Semester				
	EN	1113	English Composition II		
	MA	1723	Calculus II		
	CSE 1384 Intermediate Programming				
	DSCI 2012 Data Wrangling Lab				
	Lab Based Science				

	Year Two							
		Fall Semester			Spring Semester			
MA	2733	Calculus III	MA	3123	Statistical Inference			
CSE	2813	Discrete Structures	CSE	2383	Data Structures & Analysis of Algorithms			
DSCI	3013	Data Acquisition	DSC	4013	Data Visualization			
BIS	3233	Management Information Systems	PHI	1113	Intro to Logic			
		Humanities			Fine Art			

	Year Three						
		Fall Semester				Spring Semester	
MA	3113	Intro to Linear Algebra	Μ	1A	4523	Intro to Probability	
CSE	4633	Artificial Intelligence	C	SE	4503	Database Management Systems	
DSCI	3022	Data Visualization Lab	D	OSCI	3012	Description, Analysis & Inference Lab	
		Oral Communication Course				Written Communication Course	
		Social/Behavioral Science				Choice of Forest Resources Course	
		Choice of Agriculture Course				1 of 2 Concentration Courses	

Year Four						
	Fall Semester		Spring Semester			
CSE	3763 Legal & Ethical Issues in Computing	DSC	SCI 2022 Cloud, Quantum & High Perf Computing Lab			
DSCI	3032 Artificial Intelligence Lab		2 of 4 Applied Courses			
	2 of 2 Concentration Courses		3 of 4 Applied Courses			
	1 of 4 Applied Courses		4 of 4 Applied Courses			
DSCI	4553 Senior Capstone One	DSC	SCI 4663 Senior Capstone Two			

Fall 22 - 5/8/2023

#### Agriculture Course (Choose 1)

AEC 2713 Intro to Food and Resource Economics ABE 1863 Engineering Technology in Agriculture BCH 4013 Principles of Biochemistry PSS 1313 Plant Science ADS 1113 Animal Science

### Concentration Course List (Choose 2)

EC 2113 Principles of Macroeconomics EC 3123 Intermediate Microeconomics AEC 2223 Introduction to Sustainability Economics AEC 3133 Introductory Agribusiness Management AEC 3233 Intro to Environmental Economics and Policy AEC 4123 Financial and Commodity Futures Marketing ABE 2173 Prin. of Agricultural and Off-Road Machines ABE 2543 Precision Agriculture I ABE 4543 Precision Agriculture II BCH 3102 Essential Biochemical Concepts and Analysis BCH 4414 Protein Methods ADS 3013 Anatomy and Physiology ADS 3313 Introduction to Meat Science SBP 2012 Intro to Bioproducts Industries SBP 2123 Mat. & Processing of Structure Bioproducts WFA 4313 Fisheries Management WFA 4613 Landscape Ecology FO 2213 Forest Measurements FO 2443 Essentials of Biotechnology FO 4113 Forest Resource Economics FO 4123 Forest Ecology

Forest Resources Course List (Choose 1) SBP 1103 Introduction to Sustainable Bioproducts WFA 3133 Applied Ecology FO 4123 Forest Ecology

#### Applied Course List (Choose 4) AEC 4133 Analysis of Food Markets and Prices AEC 4223 Applied Quantitative Analysis in Ag Economics AEC 4363 Economics of Precision Agriculture AEC 4413 Public Problems of Agriculture AEC 4733 Econometric Analysis in Agricultural Economics ABE 2873 Land Surveying ABE 3513 The GPS and GIS in Ag and Engineering ABE 4163 Machine Management Agro-Ecosystems ABE 4263 Soil and Water Management ABE 4463 Introduction to Imaging in Biological Systems ABE 4483 Introduction to Remote Sensing Technologies BCH 4803 Integrative Protein Evolution PSS 4483 Introduction to Remote Sensing Technologies ADS 4523 Internet Based Mgmt in Livestock Industries SBP 4013 Wood Anatomy SBP 4253 Quantitative Methods in SBP WFA 4123 Wildlife and Fisheries Biometrics WFA 4243 Wildlife Techniques WFA 4253 App of Spatial Tech to Wildlife Fisheries Mgmt FO 3015 Forest Description and Analysis FO 4213 Forest Biometrics FO 4313 Spatial Tech in Natural Resources Management FO 4453 Remote Sensing Applications FO 4473 GIS for Natural Resource Management