



New Academic Program Workflow Form

General

Proposed Name: Agricultural & Appl. Economics

Transaction Nbr: 00000000000250

Plan Type: Major

Academic Career: Undergraduate

Degree Offered: Bachelor of Science

Do you want to offer a minor? N

Anticipated 1st Admission Term: Fall 2026

Details

Department(s):

AGSC

DEPTMNT ID	DEPARTMENT NAME	HOST
1231	Agricultural and Applied Economics	Y

Campus(es):

MAIN

LOCATION	DESCRIPTION
TUCSON	Tucson

Admission application terms for this plan: Spring: Y Summer: Y Fall: Y

Plan admission types:

Freshman: Y Transfer: Y Readmit: Y Graduate: N

Non Degree Certificate (UCRT only): N

Other (For Community Campus specifics): N

Plan Taxonomy: 45.0602, Applied Economics.

Program Length Type: Program Length Value: 0.00

Report as NSC Program:

SULA Special Program:

Print Option:

Diploma: Y Bachelor of Science in Agricultural and Applied Economics

Transcript: Y Agricultural and Applied Economics

Conditions for Admission/Declaration for this Major:

Admission to UArizona overall is the minimum admission requirement for the majors in this department, and there are no pre-major nor advanced standing required to progress through the majors and minors offered in this department.

Requirements for Accreditation:

n/a

Program Comparisons

University Appropriateness

The proposed B.S. in Agricultural & Applied Economics advances the University of Arizona's land-grant mission and strategic direction by preparing students to "support the potential of every student, explore and act on new insights to solve the world's problems, and uplift our community," with a program directly aimed at Arizona's food, water, and environmental challenges. Within the College of Agricultural, Environmental, & Life Sciences, the degree aligns with the College's purpose to produce employable graduates and put purpose-driven science to work alongside communities and industries--through applied economics coursework, experiential capstones, and partnerships that translate analysis into impact. The UA is the most appropriate Arizona-system home because it houses CALES and the Department of Agricultural & Applied Economics, providing the state's only undergraduate program that unifies agribusiness economics and environmental/water economics within one applied-economics major; by contrast, ASU's agribusiness degree is offered within a business school, and NAU's offerings are environmental science-focused rather than economics-focused. The program also complements UA strengths in water and arid-lands research and outreach--core expressions of the University's land-grant commitment to Arizona.

Arizona University System

NBR	PROGRAM	DEGREE	#STDNTS	LOCATION	ACCRDT
1	Economics	BA	300	University of Arizona	Y
2	Business Economics	BSBA	200	University of Arizona	Y
3	Environmental Science	BS	400	University of Arizona	Y
4	Agribusiness	BA	400	Arizona State	Y

NBR	PROGRAM	DEGREE	#STDNTS	LOCATION	ACCRDT
	Innovation & Tech			University	
5	Economics	BS	500	Arizona State University	Y
6	Business Economics	BSBA	400	Northern Arizona University	Y
7	Environmental Sciences	BS	500	Northern Arizona University	Y

Peer Comparison

UA's program explicitly integrates agribusiness and environmental/water economics under a single major with two emphases--backed by Arizona-specific coursework (e.g., The Colorado River) and, for AEM students, a required Business Administration minor--whereas UW and UMN offer a broader menu of concentrations/tracks and (at UMN) a college-level experiential requirement.

Like UW-Madison's B.S. in AAE and UMN's B.S. in Applied Economics, the proposed UA B.S. in AAE is built on applied micro/macro and quantitative/econometric foundations, offers student choice via specializations (UA emphases; UW concentrations; UMN tracks), and culminates in a capstone-style experience preparing graduates for analytic roles in business, policy, and resource management.

Resources

Library

Acquisitions Needed:

Physical Facilities & Equipment

Existing Physical Facilities:

Existing physical facilities and equipment are adequate.

Additional Facilities Required & Anticipated:

No additional facilities and equipment are required.

Other Support

Other Support Currently Available:

None

Other Support Needed over the Next Three Years:

None

Comments During Approval Process

10/16/2025 8:51 AM

GDTHOMPS

Comments
Approved.

10/23/2025 12:19 PM

MELANIECMADDEN

Comments
Approved.

10/23/2025 12:48 PM

DHERRING

Comments
Approved.



NEW ACADEMIC PROGRAM – MAJOR Preliminary Proposal Form

I. Program Details

- a. **Name and Degree Type of Proposed Academic Program:** B.S. in Agricultural & Applied Economics
 - i. **Emphases (if applicable):** 1) Agribusiness Economics & Management (AEM) and 2) Environmental Economics & Policy (EEP)
- b. **Academic Unit(s)/College(s):** Department of Agricultural and Applied Economics (AAE), College of Agriculture, Life, and Environmental Sciences (CALES)
- c. **Campus/Location(s):** Main Campus
- d. **Desired [CIP Code](#):** 45.0602
- e. **First Admission Term:** Fall 2026
- f. **Primary Contact and Email:** Jeffrey D. Michler, jdmichler@arizona.edu

II. Executive Summary:

- **Unifies two proven majors under one degree:** Consolidates the current **B.S. in Agribusiness Economics & Management (ABEM)** and **B.S. in Environmental & Water Resource Economics (EWRE)** into a single **B.S. in Agricultural & Applied Economics (AAE)** with two emphases—**Agribusiness Economics & Management (AEM)** and **Environmental Economics & Policy (EEP)**—with **minimal changes to existing course offerings or degree requirements** for either path and no requirement of new resources. This preserves academic quality while simplifying the student journey.
- **Clear market fit across food, water, and business systems:** ABEM cultivates applied business/economics skills across the food supply chain and resource use; EWRE develops quantitative economic analysis for environmental and water policy—together forming a coherent applied-economics degree aligned with Arizona’s strengths.
- **Strong labor demand for AAE skillsets:** National projections show steady or strong growth in key roles our graduates pursue—**Economists (5% growth, 2023–33)**, **Market Research Analysts (7% growth, 2024–34)**, and **Operations Research Analysts (23% growth, 2023–33)**—with competitive median wages.
- **Resource-neutral consolidation:** Because AAE retains the **same courses, faculty, and advising** that currently deliver ABEM and EWRE, the change is budget-neutral aside from modest rebranding and catalog updates. (See Viability)
- **Advances the land-grant mission of CALES and the University:** The unified AAE major directly supports CALES’ commitment to produce employable graduates and put purpose-driven science to work for communities and economies.

III. Brief Program Description:

The B.S. in Agricultural & Applied Economics (AAE) trains students to use economic reasoning and data to solve real-world problems at the nexus of food systems, business, water, and the environment. Students build a strong foundation in microeconomics, markets, and quantitative analysis, then tailor advanced coursework through one of two emphases:

- Agribusiness Economics & Management (AEM): Apply economics to production, finance, marketing, supply chains, and risk management across agriculture and food—from farm to consumer. Expect smaller class sizes than many business programs and dedicated advising and career support.
- Environmental Economics & Policy (EEP): Use applied economics, policy analysis, and data to address challenges in environmental quality, natural resources, and water management in arid regions.

Across both emphases, AAE emphasizes hands-on, quantitative skills (data analysis, econometrics, and policy/business decision tools) along with experiential learning opportunities and clear pathways to accelerated or stand-alone M.S. degrees in Applied Economics and Data Analytics. Graduates pursue roles in business analysis, policy and regulatory analysis, finance, sustainability, consulting, and resource management—or continue into graduate study.

IV. Program Rationale:

Fit with CALES portfolio and mission. AAE unifies two CALES majors into a single applied-economics degree that is legible to students and employers while remaining grounded in CALES' land-grant purpose: producing employable graduates and working alongside communities to improve lives and livelihoods. The program's focus on quantitative analysis for agriculture, business, and environmental/water systems aligns directly with CALES' purpose and the Department's established strengths in **agricultural economics, resource economics, and applied econometrics**.

Academic clarity and student success. Consolidation reduces duplication and eliminates choice paralysis between two closely related majors, while preserving the distinct curricular identities via emphases (AEM and EEP). Students continue to access advising, career preparation resources, and internship pipelines already in place for ABEM and EWRE.

Vertical integration and progression. The degree nests within an existing pipeline that includes an **Accelerated Master's Program (AMP)** and two M.S. options (Applied Econometrics & Data Analytics; Applied Economics & Policy Analysis), providing cost- and time-efficient graduate pathways in high-demand quantitative fields.

V. Viability:

Use/redeployment of existing resources.

- Faculty & curriculum: All courses, teaching assignments, and learning outcomes are those already delivering the ABEM and EWRE majors; no new courses are required.
- Advising & student services: Existing advising, tutoring, and career services in the Department and CALES continue unchanged.
- Administrative efficiency: Moving to a single major with two emphases streamlines catalog, recruitment, assessment, and reporting without affecting time-to-degree.

New resources required.

- Faculty/Staff/FTE: None anticipated.
- Facilities/Equipment: None beyond current departmental capacity.
- One-time needs: Limited rebranding and catalog/website updates (marketing collateral, degree search, advising checklists).

VI. Projected Enrollment for the First Three Years:

Year 1	Year 2	Year 3
90	95	100

VII. Evidence of Market Demand:

National labor demand in AAE-aligned roles remains strong. The Occupational Outlook Handbook projects: **Economists** +5% (2023–33; median pay **\$115,440**, May 2024); **Market Research Analysts** +7% (2024–34; median **\$76,950**); and **Operations Research Analysts** +23% (2023–33; median **\$91,290**). These roles map to our graduates’ quantitative and analytic skillsets across business, policy, and resource management and reflect placements of recent graduates.

Sector-level outlook in food, agriculture, natural resources, and environment. The USDA-sponsored **Employment Opportunities for College Graduates** report (Purdue/USDA-NIFA) estimates an average of **~59,400** annual openings (2020–2025) across food, agriculture, renewable natural resources, and environmental fields, reflecting continued demand for applied economics and management capabilities in these sectors. (A 2025–2030 update is underway.)

Arizona context underscores program relevance. Arizona agriculture generated **\$5.24B** in cash receipts in 2022 (NASS), and recent analysis places the broader agriculture/agribusiness contribution at **\$30.9B** to the state economy—indicating robust regional demand for agribusiness and applied-economics talent. Concurrently, Colorado River constraints and ongoing water negotiations through **2026** highlight the need for **environmental and water-resource economists** to guide efficient, equitable allocation and policy.

Together, these indicators support consolidating ABEM and EWRE into a single **AAE** major with emphases that align tightly to workforce needs in **agribusiness, analytics, policy, and water/environmental management**.

VIII. **Similar Programs Offered at Arizona Public Universities:**

University of Arizona (UA)

- B.A. in Economics and B.S.B.A. in Business Economics (Eller College of Management).
- B.S. in Environmental Science (with emphases, including leadership/sustainability/communication). (*Interdisciplinary environmental programs with policy components—related but not economics-focused.*)

Arizona State University (ASU)

- B.S. in Agribusiness (Agribusiness Innovation & Technology) (W. P. Carey Morrison School of Agribusiness).
- B.S. in Economics (W. P. Carey; also pathways via The College).
- (*Related*) Graduate Certificate in Environmental & Sustainability Economics (demonstrates institutional capacity in environmental economics at the graduate level).

Northern Arizona University (NAU)

- B.S.B.A. in Business Economics (W. A. Franke College of Business). [Academic Catalog](#)
- B.S. in Environmental Sciences (with Environmental Administration & Policy emphasis). (*Related interdisciplinary option with policy/management overlap.*) [NAU](#)

Positioning: The UA B.S. in AAE remains distinctive in Arizona for combining economics-first, quantitatively intensive training with two emphases that directly target agribusiness and environmental/water decision-making within a single, unified degree. This clarity should improve recruitment, advising, and degree visibility while leveraging existing departmental strengths.

IX. **Required Signatures**

a. **Program Director/Main Proposer:**

- Signature:**
- Name and Title:** Jeffrey D. Michler, Associate Professor
- Date:** 9 September 2025

b. **Managing Unit/Department Head:**

- Signature:** _____
- Name and Title:** Gary Thompson, Department Head
- Date:** 9 September 2025

c. **College Dean/Associate Dean:**

- Signature:** _____

ii. **Name and Title:** Michael Staten, Dean

iii. **Date:** 11 September 2025

ADDITIONAL INFORMATION FORM
To be used once preliminary proposal has been approved.

- I. **MAJOR REQUIREMENTS**— complete the table below by listing major requirements, including required number of units, required core, electives, selective, and any special requirements, including emphases* (sub-plans), thesis, internships, etc. Note: information in this section must be consistent throughout the proposal documents (comparison charts, four-year plan, curricular/assessment map, etc.).

UNDERGRADUATE

Total units required to complete the degree	120
Upper-division units required to complete the degree	42
Foundation courses	
Second language	2 nd Semester Proficiency
Math	M-Strand
General education requirements	Entry Course (1 unit) Exploring Perspectives (4 courses, 12 units) (one course from each domain required) -Artist -Humanist -Natural Scientist -Social Scientist Building Connections (3 courses, 9 units) Exit Course (1 unit)
List any special requirements to declare or gain admission to this major (completion of specific coursework, minimum GPA, interview, application, etc.)	None
Major requirements	
Minimum # of units required in the major (units counting towards major units and major GPA)	42

ADDITIONAL INFORMATION FORM

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Minimum # of upper-division units required in the major (upper division units counting towards major GPA)	27
<u>Minimum # of residency units to be completed in the major</u>	18
Required supporting coursework (courses that do not count towards major units and major GPA, but are required for the major). Courses listed must include prefix, number, units, and title. Include any limits/restrictions needed (house number limit, etc.). Provide course use form from home department for courses not owned by your department.	<u>For both emphases</u> Communication Skills: Complete 2 courses. One of the 2 courses must be a writing emphasis course. Additional Courses may be available to fulfill this requirement Please see your advisor for approval. – AED 301 (3) - Youth Leadership Development – ALC 309 (3) - Leadership Principles and Practices – ALC 409 (3) - Team and Organizational Leadership – ALC 410 (3) - Community Innovation and Entrepreneurial Leadership – ALC 411 (3) - Principles and Applications of Organizational Innovation – ALC 422 (3) - Communicating Knowledge in Agriculture and the Life Sciences – APCV 301 (3) - Interpreting and Presenting Digitally – ENGL 307 (3) - Business Writing – ENGL 308 (3) - Technical Writing – ENGL 340 (3) - Topics in Professional & Technical Writing – ENTR 360 (3) - Entrepreneurship for Owner-Operated Businesses – ENTR 406 (3) - Principles of Entrepreneurship – HED 397B (2) - Project SOAR – SBE 202 (3) - Professional Communication and Presentation – SCI 401 (3) - Science Communication – COMM 101 (3) - Introduction to the Study of Communication – COMM 119 (3) - Public Speaking – PR 119 (3) - Public Speaking – HED 201 (3) - Foundations of Leadership – AED 311 (3) - Professional Leadership Concepts <u>Agribusiness Economics & Management (AEM) emphasis</u> Complete 2 courses from the following: – MIS 111 (3) - Computers and Internetworked Society – MATH 113 (3) – Elements of Calculus OR MATH 116 (3) – Calculus Concepts for Business

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	<u>Environmental Economics & Policy (EEP) emphasis</u> Complete 2 courses from the following: – MIS 111 (3) - Computers and Internetworked Society OR BAT/BE/HECL/NSC/PLS 120 (3) - Basic Computer Skills for Office Applications – MATH 113 (3) Elements of Calculus OR MATH 122B (3) First Semester Calculus OR MATH 125 (3) Calculus 1
Major requirements. List all major requirements including core and electives. If applicable, list the emphasis requirements for each proposed emphasis*. Courses listed count towards major units and major GPA. Courses listed must include prefix, number, units, and title. Mark new coursework (New). Include any limits/restrictions needed (house number limit, etc.). Provide course use form from home department for courses not owned by your department.	<u>Common core for both emphases</u> Introduction to Agricultural & Applied Economics – complete 2 course: – AREC 150C1 (3) The Role of Markets and Incentives OR AREC 150C2 World Food Issues OR AREC 150C3 Sustaining Life: The Global Economy of Food – AREC 217 (3) - Economics of Food and Agriculture: Sustainable Solutions for a Changing World Economic Analysis using Excel – complete 1 course.: – AREC 297 (2) - Excel Applications for Economic Analysis Introduction to Statistics & Data Analysis: complete 1 course: – AREC239 (4) - Introduction to Statistics and Data Analysis Economics II: complete 1 course: – AREC 304 (3) - Intermediate Productions & Consumption Analysis Econometrics II: complete 1 course: – AREC 339 (3) - Econometric Statistics Economic Perspectives: complete 2 courses: – AREC 300 (3) - Economics of Racial Wealth and Income Disparities in the United States – AREC 360 (3) - The Poverty and Development of Nations – AREC 365 (3) – The Food Economy – Efficiencies, Gaps, and Policies Policy and Data Analysis: complete 2 courses: – AREC 403 (3) - Analysis of Economic Data – AREC 464 (3) - Economics of Policy Analysis <u>Agribusiness Economics & Management (AEM) emphasis</u> Agribusiness Management: Complete 4 courses. – AREC 210 (3) – Understanding the World of Commerce – AREC 313 (3) - Economics of Futures Markets – AREC 315 (3) - Agribusiness Economics and Management

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	– AREC 414 (3) Cost-Benefit Analysis OR AREC 450 (3) - Financial Management for Agribusiness OR AREC 458 (3) Agricultural and Food Marketing <u>Environmental Economics & Policy (EEP) emphasis</u> Environmental Economics and Policy: Complete 4 courses. – AREC 150E (3) – The Colorado River: Competing for Water in the American West – AREC 414 (3) – Cost-Benefit Analysis – AREC 476 (3) – Environmental Law and Economics OR AREC 478 (3) – Economics of the Natural Environment OR AREC 479 (3) - Economic Analysis of Water, Food & Environmental Policies Applied Economic Analysis: complete 3 units: – AREC 397C (3) – Applied Research with Data in Food and Resource Economics – AREC 496A (1) – Research Methods for Applied Economists – AREC 497A (2) – Coding for Applied Economists
Internship, practicum, applied course requirements (Yes/No). If yes, provide description.	No
Senior thesis or senior project required (Yes/No). If yes, provide description.	No
Additional requirements (provide description)	None
Minor (specify if optional or required)	REQUIRED: Business Administration Minor (18) required for the Agribusiness Economics & Management emphasis. REQUIRED: Minor in one of the following required for the Environmental Economics & Policy emphasis: – Applied Computing (18) – Agricultural Technology Management & Education (20) – Biosystems Analytics & Technology (18) – Business Administration (18)

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	– Climate Change & Society (21) – Climate Change & Public Health (18) – Environmental Hydrology & Water Resources (18) – Environmental Science (18) – Food Studies (18) – Geographic Information Sciences (18) – Government & Public Policy (18) – Law (18) – Mathematics (18) – Natural Resources (18) – Political Science (18) – Sustainable Mineral Resources (18) – Sustainable Plant Systems (21) – Statistics & Data Science (18) – Urban & Regional Development (18)
Any <u>restrictions on multiple use of courses</u> (Yes/No)? If yes, provide description.	

*Emphases are officially recognized sub-specializations within the discipline. [ABOR Policy 2-221 c. Academic Degree Programs Subspecializations](#) requires all undergraduate emphases within a major to share at least 40% curricular commonality across emphases (known as “major core”). Total units required for each emphasis must be equal. Proposed emphases having similar curriculum with other plans (within department, college, or university) may require completion of an additional comparison chart. Complete the table found in Appendix B to indicate if emphases should be printed on student transcripts and diplomas.

- II. **CURRENT COURSES**—using the table below, list all existing courses included in the proposed major. You can find information to complete the table using the [UA course catalog](#) or [UAnalytics](#) (Catalog and Schedule Dashboard> “Printable Course Descriptions by Department” On Demand Report; right side of screen). If the courses listed belong to a department that is not a signed party to this implementation request, upload [course use forms](#) to the “Letter(s) of Support” field on the UAccess workflow form. Add or remove rows to the table, as needed.

Course prefix and number (include cross-listings)	Units	Title	Pre-requisites	Modes of delivery (online, in- person, hybrid)	Dept signed party to proposal? (Yes/No)

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AREC 150C1	3	The Role of Markets and Incentives	Enrollment not allowed if you have previously taken INDV 103 "The Role of Markets and Incentives" (Topic 9)	In-person	Yes
AREC 150C2	3	World Food Issues	Enrollment not allowed if you have previously taken INDV 103 "World Food Issues" (Topic 12)	In-person	Yes
AREC 150C3	3	Sustaining Life: The Global Economy of Food	N/A	In-person, online	Yes
AREC 150E	3	The Colorado River: Competing for Water in the American West	N/A	In-person	Yes
AREC 197C	1	Marginal Analysis for Applied Economics	PPL 60+ or MCLG 88+ or SAT I MSS 640+ or ACT MATH 26+ or one recent course from MATH 112, 113, 116, 122B, or 125. Some students may need to take Math 100, then Math 112 first. Test scores expire after 2 years.	In-person	Yes
AREC/PPEL 210	3	Understanding the World of Commerce	Two courses from Tier One, Individuals and Societies.	In-person, online	Yes
AREC 217	3	Economics of Food and Agriculture: Sustainable Solutions for a Changing World	N/A	In-person, online	Yes
AREC 239	4	Introduction to Statistics and Data Analysis	PPL 60+ or SAT I MSS 640+ or ACT MATH 26+	In-person, online	Yes

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			or one recent course from MATH 108, 112, 113, 116, 122B, 120R, or 125. Some students may need to take Math 100, then Math 112 first. Test scores expire after 2 years.		
AREC 297	1	Excel Applications for Economic Analysis	N/A	In-person	Yes
AREC 300	3	Economics of Racial Wealth and Income Disparities in the United States	AREC 217 or ECON 200 or (ECON 201A and 201B) or transfer equivalent course(s).	In-person	
AREC 304	3	Intermediate Production & Consumption Analysis	(AREC 217 or ECON 200 or ECON 201A) and (MATH 113 or MATH 116 or MATH 122B or MATH 124, MATH 125).	In-person	Yes
AREC/ECON/FIN 313	3	Economics of Futures Markets	AREC 217 or AREC/PPEL 210 or ECON 200 or ECON 201A.	In-person	Yes
AREC 315	3	Agribusiness Economics and Management	AREC 217 or AREC/PPEL 210 or ECON 200 or ECON 201A.	In-person	Yes
AREC/ECON 339	4	Economic Statistics	(AREC 217 or ECON 200 or ECON 201A) and (MATH 113 or MATH 116 or MATH 122B or MATH 124 or MATH 125).	In-person	Yes

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AREC 360	3	The Poverty and Development of Nations	AREC 217 or AREC/PPEL 210 or ECON 200 or ECON 201A.	In-person	Yes
AREC/NAFS/NSC 365	3	The Food Economy- Efficiencies, Gaps and Policies	Two courses from Tier One Individuals & Societies	In-person	Yes
AREC 397C	3-4	Applied Research with Data in Food and Resource Economics	MATH 163 or MATH 263, AREC 239, SBS 200, PSY 230, or equivalent. One intro statistics course from AREC 239 or SBS 200 or BNAN 276 or MATH 163 or MATH 263 or ISTA 116 or equivalent transfer coursework or higher intro statistics.	In-person	Yes
AREC 403	3	Analysis of Economic Data	Major or minor: ABEM or EWRE. Junior or senior status. (AREC304 or ECON301 or ECON300 or ECON361) and AREC339.	In-person, online	Yes
AREC 450	3	Financial Management for Agribusiness	Junior or Senior status. (ACCT200 or ACCT250 or ACCT210), and (AREC 304 or ECON 301 or ECON 300 or ECON 361).	In-person, online	Yes
AREC 464	3	Economics of Policy Analysis	AREC 304 or ECON 300 or ECON 301 or ECON 361 or AREC 315 and	In-person	Yes

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			MATH 113 or MATH 116 or MATH 122B or MATH 124 or MATH 125.		
AREC/HWRS/RNR 476	3	Environmental Law and Economics	Major or minor: ABEM, EWRE. Junior or Senior status. (AREC 304 or ECON 300 or ECON 301 or ECON 361) and (MATH 113 or MATH 116 or MATH 122B or MATH 124 or MATH 125).	In-person	Yes
AREC/ECON 478	3	Economics of the Natural Environment	(AREC 304 or ECON 300 or ECON 361) and AREC/ECON 339, or by instructor permission.	In-person	Yes
AREC/ENVS/HWRS/RNR 479	3	Economic Analysis of Water, Food & Environmental Policies	One calculus course from MATH 113, MATH 116, MATH 122B, or MATH 125 or higher, or transfer equivalent or test credit.	In-person	Yes
AREC 496A	1	Research Methods for Applied Economists	AREC 339 or equivalent economic statistics course	In-person	Yes
AREC 497A	2	Coding for Applied Economists	AREC/ECON 339 and (AREC 496A or AREC 596A), or department consent.	In-person	Yes
ACCT 250	3	Information for Business Decisions	Course is designed for non-business majors.	In-person, online	No

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BNAD 301	3	Global and Financial Economics and Strategies	ECON 200 or (ECON 201A and ECON 201B).	In-person, online	No
BNAD 302	3	Human Side of Organizations	N/A	In-person, online	No
BNAD 303	3	Marketing Principles, Concepts and Tools	N/A	In-person, online	No
ECON 200	3	Basic Economic Issues	Not available to students who have completed or are enrolled in ECON 201A AND ECON 201B.	In-person, online	No
MATH 112	3	College Algebra Concepts and Applications	PPL 40+ or MCLG 55+ or SAT I MSS 560+ or ACT MATH 24+. Test scores expire after 1 year. Some students may need to take Math 100 first.	In-person, online	No
MATH 113	3	Elements of Calculus	PPL 60+ or SAT I MSS 640 or ACT MATH 26+ or recent Math 108(C or higher), Math 112(C or higher) or one recent course from MATH 113, 116 , or 120R. Test scores expire after 1 year. Some students may need to take Math 100, then Math 112 first.	In-person	No
MATH 116	3	Calculus Concepts for Business	PPL 60+ or SAT I MSS 640+ or ACT MATH 26+ or one course from MATH 108 (C or	In-person, online	No

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			higher), 112 (C or higher), 113, or 120R. Either MIS 111 or ABE 120. Test scores expire after 1 year. Some students need to take Math 100, then Math 112 first.		
MATH 122B	3	First-Semester Calculus	C or better, or concurrent enrollment in MATH 122A, transfer credit not allowed.	In-person	No
MIS 111	3	Computers and Internetworked Society	N/A	In-person, online	No

III. **NEW COURSES NEEDED** – using the table below, list any new courses that must be created for the proposed program. If the specific course number is undetermined, please provide level (i.e., CHEM 4XX). Add rows as needed.

Course prefix and number (include cross-listings)	Units	Title	Pre-requisites	Modes of delivery (online, in-person, hybrid)	Status*	Anticipated first term offered	Dept signed party to proposal? (Yes/No)
AREC 414	3	Cost-Benefit Analysis	AREC 217 or ECON 200; AREC 304	In-person	S	Fall 2026	Yes
AREC 458	3	Agricultural and Food Marketing	AREC 315	In-person	S	Spring 2027	Yes
AREC 496A	2	Research Methods of	AREC 339, ECON 376, or	In-person	S	Spring 2027	Yes



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		Applied Economists	equivalent economic statistics course				
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*In development (D); submitted for approval (S); approved (A)

- IV. **FACULTY INFORMATION-** complete the table below. If UA Vitae link is not provided/available, add CVs to a Box folder and provide that link. UA Vitae profiles can be found in the [UA directory/phonebook](#). Add rows as needed.

Faculty Member	Involvement	UA Vitae link or Box folder link
Aglasan, Serkan	Teach AREC 197C, AREC 313, AREC 450	https://arizona.box.com/s/0s9hvtaaraxpgk8fu8wwvj29j2wgdwy
Aradhyula, Satheesh	Teach AREC 239, AREC 339	
Athnos, April	Teach AREC 150C3, AREC 150E, AREC 217, AREC 365, AREC 476, AREC 478, AREC 479	https://arizona.box.com/s/0s9hvtaaraxpgk8fu8wwvj29j2wgdwy
Frisvold, George	Teach AREC 464	https://arizona.box.com/s/0s9hvtaaraxpgk8fu8wwvj29j2wgdwy
Josephson, Anna	Teach AREC 300, AREC 360, AREC 414, AREC 464, AREC 496A	https://arizona.box.com/s/0s9hvtaaraxpgk8fu8wwvj29j2wgdwy
Michler, Jeffrey	Teach AREC 300, AREC 360, AREC 397C, AREC 497A	https://arizona.box.com/s/0s9hvtaaraxpgk8fu8wwvj29j2wgdwy
Olurotimi, Osaretin	None, research faculty	https://arizona.box.com/s/0s9hvtaaraxpgk8fu8wwvj29j2wgdwy
Rahman, Tauhidur	AREC 239, AREC 304, AREC 339, AREC 360, AREC 365	https://arizona.box.com/s/0s9hvtaaraxpgk8fu8wwvj29j2wgdwy
Staten, Michael	AREC 300	https://arizona.box.com/s/0s9hvtaaraxpgk8fu8wwvj29j2wgdwy
Thompson, Gary	AREC 403	https://arizona.box.com/s/0s9hvtaaraxpgk8fu8wwvj29j2wgdwy
Tronstad, Russell	None, Extension faculty	https://arizona.box.com/s/0s9hvtaaraxpgk8fu8wwvj29j2wgdwy
Zuo, Na	Teach AREC 150C1, AREC 150C2, AREC 210, AREC 217, AREC 297, AREC 315, AREC 450, AREC 458	https://arizona.box.com/s/0s9hvtaaraxpgk8fu8wwvj29j2wgdwy

- V. **GRADUATION PLAN** – provide a sample degree plan, based on your program that includes all requirements to graduate with this major and takes into consideration course offerings and sequencing. *Use generic title/placeholder for requirements with more than one course option (e.g., Upper Division Major Elective, Minor Course, Second Language, GE).* Add rows as needed.

Semester 1	Semester 2	Semester 3	Semester 4
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ADDITIONAL INFORMATION FORM

To be used once preliminary proposal has been approved.

Course prefix and number	Units	Course prefix and number	Units	Course prefix and number	Units	Course prefix and number	Units
ENGL 101/ENGL 107	3	ENGL102/ENGL108	3	MIS111 or BE120	3	EP: Artist	3
MATH 112	3	MATH 113 or MATH 122	3	AREC 150E	3	AREC 239	4
AREC 150C1 or AREC150C2 or AREC150C3	3	Second Language II	4	EP: Humanist	3	Building Connections	3
Second Language I	4	AREC 297	1	EP: Natural Scientist	3	Building Connections	3
UNIV 101	1	AREC 217	3	Building Connections	3	UNIV 301	1
General Elective	1	General Elective	1			General Elective	1
Total	15	Total	15	Total	15	Total	15

Semester 5		Semester 6		Semester 7		Semester 8	
Course prefix and number	Units	Course prefix and number	Units	Course prefix and number	Units	Course prefix and number	Units
AREC 304	3	AREC 300 or AREC 360 or AREC 365	3	AREC 464	3	AREC 403	3
AREC 339	3	Emphasis Course	3	AREC414	3	AREC 476 or AREC 478 or REC 479	3
Communication Skill 1 of 2	3	Communication Skill 1 of 2	3	AREC 496A	1	AREC 497A	2
Minor Course or Elective	3	Minor Course or Elective	3	Minor Course or Elective	3	Minor Course or Elective	3
Minor Course or Elective	3	Minor Course or Elective	3	Minor Course or Elective	3	Minor Course or Elective	3
				General Elective	2	General Elective	1
Total	15	Total	15	Total	15	Total	15

ADDITIONAL INFORMATION FORM

To be used once preliminary proposal has been approved.

- VI. **LEARNING OUTCOMES AND CURRICULUM MAP** - Complete these tables as a summary of the learning outcomes from your assessment plan and an overview of where learning outcomes are addressed in the program. Use the examples below as models and refer to the explanations beneath each table. Additional resources are available from the [University Center for Assessment, Teaching and Technology](#).

Learning Outcomes - Common

Learning Outcome #1: Students will apply microeconomic models to analyze well-defined economic problems.
Concepts: Consumer theory; producer theory; cost and production functions; supply and demand; elasticity; market structure (perfect competition, monopoly, oligopoly); welfare analysis; comparative statics; externalities and public goods
Competencies: Formulate economic decision problems; set up and solve optimization models; conduct comparative statics; derive and interpret equilibrium changes; quantify welfare effects; evaluate policy interventions; communicate model-based results clearly.
Assessment Methods: Analytical case/problem set using micro models (graphical + calculus-based solutions) drawn from AREC 304 (Intermediate Production & Consumption Analysis) and/or AREC 464 (Economics of Policy Analysis); may also integrate firm-level choices from AREC 315 (Agribusiness Economics & Management).
Measures: Direct: Instructor rubric on the analytical case/problem set with criteria for (1) correct model formulation, (2) method/solution steps, (3) comparative statics, and (4) interpretation/policy insight. Benchmark: $\geq 85\%$ of seniors "Proficient" or better on all criteria. Indirect: Student Exit Survey—self-reported confidence applying microeconomic models to policy/business problems (Likert 1–4). Target: mean ≥ 3.0 or $\geq 80\%$ "agree/strongly agree."
Learning Outcome #2: Students will employ econometric models to assess the statistical relationships in economic data.
Concepts: Data management; probability and sampling; OLS regression; inference and hypothesis testing; functional form and model selection; diagnostics (heteroskedasticity, multicollinearity); causal identification (experiments, DiD, IV); panel/time-series basics; reproducibility.
Competencies: Clean, document, and analyze data in statistical software (e.g., R/Stata); specify appropriate models; test assumptions; interpret coefficients and uncertainty; assess robustness; produce publication-quality tables/figures; write a concise empirical methods/results section.
Assessment Methods: Empirical project (individual or team) in AREC 339/239/403—students source or are provided data, pose a question, estimate and diagnose a model, and submit a reproducible paper/notebook with tables and graphics.
Measures: Direct: Project report rubric covering (1) question & model fit, (2) code/data documentation & reproducibility, (3) diagnostics & assumption checks, (4) interpretation & policy/business relevance. Benchmark: $\geq 85\%$ "Proficient" overall; $\geq 80\%$ "Meets/Exceeds" on reproducibility. Indirect: Student Exit Survey—self-reported ability to build and interpret econometric models (Likert 1–4). Target: mean ≥ 3.0 or $\geq 80\%$ "agree/strongly agree."
Learning Outcome #3: Students will design, implement, and evaluate a research strategy to answer significant questions having real-world implications; employ independently quantitative reasoning to evaluate economic hypotheses and predictions.

ADDITIONAL INFORMATION FORM

To be used once preliminary proposal has been approved.

Concepts: Research design; hypothesis testing; forecasting and scenario analysis; uncertainty and risk; sensitivity analysis; benefit–cost analysis; ethics and reproducibility; professional communication (written, visual, oral).
Competencies: Frame testable hypotheses; connect models to data; execute evidence-based analysis; quantify and communicate uncertainty; defend methods/assumptions; translate findings for technical and non-technical audiences; reflect on limitations.
Assessment Methods: Capstone research poster + oral defense in a senior-level seminar such as AREC 479 (Economic Analysis of Water, Food & Environmental Policies) or AREC 315/464 (business/policy applications), synthesizing micro + econometrics for a real problem.
Measures: Direct: Poster/oral presentation rubric assessing (1) research question & design logic, (2) methodological rigor & evidence integration, (3) conclusions with quantified uncertainty, (4) clarity and professional delivery. Benchmark: ≥85% “Proficient” on all criteria. Indirect: Student Exit Survey—self-reported ability to design and communicate quantitative, evidence-based analyses (Likert 1–4). Target: mean ≥3.0 or ≥80% “agree/strongly agree.”

*Explanation: **Concepts** are the topics that students will learn in the program. **Competencies** are the skills they will learn. A **learning outcome** is their ability to apply the skills to the topics, or to use the skills and the topics together, in an observable way. The **assessment method** is where students will demonstrate the learning outcome, and a **measure** is how data will be pulled from the assessment method. Include both a direct and indirect assessment method and measurement for each learning outcome. Competencies and the learning outcomes need to reflect higher level learning: consider using verbs from the Application, Analysis, Synthesis, and Evaluation columns from this list when writing learning outcomes: <https://arizona.app.box.com/s/orx6coex8607hlmenrql7dzhzjicpit>. We recommend 3-5 Learning Outcomes for a degree program.*

- a. At least one new learning outcome is required per emphasis requested. Add rows and tables as needed. Visit the [University Center for Assessment, Teaching and Technology \(UCATT\)](#) for resources and consultation. UCATT review and approval is required.

Emphasis 1: Agribusiness Economics & Management (AAE-AEM)

Learning Outcome #1: Students will design a financial analysis report that evaluates the financial health of a company, explains the analysis to management, and produces recommendations to improve the company’s financial position.
Concepts: Financial statements (income statement, balance sheet, cash flow); ratio analysis (liquidity, profitability, leverage, efficiency); working capital; pro forma forecasting; capital budgeting (NPV, IRR, payback); cost–volume–profit; risk and hedging (futures/options); pricing and margins.
Competencies: Build linked Excel financial models; compute and interpret ratios; prepare pro forma statements; evaluate investments (NPV/IRR); run scenario & sensitivity analyses; articulate actionable recommendations; justify hedging/financing choices; craft executive-level writing.

ADDITIONAL INFORMATION FORM

To be used once preliminary proposal has been approved.

Assessment Methods: Capstone financial analysis report or marketing report. For the financial report, students construct a linked Excel, complete capital budgeting, run scenario & sensitivity analyses (e.g., prices, yields, interest rates), and submit a 2-to-3-page executive memo with prioritized recommendations (operations, financing, risk management/hedging). For the marketing report, students deliver a professional report that includes (1) situation analysis and SWOT, (2) segmentation–targeting–positioning (STP) with evidence, (3) integrated 4Ps strategy, (4) metrics & evaluation plan with baseline and targets (e.g., awareness, trial, share, CAC/CLV, ROMI), (5) budget and risk/contingency plan. Optional 5-to-7-minute pitch if required by the instructor.

Measures: Direct: report rubric assessing (1) depth of insight into the problem, (2) soundness and accuracy of recommendations, (3) feasibility and coherence of strategy, (4) professionalism and clarity of deliverables. Benchmark: $\geq 85\%$ of graduating AEM students on this path score “Proficient” overall; no single criterion below 75% of students at “Proficient.” Indirect: Student Exit Survey item: “I can evaluate firm financial health and/or product marketability and develop plans or recommendations to improve performance.” (4-point Likert). Target: Mean ≥ 3.0 or $\geq 80\%$ “Agree/Strongly agree.”

Emphasis 2: Environmental Economics & Policy (AAE-EEP)

Learning Outcome #1: Students will apply economic models to assess environmental policies and produce quantitative analysis to measure policy efficiencies.

Concepts: Externalities; public goods; property rights & institutions; welfare economics (consumer/producer surplus); benefit–cost analysis; non-market valuation; discounting; dynamic/resource models; water allocation; environmental policy instruments (taxes, tradable permits, performance standards).

Competencies: Specify and analyze policy counterfactuals; compute welfare changes and efficiency metrics; execute benefit–cost analyses (with sensitivity and distributional checks); apply non-market valuation evidence; interpret hydrologic-economic or resource allocation model outputs; write policy-ready briefs.

Assessment Methods: Environmental Policy Efficiency Analysis Brief in AAE 478 or AAE 479 (or AAE 464 when the topic fits). Students select an environmental or water policy; conduct a benefit–cost analysis (with welfare changes, discounting, and distributional notes); include at least one sensitivity (e.g., social cost of carbon, discount rate, elasticity, non-market valuation parameter); and deliver a policy memo (1.5–2 pages) plus a technical appendix (tables/figures, calculations). Optional 5-minute in-class pitch if the course uses presentations.

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Measures: Direct: Policy brief rubric assessing (1) appropriate economic model & assumptions for the policy instrument (tax, standard, tradable permit, allocation rule); (2) correct and transparent benefit–cost/welfare computations with data citations; (3) coherent sensitivity/distributional analysis and interpretation; (4) evidence-based, implementable recommendation tied to results. Benchmark: $\geq 85\%$ of graduating students score “Proficient” or better overall; no criterion below 75% of students at “Proficient.” Indirect: Student Exit Survey item: “I can evaluate environmental or water policies using economic tools and quantify policy efficiency.” (4-point Likert). Target: Mean ≥ 3.0 or $\geq 80\%$ “Agree/Strongly agree.”

Curriculum Map - Common

	AREC 150C1/C2/C3	AREC 217	AREC 239	AREC 297	AREC 300/360/365	AREC 304	AREC 339	AREC 403	AREC 464
LO #1: Students will apply microeconomic models to analyze well-defined economic problems.	I	R				R			M
LO #2: Students will employ econometric models to assess statistical relationships in economic data.			R	I			R	M	
LO #3: Students will design, implement, and evaluate a research strategy to answer significant questions having real-world implications; employ independently quantitative reasoning to evaluate economic hypotheses and predictions.	I				R			M	

Explanation: The curriculum map lists the required courses for the program and indicates where each LO will be introduced (I), reinforced (R), and mastered (M). This is important to show that you are including adequate teaching of the skills and concepts to support the LOs. Each row (LO) should have at least one I, R, and M in it. Usually (but not always) there is more than one R. Usually (but not always) there is only one I and one M. Generally, Is come first, followed by Rs, and Ms are last. Each column (class) should have at least one letter in it, but not every box needs to be filled in.

ADDITIONAL INFORMATION FORM
To be used once preliminary proposal has been approved.

Courses	Emphasis 1 Student Learning Outcomes
	LO 1: Students will design a financial analysis report that evaluates the financial health of a company, explains the analysis to management, and produces recommendations to improve the company's financial position.
AREC 210	I
AREC 313	R
AREC 315	R
AREC 414/450/458	M/A

Courses	Emphasis 2 Student Learning Outcomes
	LO 1: Students will apply economic models to assess environmental policies and produce quantitative analysis to measure policy efficiencies.
AREC 150e	I
AREC 414	R
AREC 397C or AREC 496A and AREC 497A	R
AREC 476/478/479	M/A

Curriculum Map: Which courses in the emphasis connect to these learning outcomes? Use the table below to provide the information, Key: "I" = Introduced; "R"= reinforced and opportunity to practice;



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“M”= mastery at the senior or exit level; “A”= assessment evidence collected for program-level decision making

- VII. **PROGRAM ASSESSMENT PLAN**- using the table below, provide a schedule for program evaluation 1) while students are in the program and 2) after completion of the major. Add rows as needed. Delete **EXAMPLE** rows.

Assessment Measure	Source(s) of Evidence	Data Collection Point(s)
Evaluation of Learning Outcome	Annual Self-Assessment	Watermark
Job Placement Statistics	Student/Alumni Survey	At graduation and as part of alumni survey
Academic Program Review	Reviewers’ responses	Every 7 years

- VIII. **ANTICIPATED STUDENT ENROLLMENT**-complete the table below. What concrete evidence/data was used to arrive at the numbers?

5-YEAR PROJECTED ANNUAL ENROLLMENT					
	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year
Number of Students	90	95	100	105	110

Data/evidence used to determine projected enrollment numbers:

Since we are combining two existing majors, the data/evidence for projected enrollment is simply the sum of the two existing majors plus a modest 5% growth.

- IX. **ANTICIPATED DEGREES AWARDED**- complete the table below, beginning with the first year in which degrees will be awarded. How did you arrive at these numbers? Take into consideration departmental retention rates. Use [National Center for Education Statistics College Navigator](#) to find program completion information of peer institutions offering the same or a similar program.

PROJECTED DEGREES AWARDED ANNUALLY					
	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year
Number of Degrees	22	24	25	26	28

Data/evidence used to determine number of anticipated degrees awarded annually: As with the above, projected degrees awarded is



ADDITIONAL INFORMATION FORM

To be used once preliminary proposal has been approved.

simply the sum of the degrees awarded in the two existing majors with a modest 5% growth.

X. **SUPPORT FACULTY/STAFF** – please list name, title, and email for applicable positions below.

Lead Academic Advisor: College has not allocated an academic advisor to our unit after our advisor resigned

Director of Graduate Studies: George Frisvold

Graduate Coordinator: College has not allocated an academic advisor to our unit after our graduate coordinator resigned

Appendix B. Emphasis Print Information-if applicable, complete the table below to indicate if proposed emphases should be printed on transcript and diploma. Add rows as needed. Note: emphases are displayed on transcript and diplomas as “ _____ Emphasis”.

Emphasis	Print on transcript	Print on diploma
Agribusiness Economics & Management	Yes	Yes
Environmental Economics & Policy	Yes	Yes



New Academic Program PEER COMPARISON

Program name, degree, and institution	Proposed UA Program	University of Wisconsin – Madison B.S. Agricultural & Applied Economics	University of Minnesota, Twin Cities B.S. Applied Economics
Completions for last two years, <u>MAJORS only (can be found on market data report)</u>		67	92
Program Description	The B.S. in Agricultural & Applied Economics (AAE) trains students to use economic reasoning and data to solve real-world problems at the nexus of food systems, business, water, and the environment. Students build a strong foundation in microeconomics, markets, and quantitative analysis, then tailor advanced coursework through one of two emphases: • Agribusiness Economics & Management (AEM): Apply economics to production, finance, marketing, supply chains, and risk management across agriculture and food—from farm to consumer. Expect smaller class sizes than many business programs and dedicated advising and career support. • Agricultural & Environmental Economics (AEE): Use applied economics, policy analysis, and data to address challenges in environmental	B.S. in Agricultural and Applied Economics (CALS) — Students build core foundations in microeconomics, macroeconomics, and quantitative methods, then customize their studies in one of four concentrations—Applied, Development, Environmental, or Managerial Economics. A required senior capstone (AAE 500) culminates the program. (Source: UW–Madison Undergraduate Guide)	B.S. in Applied Economics (CFANS) — Broad applied economics training in micro, macro, and quantitative methods, with customizable study through five tracks (Applied Economics & Policy; Development & Trade; Economics of Entrepreneurship; Food Systems; Natural Resource & Environmental Sustainability) or an individualized track. A writing-intensive capstone (APEC 4221W) completes the major. (Source: UMN Dept. of Applied Economics; UMN Catalog)

	quality, natural resources, and water management in arid regions. Across both emphases, AAE emphasizes hands-on, quantitative skills (data analysis, econometrics, and policy/business decision tools) along with experiential learning opportunities and clear pathways to accelerated or stand-alone M.S. degrees in Applied Economics and Data Analytics. Graduates pursue roles in business analysis, policy and regulatory analysis, finance, sustainability, consulting, and resource management—or continue into graduate study.		
Target Careers from Market Data Report	Roles in business analysis, policy and regulatory analysis, finance, sustainability, consulting, and resource management—or continue into graduate study.	Examples highlighted: environmental economist; agricultural economist; policy/business analyst; consultant; researcher; manager; trader; auditor; graduate study in economics/public policy/business/law.	Examples highlighted: commodity buyer; securities specialist; sales development representative; financial analyst; grain merchandiser; claims representative; roles in government and the private sector; graduate/professional study.
Emphases? (Yes/No) List, if applicable. <u>For majors only.</u>	Yes -Agribusiness Economics & Management (AEM) - Environmental Economics & Policy (EEP)	Yes — Four concentrations within the major: Applied Economics; Development Economics; Environmental Economics; Managerial Economics.	Yes — Five tracks (plus build-your-own): Applied Economics & Policy; Development & Trade; Economics of Entrepreneurship; Food Systems; Natural Resource & Environmental Sustainability.
Minimum # of units required	42	Major credits: 41–50 (Math/Stats, AAE/Econ core, 15 cr AAE 200+ focus area, capstone). Total degree: 120 credits.	Total degree: 120 credits. The major includes APEC core (e.g., APEC 3001, 3002, 3006, 3003), statistics (e.g., BA 2551 or STAT 3011), communication/writing-intensive coursework, and a 3-credit capstone (APEC 4221W).
Special requirements to gain admission to program?	None	No separate application; declare the major if in good standing and with fewer than 86 degree credits. No specific GPA or course prerequisites to declare (University admission handled centrally).	No department-specific admission process; students apply through UMN Office of Admissions and declare the major in CFANS with advising.

UG - Level of Math required (if applicable)	3 units of calculus and 4-unit statistics course	Calculus via one of: MATH 221; or MATH 211 & 213; or MATH 171 & 217; or MATH 211 & ECON 205. Statistics via one of: ECON 310; STAT 301/324/371; PSYCH 210; SOC/C&E SOC 360; or GEN BUS 306 & 307.	Calculus: sample plan uses MATH 1142 (Short Calculus) (Calculus I MATH 1271 may substitute). Statistics: BA 2551 (Business Statistics in R) or STAT 3011 (prerequisite to APEC 3003 Econometrics).
UG - Level of Second Language required (if applicable)	2 nd semester proficiency	None beyond university/CALS general education; CALS does not have a college-level world language requirement.	None specific to CFANS; second-language requirement applies to CLA degrees, not CFANS. APEC B.S. follows UMN Liberal Education requirements.
Internship, practicum, or applied/experiential requirements? If yes, describe.	No	No required internship/practicum. Experiential learning encouraged (e.g., internships, research), and a senior capstone (AAE 500) is required.	Yes (college requirement). CFANS has an Experiential Learning requirement that APEC majors can fulfill via CFAN 3096/4096 (internship-based reflection) or APEC 3551. The major also requires a writing-intensive capstone (APEC 4221W).
Additional requirements	None	University Gen Ed + CALS college requirements (First-Year Seminar; International Studies; science breadth). Major-specific: AAE 101/ECON 101; ECON 102; Intermediate Micro (ECON 301/311); Intermediate Macro (ECON 302/312); 15 credits of AAE courses at 200+; AAE 500 Capstone.	University Liberal Education and Writing Intensive requirements (e.g., AECM 2421W, AECM 2221W, WRIT 3562W). APEC core includes APEC 1001, 1101, 1102, 1201; APEC 3001, 3002, 3006; APEC 3003 (Econometrics); APEC 4221W (Capstone); CFAN 3096/4096 satisfies CFANS Experiential Learning requirement.

Additional questions:

1. How does the proposed program align with peer programs? Briefly summarize the similarities between the proposed program and peers, which could include curriculum, overall themes, faculty expertise, intended audience, etc.

Like UW–Madison’s B.S. in AAE and UMN’s B.S. in Applied Economics, the proposed UA B.S. in AAE is built on applied micro/macro and quantitative/econometric foundations, offers student choice via specializations (UA emphases; UW concentrations; UMN tracks), and culminates in a capstone-style experience preparing graduates for analytic roles in business, policy, and resource management.

2. How does the proposed program stand out or differ from peer programs? Briefly summarize the differences between the proposed program and peers, which could include curriculum, overall themes, faculty expertise, intended audience, etc.

UA's program explicitly integrates agribusiness and environmental/water economics under a single major with two emphases—backed by Arizona-specific coursework (e.g., The Colorado River) and, for AEM students, a required Business Administration minor—whereas UW and UMN offer a broader menu of concentrations/tracks and (at UMN) a college-level experiential requirement.

3. How do these differences make this program more applicable to the target student population and/or a better fit for the University of Arizona?

This design targets Arizona's workforce needs in food, agribusiness, and water policy, leverages CALES' land-grant focus on employability and community impact and gives students job-ready depth (capstones + minor) tailored to the state's arid-lands context.

Course Use/Collaboration/Concern Form

Note: Requesting college should provide this request to leadership in unit who owns courses. Responding unit should respond within 10 business days from receipt. Lack of response after the 10 business days is presumed approval.

FOR REQUESTING COLLEGE:

- I. Initiating College: College of Agriculture, Life, and Environmental Sciences
- II. Representative(s) making the request: Jeffrey D. Michler
- III. Planned proposed program: B.S. Agricultural and Applied Economics
- IV. Planned program start date: Fall 2026
- V. Courses planned to be included, belonging to college / departments:
The proposed program consolidates the current B.S. in Agribusiness Economics & Management (ABEM) and B.S. in Environmental & Water Resource Economics (EWRE) into a single B.S. in Agricultural & Applied Economics (AAE) with two emphases: Agribusiness Economics & Management (AEM) and Environmental Economics & Policy (EEP). The new program requires only minimal changes to existing courses offered by the initiating department (Agricultural & Applied Economics). The proposed program requires NO changes to how the AAE department now uses courses offered by units within InfoSci. Once the new program is in place, the existing ABEM and EWRE programs will be delisted.

FOR REVIEWING COLLEGE:

1. APCV 301 Yes ☒ No ☐ Conditionally ☐ : Under what conditions?

VI. Parameters of Use (add rows as necessary):

Undergraduate/Graduate

Course #	Units	Description of use (i.e., gen ed, major core, emphasis, elective/selective)
APCV 301	3	An option for students to complete the Communication Skills requirement. Students must complete 2 courses of 20 available courses options.

VII. Expected Yearly Enrollment (add rows as necessary):

Course #	Units	Exp Enrollment for Yr 1	Exp Enrollment for Yr 2	Exp Enrollment for Yr 3
APCV 301	3	2	2	2

Course Use/Collaboration/Concern Form

VIII. **Opportunities for Interdisciplinary Collaboration (leave blank if none):**

IX. **Concerns about Proposed Program (leave blank if none):**

X. **Representative(s) reviewing request:** Who is representative reviewing the request? (Should be Associate Dean / Dean)

Michael McKisson, Associate Dean, Undergraduate Academic Affairs

Michael McKisson

Michael McKisson (Oct 2, 2025 12:57:29 PDT) 10/02/2025 Signature:

Date: _____

Course Use Collaboration Form - InfoSci APCV 301

Final Audit Report

2025-10-02

Created:	2025-10-02
By:	Nicole Kontak (nicoler@arizona.edu)
Status:	Signed
Transaction ID:	CBJCHBCAABAA_3GVI8pQ4ILKKSXvZCMI_p2DyGzxnnZA

"Course Use Collaboration Form - InfoSci APCV 301" History

-  Document created by Nicole Kontak (nicoler@arizona.edu)
2025-10-02 - 7:55:07 PM GMT- IP address: 150.135.165.52
-  Document emailed to Michael Mckisson (mckisson@arizona.edu) for signature 2025-10-02
- 7:56:01 PM GMT
-  Email viewed by Michael Mckisson (mckisson@arizona.edu)
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-  Document e-signed by Michael Mckisson (mckisson@arizona.edu)
Signature Date: 2025-10-02 - 7:57:29 PM GMT - Time Source: server- IP address: 150.135.165.93
-  Agreement completed.

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Course Use/Collaboration/Concern Form

Note: Requesting college should provide this request to leadership in unit who owns courses. Responding unit should respond within 10 business days from receipt. Lack of response after the 10 business days is presumed approval.

FOR REQUESTING COLLEGE:

I. **Initiating College:** College of Agriculture, Life, and Environmental Sciences

II. **Representative(s) making the request:** Jeffrey D. Michler

III. **Planned proposed program:** B.S. Agricultural and Applied Economics

IV. **Planned program start date:** Fall 2026

V. **Courses planned to be included, belonging to college / departments:**

The proposed program consolidates the current B.S. in Agribusiness Economics & Management (ABEM) and B.S. in Environmental & Water Resource Economics (EWRE) into a single B.S. in Agricultural & Applied Economics (AAE) with two emphases: Agribusiness Economics & Management (AEM) and Environmental Economics & Policy (EEP). The new program requires only minimal changes to existing courses offered by the initiating department (Agricultural & Applied Economics). **The only change in the new program to how the AAE department now uses courses offered in the College of Science is the listing of MATH 125 as an additional option alongside MATH 113, MATH 116, and MATH 122B.**

FOR REVIEWING COLLEGE:

1. MATH 112	Yes ☒	No ☐	Conditionally ☐ : Under what conditions?
2. MATH 113	Yes ☒	No ☐	Conditionally ☐ : Under what conditions?
3. MATH 116	Yes ☒	No ☐	Conditionally ☐ : Under what conditions?
4. MATH 122B	Yes ☒	No ☐	Conditionally ☐ : Under what conditions?
5. MATH 125	Yes ☒	No ☐	Conditionally ☐ : Under what conditions?
6. ECOL/WFSC 454	Yes ☒	No ☐	Conditionally ☐ : Under what conditions?
7. GEOS/ENVS 412A	Yes ☒	No ☐	Conditionally ☐ : Under what conditions?
8. HWRS 415	Yes ☒	No ☐	Conditionally ☐ : Under what conditions?
9. HWRS 417A	Yes ☒	No ☐	Conditionally ☐ : Under what conditions?
10. HWRS 443A	Yes ☒	No ☐	Conditionally ☐ : Under what conditions?
11. HWRS 460A	Yes ☒	No ☐	Conditionally ☐ : Under what conditions?
12. SCI 401	Yes ☒	No ☐	Conditionally ☐ : Under what conditions?

VI. **Parameters of Use (add rows as necessary):**

Undergraduate/Graduate

Course Use/Collaboration/Concern Form

Course #	Units	Description of use (i.e., gen ed, major core, emphasis, elective/selective)
MATH 112	3	Required supporting coursework
MATH 113	3	Calculus option for both emphases
MATH 116	3	Agribusiness Economics & Management emphasis requires MATH 113 OR MATH 116
MATH 122B	4	Environmental Economics & Policy emphasis requires MATH 113 OR MATH 122B OR MATH 125
MATH 125	3	Environmental Economics & Policy emphasis requires MATH 113 OR MATH 122B OR MATH 125
ECOL/WFSC 454	3	Environmental Economics & Policy emphasis requires students complete 15 units in a Focus Area. This is one of 50 available courses options.
GEOS/ENVS 412A	3	Environmental Economics & Policy emphasis requires students complete 15 units in a Focus Area. This is one of 50 available courses options.
HWRS 415	3	Environmental Economics & Policy emphasis requires students complete 15 units in a Focus Area. This is one of 50 available courses options.
HWRS 417A	3	Environmental Economics & Policy emphasis requires students complete 15 units in a Focus Area. This is one of 50 available courses options.
HWRS 443A	3	Environmental Economics & Policy emphasis requires students complete 15 units in a Focus Area. This is one of 50 available courses options.
HWRS 460A	4	Environmental Economics & Policy emphasis requires students complete 15 units in a Focus Area. This is one of 50 available courses options.
SCI 401	3	An option for students to complete the Communication Skills requirement. Students must complete 2 courses of 20 available courses options.

VII. Expected Yearly Enrollment (add rows as necessary):

Course #	Units	Exp Enrollment for Yr 1	Exp Enrollment for Yr 2	Exp Enrollment for Yr 3
MATH 112	3	22	24	25
MATH 113	3	14	14	15
MATH 116	3	4	5	5
MATH 122B	4	2	3	3
MATH 125	3	2	2	2
ECOL/WFSC 454	3	1	1	1
GEOS/ENVS 412A	3	1	1	1
HWRS 415	3	1	1	1
HWRS 417A	3	1	1	1
HWRS 443A	3	1	1	1



Course Use/Collaboration/Concern Form

HWRS 460A	4	1	1	1
SCI 401	3	1	1	1

VIII. **Opportunities for Interdisciplinary Collaboration (leave blank if none):**

IX. **Concerns about Proposed Program (leave blank if none):**

X. **Representative(s) reviewing request:** Who is representative reviewing the request? (Should be Associate Dean / Dean)

Rebecca Gomez, PhD, Associate Dean of Undergraduate Student Success, College of Science

Signature: _____ Date: 9/30/25



BUDGET PROJECTION FORM

Name of Proposed Program or Unit: B.S. in Agricultural and Applied Economics

Assumptions based on AIB, \$ per SCH	189	On Campus	
Estimated SCH per student per year	30		
	Projected		
Budget Contact Person: Bethina Krogsgaard	1st Year 2026 - 2027	2nd Year 2027 - 2028	3rd Year 2028 - 2029
METRICS			
Net increase in annual college enrollment UG	-	5	10
Net increase in college SCH UG	-	150	300
Net increase in annual college enrollment Grad	-	-	-
Net increase in college SCH Grad	-	-	-
Number of enrollments being charged a Program Fee	-	-	-
New Sponsored Activity (MTDC)	-	-	-
Number of Faculty FTE	-	-	-
FUNDING SOURCES			
Continuing Sources			
UG Revenue	-	28,350	56,700
Grad Revenue	-	-	-
Program Fee Revenue (net of revenue sharing)	-	-	-
F and A Revenues	-	-	-
Reallocation from existing College funds (attach description)	-	-	-
Other Items (attach description)	-	-	-
Total Continuing	\$ -	\$ 28,350	\$ 56,700
One-time Sources			
College fund balances	-	-	-
Institutional Strategic Investment	-	-	-
Gift Funding	-	-	-
Other Items (attach description)	-	-	-
Total One-time	\$ -	\$ -	\$ -
TOTAL SOURCES	\$ -	\$ 28,350	\$ 56,700
EXPENDITURE ITEMS			
Continuing Expenditures			
Faculty	-	-	-
Other Personnel (advisors, program directors, etc.)	-	-	-
Employee Related Expense	-	-	-
Graduate Assistantships	-	-	-
Other Graduate Aid	-	-	-
Operations (materials, supplies, phones, etc.)	-	-	-
Additional Space Cost	-	-	-
Other Items (attach description)	-	-	-
Total Continuing	\$ -	\$ -	\$ -
One-time Expenditures			
Construction or Renovation	-	-	-
Start-up Equipment	-	-	-
Replace Equipment	-	-	-
Library Resources	-	-	-
Other Items (attach description)	-	-	-
Total One-time	\$ -	\$ -	\$ -
TOTAL EXPENDITURES	\$ -	\$ -	\$ -
Net Projected Fiscal Effect	\$ -	\$ 28,350	\$ 56,700

Request to Establish New Academic Program in Arizona

Please complete all fields. Boxes may be expanded to accommodate longer responses.
Clarifying field descriptions can be found below.

University: University of Arizona

Name of Proposed Academic Program: Bachelor of Science in Agricultural and Applied Economics		
Academic Department: Department of Agricultural and Applied Economics, College of Agriculture, Life, and Environmental Sciences		
Geographic Site: Tucson-Main		
Instructional Modality: In person		
Total Credit Hours: 120		
Proposed Inception Term: Fall 2026		
Brief Program Description: The B.S. in Agricultural & Applied Economics (AAE) unifies two proven majors under one degree. It consolidates the current B.S. in Agribusiness Economics & Management (ABEM) and B.S. in Environmental & Water Resource Economics (EWRE) into a single program with two emphases—Agribusiness Economics & Management (AEM) and Environmental Economics & Policy (EEP). Once the new program is established, the ABEM and EWRE programs will be disestablished. Because of this, the new program requires minimal changes to existing course offerings or degree requirements for either path, and it requires no new resources. This preserves academic quality while simplifying the student journey. The B.S. in Agricultural & Applied Economics (AAE) trains students to use economic reasoning and data to solve real-world problems at the nexus of food systems, business, water, and the environment. Students build a strong foundation in microeconomics, markets, and quantitative analysis, then tailor advanced coursework through one of two emphases: • Agribusiness Economics & Management (AEM): Apply economics to production, finance, marketing, supply chains, and risk management across agriculture and food—from farm to consumer. Expect smaller class sizes than many business programs and dedicated advising and career support. • Agricultural & Environmental Economics (AEE): Use applied economics, policy analysis, and data to address challenges in environmental quality, natural resources, and water management in arid regions. Across both emphases, AAE emphasizes hands-on, quantitative skills (data analysis, econometrics, and policy/business decision tools) along with experiential learning opportunities and clear pathways to accelerated or stand-alone M.S. degrees in Applied Economics and Data Analytics. Graduates pursue roles in business analysis, policy and regulatory analysis, finance, sustainability, consulting, and resource management—or continue into graduate study.		
Learning Outcomes and Assessment Plan: <table border="1"> <tr> <td>Learning Outcome #1: Students will apply microeconomic models to analyze well-defined economic problems.</td> </tr> <tr> <td>Concepts: Consumer theory; producer theory; cost and production functions; supply and demand; elasticity; market structure (perfect competition, monopoly, oligopoly); welfare analysis; comparative statics; externalities and public goods</td> </tr> </table>	Learning Outcome #1: Students will apply microeconomic models to analyze well-defined economic problems.	Concepts: Consumer theory; producer theory; cost and production functions; supply and demand; elasticity; market structure (perfect competition, monopoly, oligopoly); welfare analysis; comparative statics; externalities and public goods
Learning Outcome #1: Students will apply microeconomic models to analyze well-defined economic problems.		
Concepts: Consumer theory; producer theory; cost and production functions; supply and demand; elasticity; market structure (perfect competition, monopoly, oligopoly); welfare analysis; comparative statics; externalities and public goods		

Competencies: Formulate economic decision problems; set up and solve optimization models; conduct comparative statics; derive and interpret equilibrium changes; quantify welfare effects; evaluate policy interventions; communicate model-based results clearly.
Assessment Methods: Analytical case/problem set using micro models (graphical + calculus-based solutions) drawn from AREC 304 (Intermediate Production & Consumption Analysis) and/or AREC 464 (Economics of Policy Analysis); may also integrate firm-level choices from AREC 315 (Agribusiness Economics & Management).
Measures: Direct: Instructor rubric on the analytical case/problem set with criteria for (1) correct model formulation, (2) method/solution steps, (3) comparative statics, and (4) interpretation/policy insight. Benchmark: ≥80% of seniors “Proficient” or better on all criteria. Indirect: Student Exit Survey—self-reported confidence applying microeconomic models to policy/business problems (Likert 1–5). Target: mean ≥4.0 or ≥80% “agree/strongly agree.”
Learning Outcome #2: Students will employ econometric models to assess the statistical relationships in economic data.
Concepts: Data management; probability and sampling; OLS regression; inference and hypothesis testing; functional form and model selection; diagnostics (heteroskedasticity, multicollinearity); causal identification (experiments, DiD, IV); panel/time-series basics; reproducibility.
Competencies: Clean, document, and analyze data in statistical software (e.g., R/Stata); specify appropriate models; test assumptions; interpret coefficients and uncertainty; assess robustness; produce publication-quality tables/figures; write a concise empirical methods/results section.
Assessment Methods: Empirical project (individual or team) in AREC 339/239/403—students source or are provided data, pose a question, estimate and diagnose a model, and submit a reproducible paper/notebook with tables and graphics.
Measures: Direct: Project report rubric covering (1) question & model fit, (2) code/data documentation & reproducibility, (3) diagnostics & assumption checks, (4) interpretation & policy/business relevance. Benchmark: ≥85% “Meets/Exceeds” overall; ≥80% “Meets/Exceeds” on reproducibility. Indirect: Student Exit Survey—self-reported ability to build and interpret econometric models (Likert 1–5). Target: mean ≥4.0 or ≥80% “agree/strongly agree.”
Learning Outcome #3: Students will design, implement, and evaluate a research strategy to answer significant questions having real-world implications; employ independently quantitative reasoning to evaluate economic hypotheses and predictions.
Concepts: Research design; hypothesis testing; forecasting and scenario analysis; uncertainty and risk; sensitivity analysis; benefit–cost analysis; ethics and reproducibility; professional communication (written, visual, oral).
Competencies: Frame testable hypotheses; connect models to data; execute evidence-based analysis; quantify and communicate uncertainty; defend methods/assumptions; translate findings for technical and non-technical audiences; reflect on limitations.
Assessment Methods: Capstone research poster + oral defense in a senior-level seminar such as AREC 464/AREC 479 (environment/policy applications) or AREC 450/458 (financial/marketing applications), synthesizing micro + econometrics for a real problem.
Measures: Direct: Poster/oral presentation rubric assessing (1) research question & design logic, (2) methodological rigor & evidence integration, (3) conclusions with quantified uncertainty, (4) clarity and professional delivery. Benchmark: ≥80% “Meets/Exceeds” on all criteria. Indirect: Student Exit Survey—self-reported ability to design and communicate quantitative, evidence-based analyses (Likert 1–5). Target: mean ≥4.0 or ≥80% “agree/strongly agree.”
Emphasis 1: Agribusiness Economics & Management (AAE-AEM)
Learning Outcome #1: Students will design a financial analysis or marketing report. The financial analysis evaluates the financial health of a company, explains the analysis to management, and produces recommendations to improve the company’s financial position. The marketing report evaluates the marketability of a new product by conducting SWOT analysis, defining target markets, developing a 4P strategy, and proposing metrics for evaluating the effectiveness of their marketing strategy.
Concepts: Financial statements (income statement, balance sheet, cash flow); ratio analysis (liquidity, profitability, leverage, efficiency); working capital; pro forma forecasting; capital budgeting

(NPV, IRR, payback); cost–volume–profit; risk and hedging (futures/options); pricing and margins; SWOT analysis; 4Ps strategy (product, price, place, and promotion); risk analysis.

Competencies: Build linked Excel financial models; compute and interpret ratios; prepare pro forma statements; evaluate investments (NPV/IRR); run scenario & sensitivity analyses; articulate actionable recommendations; justify hedging/financing choices; justify marketing strategy; conduct market analysis; develop evidence-based strategies; craft executive-level writing.

Assessment Methods: Capstone financial analysis report or marketing report. For the financial report, students construct a linked Excel, complete capital budgeting, run scenario & sensitivity analyses (e.g., prices, yields, interest rates), and submit a 2-to-3-page executive memo with prioritized recommendations (operations, financing, risk management/hedging). For the marketing report, students deliver a professional report that includes (1) situation analysis and SWOT, (2) segmentation–targeting–positioning (STP) with evidence, (3) integrated 4Ps strategy, (4) metrics & evaluation plan with baseline and targets (e.g., awareness, trial, share, CAC/CLV, ROMI), (5) budget and risk/contingency plan. Optional 5-to-7-minute pitch if required by the instructor.

Measures: Direct: report rubric assessing (1) depth of insight into the problem, (2) soundness and accuracy of recommendations, (3) feasibility and coherence of strategy, (4) professionalism and clarity of deliverables. Benchmark: $\geq 85\%$ of graduating AEM students on this path score Meets/Exceeds overall; no single criterion below 75% of students at “Meets/Exceeds.” Indirect: Student Exit Survey item: “I can evaluate firm financial health and/or product marketability and develop plans or recommendations to improve performance.” (5-point Likert). Target: Mean ≥ 4.0 or $\geq 80\%$ “Agree/Strongly agree.”

Emphasis 2: Environmental Economics & Policy (AAE-EEP)

Learning Outcome #1: Students will apply economic models to assess environmental policies and produce quantitative analysis to measure policy efficiencies.

Concepts: Externalities; public goods; property rights & institutions; welfare economics (consumer/producer surplus); benefit–cost analysis; non-market valuation; discounting; dynamic/resource models; water allocation; environmental policy instruments (taxes, tradable permits, performance standards).

Competencies: Specify and analyze policy counterfactuals; compute welfare changes and efficiency metrics; execute benefit–cost analyses (with sensitivity and distributional checks); apply non-market valuation evidence; interpret hydrologic-economic or resource allocation model outputs; write policy-ready briefs.

Assessment Methods: Environmental Policy Efficiency Analysis Brief in AAE 478 or AAE 479 (or AAE 464 when the topic fits). Students select an environmental or water policy; conduct a benefit–cost analysis (with welfare changes, discounting, and distributional notes); include at least one sensitivity (e.g., social cost of carbon, discount rate, elasticity, non-market valuation parameter); and deliver a policy memo (1.5–2 pages) plus a technical appendix (tables/figures, calculations). Optional 5-minute in-class pitch if the course uses presentations.

Measures: Direct: Policy brief rubric assessing (1) appropriate economic model & assumptions for the policy instrument (tax, standard, tradable permit, allocation rule); (2) correct and transparent benefit–cost/welfare computations with data citations; (3) coherent sensitivity/distributional analysis and interpretation; (4) evidence-based, implementable recommendation tied to results. Benchmark: $\geq 80\%$ of graduating students score “Proficient” or better overall; no criterion below 75% of students at “Proficient.” Indirect: Student Exit Survey item: “I can evaluate environmental or water policies using economic tools and quantify policy efficiency.” (5-point Likert). Target: Mean ≥ 4.0 or $\geq 80\%$ “Agree/Strongly agree.”

Assessment Plan:

Assessment Measure	Source(s) of Evidence	Data Collection Point(s)
Evaluation of Learning Outcome	Annual Self-Assessment	Watermark
Job Placement Statistics	Student/Alumni Survey	At graduation and as part of alumni survey
Academic Program Review	Reviewers' responses	Every 7 years

Projected Enrollment for the First Three Years:

Year 1	Year 2	Year 3
90	95	100

Rationale for projection: Since we are combining two existing majors, the data/evidence for projected enrollment is simply the sum of the two existing majors plus a modest 5% growth.

Evidence of Market Demand:

National labor demand in AAE-aligned roles remains strong. The Occupational Outlook Handbook projects: Economists +5% (2023–33; median pay \$115,440, May 2024); Market Research Analysts +7% (2024–34; median \$76,950); and Operations Research Analysts +23% (2023–33; median \$91,290). These roles map to our graduates' quantitative and analytic skillsets across business, policy, and resource management and reflect placements of recent graduates.

Sector-level outlook in food, agriculture, natural resources, and environment. The USDA-sponsored Employment Opportunities for College Graduates report (Purdue/USDA-NIFA) estimates an average of ~59,400 annual openings (2020–2025) across food, agriculture, renewable natural resources, and environmental fields, reflecting continued demand for applied economics and management capabilities in these sectors. (A 2025–2030 update is underway.)

Arizona context underscores program relevance. Arizona agriculture generated \$5.24B in cash receipts in 2022 (NASS), and recent analysis places the broader agriculture/agribusiness contribution at \$30.9B to the state economy—indicating robust regional demand for agribusiness and applied-economics talent. Concurrently, Colorado River constraints and ongoing water negotiations through 2026 highlight the need for environmental and water-resource economists to guide efficient, equitable allocation and policy.

Together, these indicators support consolidating ABEM and EWRE into a single AAE major with emphases that align tightly to workforce needs in agribusiness, analytics, policy, and water/environmental management.

Similar Programs Offered at Arizona Public Universities:

University of Arizona (UA)

- B.S. in Agribusiness Economics & Management (Department of Agricultural and Applied Economics). This program will be replaced by the proposed new program.
- B.S. in Environmental & Water Resource Economics (Department of Agricultural and Applied Economics). This program will be replaced by the proposed new program.
- B.A. in Economics and B.S.B.A. in Business Economics (Eller College of Management).
- B.S. in Environmental Science (Department of Environmental Science). Interdisciplinary environmental programs with policy components—related but not economics focused.

Arizona State University (ASU)

- B.S. in Agribusiness (Agribusiness Innovation & Technology) (Morrison School of Agribusiness).
- B.S. in Economics (W. P. Carey School of Business).
- (Related) Graduate Certificate in Environmental & Sustainability Economics (demonstrates institutional capacity in environmental economics at the graduate level).

Northern Arizona University (NAU)

- B.S.B.A. in Business Economics (W. A. Franke College of Business).
- B.S. in Environmental Sciences (with Environmental Administration & Policy emphasis).

- (Related interdisciplinary option with policy/management overlap.)

Positioning: The UA B.S. in AAE remains distinctive in Arizona for combining economics first, quantitatively intensive training with two emphases that directly target agribusiness and environmental/water decision making within a single, unified degree. This clarity should improve recruitment, advising, and degree visibility while leveraging existing departmental strengths.

Provost Office Use Only. Objection(s) Raised by Another Arizona Public University?

YES NO

Has another Arizona public university lodged a written objection to the proposed program with the proposing university and the Board of Regents within seven days of receiving notice of the proposed program?

If Yes, Response to Objections:

Please provide details of how the proposing university has addressed the objection. If the objection remains unresolved, please explain why it is in the best interests of the university system and the state that the Board override it.

New Resources Required? (i.e., faculty and administrative positions; infrastructure, etc.):

We will use/redeploy existing resources for the ABEM and EWRE majors.

- Faculty & curriculum: All courses, teaching assignments, and learning outcomes are those already delivering the ABEM and EWRE majors; no new courses are required.
 - Advising & student services: Existing advising, tutoring, and career services in the Department and CALES continue unchanged.
 - Administrative efficiency: Moving to a single major with two emphases streamlines catalog, recruitment, assessment, and reporting without affecting time to degree.
- New resources required.
- Faculty/Staff/FTE: None anticipated.
 - Facilities/Equipment: None beyond current departmental capacity.
 - One-time needs: Limited rebranding and catalog/website updates (marketing collateral, degree search, advising checklists).

Plan to Request Program/College Fee? YES NO

Estimated Amount: n/a

Fee Justification: n/a

Specialized Accreditation? YES NO

Accreditor: n/a