

University of Arkansas at Monticello

Academic Unit Annual Report

Unit: College of Forestry, Agriculture and Natural Resources

Academic Year: 2024 - 2025

State your unit's Vision, Mission and Strategic Plan including goals, actions and key performance indicators (KPIs).

Unit Mission:

Our mission is to nurture the intellectual and personal development of our students, enlarge the body of knowledge in forestry, agriculture, and natural resource management, and to disseminate new ideas and technology. Our graduates will be life-long learners who succeed within their chosen discipline, and will promote and use creative, science-based solutions that enhance the quality of life of the people and communities we serve.

Unit Vision:

The College of Forestry, Agriculture and Natural Resources will develop future leaders and deliver science-based solutions through discovery, learning, and engagement. These efforts will result in healthy and productive forest, agricultural, and natural resources to help ensure social and economic prosperity.

Student learning outcomes for graduates of the College of Forestry, Agriculture and Natural Resources are:

- Understand basic theory and practice, and be skilled in applying appropriate tools and technology, for their chosen field of study
- Recognize how land management relates to the larger environment, economy, and society
- Apply science-based knowledge and information to analyze and creatively solve management problems
- Demonstrate essential communication skills (interpersonal communication, nonverbal communication, written communication, and oral communication) that clearly provide relevant information and solutions to problems to diverse communities.

Unit Strategic Plan including KPIs (please distinguish new goals from continuing goals.)

1. Student Success —fulfilling academic and co-curricular needs

a. Develop, deliver, and maintain quality academic programs.

Continuing Goal: Develop and implement new degree and credential options in forestry, agriculture, and natural resources.

- KPI-1: Revise forest resources graduate degree curricula to reflect the greater array of graduate-level course offerings in CFANR.
- KPI-2: Explore curriculum revisions to enhance field experience and expertise.
- KPI-3: Explore and develop technical credential offerings within forestry, agriculture, and natural resources to bolster workforce preparedness.

2. *Enrollment and Retention Gains*

a. Coordinate and promote marketing efforts that will highlight alumni, recognize outstanding faculty and staff, and spotlight student success.

Continuing Goal: Enhance alumni engagement with CFANR teaching, research, and extension programs.

Action: Increase communications of CFANR activities to alumni and alumni involvement in teaching.

- KPI-1: Update database of CFANR alumni.
- KPI-2: Create CFANR newsletter of teaching, research, and extension outputs to mail and electronically provide to alumni and other CFANR stakeholders.

b. Identify and enhance pipeline for recruiting.

Continuing Goal: Improve recruitment of qualified high school and community college students into CFANR degree programs through 10% gain in CFANR enrollment.

Action: Obtain and deliver recruitment materials to potential recruits. Organize supporters and alumni to aid in student recruitment efforts.

- KPI-1: Provide designed recruitment materials so they can be delivered to potential students.

- KPI-2: Actively manage social media accounts to promote College activities and aid in recruitment efforts.

New Goal: Increase visits with high school students for recruiting by at least 20%.

- KPI-3: Work with public and private partners to increase their volunteering for College recruitment.
- KPI-4: Visit schools statewide for recruiting.

In Table 1, assess your unit’s progress toward meeting Strategic Plan goals during the past academic year and what changes might you consider in order to make additional progress in the coming year. KPIs should be quantifiable—for example, a goal of increased enrollments should be measured by a specific number or percentage; if school visits are part of a recruitment effort, say how many school visits are your goal; if your goal is to see an improved success rate in a class, by what percentage do you hope to see the success rate increase? Your goals are what you want to achieve. Your KPIs are how you measure your degree of success.

Table 1: Assessment of Key Performance Indicators

KPI	Assessment of Progress	Implications for Future Planning/Change
KPI-1.1: Revise forest resources graduate degree curricula to reflect the greater array of graduate-level course offerings in CFANR.	KPI-1.1 was accomplished. The M.S. graduate degree curriculum modification was approved by ADHE and the Coordinating Board in fall 2024; the new curriculum was implemented in January 2025.	M.S. students now have more flexibility in specializing their expertise through coursework under guidance of their advisors and graduate committees. The CFANR Graduate Handbook needs to reflect these changes, so a faculty committee for revising the handbook was created in April 2025 with a charge to revise the handbook.
KPI-1.2: Explore curriculum revisions to enhance field experience and expertise.	KPI-1.2 was accomplished; discussions were held throughout the year with alumni, employers, peer programs, and faculty for field skills needed for each discipline.	Natural Resources faculty will work together with CFANR administration in fall 2025 to revise the Natural Resources Management B.S. curricula to incorporate more field-based coursework.
KPI-1.3: Explore and develop technical credential offerings within forestry, agriculture, and natural resources to bolster workforce	KPI-1.3 was partially accomplished; a \$2 million HIRED grant was received in December 2024 from the Governor’s office to develop new technical credentials. The unit’s Center for Forest Business is partnered with the UAM Crossett campus to develop technical credentials in this grant; the Center is focusing	A logging technical certificate is in development under the Center’s director; simulators have been purchased to support certificate delivery.

KPI	Assessment of Progress	Implications for Future Planning/Change
preparedness.	on logging credentials. A Sustainable Trades Alliance was formed under the grant and engages industry and high school administration stakeholders to develop and support the technical credentials.	
KPI-2a.1: Update database of CFANR alumni.	This ongoing KPI was fulfilled; a QR code and sign-in sheet are provided at all alumni and trade show events attended by CFANR personnel to keep it updated.	The database will be used for mail-outs of CFANR newsletters and fundraising campaigns.
KPI-2a.2: Create CFANR newsletter of teaching, research, and extension outputs to mail and electronically provide to alumni and other CFANR stakeholders	KPI-2a.2 was nearly completed in this reporting period. Editorship was assigned to a senior faculty motivated to enhance CFANR alumni and stakeholder engagement, the CFANR media director identified software that will be the most cost-efficient and user-friendly for publishing the newsletter, and the editor and CFANR dean developed a format from studying newsletters of comparable units at different universities.	The dean and editor of the newsletter have developed a strategy to make sure the newsletter is informative but not onerous in terms of cost and labor to develop; development of this strategy coupled with unit budget constraints were the factors that blocked publishing and mailing of the newsletter in this review period. A more budget-friendly version of the newsletter is slated for fall 2025 completion.
KPI-2b.1: Provide recruitment materials so they can be delivered to potential students.	KPI-2b.1 was partially achieved. All materials were dispersed at recruiting booths at diverse agriculture and forestry conferences for high school youth and professional societies in this reporting period. However, a 10% enrollment gain for KPI-2 was not observed despite KPI-2b activity completion.	KPI-2b.1 was achieved, and all materials were dispersed at recruiting booths at diverse agriculture and forestry conferences for high school youth and professional societies in this reporting period. At the end of the fiscal year, new recruiting materials were purchased to boost mail-out information on CFANR to applicants in addition to recruiting materials provided at events. In future reporting periods the replenishment of recruiting materials will be a continuing goal.
KPI-2b.2: Actively manage social media accounts to promote College activities and aid in recruitment efforts	KPI-2b.2 was achieved, with social media posts having a reach of approximately 105,000 readers in this reporting period. A new tactic of integrating student assignments in the Communications course into social media posts more interactive boosted engagements.	Social media accounts will continue to be used for promoting and recruiting for CFANR. Frequency and quality of materials posted to these accounts will continue to escalate with faculty awareness and training in their value.
KPI-2b.3: Work with public and private partners to increase their volunteering for College recruitment.	This ongoing KPI was achieved. CFANR attended Be Pro Be Proud tour stops to highlight our programs, we formed a cooperative agreement with North Little Rock 6 Agriculture and Veterinary Academy to boost recruiting of urban youth, and the Ozark Forestry Association agreed to highlight our program to schools in Northeast Arkansas. We also remained a partner with Green Careers	CFANR will continue to seek more partnerships in upcoming review periods.

KPI	Assessment of Progress	Implications for Future Planning/Change
	Expo, 4H, and FFA to highlight our programs with workshops and field tours.	
KPI-2b.4: Visit schools statewide for recruiting.	KPI-2b.4 was partially achieved. Schools were visited in southeastern, southwestern and central Arkansas regions.	Increased efforts to develop school visit opportunities throughout the state in upcoming review periods.

In Table 2, show the alignment of your academic unit's Student Learning Outcomes (SLOs) with UAM's Institutional Learning Outcomes (ILOs) and UAM's and your Unit's Vision, Mission, and Strategic Plans

Table 2: Unit Student Learning Outcomes

University Institutional Learning Outcomes	Unit Student Learning Outcomes related to each University ILO	Alignment with UAM Vision, Mission and Strategic Plan	Alignment with Unit Vision, Mission, and Strategic Plan
<i>Communication:</i> Students will communicate effectively in social, academic, and	Students will demonstrate critical communication skills (interpersonal communication, nonverbal communication, written communication, and oral communication) by clearly providing informative information and presenting solutions to problems for diverse audiences.	Underlying all of the tenets of the UAM mission is the ability to communicate effectively to diverse audiences.	In accordance with the CFANR vision, developing student written and verbal communication skills is a critical component of developing future forestry, agriculture and natural resource management leaders.

University Student Learning Outcome (Institutional Learning Outcome)	Unit Student Learning Outcome (may have more than one-unit SLOs related to each University SLO; List each one)	Alignment with UAM/University Vision, Mission and Strategic Plan	Alignment with Unit Vision, Mission, and Strategic Plan
professional contexts using a variety of means, including written, oral, quantitative, and/or visual modes as appropriate to topic, audience, and discipline.			
<i>Critical Thinking:</i> Students will demonstrate critical thinking in evaluating all forms of persuasion and/or ideas, in formulating innovative strategies, and in solving problems.	Students will understand basic theory and practice, and be skilled in applying appropriate tools and technology, for their chosen field of study. Students will apply science-based knowledge and information to analyze and solve management problems.	Understanding theory and practice is critical for achieving the UAM mission of educating diverse learners to succeed in a global environment. Application of the scientific method to the solution of problems is an essential component of meeting UAM's mission to promote innovative leadership, scholarship, and research.	The primary objective of the CFANR is to foster student success, both academically and professionally. Competency in the theory and practice within their field is essential for their success. The CFANR allocates significant resources to provide students with the tools and technology necessary for them to develop and effectively address management problems.
<i>Global Learning:</i> Students will demonstrate understanding of natural and human matters on an international level.	Students will recognize how land management relates to the larger environment, economy, and society.	Land management decisions are foundational to resource utilization for economic growth, which is integral to the UAM mission of improving quality of life through sustainable economic development.	Beyond the grounding principles of theory and practice, successful students must appreciate how their management efforts influence the global resource base.

University Student Learning Outcome (Institutional Learning Outcome)	Unit Student Learning Outcome (may have more than one-unit SLOs related to each University SLO; List each one)	Alignment with UAM/University Vision, Mission and Strategic Plan	Alignment with Unit Vision, Mission, and Strategic Plan
<i>Teamwork:</i> Students will work collaboratively to reach a common goal and will demonstrate the characteristics of productive citizens.			

UNIVERSITY AND PROGRAM ASSESSMENT

Describe with specific details how Student Learning Outcomes are assessed in your unit and how the results/data are used for course/program/unit improvements?

Within the CFANR, students have two levels of academic assessment. First, students' mastery of SLOs are evaluated through traditional examinations and assignments, for the purpose of rating a student's performance on a graded basis. Secondly, most CFANR courses incorporate a "core competency" approach to SLO proficiency. Within each course, specific core competencies required to pass the course are listed and defined, and all students must satisfy those competencies to pass the course, regardless of overall course percentage. Importantly, students are permitted more than one opportunity to satisfy core competencies, but failure to demonstrate proficiency during the first testing results in a lower overall course grade.

Modifications to course content and/or delivery are informed by the success or failure of students to master SLOs and core competencies. For SLOs or core competencies that require multiple attempts, faculty modify instructional content and delivery, in an effort to improve overall student comprehension and retention of key course concepts.

AACU RUBRIC DATA

Oral Communication

Context/course in which assessment was done: AGRI 4771 Seminar

Describe assignment/exercise used for assessment: Presentations of projects, mock interviews

Use separate tables for separate courses.

If a dimension was not assessed, leave the row blank. If the ILO was not assessed, delete the table.

Dimension	# of students scoring 4	# of students scoring 3	# of students scoring 2	# of students scoring 1	# of students scoring 0	Average score for class/activity	Total # of students assessed
Organization	3	4					7
Language	3	4					7
Delivery	3	3	1				7
Supporting Material	4	3					7
Central Message	3	4					7

What do the data indicate about strengths, weaknesses, opportunities for growth and threats to effectiveness regarding student performance?

Strengths: The majority of students did well with oral presentations and mock interviews.

Weaknesses: Some students were not prepared due to lack of organization, and a few students struggled in their presentation delivery (i.e. speaking too quietly or with many “uhs” and “ums”).

Opportunities for Growth: Having students present more than once in the course gives them more opportunities to improve.

Threats to Effectiveness: Senior students who are close to graduation are less likely to take a one-hour course seriously especially if

they already have a job after graduation. Allowing cell phones in class is also a threat to effectiveness

What actions, if any, do you recommend to improve student performance in this learning outcome?

Adding more oral presentations to the course will foster more confidence and efficacy, as would providing more examples of well-prepared and delivered presentations.

What revisions, if any, to the assessment process do you recommend to acquire more useful data in this learning outcome?

No revisions are recommended at this time.

Context/course in which assessment was done: NREM 20203 Human Dimensions of Natural Resources

Describe assignment/exercise used for assessment: Case study presentation: students are required to select a recent peer-reviewed article about any topic (as long as it includes a human dimensions component) and summarize the intro, methods, results, and discussion, as well as offer why they think human dimensions was important to include in the study, and the implications of the study. Presentations should be 10 minutes long.

Use separate tables for separate courses.

If a dimension was not assessed, leave the row blank. If the ILO was not assessed, delete the table.

Dimension	# of students scoring 4	# of students scoring 3	# of students scoring 2	# of students scoring 1	# of students scoring 0	Average score for class/activity	Total # of students assessed
Organization			3	3	1	1.29	7
Language			3	4		1.43	7
Delivery			3	4		1.43	7
Supporting Material	----	----	----	----	----	----	----
Central Message			3	3	1	1.29	7

What do the data indicate about strengths, weaknesses, opportunities for growth and threats to effectiveness regarding student performance?

Strengths: Students are generally able to summarize relevant information from their chosen articles and report back about it in their presentations.

Weaknesses: Some students struggle to develop enough depth in their presentations, which is evidenced by the fact that their presentations are only around 5 minutes long.

Opportunities for Growth: Students should be challenged to orally present “fleshed out” ideas in other courses (i.e., those that require more than a minute or two of oral communication).

Threats to Effectiveness: Some students read too closely from prepared scripts rather than speaking more extemporaneously.

What actions, if any, do you recommend to improve student performance in this learning outcome?

Students should be required to orally present information in each of their classes, as this is a skill that can only be improved with practice.

What revisions, if any, to the assessment process do you recommend to acquire more useful data in this learning outcome?

No revisions are recommended at this time.

Context/course in which assessment was done: SURV 48804 Survey Practicum

Describe assignment/exercise used for assessment: Presentation of final project

Use separate tables for separate courses.

If a dimension was not assessed, leave the row blank. If the ILO was not assessed, delete the table.

Dimension	# of students scoring 4	# of students scoring 3	# of students scoring 2	# of students scoring 1	# of students scoring 0	Average score for class/activity	Total # of students assessed
Organization	3					3	3
Language							
Delivery	3					3	3
Supporting Material	3					3	3
Central Message	3					3	3

What do the data indicate about strengths, weaknesses, opportunities for growth and threats to effectiveness regarding student performance?

Strengths: Students provided well-organized and articulate presentations of their project results.

Weaknesses: Students sometimes struggled with answering faculty questions after the conclusion of their project presentations.

Opportunities for Growth: Fostering student confidence in their comprehensive surveying capabilities is important for this terminal course.

Threats to Effectiveness: Without proficient oral communication skills, students will face challenges in public relations facets of surveying careers.

What actions, if any, do you recommend to improve student performance in this learning outcome?

Adding an extra presentation mid-semester can provide more oral communication practice.

What revisions, if any, to the assessment process do you recommend to acquire more useful data in this learning outcome?

No revisions are recommended at this time.

Written Communication

Context/course in which assessment was done: NREM Human Dimensions of Natural Resources

Describe assignment/exercise used for assessment: Analysis paper: students were instructed to write an analysis paper (5 paragraph essay with intro, three body paragraphs, and a conclusion) drawing relationships between a documentary and 3 peer reviewed articles we discussed throughout the semester.

Use separate tables for separate courses.

If a dimension was not assessed, leave the row blank. If the ILO was not assessed, delete the table.

Dimension	# of students scoring 4	# of students scoring 3	# of students scoring 2	# of students scoring 1	# of students scoring 0	Average score for class/activity	Total # of students assessed in unit
Context and Purpose for Writing			3	4	1	1.25	8
Content Development			3	4	1	1.25	8
Genre and Disciplinary Conventions	----	----	----	----	----	----	----
Sources and Evidence			6	2		1.75	8
Control of Syntax and Mechanics			3	5		1.38	8

What do the data indicate about strengths, weaknesses, opportunities for growth and threats to effectiveness regarding student performance?

Strengths: Students are almost always able to identify (and cite) three relevant papers to relate to the film. They are also adept at summarizing information.

Weaknesses: Students very much struggle to analyze with any sort of depth. A few students can provide solid “first level” analysis, but even these students do not demonstrate the ability to provide sufficient depth.

Opportunities for Growth: Students need more assignments throughout the program that require analysis of information in long-form.

Threats to Effectiveness: Given the increase in AI-assisted assignments, I moved this assignment to be prepared within the testing center. A downside of this pivot is that it limits students’ abilities to write the assignment (and think about analysis in stages). However, I did provide the entire assignment to students ahead of time, allowing them to think through their arguments—all writing, however, must be completed in the testing center.

What actions, if any, do you recommend that might improve student performance in this learning outcome?

Students should be assigned long-form essays in other classes. It is clear they are able to write 2-4 sentences about a topic, but anything more than that and they struggle.

What revisions, if any, to the assessment process do you recommend that might help us to acquire more useful data in this learning outcome?

No revisions are recommended.

Critical Thinking

Context/course in which assessment was done: AGEC 22703 Intro to Ag Econ

Describe assignment/exercise used for assessment: Final exam, math problems on quizzes

Use separate tables for separate courses.

If a dimension was not assessed, leave the row blank. If the ILO was not assessed, delete the table.

Dimension	# of students scoring 4	# of students scoring 3	# of students scoring 2	# of students scoring 1	# of students scoring 0	Average score for class/activity	Total # of students assessed in unit
Explanation of Issues		1	5	10	1	1.35	17
Evidence							
Influence of Context and Assumptions							
Student's Position (Perspective, Thesis/Hypothesis)							
Conclusion and Related Outcomes (Implications and Consequences}		1	5	10	1	1.35	17

What do the data indicate about strengths, weaknesses, opportunities for growth and threats to effectiveness regarding student performance? _

Strengths: The instructor noted that a lot of material was covered in the course, and those who performed all assignments learned concepts effectively.

Weaknesses: The broad nature of the subject and pace of the semester prevented more time to delve into assignments that require the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Opportunities for Growth: The instructor noted that motivating students to study and learn for this sophomore-level course is a fundamental need.

Threats to Effectiveness: The relatively high proportion of students rated relatively low on all metrics by the instructor suggests relatively low student engagement with the material.

What actions, if any, do you recommend that might improve student performance in this learning outcome?

Identifying key portions of the course for which more instruction time and attention are given.

What revisions, if any, to the assessment process do you recommend that might help us to acquire more useful data in this learning outcome?

No revisions are suggested.

Context/course in which assessment was done: ANSC 10053 Intro to Animal Science

Describe assignment/exercise used for assessment: Lab assignments on animal handling, necropsy, microscope examinations

Use separate tables for separate courses.

If a dimension was not assessed, leave the row blank. If the ILO was not assessed, delete the table.

Dimension	# of students scoring 4	# of students scoring 3	# of students scoring 2	# of students scoring 1	# of students scoring 0	Average score for class/activity	Total # of students assessed in unit
Explanation of Issues		3	6	10	18	0.8	37
Evidence			5	7	25	0.4	37
Influence of Context and Assumptions			9	12	17	0.8	37
Student's Position (Perspective, Thesis/Hypothesis)			4	8	24	0.4	37
Conclusion and Related Outcomes (Implications and Consequences}			3	10	24	0.4	37

What do the data indicate about strengths, weaknesses, opportunities for growth and threats to effectiveness regarding student performance? _

Strengths: Students who attended and participated in class regularly performed well in assignments that fostered critical thinking.

Weaknesses: The class size is sometimes cumbersome for complex lab activities.

Opportunities for Growth: Dividing the class into smaller groups to foster more one-on-one interactions among students during lab activities.

Threats to Effectiveness: Despite a class policy barring the use of cell phones during lectures, there is a relatively frequent necessity to correct students on cell phone use. A high proportion of students rated relatively low potentially indicates low engagement with course material.

What actions, if any, do you recommend that might improve student performance in this learning outcome?

Structuring complex lab assignments so that smaller groups of students work together on assignments.

What revisions, if any, to the assessment process do you recommend that might help us to acquire more useful data in this learning outcome?

No revisions are suggested.

Context/course in which assessment was done: SURV 32604 Route and Construction Surveying

Describe assignment/exercise used for assessment: Homework and exam questions focused on intricate calculations linked to real-world applications

Use separate tables for separate courses.

If a dimension was not assessed, leave the row blank. If the ILO was not assessed, delete the table.

Dimension	# of students scoring 4	# of students scoring 3	# of students scoring 2	# of students scoring 1	# of students scoring 0	Average score for class/activity	Total # of students assessed in unit
Explanation of Issues		1	3	1		2	5
Evidence							
Influence of Context and Assumptions							
Student's Position (Perspective, Thesis/Hypothesis)							
Conclusion and Related Outcomes (Implications and Consequences}		1	3	1		2	5

What do the data indicate about strengths, weaknesses, opportunities for growth and threats to effectiveness regarding student performance? _

Strengths: Students who put in effort on assignments demonstrated effective critical thinking skills.

Weaknesses: Time constraints limited time to provide extra focus on some subject areas.

Opportunities for Growth: Providing delivery of course material that keeps students highly engaged.

Threats to Effectiveness: Students not maintaining focus during lectures and lab activities.

What actions, if any, do you recommend that might improve student performance in this learning outcome?

Identifying key principles in the course for which extra time and focus will be given.

What revisions, if any, to the assessment process do you recommend that might help us to acquire more useful data in this learning outcome?

No revisions are suggested.

Public/Stakeholder/Student Notification of SLOs

List all locations/methods used to meet the HLC requirement to notify the public, students and other stakeholders of the unit SLO an. (Examples: unit website, course syllabi, unit publications, unit/accreditation reports, etc.)

- All course syllabi clearly state the SLOs for successful completion of the course.
- The CFANR webpages within the UAM website clearly outlines the requirements for all degrees and degree options.
- Promotional materials for the CFANR direct interested parties to full details about the CFANR mission and SLOs, as well as degree programs.

Enrollment

Table 3: Number of Undergraduate and Graduate Program Majors (Data Source: Institutional Research)

UNDERGRADUATE PROGRAM MAJOR: B.S. Natural Resources Management

Classification	Fall 2022	Fall 2023	Fall 2024	3-Year Total & Average	Total & Average for 10 most recent years
Freshman	17	25	19	61/20	270/27
Sophomore	17	10	9	36/12	125/12
Junior	10	14	13	37/12	134/13
Senior	12	11	9	32/10	132/13
Post Bach	0	2	3	5/2	3/0
Total	56	62	53	171/57	671/67

UNDERGRADUATE PROGRAM MAJOR: B.S. Agriculture

Classification	Fall 2022	Fall 2023	Fall 2024	3-Year Total & Average	10-Year Total & Average
Freshman	23	38	33	94/31	403/40
Sophomore	23	16	20	59/20	233/23
Junior	16	19	15	50/17	202/20
Senior	20	20	21	61/20	225/23
Post Bach	0	0	0	0/0	0/0
Total	82	93	89	264/88	1066/107

UNDERGRADUATE PROGRAM MAJOR: B.S. Land Surveying

Classification	Fall 2022	Fall 2023	Fall 2024	3-Year Total & Average	10-Year Total & Average
Freshman	2	7	2	11/4	55/6
Sophomore	3	2	7	12/4	39/4
Junior	2	2	6	10/3	27/3
Senior	2	2	2	6/2	27/3
Post Bach	0	1	1	2/1	2/0
Total	9	14	17	40/13	148/15

UNDERGRADUATE PROGRAM MAJOR: Pre-Vet

Classification	Fall 2022	Fall 2023	Fall 2024	3-Year Total & Average	10-Year Total & Average
Freshman	12	3	2	17/6	59/6
Sophomore	1	5	2	8/3	25/3
Junior	4	3	3	10/3	26/3
Senior	4	5	4	13/4	30/3
Post Bach	0	0	0	0/0	0/0
Total	21	16	11	48/16	140/14

GRADUATE PROGRAM MAJOR: Forest Resources (M.S.)

	Fall 2022	Fall 2023	Fall 2024	3-Year Total & Average
ENROLLMENT	24	18	22	64/21

GRADUATE PROGRAM MAJOR: Waterfowl Habitat and Recreation Management (Grad. Cert.)

	Fall 2022	Fall 2023	Fall 2024	3-Year Total & Average
ENROLLMENT	4	5	3	12/4

GRADUATE PROGRAM MAJOR: Forest Business (Grad. Cert.)

	Fall 2022	Fall 2023	Fall 2024	3-Year Total & Average
ENROLLMENT	n/a	4	2	n/a

What do the data indicate regarding strengths, weaknesses, opportunities for growth and threats to effectiveness?**Strengths:**

- CFANR has unique programs in Natural Resources Management and Land Surveying.
- M.S. student enrollment increased from the prior year
- A larger than expected number of junior Natural Resources Management B.S. students was observed, which could be due to students starting with relatively high concurrent credit courses and/or transfer students

- The Hartley forestry scholarship endowment donated to UAM in December 2023 matured to the point its funds are available for increased scholarship opportunities for fall 2025

Weaknesses:

- Total CFANR enrollment declined 7% from the prior year despite recruiting and media awareness efforts.
 - All degree options except the Forest Resources MS had lower first-year enrollment than the year prior
 -

Opportunities for Growth:

- Increased in-person recruiting at high schools and high school student events hosted by the CFANR recruiting specialist, faculty, and students will be of benefit in raising awareness of CFANR degree options.
- Greater awareness of the forest business graduate certificate through media outreach is needed to foster greater enrollment.

Threats to Effectiveness:

- 2025 will be the first of a four-year period of a smaller demographic of traditional college-aged students.
- There have been very few federal grant opportunities for faculty to seek in 2025, which severely reduces the number of graduate assistantships available for M.S. and Ph.D. students for 2026.

Progression/Retention Data**Table 4: Retention/Progression and Completion Rates by Major (Data Source: Institutional Research)**

Major: Agriculture B.S.	Number	Percentage
Number of majors classified as juniors (60-89 hours) in fall 2022	27	100
Number and percentage graduated in that major during 22-23 academic year	3	33
Number and percentage graduated in that major during 23-24 academic year	8	29
Number and percentage that graduated in that major during 24-25 academic year	7	26

Major: Natural Resources Management B.S.	Number	Percentage
Number of majors classified as juniors (60-89 hours) in fall 2022	16	100
Number and percentage graduated in that major during 22-23 academic year	3	19
Number and percentage graduated in that major during 23-24 academic year	8	50
Number and percentage that graduated in that major during 24-25 academic year	1	6

Major: Land Surveying B.S.	Number	Percentage
Number of majors classified as juniors (60-89 hours) in fall 2022	3	100
Number and percentage graduated in that major during 22-23 academic year	1	33
Number and percentage graduated in that major during 23-24 academic year	0	0
Number and percentage that graduated in that major during 24-25 academic year	1	33

What do the data indicate regarding strengths, weaknesses, opportunities for growth and threats to effectiveness?

Strengths:

- Students that reached their junior year in all CFANR BS degrees had high probability (81% averaged for all B.S. degrees of CFANR for this reporting period) of completing their degree.

Weaknesses:

- Greater than 20% of the Agriculture and Land Surveying students took more than one academic year past their junior year to complete a degree.

Opportunities for Growth:

- Fostering more transfer students and recruiting more high school students with college credits can help further decrease the average time CFANR students complete their degrees.

Threats to Effectiveness:

- Maintaining faculty engagement in advising and mentoring to assure student success.

Gateway Course Success (Applies only to units teaching Gateway Courses: Arts/Humanities, Math/Sciences, Social Behavioral) (Data Source: Institutional Research)

Table 5: Gateway Course Success*
Not applicable to CFANR

Completion (Graduation/Program Viability)

Table 6: Number of Degrees/Credentials Awarded by Program/Major (Data Source: Institutional Research)

Number of Degrees Awarded:

Undergraduate Program/Major	2022-2023	2023-2024	2024-2025	Three-Year Total	Three-Year Average
CFANR- B.S. Natural Resources Mgmt. ¹	13	9	16	38	13
CFANR- A.S. Natural Resources Mgmt.	6	13	7	26	9
CFANR- A.S. Land Surveying Technology	3	2	3	8	3
CFANR-B.S. Land Surveying	1	1	2	4	1
CFANR- A.A.S. Forest Technology	0	0	0	0	0
GFOR- M.S. Forest Resources	7	7	5	19	6
GFOR- Grad. Cert. Waterfowl & Rec.	3	5	3	11	4
GFOR – Grad. Cert. Forest Business	n/a	1	1	2	1
CFANR- B.S. ² Agriculture	12	17	18	47	16
CFANR- A.S. Agriculture	6	10	10	26	9

Provide an analysis and summary of the data related to Progression/Retention/Program Viability including future plans to promote/maintain program viability.

The number of B.S degrees awarded for Natural Resources Management, Land Surveying and Agriculture were consistent with prior years and similar to or above the three-year average. The number of A.S. degrees in Land Surveying and Agriculture were similar to the prior year, but Natural Resources A.S. degrees declined from the prior year. The first class of all orientation courses in the unit has a session in which students are taught in the lab how to add the A.S. degree of their major to the degree stack, so it is unclear the factors that led to fewer Natural Resources students choosing to add the A.S. degree to their degree stack.

The Land Surveying and Land Surveying Technology programs continued to have relatively low degrees awarded as a function of low enrollment. Marketing has been developed annually for the program, and the instructor makes school visits within the region and is engaged in central and southern Arkansas in trade show visits routinely. The hyflex modality has been an attractant to UAM athletes since its inception in 2022, but due to lab requirements those athletes often change their major within the freshmen year. Another constraint to growth of the hyflex modality is the need for students enrolled in the program in that fashion to work with a surveyor in their region to proctor the degree plan's frequent in-field lab assignments. Growth of the B.S. in Land Surveying is constrained somewhat by student desires to enter the workforce sooner with an A.S. in land surveying; in Arkansas licensure is possible with an A.S. degree and six years of job experience.

The Forest Technology A.A.S. degree continued to have no graduates in the past year. Marketing efforts for this degree must be continue to be conducted to better reach students interested in a forest technician career; course requirements for this degree will also be visited with faculty and CFANR stakeholders to make sure they align with employer needs and student interests. This degree was highlighted this year with a cooperative arrangement with Arkansas Forestry Association with the Arkansas Be Pro Be Proud trade-focused program.

Tracking graduates

Summarize how you track the career progression of your unit's graduates.

Each semester CFANR has an online survey of graduating students to determine their jobs, their jobs' relationship to their degrees, and starting salaries. Students who respond to the survey are entered into a drawing for a UAM-themed prize to incentivize responses. The CFANR also hosts alumni events for forestry each fall as part of the Arkansas Forestry Association annual meeting and for agriculture each spring as the Aggie Comeback dinner. At these events, surveys of alumni contact information and job status are taken. CFANR also has a QR code display that is displayed at professional society meetings for forestry, agriculture, wildlife, surveying, and geospatial fields. The QR code takes participating alumni to an online survey for their contact information and job status.

Record the number of recent graduates entering jobs related or unrelated to their major or pursuing further credentials related or unrelated to their major.

Graduates past three years	CP: TC: Assoc: 60 Bach: 89 GC: 13 Master: 19			
	Related to major	Unrelated to major	Unknown	Pursuing higher credential
Graduates past three years entering workforce	CP: TC: Assoc: 7 Bach: 35 GC: 7 Master: 3	CP: TC: Assoc: 0 Bach: 2 GC: 0 Master: 0	CP: TC: Assoc: 53 Bach: 43 GC: 6 Master: 16	CP: TC: Assoc: 1 Bach: 9 GC: 0 Master: 0
Salary range	CP: TC: Assoc: \$30,000-\$60,000 Bach: \$30,000-\$70,000 GC: \$47,000-\$70,000 Master: \$54,000-\$70,000	CP: TC: Assoc: Bach: No salaries reported GC: Master:		

Graduates past three years	CP: TC: Assoc: 60 Bach: 89 GC: 13 Master: 19				
	Related to major	Unrelated to major	Unknown	Pursuing higher credential	

NOTE: Graduates entering workforce and salary range are based on graduation surveys, which are voluntarily offered and had response rates between 20 to 30% per survey period. The lowest response rates (5%) to surveys were observed for A.S. students, which is likely a consequence of the A.S. not serving as a terminal degree for many students in the unit.

Faculty

Table 7: Faculty Profile, Teaching Load, and Other Assignments (Data Source: Institutional Research)

Teaching Load								
Faculty Name	Status/Rank	Highest Degree	Area(s) of Responsibility	Summer II	Fall	Spring	Summer I	Other Assignments
Askren, Ryan	Inst.	Ph.D.	Wildlife Management		5	3		Works as Director of Five Oaks Ag Education and Research Center
Babst, Benjamin	Prof.	Ph.D.	Ecophysiology		5		2	70% AES
Blakeley, Robert	Inst.	B.S.	Land Surveying		15	19		
Blazier, Michael	Prof./Dean	Ph.D.	Administration/Silviculture		1	7		33% AES, 33% CES
Boston, Kevin	Assoc. Prof.	Ph.D.	Forest Operations		3	3		40% Research, 30% Outreach
Chhetri, Sagar	Asst. Prof.	Ph.D.	Forest Economics		3			40% Research, 30% Outreach
Davis, Lonni	Instr.	M.S.	Agriculture		10	11		
Deaton, Brian	Assoc. Prof.	Ph.D.	Agricultural Economics		9	10		25% CES

Faculty Name	Status/ Rank	Highest Degree	Area(s) of Responsibility	Summer II	Fall	Spring	Summer I	Other Assignments
Dick, Katy	Asst. Prof.	Ph.D.	Agronomy		13	6		25% CES
Ficklin, Robert	Prof.	Ph.D.	Soil Science	3	9	6	3	9% AES, Administration
Jones, Rusty	Rodeo Coach	M.S.	Rodeo	3				UAM rodeo coach
Knowles, Shanna	Asst. Prof.	Ph.D.	Business Leadership		3			
Larasatie, Pipiet	Asst. Prof.	Ph.D.	Forest Products and Marketing					40% Research, 30% Outreach
Lindsey, Rocky	Assoc. Prof.	DVM	Animal Science		6	4		Ag program coordinator
Nelson, Maribel	Asst. Prof.	DVM	Animal Science		10	9		
Osborne, Douglas	Prof.	Ph.D.	Wildlife Management		2	3		66% AES, Administration
Osborne, Tiffany	Inst.	M.S.	Wildlife Management		4	6		35% AES, 25% CES
Pelkki, Matthew	Prof.	Ph.D.	Forest Economics		3	9		47% AES , Administration
Rushing, Traci	Commun. Director/I nstructor	M.S.	Communications			3		50% AES
Rubino, Elena	Asst. Prof.	Ph.D.	Natural Resource Human Dimensions					60% AES
Saud, Pradip	Asst. Prof.	Ph.D.	Biometrics		5	5		70% AES
Sims, Laura	Assoc. Prof.	Ph.D.	Forest Health			4	2	
Tanger, Shaun	Assoc. Prof.	Ph.D.	Forest Trade and Policy		3			40% Research, 30% Outreach
Tian, Nana	Asst. Prof.	Ph.D.	Natural Resource Policy			3		70% AES
Watt, Chris	Instr.	M.S.	Program Support/ Wildlife Management		1			91% AES
White, Donnell	Prof.	Ph.D.	Wildlife Management		3	3		70% AES
Yanez, Marco	Asst. Prof.	Ph.D.	Silviculture		2	8	7	70% AES
Zurqani, Hamdi	Asst. Prof.	Ph.D.	GIS		7	8	1	70% AES

What significant change, if any, has occurred in faculty during the past academic year?

Dr. Laura Sims joined the faculty as Associate Professor of Forest Disturbance Ecology and Director of the Arkansas Forest Health Research Center. Drs. Rubino and Larasatie both resigned in January 2025. With those vacancies, the unit discussed the best expertise needs for research and teaching. Using that feedback, the positions were redefined as Ecohydrology and Wood Procurement, respectively. The Wood Procurement position was filled in June 2025; the Ecohydrology search is still underway at the time of this

report.

Table 8: Total Unit SSCH Production by Academic Year (ten year) (Data Source: Institutional Research)

Academic Year	Total SSCH Production	Percentage Change	Comment
2015-16	2798	-1.2	
2016-17	3014	7.7	
2017-18	3224	7.0	
2018-19	3122	-3.2	
2019-20	2490	-20.2	
2020-21	2,502	0.01	
2021-22	2,671	6.8	
2022-23	2,479	-7.1	
2023-24	2,661	7.3	
2024-25	2,519	-0.05	

What significant change, if any, has occurred in unit SSCH during the past academic year and what might have impacted any change?

There was a slight decline in SSCH for the unit, likely due to departures of two faculty in January 2024.

Unit Agreements, MOUs, MOAs, Partnerships

Table 9: Unit Agreements-MOUs, MOAs, Partnerships, Etc.

Unit	Partner/Type	Purpose	Date	Length of Agreement	Date Renewed
CFANR- NRM	MOU- UA Cossatot	Course Transfers – Forestry and Wildlife	7/2016	Open	6/5/2024
CFANR- NRM	UA System Division of Agriculture	Research and Extension	1989	Open	N/A

List/briefly describe notable faculty recognition, achievements/awards, service activities and/or scholarly activity during the past academic year.

NOTE: In all sections, faculty and graduate student names are highlighted in bold and asterisks, respectively.

Publications

Peer-reviewed Journal Articles

Adedapo, S.M.*; **Zurqani, H.A.; Ficklin, R.L. and D.C. Osborne.** 2024. Applications of Machine Learning Techniques in Predicting Selected Soil Properties in Lower Mississippi Alluvial Valley Green Tree Reservoir. Proceedings of the 2024 IEEE Mediterranean and Middle-East Geoscience and Remote Sensing Symposium: 487-491.

Adedapo*, M.S., and **H.A., Zurqani.** 2024. Evaluating the Performance of Various Interpolation Techniques on Digital Elevation Models in Highly Dense Forest Vegetation Environment. Ecological Informatics, 81, 102646.

Alzurqani*, A.A., **H.A. Zurqani., D. White, Jr., K. Bridges.,** and S., Jackson. 2024. Google Earth Engine Application for Mapping and Monitoring Drought Patterns and Trends: A Case Study in Arkansas, USA. Ecological Indicators, 81, 102646.

Alzurqani, S. A.*; **Hamdi A. Zurqani, Don White Jr., Kathleen Bridges,** and Shawn Jackson. 2024. Google Earth Engine application for mapping and monitoring drought patterns and trends: A case study in Arkansas, USA. Ecological Indicators 168, November 2024. <https://doi.org/10.1016/j.ecolind.2024.112759>.

Baker, N.W., N.M. Mastro, P. Lavretsky, C.J. Highway, A.C. Keever, A.G. Blake-Bradshaw, R.J. Askren, H.M. Hagy, J.C. Feddersen, **D.C. Osborne,** and B.S. Cohen. *In Press*. Mallard hybridization with domesticated lineages alters spring migration behavior and timing. Accepted on 23 October 2024 in Ecology and Evolution.

Beach, C.R., C.N. Jacques, J.D. Lancaster, **D.C. Osborne,** A.P. Yetter, R.A. Cole, H.M. Hagy, and A.M.V. Fournier. 2024. Lessons learned from using wild-caught and captive-reared lesser scaup (*Aythya affinis*) in captive experiments. Translational Animal Science 8, txae076. <https://doi.org/10.1093/tas/txae076>

Blake-Bradshaw, A.G., N.M. Mastro, C. J. Highway, A. C. Keever, P.T. Link, J. C. Feddersen, H.M. Hagy, **D.C. Osborne,** and B. Cohen. 2024. Caught out in the cold: Impact of an extreme climatic event on survival of a generalist waterfowl species. Ornithological Applications 126: 1–9 <http://doi.org/10.1093/ornithapp/duae025>.

Chhetri, SG, Tanger, S, and M Pelkki. 2024 Factors shaping consulting foresters' services to family forest landowners. Trees, Forests, and People 17 (2024) 100604. 7 p.

Dittmer, E.M.*; R.J. Askren, H.M. Hagy, A.J. Hitchcock, and **D.C. Osborne.** 2024. All sanctuaries are not created equal: variation in selection of public land sanctuaries by wintering mallards. Journal of Wildlife Management <https://doi.org/10.1002/jwmg.22535>.

Hug, C. *, **P. Saud**, K. McKnight, R.J. Askren, and **D.C. Osborne**. *In Press*. Comparing Two Tree Condition Assessments to Determine Red Oak (*Quercus spp.*) Health in Greentree Reservoirs in the lower Mississippi Alluvial Valley. Accepted 4 September 2024 in Journal of Forestry Research.

Kressuk JM*, Collins JT, Gardiner ES, **Bataineh MM**, **Babst BA** (in press) Willow oak (*Quercus phellos*) seedling roots continue respiration and growth during fall and winter in a soil temperature-dependent manner. *Tree Physiology*. (in press)

Kc, Y.B., Liu, Q., **Saud, P.**, Gaire, D. and Adhikari, H., 2024. Estimation of Above-Ground Forest Biomass in Nepal by the Use of Airborne LiDAR, and Forest Inventory Data. *Land*, 13(2), p.213.

Kc, Y.B., Liu, Q., **Saud, P.**, Xu, C., Gaire, D. and Adhikari, H., 2024. Driving Factors and Spatial Distribution of Aboveground Biomass in the Managed Forest in the Terai Region of Nepal. *Forests*, 15(4), p.663.

Mineau, A. *, **Tian, N.**, Gan, J., Holley, G. 2024. Private forest landowners' perspectives on feral hog management and control in Arkansas, Louisiana, and east Texas. In: Bragg, Don C.; Oswald, Brian P.; Koerth, Nancy E., eds. Proceedings of the 22nd biennial Southern Silvicultural Research Conference. Gen. Tech. Rep. SRS-274. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station: 232–238. https://doi.org/10.2737/SRS_GTR-274-Pap37.

Mikhailova, E.A., **Zurqani, H.A.**, Lin, L., Hao, Z., Post, C.J., Schlautman, M.A., Post, G.C., and G.B. Shepherd. 2024. Accounting for Climate and Inherent Soil Quality in United Nations (UN) Land Degradation Analysis: A Case Study of the State of Arizona (USA). *Climate*, x(x), xx.

Mikhailova, E.A., **Zurqani, H.A.**, Lin, L., Hao, Z., Post, C.J., Schlautman, M.A., Post, G.C., and G.B. Shepherd. 2024. Possible Integration of Soil Information into Land Degradation Analysis for the United Nations (UN) Land Degradation Neutrality (LDN) Concept: A Case Study of the Contiguous United States of America (USA). *Soil Systems*, 8(1), 14.

Mikhailova, E.A., **Zurqani, H.A.**, Lin, L., Hao, Z., Post, C.J., Schlautman, M.A., and G.C., Post. 2024. Spatiotemporal Analysis of Soil Quality Degradation and Emissions from Land Developments in the State of Iowa (USA). *Land*, 12(10), 1853.

Mikhailova, E.A., **Zurqani, H.A.**, Lin, L., Hao, Z., Post, C.J., Schlautman, M.A. and C.E., Brown. 2024. Disaggregating Land Degradation Types for United Nations (UN) Land Degradation Neutrality (LDN) Analysis Using the State of Ohio (USA) as an Example. *Earth*, 5(2), 255-273.

- Masto, N., A.G. Blake-Bradshaw, C. J. Highway, A. C. Keever, J. C. Feddersen, P.T. Link, H.M. Hagy, **D.C. Osborne**, and B. Cohen. 2024. Mallard pre-breeding migration strategies necessitate individual time-energy trade-offs despite wintering origins or migratory destinations. *Ornithology* <https://doi.org/10.1093/ornithology/ukae044>.
- Messick, J.A.*, Serenari, C., & **Rubino, E.C.** (2024). Communicating expectations: Informing strategic communications by conservation level segmentation and impression management preferences. *Society and Natural Resources*.
- Nelson, D.G., Mikhailova, E.A., **Zurqani, H.A.**, Lin, L., Hao, Z., Post, C.J., Schlautman, M.A., Post, G.C., and G.B. Shepherd. 2024. Soil-Based Emissions and Context-Specific Climate Change Planning to Support the United Nations (UN) Sustainable Development Goal (SDG) on Climate Action: A Case Study of Georgia (USA). *Land*, 13(10), 1669.
- Osborne, D.C.**, R.J. Askren, S.D. Phelps, **T.L. Osborne**, J.R. Henson, and C.N. Nicholai. 2024. Variation in diurnal and nocturnal movement distances revealed in dabbling ducks wintering in the Mississippi Alluvial Valley. *Wildlife Biology* <http://doi.org/10.1002/wlb3.01309>.
- Olmedo, A., Veríssimo, D., Challender, D.W.S., Dao, H.T.T., **Rubino, E.C.**, Milner-Gulland, E.J. (2024). Designing celebrity-endorsed behavioral interventions in conservation. *Conservation Biology*.
- Paudel, A.*, Bhattarai, S.*, **Saud, P.**, Pant, B., **Tian, N.** 2024. Impact of Mikania micrantha invasion and perceptions of local communities in Central Nepal, *Sustainable Environment*, 10:1, 2362500. <https://doi.org/10.1080/27658511.2024.2362500>
- Paudel, A.*, Bhattarai, S*, **Saud, P.**, Pant, B. and **Tian, N.**, 2024. Impact of Mikania micrantha invasion and perceptions of local communities in Central Nepal. *Sustainable Environment*, 10(1), p.2362500.
- Penn, J., Gutierrez-Castillo, A., **Blazier, M.** 2024. Family Forest Landowners' Preferences for Meeting Format and Outreach with Forest Professionals Post-COVID-19. *Small-scale Forestry* (2024) 23:561–579 <https://doi.org/10.1007/s11842-024-09578-y>
- Rubino, E. C.**, Messick, J.A.*, & Serenari, C. (in press). Increasing Safe Harbor Agreement enrollment: A choice experiment approach to investigate preferred contract attributes. *The Journal of Wildlife Management*.
- Rozing, E.* , **Rubino, E.C.**, Turner, K.A., & Larasatie, P. (2024). Exploring the efficacy of identity priming and message framing in influencing American attitudes toward trophy hunting. *PlosOne*.
- Rozing, E.* , **Rubino, E.C.**, Turner, K.A., & Larasatie, P. (2024). Evaluating public attitudes toward trophy hunting using social license to operate. *Human Dimensions of Wildlife*.

Saud S, Chhetri SG and M. Pelkki. 2024. Not population density, but city size and per capital income influence urban forest carbon sequestration: A case of growing cities in Arkansas, USA. *Environmental Challenges* 16(2024) 101000. 13 p.

Saud, P., Chapagain, T.R., Bhandari, S.K. and Moser, W.K., 2024. Taper functions to predict the upper stem diameter of Chir pine (*Pinus roxburghii*) in the mid-hills of Nepal. *Trees, Forests and People*, 17, p.100627.

Saud, P., Chhetri, S.G. and Pelkki, M., 2024. Not population density, but city size and per capita income influence the urban forest carbon sequestration: A case of growing cities in Arkansas, USA. *Environmental Challenges*, 16, p.101000.

Singh, P.B., Hu, H., Aryal, P.C., **Saud, P.**, Pandey, R., Mainali, K.P. and Hu, Y., 2024. Multiple vegetation layers interactively enhance habitat values of endangered Kashmir Musk Deer. *Global Ecology and Conservation*, 51, p.e02894.

Serenari, C., Pratt, E. N., Meeks, A., **Rubino, E. C.** & Daniel, K. L. (in press). Potential for Conflict Among Spring Alligator Hunters in Texas. *Human-Wildlife Interactions*.

Tian, N., Mineau, A.*, Gan, J. 2024. Managing Feral Swine: Thoughts of Private Landowners in the West Gulf Region. *Forests*, 15: 436. <https://doi.org/10.3390/f15030436>

Toth, M.G* & **Rubino, E.C.** (2024). Applying Reiss' expectancy theory to locals' perceptions of a potential red wolf reintroduction to Ozark National Forest, AR. *Human Dimensions of Wildlife*.

Toth, M.G* & **Rubino, E.C.** (2024). Assessing local landowner versus non-local public support for a red wolf reintroduction using varying message treatments. *Wildlife Research*.

Zurqani, H.A. 2024. The First Generation of a Regional-Scale 1-m Forest Canopy Cover Dataset Using Machine Learning and Google Earth Engine Cloud Computing Platform: A Case Study of Arkansas, USA. *Data in Brief*, 52, p.109986.

Zurqani, H.A. 2024. An Automated Approach for Developing a Regional-Scale 1-m Forest Canopy Cover Dataset Using Machine Learning and Google Earth Engine Cloud Computing Platform. *Software Impacts*, 19, p.100607.

Books/Book Chapters

Zurqani, H. A., A. Al-Bukhari., and Alkhboli M. M. 2024. Cloud-Based Soil Loss Assessment in Northeastern Libya using the Revised Universal Soil Loss Equation (RUSLE) and Google Earth Engine Platform. Chapter 4 (Section 1: Soil Degradation), Climate Change and Environmental Degradation in the MENA Region, In: The Handbook of Environmental Chemistry. Springer, Berlin, Heidelberg.

Published Abstracts/Conference Proceedings

Adedapo*, S.M., H.A., **Zurqani, M. Blazier**, J. McAlpine, and K. Cunningham. 2024. Early Detection of Pine Disease in Southeast US Forests: A Deep Learning Approach Using UAV Imagery. The 2024 International Conference on Smart Computing, IoT and Machine Learning (SIML), Surakarta, Indonesia, 2024, pp. 256-261.

Adedapo*, S.M., H.A., **Zurqani, R.L., Ficklin, and D.C., Osborne**. 2024. Applications of Machine Learning Techniques in Predicting Selected Soil Properties in Lower Mississippi Alluvial Valley Green Tree Reservoir. In IEEE Mediterranean and Middle-East Geoscience and Remote Sensing Symposium (M2GARSS), Oran, Algeria, 2024, pp. 487-491.

Babst BA, Kressuk JM*, Collins T, Gardiner ES, **Bataineh MM**. EXTENDED ABSTRACT: The Response Of Willow Oak (*Quercus Phellos*) Seedling Roots To Fall Environmental Cues And Winter Flooding. Bragg DC, Oswald BP, Koerth NE (eds.) Proceedings of the 22nd Biennial Southern Silvicultural Research Conference. Gen. Tech. Rep. SRS-274. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 96-98.

Babst BA, Sample RD, Cook J. EXTENDED ABSTRACT: Timing Of Dormant Season Inundation Is Crucial To Flood Effects On Bottomland Red Oaks. Bragg DC, Oswald BP, Koerth NE (eds.) Proceedings of the 22nd Biennial Southern Silvicultural Research Conference. Gen. Tech. Rep. SRS-274. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 93-95.

Corbin TW*, **Bataineh MM, Babst BA**, Hung I-K (2024) Assessment of tradeoffs among ecosystem services of wetland reserve easements. Bragg DC, Oswald BP, Koerth NE (eds.) Proceedings of the 22nd Biennial Southern Silvicultural Research Conference. Gen. Tech. Rep. SRS-274. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 271-280.

Pelkki, M., Tanger, S., Tian, N. How forest carbon standards in the United States are hindering carbon sequestration from southern pine plantations. IUFRO 26th World Congress, Stockholm, Sweden, June 23-29, 2024.

Subedi*, P.B., H.A., **Zurqani, M.A., Blazier, M., Yanez**, and K. Cunningham. 2024. Comparison of Supervised Machine Learning Algorithms for Extracting Tree Canopy Cover Using High-Resolution Imagery and Google Earth Engine. The Society of American Foresters (SAF) National Convention. Loveland, Colorado, September 17–20, 2024.

Tian, N., Pantha, S.*, **Gutierrez-Castillo, A.** 2024. International Society of Forest Resource Economics Symposium (ISFRE), Little Rock, Arkansas, April 1-3.

Tian, N., Gan, J. **Pelkki, M.** Restoring climate-resilient hardwood forests for climate-smart ecosystem services in the Lower Mississippi Alluvial Valley (LMAV). IUFRO 26th World Congress, Stockholm, Sweden, June 23-29, 2024.

Zurqani, H.A., A. Al-Bukhari., and M. M., Alkhboli. 2024. Spatial Estimation of Surface Soil Texture Using Machine Learning and Google Earth Engine. The IEEE Mediterranean and Middle-East Geoscience and Remote Sensing Symposium (M2GARSS 2024), Oran, Algeria, April 15 - 17, 2024.

Zurqani, H.A., A. Al-Bukhari., and M. M., Alkhboli. 2024. Spatial Estimation of Surface Soil Texture Using Machine Learning and Google Earth Engine. The IEEE Mediterranean and Middle-East Geoscience and Remote Sensing Symposium (M2GARSS 2024), Oran, Algeria, April 15 - 17, 2024.

Zurqani, H.A., A. Al-Bukhari., and M. M., Alkhboli. 2024. Spatial Estimation of Surface Soil Texture Using Machine Learning and Google Earth Engine. In IEEE Mediterranean and Middle-East Geoscience and Remote Sensing Symposium (M2GARSS), Oran, Algeria, 2024, pp. 286-290.

Fact Sheets/ Popular Press

Deaton, B.D. 2024. Arkansas Corn and Grain Sorghum Market Reports (various dates). Arkansas Row Crops Blog. Available at <https://arkansascrops.uada.edu/>

Deaton, B.D. 2024. Arkansas Soybean Market Reports (various dates). Arkansas Row Crops Blog. Available at <https://arkansascrops.uada.edu/>

Pelkki, M. Tian, N. 2024. Economic Contributions of Arkansas Forest Industries in 2024.
<file:///C:/Users/tiann/Downloads/EconomicContributions2024Report1.pdf>

Tian, N., Gutierrez-Castillo, A. 2024. Flyers of Forest Certification, for the LSR project.
[file:///C:/Users/tiann/Downloads/CertificationInfographic20230308%20\(1\).pdf](file:///C:/Users/tiann/Downloads/CertificationInfographic20230308%20(1).pdf)

White, D., Jr. 2024. Bureau of Land Management resource management plan amendment and environmental impact statement for greater sage-grouse range wide planning. Bureau of Land Management, Salt Lake City, Utah, USA.

Van Dien D* (2024) Greentree reservoir research: Study seeks to improve flooded timber management for winter waterfowl habitat. Missouri Conservationist 85: 4.

Presentations

Allen-DeVries, M.K. and **D.C. Osborne**. Survival and population dynamics of mallards wintering Arkansas: A to-season banding approach. Conserving the Natural State, Morrilton, Arkansas at the Winthrop Rockefeller Institute 6-8 September 2024.

Askren, R.J., P. Lavretsky, N.M., Masto, A.G. Blake-Bradshaw, C. J. Highway, A. C. Keever, H.M. Hagy, J.C. Feddersen, B.S. Cohen, and **D.C. Osborne**. Understanding effects of domestic and wild mallard introgressive hybridization on spring migratory behavior. DUCKS9, Portland, OR 2-5 Feb 2024.

Askren, R.J., and **D.C. Osborne**. Mallards wintering in the Bayou Meto Basin and Relationship to Bottomland Hardwood Forests. Southeast Association of Fish and Wildlife Agencies, Corpus Christi, TX 15-19 Oct 2023.

*Adedapo, S.M, **H.A. Zurqani, R.L. Ficklin, and D.C. Osborne**. Application of Machine Learning in Predicting Selected Soil Properties in Lower Mississippi Alluvial Valley Green Tree Reservoir. 14th Southern Forestry and Natural Resource Management GIS conference, Athens, GA 11-12 Dec 2023.

Benjamin A. Babst, Kressuk JM*, Collins JT, Gardiner ES, **Bataineh MM** " A scientific basis for protecting red oak regeneration in bottomland hardwood forests." Conserving the Natural State Forum, Morrilton, AR. September 2024

*Chamlagain, K., **Larasatie, P., Rubino, E.C.**, Knowles, S., & **Gutierrez-Castillo, A**. Workforce entry patterns and career values of university students majoring in forestry and natural resources. **Society of American Foresters National Convention, Loveland, CO, 2024.**

*Chamlagain, K., **Larasatie, P., Rubino, E.C.**, Knowles, S., & **Gutierrez-Castillo, A**. Workforce analysis with a focus on diversity, equity, and inclusion: How does a job in natural resources appeal to students?. **Biennial Conference on University Education in Natural Resources**, online, 2024.

Cohen, B., N. Masto, C. Highway, P. Link, K. Torrance, C. Hurt, P. Lavretsky, J. Feddersen, **D.C. Osborne**, and H. Hagy. Hunting as a selective force on migration phenology and a mechanism for ‘stale’ ducks. DUCKS9, Portland, OR 2-5 Feb 2024.

*Dittmer, E.M, R.J. Askren, H.M. Hagy, A.J. Hitchcock, Jr., and **D.C. Osborne**. Not all sanctuaries are created Equal: Variation in protected area section by wintering mallards. DUCKS9, Portland, OR 2-5 Feb 2024.

Hood, B, E. Van Der Veer, T. Wick, R.J. Askren, and **D.C. Osborne**. Five Oaks Ag Research & Education Center: A Graduate

Certificate Program and Training Program for Early-Career Waterfowl Habitat and Wetland Management Professionals. Conserving the Natural State, Morrilton, Arkansas at the Winthrop Rockefeller Institute 6-8 September 2024.

Hug, C. *, **P. Saud**, R.J. Askren, and **D.C. Osborne**. Quantifying individual tree health of red oaks (*Quercus spp.*) within greentree reservoirs and implications for mallard (*Anas platyrhynchos*) use. Arkansas Chapter of The Wildlife Society, Mt. Magazine State Park, Arkansas 14-15 March 2024. Oral presentation.

Herman, S, C. Nadeau, B. Bartles, R.J. Askren, and **D.C. Osborne**. Diet analysis of wintering mallards in the Lower Mississippi Alluvial Valley using metabarcoding. Arkansas Chapter of The Wildlife Society, Mt. Magazine State Park, Arkansas 14-15 March 2024.

Henson, J., A. Guerreo, J. Bethell, **D.C. Osborne**, T. Bradshaw, H.M. Hagy, and A. Fournier. Development of Blood Metabolite Index for Mallards. DUCKS9, Portland, OR 2-5 Feb 2024.

***Rubino, E.C.** & Serenari, C. Evaluating preferences for chronic wasting disease management options using latent profile analysis. International Society of Forest Resource Economics Symposium (ISFRE), Little Rock, AR, 2024.

*Ogbuka, C., **Saud, P., Pelkki, M., Chhetri, S., Yanez, M.** 2024, Economic Potential of Improved Loblolly pine for Carbon Trading in Southeastern USA. International Society of Forest Resource Economics, April 1-3, 2024, Little Rock, AR, USA.

*Ogbuka, C., **Saud, P., Chhetri, S., Yanez, M.** 2024, Site Index and Planting Density Influence on Biomass of Improved Loblolly Pine in Southeastern USA. National Convention, Society of American Foresters, September 17-20, 2024, Loveland, Colorado, USA.

*Ogbuka, C., **Saud, P., Chhetri, S., Yanez, M.** 2024, Site Index and Planting Density Influence on Biomass of Improved Loblolly Pine in Southeastern USA. Annual Meeting Ouachita Society of American Foresters, November 6-7, 2024, Pocola, Oklahoma, Colorado, USA.

*Oli, T.R., **Saud, P., Chhetri, S., Yanez, M.** 2024, Comparison of Diameter and Height Growth among Four Genetically Improved Loblolly Pine Genotypes in Southeastern USA. Annual Meeting Ouachita Society of American Foresters, November 6-7, 2024, Pocola, Oklahoma, Colorado, USA.

Osborne, D.C., R.J. Askren, B. Leach, M. Brasher, L. Naylor, and A. Raedeke. Transmitter effects on spring migratory step-lengths and latitudinal positioning of winter-marked female mallards. Southeast Association of Fish and Wildlife Agencies, Corpus Christi, TX 15-19 Oct 2023.

*Priest, A., **Rubino, E.C.**, Penn, J., Mini, A., Bartush, B., Klais, A., McKnight, S.K., Westlake, S., & Gramza, A. Improving Natural

Resource Conservation Service forest management program recruitment using landowner perspectives. **International Society of Forest Resource Economics Symposium (ISFRE)**, Little Rock, AR, 2024.

Palumbo, P., R.J. Askren, and **D.C. Osborne**. Spring migration habitat selection of hen mallards wintering in the Mississippi Flyway. Arkansas Chapter of The Wildlife Society, Mt. Magazine State Park, Arkansas 14-15 March 2024. Poster

Pelkki, M. Timber Market Outlook for 2024. Farm Bureau Commodity Meeting. 9 January 2024, Little Rock, AR.

Pelkki M, Montgomery, R, and A. Gutierrez. Developing a logistics approach to growing a sustainable circular wood-based economy. Association for Consulting Foresters Regional Annual Meeting, February 19, 2024, Little Rock, AR.

Pelkki, M. “From the ground up – activities of the Arkansas Center for Forest Business” Plenary session presentation at the 2024 International Society of Forest Resource Economists. April 1, 2024, Little Rock, AR.

Pelkki, M and M Blazier. Forest Ethics. Forester Training Day. August 8, 2024. Hope, AR.

Pelkki M. Forest Market Update – Carbon Markets. Forester Training Day. August 8, 2024. Hope, AR.

Pelkki, M. Timber Market Update. Farm Bureau Commodity Meeting. 26 July 2024, Jonesboro, AR.

*Priest, A., **Rubino, E.C.**, Penn, J., Mini, A., Bartush, B., Klais, A., McKnight, S.K., Westlake, S., & Gramza, A. Using family forest landowner perspectives to improve Natural Resource Conservation Service habitat management program recruitment. **Arkansas Chapter of The Wildlife Society**, Mt. Magazine, AR, 2024.

Schroyer, K.A*, J. Chapman, C. Ham, K. Holman, E. Huddleston, S. Mills, T. Whited, P. Palumbo, and **D.C. Osborne**. Evidence of changing demographics and distributional patterns from post-season winter mallard banding. Arkansas Chapter of The Wildlife Society, Mt. Magazine State Park, Arkansas 14-15 March 2024. Oral presentation.

*Schroyer, K.A., H. Zurqani, H.M. Hagy, R.J. Askren, S. Rimer, and **D.C. Osborne**. Modelling Vegetative and Waterbird Response to a Drawdown on Big Lake National Wildlife Refuge. DUCKS9, Portland, OR 2-5 Feb 2024. Platform presentation.

*Schroyer, K.A., H. Zurqani, H.M. Hagy, R.J. Askren, S. Rimer, and **D.C. Osborne**. A New Era for Wetland Monitoring: Exploring Remote Sensing Options for Monitoring Wetland Vegetation Communities. DUCKS9, Portland, OR 2-5 Feb 2024. Poster presentation.

Tomb, A.*, and **D.C. Osborne**. Implications of Climate-Smart forestry on mallard distribution in the MAV. Conserving the Natural State,

Morrilton, Arkansas at the Winthrop Rockefeller Institute 6-8 September 2024.

Tian, N. Invited speaker of Oral presentation, Southeast Arkansas Chapter SAF Meeting, Monticello, US, February 12, 2024.

Tian, N. Invited speaker of Oral presentation, Lunch and Learn Seminar at UAM, Monticello, AR, US, February 15, 2024.

Tian, N. Invited speaker of Oral presentation, Michigan State University, East Lansing, MI, US, March 5, 2024.

Tian, N. Invited speaker of Oral presentation, Alburn University, Alburn, US, April 17, 2024.

Tian, N. Invited speaker of Oral presentation, Registered Foresters Training Workshop, Timber markets and outlook. Ferndale, AR, May 17, 2024.

Tian, N. Invited speaker of Oral presentation, Women Owning Woodlands Network Conference. What is climate-smart and how to assist landowners? June 13 June 15, 2024, Virtual.

Tian, N. Oral presentation, Building Relationships with Family Forest Landowners as a Pathway to Increasing Forest Planning and Certification in the Western Upper Gulf Coastal Plain. International Society of Forest Resource Economics Symposium (ISFRE), Little Rock, Arkansas, April 1-3, 2024.

Tian, N. Oral presentation, How Forest carbon standards in the United States are hindering carbon sequestration from southern pine plantations. IUFRO 26th World Congress, Stockholm, Sweden, June 23-29, 2024.

Tian, N. Oral presentation. Kick-off meeting for ACFB, Hot Springs, AR, Oct. 7, 2024. Oral presentation for congressional aides, Five Oaks, AR, Oct. 18, 2024.

Tian, N. Oral presentation on the Climate-smart Annual Project Meeting, Strait Duck Lodge, Nov. 4-5th, 2024.

Tian, N. Oral presentation, Restoring climate-resilient hardwood forests for climate smart ecosystem services in the Lower Mississippi Alluvial Valley (LMAV). IUFRO 26th World Congress, Stockholm, Sweden, June 23-29, 2024.

Tian, N. Poster presented, ENHANCE CERTIFICATION PROGRAM ADOPTION AMONG FAMILY FOREST LANDOWNERS: PERSPECTIVES FROM FORESTERS. International Society of Forest Resource Economics Symposium (ISFRE), Little Rock, Arkansas, April 1-3, 2024.

Tian, N. Poster presented, ENHANCE CERTIFICATION PROGRAM ADOPTION AMONG FAMILY FOREST LANDOWNERS: PERSPECTIVES FROM FORESTERS. UAPB 65th Annual Rural Life Conference, Pine Bluff, Arkansas, March 15th, 2024.

Wirick, M.* R.J. Askren, **H. Zurqani, and D.C. Osborne.** Mallard-Bottomland Hardwood Relationship in the Bayou Meto Basin, Arkansas. Conserving the Natural State, Morrilton, Arkansas at the Winthrop Rockefeller Institute 6-8 September 2024.

White, D., Jr. The comeback story of bears in southeast Arkansas. December 14, 2023. University of Arkansas Division of Agriculture iLead Leadership Development Program. College of Forestry, Agriculture, and Natural Resources, Monticello, Arkansas.

White, D., Jr., Christopher L. Watt, and Madison Chalenburg*. March 5, 2024. Feral hog workshop. Dale Bumpers White River National Wildlife Refuge, St. Charles, Arkansas.

White, D., Jr., Christopher Rota, and **Christopher L. Watt.** September 8, 2024. Resource selection of a translocated elk population in Arkansas. Conserving the Natural State, Winthrop Rockefeller Institute, Morrilton, Arkansas.

White, D., Jr., Christopher Rota, and **Christopher L. Watt.** May 22, 2024. Resource selection of a translocated elk population in North Carolina. 25th Eastern Elk Management Workshop, Eureka Springs, Arkansas.

White, D., Jr., and **Christopher L. Watt.** October 25, 2023. Wildlife population abundance and density estimation using spatial capture-recapture methods: black bears in southeastern Arkansas. Department of Biological Sciences, University of Arkansas, Fayetteville, Arkansas.

White, D., Jr., and Christopher L. Watt. November 20, 2024. Bad news for grizzlies: summer range contractions of the army cutworm moth under climate change in the northern Rocky Mountains, USA. Climate Adaption Science Centers (CASC) Futures Forum, San Diego, California, USA.

Zurqani. 2024. “The First Generation of a Regional-Scale 1-m Forest Canopy Cover Dataset Using Machine Learning and Google Earth Engine Cloud Computing Platform: A Case Study of Arkansas, USA”. Conserving the Natural State – Conference, Winthrop Rockefeller Institute, Morrilton, AR, (September 6 8, 2024).

Zurqani. 2024. “The Power of Geospatial Artificial Intelligence (GeoAI) and Big Data Analytics in Natural Resources Management and Conservation”, Texas A&M University-Kingsville, Kingsville, TX, USA. (May 03, 2024).

Grants

Faculty receiving grants: B. Babst, M. Yanez, D. Osborne, K. Bridges, B. Deaton, P. Larasatie, E. Rubino, H. Zurqani, N. Tian, M. Pelkki, D. White, P. Saud

Grant sources: Arkansas Game and Fish Commission, Southeast Climate Adaptation Science Center, USDA Natural Resources Conservation Service, University of Arkansas System Division of Agriculture, Soybean Promotion Board, U.S. Fish and Wildlife Service, Ducks Unlimited, Sitka, U.S. Fish and Wildlife Service, USDA Forest Service, Bass Pro Shops Conservation Fund

Total extramural funding: \$6,065,390

Awards

- *Larasatie, P.*
 - o *Outstanding Doctoral Research Award*. Bestowed at 2024 IUFRO World Congress held June 23-29, 2024, at Stockholm, Sweden.
- *Lindsey, R.*
 - o Arkansas Veterinarian of the Year, Arkansas Veterinary Association
- *Nelson, M.*
 - o Arkansas Cattlemen's Association Leadership Training, graduate
- *Osborne, D.:*
 - o Champion of the Wild, Arkansas Time Magazine
 - o Top 10 Professionals, Arkansas Money and Politics Magazine
- *Osborne, T.*
 - o Educator of Tomorrow's Conservation Leaders, Ducks Unlimited Magazine
- *Pelkki, M.*
 - o Fellow, Society of American Foresters
- *Tanger, S.*
 - o GOLD award in the category "Podcast or Radio" from the Association of Natural Resources Extension Professionals. 2023.
 - o First place communications award, Mississippi Association of County Agricultural Agents for Timber University podcast.
 - o First place publication award, Mississippi Association of County Agricultural Agents for Managing the Family Forest.
- *Tian, N.*
 - o Junior Faculty Excellence in Teaching, CFANR

Service

Benjamin Babst:

- Reviewer for journals: Tree Physiology, Trees: Structure & Function
- Joined Tree Physiology Review Board (3 year commitment, April 2023)
- St. Mark Catholic Church Parish Council
- St. Mark Catholic Church Altar Server Coordinator
- Local leadership role for the Knights of Columbus (e.g., fund-raising, fish-fry, coats-for-kids, service for church etc.)

Kevin Boston:

- Associate Editor: Forests, Croatian Journal of Forest Engineering

Sagar Chhetri:

- Editor: one of the editors of the CFANR newsletter
- Volunteer: Assisted in developing the University's education flyer
- Ouachita Society of American Foresters, Arkansas Division, Southeast Chapter- Secretary/Treasury
- International Society of Forest Resource Economics (ISFRE) –member, moderator: Supply and Industry session, judge: Student poster competition
- Manuscript Reviewer (#16): Environmental Sustainability (x1), Forest Policy and Economics (x1), GeoJournal (x1), Journal of Forestry (x2), Journal of Nature Conservation (x1), Land Use Policy (x1), Forest (x7), Small-scale Forestry (x1), Society and Natural Resources (x1)

Lonni Davis:

- Ashley County Farm Bureau board member
- First Baptist Church of Hamburg: Sunday school teacher
- Ashley County Conservation District – Secretary
- Ashley County 4H Outriders – Group Leader
- Dirty South Barrel Racing Association-Member
- Milo Riding Club

Brian Deaton:

- Collegiate Farm Bureau advisor
- Tri-State Soybean Forum Secretary/Treasurer

Robert Ficklin:

- UAM committees: Curriculum and Standards, General Education, Higher Learning Commission
- Commencement Herald
- Forestry Club Advisor
- Society of American Foresters National Program Committee

Pipiet Larasatie:

- Reviewer:
 - o Sustainable Production and Consumption (Q1, SJR 2.03)
 - o Building and Environment (Q1, SJR 1.58)
 - o Forest Policy and Economics (Q1, SJR 1.12)
 - o PLoS ONE (Q1, SJR 0.89)
 - o Canadian Journal of Forest Research (Q1, SJR 0.7)
 - o Silva Fennica (Q1, SJR 0.49)
 - o Trends in Higher Education (new)
- Judge for the 2023 Southeast Arkansas Regional Science Fair (SEARSF), held at UAM. Based on my expertise and experience, together with the Dean of UAM School of Math and Sciences and Director of Science Fair, we are planning a pilot program to attract high school women and minorities students to science.
- Associate member in a newly established organization, UAM Catholic Student Ministry.
- International Union of Forest Research Organizations (IUFRO)

IUFRO is a non-profit, non-governmental international network of forest scientists, which promotes global cooperation in forest-related research and enhances the understanding of the ecological, economic and social aspects of forests and trees. IUFRO is "the" global network for forest science cooperation. It unites more than 15,000 scientists in around 630 Member Organizations in almost 120 countries, and is a member of the International Science Council.

I have three roles in this organization. First, as a Deputy Coordinator of Task Force “Forest Education”. The Task Force has organized multiple activities such as:

- coordinating multiple sessions at 2024 IUFRO World Congress. For this matter, I also help to review submitted abstracts for a Sub plenary: How to incorporate indigenous and local knowledge in forest education, back to the roots.
- coordinating 2023 Best Forest Education Practice Competition.
- coordinating 2023 Forest Education Symposium, held October 2-4, at Helsinki, Finland.
- applying for a grant for conducting a paper development workshop (PDW) for South-South scientists and researchers (Africa, Asia, Latin America) with a topic: Inequality issues of forest related education in Global South. Papers will be submitted for a special issue on *Forest Policy and Economics*, a leading scientific journal that publishes peer-reviewed research relating to forests issues. The workshop will be held in a local university in

Africa, aiming at Stellenbosch University in South Africa. The proposal was designed with researchers from Germany (the Forest Policy and Economics editor in chief), Mexico, Kenya, and South Africa.

My second role is as a member of Task Force “Gender Equality in Forestry”. Our biggest task is to plan an international Massive Open Online Course (MOOC) on Gender Equality and Diversity in forest-related sectors (ForGEDi). This project consists of more than 30 global experts in gender. In this MOOC, I contribute in three different sub sessions through my research on women leadership and women’s networks.

Third, I am involved as a member in Division 5.10 Forest Products Marketing. I have got an initial offer to be the Coordinator of the Division. The current coordinator is Prof. Dr. Anne Toppinen, a globally well-known scientist and a Professor and Vice Dean at University of Helsinki, Finland.

- Society of Wood Science and Technology (SWST)

SWST is an internationally recognized professional organization of wood scientists, engineers, marketing specialists and other professionals concerned with lignocellulosic materials. Members are dedicated to the wise use of one of our most environmentally-sound resources. SWST is committed to protecting our forests through the development of new ideas, procedures, policies and products for the wood industry. This is the accrediting body for the wood science related degree.

I am actively involved as the Digital Communications Coordinator and currently the youngest board member. For my roles, I am entitled to paid travels to its International Conventions as well as Board Meetings.

- Softwood Export Council (SEC)

Joining as a member of SEC, a trade council of U.S. softwood grading agencies, industry trade associations, state export promotional development agencies, and others interested in promotion of U.S. softwood internationally. The SEC aids American exports of softwood products by providing information and assistance to agents, importers, designers, and users of these products in other countries. They only have three universities as their board members: Oregon State University, University of Washington, and UAM.

This year, I am able to join their trade missions to Mexico, Vietnam, and South Korea.

Rocky Lindsey:

- Advisor UAM Cattlemen’s Association
- Advisor UAM Pre-Vet Club
- UAM Animal Use and Welfare Committee

Maribel Nelson:

- UAM women’s volleyball team training and conditioning volunteer
- Pig producer certification for Pork Quality Assurance, UADA animal care training event

Doug Osborne:

- University Faculty Research Committee Aug 2021-Present
- Faculty Evaluation Review Committee, CFANR, 2022
- Associate Editor for Wildlife Society Bulletin
- Reviewer for 5 scientific journals
- Lower Mississippi Alluvial Valley Joint Venture Waterfowl Symposium Planning Team
- *Osborne, D.C.* I continue to work with the City of Monticello and Major Jason Akers on the development of the Lake Trail Project. To date I have helped secure \$440,000 for this project through the Arkansas Department of Transportation.
- *Osborne, D.C.* nearly 6 of 25 miles of the trail construction (Phase 1, see master plan map below) is completed, which includes a skills course and multi-purpose trails for walking and riding.
- *Osborne, D.C.* Phase II grant awarded in November 2023 for \$100,000 from the Arkansas Department of Transportation, Recreational Trails Program (RTP)
- *Osborne, D.C.* Phase III grant submitted to the Arkansas Department of Transportation, Recreational Trails Program (RTP) on 1 July 2023 for \$517,600, *grant pending*

Matthew Pelkki:

- Forestry Extension Education Specialist Search Committee
- Forest Operations and Supply Chain Management Search Committee (Chair)
- Associate Director, Arkansas Center for Forest Resources
- Arkansas Forestry Commission (ex officio) Committee on Registration For Forestry
- Arkansas Forestry Association
 - o Board of Directors
 - o Forest Practices Committee
 - o Landowner Education Committee
 - o Annual Meeting Committee
- Editorial Board, *Journal of Forest Business Research*
- Manuscript reviewer for:
 - o *Journal of Forest Business Research*
 - o *iForests*
 - o *Sustainability*
 - o *Forests*
 - o *Forest Science*

- *Journal of Forestry*
- *Canadian Journal of Forest Research*
- Timber supply, logistics, workforce availability, and market analyses for:
 - Arkansas Economic Development Commission
 - Monticello Economic Development Commission
 - Clark County Economic Development Commission
 - El Dorado Economic Development Commission
 - Crossett Economic Development Commission

Elena Rubino:

- University of Arkansas at Monticello Winthrop Rockefeller Distinguished Lectures Series Committee, October 2023- present
- University of Arkansas at Monticello Institutional Review Board (IRB) *Committee Member*, August 2022 – present
- University of Arkansas at Monticello Athletic Committee
- Committee Member, April 2022 – present
- University of Arkansas at Monticello Tree Campus Committee
- University of Arkansas at Monticello Student Chapter of The Wildlife Society
- Reviewed 1 article for *Wildlife Research*
- Reviewed 1 article for *The Journal of Wildlife Management*
- Reviewed 1 article for *Conservation Science and Practice*
- Reviewed 1 article for *Environmental Management*
- Reviewed 1 article for *Society and Natural Resources*
- Serve as a member of the Lower Mississippi Valley Joint Venture Science Team where I assist with setting social science priorities for the region
- Serve as a social science professional mentor for the Society for Conservation Biology Student Mentorship Program where I help my mentee navigate social science research challenges and the job market
- Serve as a member on the Arkansas Forestry Association Education Foundation's Landowner Education Committee
- Member of The Wildlife Society (member of the Human Dimensions Working Group)
- Member of the Society for Conservation Biology (member of the Social Science Working Group)
- Serve on the Monticello, AR Tree Board. Responsible for assisting with the planning and implementation of the community Arbor Day celebration and seasonal tree plantings and pruning throughout the city.
- Serve as a college application essay workshop mentor for the Santa Cruz County Office of Education [online]. Responsible for mentoring 2 high school seniors with their college application essays, including brainstorming ideas, suggesting edits, and reviewing final products.

Pradip Saud:

- Committee Member for an Arbor Day Planning, UAM
- Reviewed 2 articles for the Forest Ecology and Management Forest Science
- Reviewed 1 article for the Journal of Forestry
- Reviewed 1 article for the International Journal of Forest Research
- Reviewed 1 article for the Forests MDPI
- Reviewed 1 article for the Remote Sensing MDPI
- Reviewed 1 article for Resources, Conservation & Recycling
- Guest Editor: “ Forest Growth and Yield under Environmental Changes” Forests MDPI
- https://www.mdpi.com/journal/forests/special_issues/TCS0Q709V3

Shaun Tanger:

- Committee Chair- Forestry Extension Professor
- Committee Member - Forest Health Professor
- Guest Editor - Forest Policy and Economics “Trends in U.S. Forest business sector and markets” with Raju Pokeral (at Michigan State University) and Jaana Korhonen (at Oak Ridge Institute for Science and Education.
- Chair, ISFRE conference planning committee, 2024, Little Rock Arkansas
- Timber Taxation Workshop in Jackson, MS, that had 35 landowner participants and 5 certified tax accountants
- Conducted 5 consultations on timber tax related questions with forest landowners in Arkansas.
- Recorded 11 podcast episodes for Timber University podcast.
- Reviewed four peer- reviewed journal articles for Forest Policy, Forest Science, Biological Invasions, and Journal of Forestry respectively, this was outside of the guest editor duties where I reviewed an additional thirteen papers, nine of which were accepted.

Don White:

- Arkansas Game and Fish Commission (AGFC) Elk Technical Committee
- AGFC Black Bear Technical Committee
- AGFC White-tailed Deer Technical Committee
- AGFC Feral Hog Technical Committee
- AGFC Chronic Wasting Disease Technical Committee
- Natural Resource Conservation Service State Conservation Technical Committee
- Chronic Wasting Disease Multistate Social Science Committee
- The Wildlife Society Climate Change and Sustainability Committee
- The Wildlife Society Climate Change Working Group, Chair

Describe any significant changes in the unit, in programs/degrees, during the past academic year.

Two new faculty (Laura Sims and Daniel DeArmond) were hired as Associate Professor of Forest Health and Assistant Professor of Wood Procurement, respectively. Two faculty (Pipiet Larasatie, Elena Rubino) resigned in January 2025. Proposals developed by CFANR led to ADHE and Coordinating Board approvals for UAM to have a role and scope change to a doctoral degree-issuing university and a Ph.D. in Forest Resources to be offered by CFANR. An accreditation visit for the Ph.D. in Forest Resources by the Higher Learning Commission is pending at the time of this report.

List program/curricular changes made in the past academic year and briefly describe the reasons for the change.

After conferral among agriculture faculty, employers and students, CFANR made changes to the Agriculture degree plan to make slight modifications to the Agribusiness, Animal Science, and General Agriculture options. CHEM 14201 and 14203 are not requisites for any other courses in the Agribusiness and General Agriculture options and are less necessary for the career paths taken by those students. These courses were removed from the agriculture core courses, and for the Agribusiness plan their removal was associated with 4 extra hours of free electives. For the General Agriculture option, removal of those chemistry courses was replaced by ACCT 20003 to meet student and employer demand for increased business acumen in the degree plan and 1 extra hour of free elective. To retain these chemistry courses in the Plant and Soil Science and Animal Science degree plans, those courses were moved to the course listings under each option.

There has been less interest in the General Agriculture degree from students, and their feedback has been that its name has a “general studies” connotation that makes them concerned about employability. The degree option was re-termed “Agriculture Sciences” to better describe the diversity of agriculture disciplines covered in this degree plan. The AGRO 47403 soil fertility course was also modified from a course obligation in this degree plan to one of its agronomy course options to allow students more balance and flexibility among agronomy, animal science and agribusiness courses for these degree plan, which aims to provide its graduates with an array of the major agriculture skills given with more specialization in the other agriculture degree plans.

Describe unit initiatives/action steps taken in the past academic year to enhance teaching/learning and student engagement.

Numerous opportunities were given to students to learn outside the classroom. Student clubs attended in-state and national meetings in all degree areas of CFANR. At the Society of American Foresters annual convention, the forestry club students participating in Quiz Bowl. Agronomy students likewise participated in a Quiz Bowl at the ASA-SSSA-CSSA annual convention. Agriculture policy students were taken to the state legislature to meet Arkansas legislators; they were recognized by the assembly for their attendance of the legislative session. Animal science students were taken to a short course on cattle production at Texas A & M University, pre-vet students attended

a conference at the Mississippi State University vet school, and wildlife students attended the Arkansas Chapter of The Wildlife Society.

Other Unit Student Success Data

The CFANR livestock team competed at county, regional, and state fairs, where our staff and students interact with agriculture-interested youth. The forestry club competed in timbersports competitions in Arkansas and Florida against forestry schools at peer universities, finishing 6th out of 14 universities in a Southeast-wide competition. As mentioned in the prior section, forestry and agronomy students competed against national peers in Quiz Bowl competitions at professional society conferences.

Revised April 2025

Addenda

Addendum 1: UAM Vision, Mission, and Strategic Plan

VISION

The University of Arkansas at Monticello will be recognized as a model open access regional institution dedicated to empowering students to realize and develop their potential. UAM is committed to advancing three vibrant, diverse campuses that serve their communities and foster key partnerships that contribute to the economy and quality of life in the region, state, and beyond.

MISSION

The University of Arkansas at Monticello is a society of learners committed to individual achievement by:

- Fostering a quality, comprehensive, and seamless education for diverse learners to succeed in a global environment;
- Serving the communities of Arkansas and beyond to improve the quality of life as well as generate, enrich, and sustain economic development;
- Promoting innovative leadership, scholarship, and research which will provide for entrepreneurial endeavors and service learning opportunities;
- Creating a synergistic culture of safety, collegiality, and productivity which engages a diverse community of learners.

CORE VALUES:

- *Ethic of Care: We care for those in our UAM community from a holistic perspective by supporting them in times of need and engaging them in ways that inspire and mentor.*
- *Professionalism: We promote personal integrity, a culture of servant leadership responsive to individuals' needs as well as responsible stewardship of resources.*

- *Collaboration: We foster a collegial culture that encourages open communication, cooperation, leadership, and teamwork, as well as shared responsibility.*
- *Evidence-based Decision Making: We improve practices and foster innovation through assessment, research, and evaluation for continuous improvement.*
- *Respect: We respect all people and all points of view, and we promote tolerance and acceptance.*

UAM STUDENT LEARNING OUTCOMES:

- *Communication:* Students will communicate effectively in social, academic, and professional contexts using a variety of means, including written, oral, quantitative, and/or visual modes as appropriate to topic, audience, and discipline.
- *Critical Thinking:* Students will demonstrate critical thinking in evaluating all forms of persuasion and/or ideas, in formulating innovative strategies, and in solving problems.
- *Global Learning:* Students will demonstrate understanding of natural and human matters on an international level.
- *Teamwork:* Students will work collaboratively to reach a common goal and will demonstrate the characteristics of productive citizens.

STRATEGIC PLAN

Goal 1: Promote Opportunity and Success for All Students

Outcome 1.1: Exemplify a student-centered culture.

Strategy 1.1.1: Promote effective communication, marketing, and business practices that underscore our student-centered culture and thereby enhance recruitment and retention.

Strategy 1.1.2: Assess current student support structures to identify gaps in service or deterrents.

Strategy 1.1.3: Implement new curricular and co-curricular activities to enhance the overall student experience.

Strategy 1.1.4: Broaden student knowledge of and access to resources that promote mental health, physical health, and safety.

Strategy 1.1.5: Streamline admission, enrollment, and financial processes.

KPI: *Year-to-year student enrollment*

KPI: *Fall-to-spring, fall-to-fall student retention rate (excluding completers, graduate students and concurrent students)*

KPI: *Year-to-year number of students participating in curricular and co-curricular activities*

KPI: *Year-to-year number of students accessing support services*

KPI: *Student satisfaction rate for support services*

Outcome 1.2: Prepare students for success with active learning and personalized engagement opportunities that inspire student creativity, motivate student persistence, and create a desire for life-long learning.

Strategy 1.2.1: Enhance academic advising, tutoring services, and career counseling for all students, especially by establishing a Center for Teaching and Learning.

Strategy 1.2.2: Further promote the academic success of student-athletes, band, choir, residential, international, non-traditional, military veterans and first-generation students.

Strategy 1.2.3: Establish new high-impact student experiences, such as internships, field experiences, job shadowing opportunities, and study abroad.

Strategy 1.2.4: Develop a system of connecting students to service-learning opportunities specific to their interest.

Strategy 1.2.5: Implement innovative instructional models, such as hyflex, in more academic programs.

KPI: *Academic standing data*

KPI: *15, 30, 45, 60, and 90-hour progression data*

KPI: *Fall-to-spring, fall-to-fall student retention rate (excluding completers, graduate students and concurrent students)*

KPI: *On-time graduation rate*

KPI: *Number of credentials conferred year-to-year*

KPI: *Employment rates of graduates in fields related to program of study*

Outcome 1.3: Support the transition from high school to postsecondary education to career by developing marketable skills in students and providing access to employment opportunities.

Strategy 1.3.1: Partner with public schools for early career awareness initiatives starting in elementary school, for

example by coordinating a Career Fair twice a year on the Monticello, McGehee, and Crossett campuses.
Strategy 1.3.2: Provide more opportunities for students to directly engage with potential employers.
Strategy 1.3.3: Integrate Career Services support in more academic programs by focusing on junior/ senior courses, projects, or capstones.
Strategy 1.3.4: Partner with industry and businesses for more student internships, and practicums throughout the student technical education/college experience.

KPI: Academic standing data

KPI: Fall-to-spring, fall-to-fall student retention rate (excluding completers, graduate students and concurrent students)

KPI: Number of senior projects and capstone experiences

KPI: Number of student internships and practicums

Goal 2: Recruit, Empower, and Retain High-Quality Faculty and Staff

Outcome 2.1: Implement a marketing plan that attracts a qualified and diverse pool of faculty and staff.

Strategy 2.1.1: Expand the advertisement of job postings.

Strategy 2.1.2: Provide training on best practices for hiring, from crafting better job descriptions to running more successful search committees.

KPI: Percentage of faculty receiving “Excellent” or “Exceeds Expectations” on annual faculty evaluations

Outcome 2.2: Enhance the working environment for all faculty and staff by providing necessary resources.

Strategy 2.2.1: Increase access to professional development workshops and training to help members of the university community improve their skills.

Strategy 2.2.2: Provide technology that supports advancing instructional needs of faculty.

KPI: Maintenance of a 5-year rotation of technology

KPI: Number of training opportunities released via the Workday Learning Center and/or Blackboard

KPI: Number of faculty using Center for Teaching and Learning

Outcome 2.3: Increase retention of faculty and staff.

Strategy 2.3.1: Identify and share opportunities for job advancement with highly skilled faculty and staff.

Strategy 2.3.2: Develop a mentorship program to prepare individuals for successive leadership roles.

Strategy 2.3.3: Study the feasibility of a career ladder system for staff including incentives for higher education attainment.

Strategy 2.3.4: Enhance funding for faculty and staff salaries each year contingent on enrollment and legislative appropriations.

Strategy 2.3.5: Enhance academic and administrative operating budgets as funding allows.

KPI: *Number of promotions among UAM faculty and staff*

KPI: *Average years of employment for faculty*

KPI: *Average years of employment for staff*

Goal 3: Strengthen Institutional Resources

Outcome 3.1: Optimize student recruitment through transformative marketing initiatives.

Strategy 3.1.1: Promote UAM's presence in the region, state, and beyond through more customized, targeted social media and other marketing strategies.

Strategy 3.1.2: Strengthen communication of marketing plans and procedures to faculty, staff, students and the community.

KPI: *Number of admission applications year-to-year*

KPI: *Enrollment of new students year-to-year*

Outcome 3.2: Enhance the conditions and reliability of university infrastructure and equipment.

Strategy 3.2.1: Update the campus master plan with a timeline for new construction and remodeling of campus facilities.

Strategy 3.2.2: Determine requirements for and begin assembling a sufficient, modern vehicle fleet available for university purposes, including academic field trips, sports events, etc.

Strategy 3.2.3: Develop a plan to prioritize replacement of farm and grounds equipment.

KPI: *Maintenance or construction projects accomplished each year*

KPI: *Disposal and replacement of vehicles and large equipment each year according to set criteria: age, performance, anticipated maintenance cost*

Outcome 3.3: Develop partnerships to strengthen institutional, regional and state resources.

Strategy 3.3.1: Expand concurrent enrollment partnerships to meet regional and state workforce demands.

Strategy 3.3.2: Partner with industry to fund the development of new credit and/or noncredit workforce training to meet regional, state and national needs.

Strategy 3.3.3: Partner with other institutions of higher education to offer unique, cutting-edge academic programs.

Strategy 3.3.4: Partner with other institutions of higher education to offer existing, high-need programs to underserved regions of the state.

Strategy 3.3.5: Partner with communities to address the socio-economic, educational and health and wellness challenges.

KPI: Number of concurrent enrollment partnerships year-to-year

KPI: Number of industry partners year-to-year

KPI: Number of students enrolled in noncredit workforce training

KPI: Number of academic programs offered with other institutions of higher education year-to-year

KPI: Number of articulation agreements year-to-year

KPI: Number of grants awarded related to addressing socio-economic, educational, and health and wellness challenges.

Outcome 3.4: Augment operational funding through external efforts.

Strategy 3.4.1: Strengthen efforts to obtain grant funds for all purposes, including student research, faculty research, academic program development, instructional equipment and general institutional needs.

Strategy 3.4.2: Expand alumni engagement and fundraising efforts.

KPI: Number of grant applications submitted each year aimed at enhancing UAM's ability to serve its students, staff, and faculty, especially in the areas of student and faculty research, academic program development, and instructional equipment

KPI: Number of social media posts and hits on the alumni page

KPI: Outreach to prospective donors

Addendum 2: Higher Learning Commission Sample Assessment Questions

1. How are your stated student learning outcomes appropriate to your mission, programs, degrees, students, and other

stakeholders? How explicitly do major institutional statements (mission, vision, goals) address student learning?

- How well do the student learning outcomes of programs and majors align with the institutional mission?
- How well do the student learning outcomes of general education and co-curricular activities align with the institutional mission?
- How well do course-based student learning outcomes align with institutional mission and program outcomes?
- How well integrated are assessment practices in courses, services, and co-curricular activities?
- How are the measures of the achievement of student learning outcomes established? How well are they understood?

2. What evidence do you have that students achieve your stated learning outcomes?

- Who actually measures the achievement of student learning outcomes?
- At what points in the curriculum or co-curricular activities are essential institutional (including general education), major, or program outcomes assessed?
- How is evidence of student learning collected?
- How extensive is the collection of evidence?

3. In what ways do you analyze and use evidence of student learning?

- Who analyzes the evidence?
- What is your evidence telling you about student learning?
- What systems are in place to ensure that conclusions are drawn and actions taken on the basis of the analysis of evidence?
- How is evidence of the achievement of student learning outcomes incorporated into institutional planning and budgeting?

4. How do you ensure shared responsibility for student learning and assessment of student learning?

- How well integrated are assessment practices in courses, services, and co-curricular activities?
- Who is responsible for the collection of evidence?
- How cross-functional (i.e., involving instructional faculty, Student Affairs, Institutional Research, and/or relevant administrators) are the processes for gathering, analyzing, and using evidence of student learning?
- How are the results of the assessment process communicated to stakeholders inside and outside the institution?

5. How do you evaluate and improve the effectiveness of your efforts to assess and improve student learning?

- What is the quality of the information you have collected telling you about your assessment processes as well as the quality of the evidence?
- How do you know how well your assessment plan is working?

6. In what ways do you inform the public about what students learn—and how well they learn it?

- To what internal stakeholders do you provide information about student learning?
- What is the nature of that information?
- To what external stakeholders do you provide information about student learning?
- What is the nature of that information?

Addendum 3: Arkansas Productivity Funding Metrics

- The productivity funding formula consists of four categories: Effectiveness (80% of formula), Affordability (20% of formula), Adjustments, and Efficiency (+/-2% of formula).

Effectiveness	Affordability	Adjustment	Efficiency
• Credentials • Progression • Transfer Success • Gateway Course Success	• Time to Degree • Credits at Completion	• Research (4-year only)	• Core Expense Ratio • Faculty to Administrator Salary

Revised: March 2024