

SUBCOMMITTEE B – AGENDA

**Via Teams**  
October 16, 2025  
1:30 p.m.

**PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES**

**COLLEGE OF AGRICULTURE AND NATURAL RESOURCES**

1. Request to establish a **Bachelor of Science** degree in **Managerial Economics for the Bioeconomy** in the Department of Plant, Soil and Microbial Sciences. The University Committee on Undergraduate Education (UCUE) recommended approval of this request at its September 25, 2025 meeting.

a. **Background Information:**

The Department of Agricultural, Food, and Resource Economics is excited to offer a new major – Managerial Economics for the Bioeconomy (MEC). The MEC major will appeal to a broad range of students interested in a versatile business major that provides opportunities to interact closely with faculty and industry, while preparing for career opportunities in a wide range of industries and professions. AFRE has collected extensive feedback from industry stakeholders and students via a series of focus groups, and used the information collected to create this new major. The MEC major allows students more flexibility in terms of course choice, while still ensuring that students graduate with skills that are highly valued in the marketplace, including problem solving, data analytics, business communication, and an understanding of the role of various stakeholders (e.g., producers, consumers, and policymakers) in the marketplace. This major will help meet the high demand for business-related majors at MSU, as well as help meet the needs of industry stakeholders for a well-trained workforce.

b. **Academic Programs Catalog Text:**

The Bachelor of Science Degree in Managerial Economics for the Bioeconomy is rooted in the study of management and practical applications of economics. The degree affords students a high degree of flexibility and is well suited for students interested in developing strong analytical, strategic thinking, and problem-solving skills that are broadly applicable to a variety of diverse managerial and policymaking related careers. Internships, study abroad, research, and networking opportunities are encouraged to broaden learning and practical experience in the major.

**Requirements for the Bachelor of Science Degree in Managerial Economics for the Bioeconomy**

1. The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Science Degree in Managerial Economics for the Bioeconomy.

The University's Tier II writing requirement for the Managerial Economics for the Bioeconomy major is met by completing AFRE 445. That course is referenced in item 3. below.

The completion of the Managerial Economics for the Bioeconomy mathematics requirement may also satisfy the College of Agriculture and Natural Resources and the University mathematics requirement.

2. The requirements of the College of Agriculture and Natural Resources for the Bachelor of Science degree.

Certain courses referenced in requirement 3. below may be counted toward College requirements as appropriate.

3. The following requirements for the major:

CREDITS

- a. All of the following courses (26 credits):

AFRE	100	Economics and Management for the Bioeconomy	3
AFRE	203	Data Analysis for Managerial Decision Making	3
AFRE	206	World Food, Population and Poverty	3
AFRE	210	Professional Seminar in Agricultural, Food, and Resource Economics	1
AFRE	222	Sales for the Bioeconomy	3

	AFRE	240	Product Marketing for the Bioeconomy	3
	AFRE	410	Advanced Professional Seminar in Agricultural, Food, and Resource Economics	1
	AFRE	445	Strategic Management for the Bioeconomy (W)	3
	EC	201	Introduction to Microeconomics	3
	EC	202	Introduction to Macroeconomics	3
b.	Three of the following courses (9 credits):			
	AFRE	300	Public Policy Analysis	3
	AFRE	315	Labor and Personnel Management	3
	AFRE	322	Organizational Economics for the Bioeconomy	3
	AFRE	327	International Agribusiness and Food Marketing	3
	AFRE	330	Advanced Agribusiness Management	3
	AFRE	340	Food Marketing Research and Analytics	3
	AFRE	360	Environmental Economics	3
	AFRE	435	Financial Management for the Bioeconomy	3
	AFRE	440	Food Marketing Management	3
	AFRE	460	Natural Resource Economics	3
	AFRE	465	Corporate Environmental Management	3
	A study abroad or independent study experience may also fulfill part of this requirement through enrollment in AFRE 490 with approval by the department.			
	An internship experience may also fulfill part of this requirement through enrollment in AFRE 493 with approval by the department.			
c.	Two of the following courses (5 or 6 credits):			
	AFRE	224	Information and Market Intelligence	3
	AFRE	232	Commodity Marketing	3
	AFRE	265	Ecological Economics	3
	ADV	200	The World of Advertising	2
	ADV	375	Consumer Behavior	3
	COM	100	Human Communication	3
	COM	225	Introduction to Interpersonal Communication	3
	COM	240	Introduction to Organizational Communication	4
	CSE	102	Algorithmic Thinking and Programming	3
	CSUS	200	Introduction to Sustainability	3
	CSUS	300	Theoretical Foundations of Sustainability	3
	CSUS	473	Social Entrepreneurship and Community Sustainability	3
	EC	330	Money, Banking, and Financial Markets	3
	EC	340	Survey of International Economics	3
	EC	360	Private Enterprise and Public Policy	3
	EC	380	Labor Relations and Labor Market Policy	3
	FI	320	Introduction to Finance	3
	GBL	323	Introduction to Business Law	3
	HRLR	201	Human Capital in Society	3
	HRLR	211	Introduction to Organizational Leadership	3
	MGT	325	Management Skills and Processes	3
	MKT	327	Introduction to Marketing	3
	PHL	345	Business Ethics	3
	SCM	304	Survey of Supply Chain Management	3
d.	One of the following courses (3 credits):			
	ACC	230	Survey of Accounting Concepts	3
	AFRE	130	Foundations of Agribusiness Management	3
e.	One of the following courses (3 or 4 credits):			
	STT	200	Statistical Methods	3
	STT	201	Statistical Methods	4
	STT	315	Introduction to Probability and Statistics for Business	3
f.	One of the following courses (3 credits):			
	AFRE	303	Managerial Economics	3
	EC	301	Intermediate Microeconomics	3

## **JAMES MADISON COLLEGE**

1. Request to establish a **Bachelor of Arts** degree in **Public Affairs for Secondary Education** in James Madison College. The University Committee on Undergraduate Education (UCUE) recommended approval of this request at its September 4, 2025 meeting.

- a. **Background Information:**

The new major is being created to meet updated standards for secondary teacher certification in the State of Michigan. These adjustments will enable James Madison students to graduate in four years, as requested by the Provost. Having one of the best teacher education programs in the United States here at MSU allows James Madison students the unique opportunity to combine their interests in public and international affairs with courses required for secondary social studies certification.

Former teacher certification pathways through James Madison College were not achievable in the new model of teacher education requirements at MSU, and field-specific requirement eliminations would result in a weakening of that specific major.

The major will provide the theoretical and practical foundations necessary for students to become certified to teach social studies courses in the State of Michigan. It will provide clarity around requirements for students' James Madison College major and teacher certifications.

- b. **Academic Programs Catalog Text:**

The Bachelor of Arts Degree in Public Affairs for Secondary Education will provide the theoretical and practical foundations necessary for students to become certified to teach social studies courses in the State of Michigan.

### **Requirements for the Bachelor of Arts Degree in Public Affairs for Secondary Education**

1. The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits are required for the Bachelor of Arts Degree in Public Affairs for Secondary Education.  
  
The University's Tier II writing requirement for the Public Affairs for Secondary Education major is met by completing MC 492, MC 493, MC 497, or MC 498. Those courses are referenced in item 3. below.
2. The requirements of James Madison College for the Bachelor of Arts degree.
3. The following requirements for the major:

				CREDITS
a.	All of the following Social Studies courses (31 credits):			
	GEO	204	World Regional Geography	3
	GEO	221	Introduction to Geographic Information	3
	GEO	330	Geography of the United States	3
	HST	140	World History to 1500	4
	HST	150	World History since 1500	4
	HST	201	Historical Methods and Skills	3
	HST	202	U.S. History to 1876	4
	HST	203	U.S. History since 1876	4
	HST	320	History of Michigan	3
b.	One of the following course sequences (8 credits):			
	(1)	MC	220 International Relations I: World Politics and International Security	4
		MC	221 International Relations II: The Politics of International Economic Relations	4
	(2)	MC	230 Cultures and Politics in Comparative Perspective	4
		MC	231 Cultures and Politics in Transnational Perspective	4
	(3)	MC	270 Classical Republicanism	4
		MC	271 Constitutionalism and Democracy	4
	(4)	MC	280 Social Theory and Social Relations	4

	MC	281	Immigrants, Minorities, and American Pluralism	4
c.			One 300 or 400-level MC elective course	4
d.			One of the following courses (5 credits):	
	MC	492	Senior Seminar in International Relations (W)	5
	MC	493	Senior Seminar in Comparative Cultures and Politics (W)	5
	MC	497	Senior Seminar in Social Relations and Policy (W)	5
	MC	498	Senior Seminar in Political Theory and Constitutional Democracy (W)	5
e.			Completion of the requirements for <i>Teacher Certification</i> in the Department of Teacher Education, which includes all of the following courses (36 credits):	
	CEP	240	Introduction to Exceptional Learners	3
	TE	101	Social Foundations of Justice and Equity in Education	3
	TE	102	Pedagogy and Politics of Justice and Equity in Education	3
	TE	150	Reflections on Learning	3
	TE	302	Literacy and Adolescent Learners in School and Community Contexts	3
	TE	325	Clinical Experience in Social Studies Education I	3
	TE	341	Teaching and Learning of (Bi)Multilingual Learners	3
	TE	425	Clinical Experience in Social Studies Education II	3
	TE	426	Seminar in Social Studies Education I	3
	TE	427	Seminar in Social Studies Education II	3
	TE	428	Student Teaching Internship in Social Studies Education	6

Effective Spring 2026.

### **COLLEGE OF SOCIAL SCIENCE**

1. Request to change the requirements for the **Master of Science** degree in **Geography** in the Department of Geography, Environment, and Spatial Sciences. The University Committee on Graduate Studies (UCGS) will consider this request at its October 13, 2025 meeting.

- a. Under the heading **Admission**, replace the first paragraph with the following:

All Plan A (with thesis) students seeking the master's degree in geography are expected to have completed courses in physical, human, and regional geography; in quantitative methods; and in geographic information science. Applicants who have not completed all of these requirements must work with their guidance committee to determine which, if any, deficiencies need to be remedied. Any course work completed to correct course deficiencies must be approved by the guidance committee and may not be counted toward the 30-credit requirement for the degree.

- b. Under the heading **Admission, Regular Status**, delete the following:

3. Satisfactory scores on the Graduate Record Examination General Test for students seeking Plan A (with thesis).

- c. Under the heading **Requirements for the Master of Science Degree in Geography** replace the entire entry with the following:

The Master of Science in Geography is available under Plan A (with thesis) or Plan B (without thesis). The student must complete a minimum of 30 credits distributed as follows:

CREDITS

**Requirements for Both Plan A and Plan B** (3 credits):

1. One of the following seminar courses:
 

GEO	813	Seminar in Urban and Economic Geography	3
GEO	816	The World System of Cities	3
GEO	871	Seminar in Physical Geography	3

- |    |         |  |   |
|----|---------|--|---|
|    | GEO 872 | Seminar in Human Geography   | 3 |
|    | GEO 873 | Seminar in Human-Environment Geography   | 3 |
|    | GEO 874 | Seminar in Geographic Information Science  | 3 |
|    |         | Complete an advisor/guidance committee approved seminar substitution   | 3 |
| 2. |         | Complete an additional minimum of 9 credits from GEO courses at the 400-level or 800-level as approved by the student's Plan A guidance committee or Plan B advisor.   |   |
| 3. |         | Complete an additional minimum of 9 credits from 800-level or above courses taken inside or outside of the Department of Geography, Environment and Spatial Sciences as approved by the student's Plan A guidance committee or Plan B advisor. |   |

**Additional Requirements for Plan A**

- |    |   |                              |   |
|----|---|------------------------------|---|
| 1. | The following course (3 credits):   |                              |   |
|    | GEO 886   | Research Design in Geography | 3 |
| 2. | Completion of 6 credits of GEO 899 Master's Thesis Research.  |                              |   |
| 3. | Completion of a research paper or poster at a professional meeting.                                     |                              |   |
| 4. | Pass a final oral examination in defense of the thesis as approved by the student's guidance committee. |                              |   |

**Additional Requirements for Plan B**

- |    |  |  |  |
|----|--|--|--|
| 1. | Complete an additional minimum of 9 credits from GEO courses at the 800-level or above as approved by the student's advisor. |  |  |
| 2. | Pass a final written examination or evaluation as approved by the student's advisor.   |  |  |

Effective Fall 2026.

2. Request to change the requirements for the **Doctor of Philosophy** degree in **Geography** in the Department of Geography, Environment, and Spatial Sciences. The University Committee on Graduate Studies (UCGS) will consider this request at its October 13, 2025 meeting.

- a. Under the heading **Admission**, replace the paragraph with the following:

Admission to the doctoral program is based upon an evaluation of the student's academic records related to both the bachelor's and master's degrees, letters of recommendation, written statements, and other pertinent information such as professional experience and related achievements. Typical entrants to the doctoral program present a grade-point average of 3.60 or higher in a recognized master's degree program, which usually includes a thesis.

- b. Under the heading **Requirements for the Doctor of Philosophy Degree in Geography** replace the entire entry with the following:

The student must:

- |    |  |  |    |
|----|--|--|----|
| 1. | Complete at least 56 credits while enrolled in the doctoral program including the following courses: |  |    |
|    | a.   | The following courses (36 credits):  |    |
|    |  | GEO 886 Theories and Philosophies in Geography   | 3  |
|    |  | GEO 986 Theory and Methods in Geography  | 3  |
|    |  | GEO 999 Doctoral Dissertation Research   | 24 |
|    | b.   | At least two of the following seminars (6 credits):  |    |
|    |  | GEO 813 Seminar in Urban and Economic Geography  | 3  |
|    |  | GEO 816 The World System of Cities   | 3  |
|    |  | GEO 871 Seminar in Physical Geography  | 3  |
|    |  | GEO 872 Seminar in Human Geography   | 3  |
|    |  | GEO 873 Seminar in Human-Environment Geography   | 3  |
|    |  | GEO 874 Seminar in Geographic Information Science  | 3  |
|    |  | Complete an advisor/guidance committee approved seminar Substitution   | 3  |
|    | c.   | One advanced-level tool course (3 credits):  |    |
|    |  | Tool courses may be in such areas as computer science, foreign language, statistics or mathematics, cartography, remote sensing, geographic information science and social science or physical science |    |

- research methods. The courses may be administered by the Department of Geography, Environment, and Spatial Sciences or by another department or school.
- d. Courses that focus on a specialized area of geography and related course work (17 credits)
- 2. In consultation with the student's guidance committee, submit a manuscript to a refereed journal.
  - 3. Successfully defend the doctoral dissertation.

Effective Fall 2026.

## **PART II - NEW COURSES AND CHANGES**

### **COLLEGE OF AGRICULTURE AND NATURAL RESOURCES**

- AFRE 100 ~~Decision-making in the Agri-Food System~~ Economics and Management for the Bioeconomy  
~~Fall of every year. Spring of every year. Fall of every year. Spring of every year. Summer of every year. 3(3-0)~~  
~~Organization and operation of the agri-food system. Economic analysis of agri-food firms and consumers. Management functions and decision-making of agri-food firms. Organization and operation of firms, value chains, and markets. Economic analysis of business and consumers. Management functions and decision-making processes. Applications to agriculture, food, and natural resources.~~  
~~SA: FSM 200, ABM 100 SA: ABM 100, FSM 200~~  
Effective Fall Semester 2024
- AFRE 130 ~~Farm Management I~~ Foundations of Agribusiness Management  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) RB: AFRE 100 and AFRE 203  
~~General farm management including record keeping, income tax management, farm finance, and operational management of agricultural resources. Agribusiness management practices including record keeping, income tax management, finance, and operational and resource management.~~  
~~SA: AEC 050, ABM 130 SA: ABM 130, AEC 050~~  
Effective Fall Semester 2024
- AFRE 203 ~~Data Analysis for the Agri-Food System~~ Data Analysis for Managerial Decision-Making  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) ~~P: (AFRE 100 or concurrently) or (EC 201 or concurrently)~~ RB: STT 200 or STT 201 or STT 315 RB: ((AFRE 100 or concurrently) or (EC 201 or concurrently)) and ((STT 200 or concurrently) or (STT 201 or concurrently) or (STT 315 or concurrently))  
~~Introduction to data analysis tools used in the management of food systems. Data analysis concepts and tools used in management. Applications to agriculture, food, and natural resources.~~  
SA: ABM 203  
Effective Fall Semester 2024
- AFRE 206 World Food, Population and Poverty  
Fall of every year. Spring of every year. 3(3-0) ~~P: AFRE 100 or AFRE 265 or EC 201~~ P: (AFRE 100 or concurrently) or (EC 201 or concurrently) or (EC 202 or concurrently)  
Description and analysis of world food, population and poverty problems.  
Interrelationships between developed and developing countries.  
~~SA: EEP 260, EEM 260 SA: EEM 260, EEP 260~~  
Effective Fall Semester 2024
- AFRE 210 Professional Seminar in Agricultural, Food, and Resource Economics  
Spring of every year. 1(1-0) R: Open to students in the Department of Agricultural, Food, and Resource Economics.  
~~Industry trends in agribusiness management. Verbal, written, and visual communication techniques applied to professional situations, including professional development and career planning. Industry and management trends. Verbal, written, and visual communication techniques applied to professional situations. Professional development, networking, and career planning.~~  
SA: ABM 210  
Effective Fall Semester 2024

- AFRE 222 ~~Agribusiness and Food Industry Sales~~ Sales for the Bioeconomy  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: AFRE 100 or EC 201 RB: AFRE 240 R: Open to sophomores or juniors or seniors.  
~~Selling processes and activities within agribusiness and food firms. Principles and techniques of sales. Operation of sales organizations.~~ Selling processes and activities. Principles and techniques of sales. Operation of sales organizations. Applications to agriculture, food, and natural resources.  
SA: FSM 320, ABM 222  
Effective Fall Semester 2024
- AFRE 224 ~~Information and Market Intelligence in the Agri-Food Industry~~ Information and Market Intelligence  
Summer of every year. 3(3-0)  
~~Researching agri-food issues, food industry business environments, and agri-food industry trends. Information gathering. Electronic library reference sources. Synthesis of data and information into market intelligence.~~ Information gathering and data interpretation. Synthesis of data and information from multiple sources into market intelligence. Use of technology and innovation.  
SA: FIM 424, FIM 224  
Effective Fall Semester 2024
- AFRE 232 ~~Commodity Marketing I~~ Commodity Marketing  
Fall of every year. 3(3-0) P: AFRE 100 or EC 201  
~~Commodity markets in the agri-food system. Analysis of supply, demand, and pricing alternatives. Agri-food marketing processes, including marketing cooperatives.~~ Structure and function of global commodity markets. Dynamics of price determination and pricing alternatives. Commodity marketing and procurement processes. Forecasting and risk management strategies. Applications to agriculture, food, and natural resources.  
SA: ABM 225  
Effective Fall Semester 2024
- AFRE 240 ~~Food Product Marketing~~ Product Marketing for the Bioeconomy  
Fall of every year. Spring of every year. 3(3-0) P: AFRE 100 or concurrently RB: EC 201  
~~Structure of the food marketing system including food processors, manufacturers, retailers and food service. Impact of consumer behavior and buying patterns. International food product marketing. Strategic planning in food marketing.~~ Structure of the marketing system including relationships between processors, manufacturers, retailers and service providers. Impact of consumer trends, behavior and buying patterns. International product marketing. Strategic planning in marketing. Applications to agriculture, food, and natural resources.  
SA: FIM 220  
Effective Fall Semester 2024
- AFRE 265 Ecological Economics  
Fall of every year. Spring of every year. 3(3-0) ~~P: (EC 201 or concurrently) or (EC 202 or concurrently)~~ P: (AFRE 100 or concurrently) or (EC 201 or concurrently) or (EC 202 or concurrently) RB: AFRE 203  
~~Relationship between the economy and the natural environment. Economic organization and sustainability. Economic concepts applied to natural resources and agriculture.~~  
~~SA: EEP 255, PRM 255, EEM 255~~ SA: EEM 255, EEP 255, PRM 255  
Effective Fall Semester 2024



- AFRE 300 ~~Public Policy Issues in the Agri-Food System~~ Public Policy Analysis  
Spring of every year. 3(3-0) P: (AFRE 100) and (EC 201 or EC 202) RB: (AFRE 203) and AFRE 240 and (AFRE 303 or EC 301) R: Open to juniors or seniors.  
~~Objectives, alternatives and consequences of public policy in the agri-food system. Analysis of economic implications for food and agribusiness firms, farmers, consumers and society.~~ Objectives, alternatives, and consequences of public policy decisions. Analysis of economic implications for stakeholders including firms, consumers, and society. Applications to agriculture, food and natural resources.  
SA: FSM 421, ABM 400  
Effective Fall Semester 2024
- AFRE 303 ~~Managerial Economics~~  
Fall of every year. Spring of every year. 3(3-0) ~~P: ((AFRE 203) and EC 201) and (STT 200 or STT 201 or STT 315)~~ P: AFRE 100 and AFRE 203 and EC 201 RB: STT 200 or STT 201 or STT 315  
~~Managerial economics with applications focusing on agriculture, food, and resources issues. Application of intermediate microeconomic concepts to management decision-making. Models of price formation, consumption and production decisions, and market structure. Applications to agriculture, food, and natural resources.~~  
SA: ABM 303  
Effective Fall Semester 2024
- AFRE 315 ~~Labor and Personnel Management in the Agri-Food System~~ Labor and Personnel Management  
Fall of every year. Summer of every year. 3(3-0) P: AFRE 100 or AFRE 130 RB: EC 201 R: Open to juniors or seniors.  
~~Human resource management practices and techniques for farms, and agri-food firms: planning, recruiting, training, motivating, and evaluating. Labor regulations, compensation incentive plans, and employee benefits.~~ Human resource management practices and techniques: planning, recruiting, training, motivating, and evaluating. Labor regulations, compensation incentive plans, and employee benefits. Applications to agriculture, food, and natural resources.  
SA: FSM 325, ABM 337, FIM 415  
Effective Fall Semester 2024
- AFRE 322 ~~Organization of the Agri-Food Systems~~ Organizational Economics for the Bioeconomy  
Spring of every year. 3(3-0) ~~Interdepartmental with Food Industry Management~~ P: AFRE 100 and EC 201 RB: (AFRE 303) or (AFRE 203 and EC 301) RB: (AFRE 303 or concurrently) or (EC 301 or concurrently) R: Open to juniors or seniors.  
~~Analysis of vertical coordination in the industrialized agri-food system. Agricultural cooperatives, contracts, marketing orders, and trade associations. Analysis of imperfect competition and methods of conducting business. Interaction with legal systems and government. Market coordination, institutions, and mechanisms of governance. Analysis of cooperatives, alliances, contracts, marketing orders, and trade associations. Interaction with legal systems and government. Applications to agriculture, food, and natural resources.~~  
SA: FSM 443  
Effective Fall Semester 2024
- AFRE 327 ~~Global Agri-Food Industries and Markets~~ International Agribusiness and Food Marketing  
Fall of every year. 3(3-0) P: (AFRE 100) and (AFRE 232 or AFRE 240) and EC 201 and EC 202 P: (AFRE 100) and (AFRE 232 or AFRE 240) RB: (AFRE 303) or (AFRE 203 and EC 301) RB: (AFRE 303 or concurrently) or (EC 301 or concurrently) R: Open to juniors or seniors.  
~~Strategic understanding of the international agri-food system. Analysis of global production, marketing, and consumption. Knowledge of changing conditions in international industries and markets. Global trends and opportunities. Understanding of the global agri-food system. Analysis of global production, marketing, and supply chain decisions. Knowledge of changing conditions in international industries and markets. Global trends and opportunities.~~  
SA: ABM 427  
Effective Fall Semester 2024

- AFRE 330 ~~Farm Management II~~ Advanced Agribusiness Management  
Fall of every year. 3(3-0) P: (AFRE 130) and AFRE 203 ~~RB: (AFRE 303) or (AFRE 203 and EC 304)~~ RB: (AFRE 303 or concurrently) or (EC 301 or concurrently) R: Open to juniors or seniors.  
Advanced management, planning, and control of farm production, marketing, financial activities, economic principles, budgeting and financial statements. Advanced planning and decision making in agribusiness firms. Management of production, marketing, finance, budgeting, and business planning.  
SA: FSM 330, ABM 430  
Effective Fall Semester 2024
- AFRE 340 Food Marketing Research and Analytics  
Fall of every year. Spring of every year. 3(3-0) P: AFRE 203 and AFRE 240 ~~RB: (AFRE 303) or (AFRE 203 and EC 304)~~ and AFRE 440 RB: (AFRE 303 or concurrently) or (EC 301 or concurrently) R: Open to juniors or seniors.  
Information needed to make effective retail decisions. Use of technology in collecting, analyzing, and interpreting retail systems data and in writing and presenting reports. Principles and tools for conducting market research and data analysis. Emerging market trends and new product development. Evidence-based decisions and communication for the food industry.  
SA: HED 460, RET 460, FIM 460  
Effective Fall Semester 2024
- AFRE 360 Environmental Economics  
Spring of every year. 3(3-0) P: (AFRE 265) and AFRE 203 ~~RB: (AFRE 303 or concurrently) or (EC 301 or concurrently)~~  
Analytical methods for evaluating economic impacts of environmental policies and understanding the economic causes of environmental problems.  
SA: EEP 320, EEM 320  
Effective Fall Semester 2024
- AFRE 410 Advanced Professional Seminar in Agricultural Food and Resource Economics  
Fall of every year. 1(1-0) P: AFRE 210 R: Open to juniors or seniors in the Department of Agricultural, Food, and Resource Economics.  
Advanced professional problems and reestablishment of career planning in the agri-food system. Industry trends, career alternatives, and job search strategies. Enhanced verbal, written, and visual communication techniques. Advanced professional development and career planning in agriculture, food and natural resources. Industry trends, career alternatives, and job search strategies. Professional networking. Enhanced verbal, written, and visual communication techniques.  
Effective Fall Semester 2024
- AFRE 435 ~~Financial Management in the Agri-Food System~~ Financial Management for the Bioeconomy  
Fall of every year. Spring of every year. 3(3-0) ~~P: (AFRE 203) and (AFRE 130 or FI 320 or ACC 201 or ACC 230) and (AFRE 303 or EC 304)~~ P: (AFRE 203) and (AFRE 130 or FI 320 or ACC 230) and (AFRE 303 or EC 301 or approval of department) R: Open to juniors or seniors.  
Analysis of agri-food business performance using financial statements. Capital budgeting of durable investments. Risk. Alternative methods to control capital asset services. Financial markets and credit institutions affecting agriculture and food. Analysis of small business performance using financial statements. Capital budgeting of durable investments. Risk management. Alternative methods to control capital asset services. Financial markets and credit institutions. Applications to firms in agriculture, food, and natural resources. Capstone project.  
SA: FSM 412, ABM 435 SA: ABM 435, FSM 412  
Effective Fall Semester 2024

- AFRE 440 Food Marketing Management  
Fall of every year. Spring of every year. 3(3-0) P: AFRE 203 and AFRE 240 RB: (AFRE 340) and ((AFRE 303 or concurrently) or (EC 301 or concurrently))  
Management decision making in food industry organizations (processors, wholesalers, retailers). Marketing and sales in response to customer and consumer needs. Distribution and merchandising systems in domestic and international contexts. Coordination of marketing activities in food industry organizations. Marketing analysis and development of marketing strategies. Product, branding, promotion and advertising, pricing, and distribution decisions. Domestic and international markets.  
SA: FIM 335  
Effective Fall Semester 2024
- AFRE 445 ~~Strategic Management for Food and Agribusiness Firms (W)~~  
Strategic Management for the Bioeconomy (W)  
Fall of every year. Spring of every year. ~~3(4-0)~~ 3(3-0) Interdepartmental with Marketing P: (AFRE 203) and AFRE 240 and (ACC 201 or ACC 230 or AFRE 130 or AFRE 435 or FI 320) and (AFRE 303 or EC 301) P: (AFRE 203) and AFRE 240 and (ACC 230 or AFRE 130 or FI 320) and (AFRE 303 or EC 301) RB: AFRE 435 R: Open to seniors.  
~~Principles and techniques for analyzing and implementing business and strategy. Approaches to identify and manage strategic problems. Application to firms in the food and agribusiness industries. Capstone project.~~ Principles and techniques for analyzing business strategies. Approaches to identify and manage strategic problems. Formulation and implementation of business models for competitive advantage and value creation. Applications to firms in agriculture, food and natural resources. Capstone project.  
SA: FIM 439  
Effective Fall Semester 2024
- AFRE 460 Natural Resource Economics  
Fall of every year. 3(3-0) ~~P: (AFRE 265) and AFRE 203~~ P: AFRE 265 and AFRE 203 or approval of department RB: (AFRE 360) and ((AFRE 303 or concurrently) or (EC 301 or concurrently)) R: Open to juniors or seniors.  
Economic framework for analyzing natural resource management decisions. Spatial and inter-temporal allocation of renewable and nonrenewable resources. Special emphasis on institutions, externalities, and public interests in resource management.  
~~SA: EEP 460, EEM 460~~ SA: EEM 460, EEP 460  
Effective Fall Semester 2024
- AFRE 465 Corporate Environmental Management (W)  
Spring of every year. 3(3-0) ~~P: (AFRE 203) and AFRE 265 and (ACC 201 or ACC 230 or AFRE 130 or FI 320) and (AFRE 303 or EC 301)~~ P: (AFRE 203 and AFRE 265) and (ACC 230 or AFRE 130) and (AFRE 303 or EC 301 or approval of department) R: Open to juniors or seniors.  
~~Integration of environmental protection and pollution prevention with business management. Economic and strategic analysis of environmental protection.~~ Integration of environmental sustainability with business management. Economic and strategic analysis of environmental protection and pollution prevention. Capstone project.  
SA: PRM 405, EEM 405  
Effective Fall Semester 2024
- AFRE 829 Economics of Environmental Resources  
Fall of every year. 3(3-0) ~~Interdepartmental with Community Sustainability, Economics, Fisheries and Wildlife, Forestry~~ Interdepartmental with Community Sustainability, Fisheries and Wildlife, Forestry RB: Undergraduate intermediate microeconomics, calculus, and statistics  
Economic principles, theoretical models, and empirical methods related to environmental problems and policy interventions. Applications to air, land, water, forests, energy, fish and wildlife, and climate change, including in developing countries.  
SA: AEC 829  
Effective Fall Semester 2024

**COLLEGE OF SOCIAL SCIENCE**

- CJ 429      Interdisciplinary Topics in Cybercrime and Cybersecurity  
Spring of every year. 3(3-0) Interdepartmental with Computer Science and Engineering-~~P: CSE 102 or CSE 231~~ P: CJ 345 R: Open to juniors or seniors or graduate students.  
Technical, legal, criminal, medical business, and communication aspects of CyberSecurity.  
Effective Fall Semester 2025
- HDFS 481      Research and Quantitative Methods in Human Development and Family Studies  
Fall of every year. Spring of every year. 3(3-0)~~P: (HDFS 270) and ((MTH 103 or MTH 116 or MTH 124 or MTH 132 or MTH 101 or MTH 102 or STT 200 or STT 201) or designated score on Mathematics Placement test.)~~ P: (HDFS 270) and ((MTH 103 or MTH 116 or MTH 124 or MTH 132 or MTH 101 or MTH 102 or STT 200 or STT 201 or MTH 103B) or designated score on Mathematics Placement test ) R: Open to juniors or seniors or graduate students in the Department of Human Development and Family Studies.  
Survey of qualitative and quantitative research methods. Evaluate, conceptualize and plan research. Validity and ethics explored for consumers of research in community agencies.  
Effective Fall Semester 2026