University of Arkansas at Monticello
Academic Unit Annual Report

Unit:

Academic Year: 2020 - 2021

What is the Unit Vision, Mission and Strategic Plan including goals, actions and key performance indicators (KPI)? Please identify new goals from continuing goals. (insert strategic plan, goals and KPIs below)

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.

Mission Statement
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.

Student Learning Outcomes
Graduates of the College of Forestry, Agriculture and Natural Resources will:

- 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.

Strategic Plan

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

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

Continuing Goal: Successfully navigate challenges of delivering academic programs during COVID-19 pandemic.

Action: Plan for implementation of safety measures for delivery of courses in a classroom setting, while also preparing for quickly pivoting to remote delivery of courses.

KPI-1: Develop and implement a plan for operation of facilities that is specific, yet flexible, to address changing state and federal COVID-19 safety guidelines.

KPI-2: Develop and implement a plan for safe delivery of courses while also allowing the ability to quickly change modes of delivery in response to institutional requirements.

KPI-3: Obtain supplies and materials necessary to safely implement facility and course delivery plans.

2. ***Enrollment and Retention Gains***

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

New 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: Create database of CFANR alumni.

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

c. Identify and enhance pipeline for recruiting.

Continuing Goal: Improve recruitment of qualified high school and community college students into CFANR degree programs.

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

KPI-1: Work with UAM to obtain previously 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.

In Table 1, provide assessment of progress toward meeting KPIs during the past academic year and what changes, if any, might be considered to better meet goals.

Table 1: Assessment of Key Performance Indicators

KPI	Assessment of Progress	Implications for Future Planning/Change
KPI-1.1: Develop and implement a plan for operation of facilities that is specific, yet flexible, to address changing state and federal COVID-19 safety guidelines.	KPI-1.1 was accomplished.	This plan will continue to be used and updated as needed in the coming academic year if COVID-19 resurges and prompts greater safety measures.
KPI-1.2: Work with UAM to obtain previously designed recruitment materials so they can be delivered to students.	KPI-1.2 was partially accomplished. Large-scale printing of promotional brochures on cardstock was delayed by COVID-19-induced changes in operations.	Printing of brochures is underway for the upcoming academic year. These recruitment materials will be used at events and serve as templates for replacement materials after the current supply is exhausted.
KPI-2.1: Develop and implement a plan for safe delivery of courses in a classroom setting while also preparing for quickly pivoting to remote delivery of courses.	KPI-2.1 was accomplished.	This plan will continue to be used and updated as needed in the coming academic year is COVID-19 conditions prompt the university to implement safety measures.
KPI-2.2: Actively manage social media accounts to promote College activities and aid in recruitment efforts.	KPI-2.2 was accomplished.	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	Assessment of Progress	Implications for Future Planning/Change
KPI-3: Obtain supplies and materials necessary to safely implement facility and course delivery plans.	KPI-3 was accomplished.	These supplies will be stored and used as needed if COVID-19 conditions prompt greater university safety measures. The will also serve as a template for replacements when current supplies are exhausted.

List, in Table 2, the Academic Unit Student Learning Outcomes (SLO) and the alignment with UAM and Unit Vision, Mission, and Strategic Plans

Table 2: Unit Student Learning Outcomes

University Student 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
Communication: 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	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.			
Critical Thinking: 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.

University Student 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
Global Learning: Students will demonstrate sensitivity to and understanding of diversity issues pertaining to race, ethnicity, and gender and will be capable of anticipating how their actions affect campus, local, and global communities.	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.
Teamwork: Students will work collaboratively to reach a common goal and will demonstrate the characteristics of productive citizens.	Students will apply science-based knowledge and information to analyze and solve management problems.	Solution of problems via a collaborative, team approach is an essential component of meeting UAM's mission to promote innovative leadership, scholarship, and research.	The CFANR allocates significant resources to provide students with the tools and technology necessary for them to collaboratively develop and effectively address management problems.

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

Assessment of Student Performance and CFANR Programs
The CFANR assessment system utilizes a combination of approaches directed toward assessing student performance, individual courses, and overall programs. This hierarchical system begins with the evaluation of individual student performance.

Assessment of Individual Student Performance
Performances of individual students are evaluated using a variety of different tools. These generally fall into two major groups. First, traditional methods include grading of tests and assignments in individual courses, transcript reviews, competency reviews in labs, and field practices. Second, student performance is assessed through the use of core competencies. These core competencies are essentially student learning objectives for each course. Students are required to demonstrate that they have achieved these core competencies before they are able to receive a passing grade for a course. Therefore, this requirement of core competencies is separate from traditional grading, and works as an additional layer in assessing student performance. This requirement also ensures that students learn certain basic skills from every class and works as a barrier against passing a course through memorization.

Evaluation of CFANR Courses
The second step in the assessment system is evaluation of courses offered within the College. This type of assessment is also done through a variety of tools that fall under two broad categories. The traditional tools for course evaluation include student evaluation of courses, student evaluation of instructors and peer evaluations. In addition, courses also are evaluated through summaries of student performance in achieving core competencies.

Evaluation of CFANR Programs

The following tools are used for program-level assessment:

<u>Capstone Course and Senior Seminars</u>
The natural resources management degree requires a capstone Practicum experience that challenges students to integrate materials learned from previous courses in the development of a management plan presented to actual forest landowners. In order to be successful in this course, the students must demonstrate critical thinking, problem solving, planning, and development skills along with the skills of oral and written communication. Since the students are required to work in groups, this course also tests the students' abilities in working as part of a team.

As previously mentioned, this course requires teamwork. Teams are assigned parcels of forested land typically owned by non-

industrial private forest landowners in the state. Each team is required to complete a comprehensive forest resource management plan for their parcel within the course of a semester (spring semester of their senior year). These plans require 10-15 hr/week of fieldwork involving survey of the land, inventory of timber, wildlife, and other resources. Students are expected to cooperate in the collection of these data. This provides an important and interesting experience for the students in that they have to work with students pursuing a different degree option who probably have a somewhat different way of looking at natural resource issues. The teams are also required to communicate with their respective landowner and understand his/her plans for the land. All of this information is then used to prepare the management plans. The quality of the management plan demonstrates each team's ability to integrate previous coursework into a working plan that meets specific management objectives. The teams are then required to present their plans in seminars that are open to the public. These seminars are attended by many faculty members, who actively participate in discussions and test the students through rigorous questioning. Ample feedback is provided as to the plan's effectiveness and integration of relevant course material. The teams also present their plans to their respective landowners.

Although Agriculture students do not complete a capstone course as part of their degree requirements, they do complete a Senior Seminar to demonstrate their ability to speak about a variety of issues. Students are evaluated by their fellow students during their presentation and feedback is also provided by their instructor.

Feedback Loop

The feedback loop is an essential step and ensures the dynamic nature of an assessment system. The feedback loop is built into every level of the CFANR assessment system. The students provide feedback to their instructors regarding course management and grading. Evaluation of core competencies allows feedback at all levels. First, it encourages communication among students and instructors, which in turn allows the instructors to adjust course materials and fine-tune day-to-day management of courses. Second, the summary data also feed valuable information back to the College for program-level assessment. Through program-wide linkages of core competencies, important feedback is provided to the faculty allowing them to adjust the curricula when necessary. Lessons from student performance assessment have played important roles in a number of unit decisions. Implementation of required student learning outcomes/ core competencies across CFANR courses now are used as a metric of preparedness and proficiency.

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 were produced to 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 2018	Fall 2019	Fall 2020	3-Year Total & Average	10-Year Total & Average
Freshman	23	21	23	67/22	458/46
Sophomore	17	13	6	36/12	138/14
Junior	16	15	14	45/15	130/13
Senior	17	17	19	53/18	168/17
Post Bach	2	3	1	6/2	12/1
Total	75	69	63	207/69	905/91

UNDERGRADUATE PROGRAM MAJOR: B.S. Land Surveying

Classification	Fall 2018	Fall 2019	Fall 2020	3-Year Total & Average	10-Year Total & Average
Freshman	9	3	4	16/5	52/5
Sophomore	3	7	6	16/5	29/3
Junior	4	1	3	8/3	23/2
Senior	7	4	3	14/5	34/3
Post Bach	0	0	0	0	0/0
Total	23	15	16	54/18	138/14

UNDERGRADUATE PROGRAM MAJOR: B.S. Agriculture

Classification	Fall 2018	Fall 2019	Fall 2020	3-Year Total & Average	10-Year Total & Average
Freshman	36	29	34	99/33	468/47
Sophomore	27	18	27	72/24	251/25
Junior	25	26	16	67/22	244/24
Senior	32	19	25	76/25	263/26
Post Bach	0	0	0	0/0	3/0.3
Total	120	92	102	314/105	1,229/123

UNDERGRADUATE PROGRAM MAJOR: Pre-Vet

Classification	Fall 2018	Fall 2019	Fall 2020	3-Year Total & Average	10-Year Total & Average
Freshman	2	7	8	17/6	72/7
Sophomore	2	2	4	8/3	28/3
Junior	4	2	2	8/3	18/2
Senior	3	5	3	11/4	16/2
Post Bach	0	0	0	0	0/0
Total	11	16	17	28/9	134/13

GRADUATE PROGRAM MAJOR: Forest Resources

	Fall 2018	Fall 2019	Fall 2020	3-Year Total & Average
ENROLLMENT	18	18	17	53/18

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

Strengths

- The CFANR has unique programs in Natural Resources Management, Land Surveying, and Site-Specific Agriculture Management.

Weaknesses

- Awareness of the degrees and degree options offered by CFANR among potential students needs improvement.

Opportunities for Growth

- Marketing, recruiting, and alumni involvement can raise awareness of CFANR degree programs.

Threats to Effectiveness

- COVID-19 containment measures restricted abilities to recruit new students via in-person visits.

Progression/Retention Data

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

Major: **B.S. Natural Resources Management**	**Number**	**Percentage**
Number of majors classified as juniors (60-89 hours) in fall 2018	12	100
Number and percentage graduated in that major during 19-20 academic year	6	50
Number and percentage that graduated in that major during 20-21 academic year	3	25

Major: **B.S. Land Surveying**	**Number**	**Percentage**
Number of majors classified as juniors (60-89 hours) in fall 2018	3	100
Number and percentage graduated in that major during 19-20 academic year	3	100
Number and percentage that graduated in that major during 20-21 academic year	0	0

Major: **B.S. Agriculture**	**Number**	**Percentage**
Number of majors classified as juniors (60-89 hours) in fall 2018	25	100
Number and percentage graduated in that major during 19-20 academic year	17	68
Number and percentage that graduated in that major during 20-21 academic year	3	12

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

Strengths

- For all majors combined from the Junior year, an average of 85% of students completed their degree, indicating a high probability that students reaching their Junior year will complete their degree.

Weaknesses

- An additional year is required for several students to complete their degree.

Opportunities for Growth

- Improving the four-year graduation rate.

Threats to Effectiveness

- Underprepared freshmen students.

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	2018-2019	2019-2020	2020-2021	Three-Year Total	Three-Year Average
CFANR- B.S. Natural Resources Mgmt.[1]	11	11	19	41	14
CFANR- A.S. Natural Resources Mgmt.	N/A	11	3	14	N/A
CFANR- A.S. Land Surveying Technology	0	3	2	5	2
CFANR-B.S. Land Surveying	5	4	4	13	4
CFANR- A.A.S. Forest Technology	0	1	0	1	0.3

Undergraduate Program/Major	2018-2019	2019-2020	2020-2021	Three-Year Total	Three-Year Average
GFOR- M.S. Forest Resources	6	3	5	14	5
CFANR- B.S.[2] Agriculture	27	26	17	70	23
CFANR- A.S. Agriculture	23	17	7	47	16

[1]Includes Forest Resources degrees, when applicable
[2]Includes Pre-Vet

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 degrees/credentials awarded in the Natural Resources Management, Land Surveying, and Agriculture B.S. degrees were consistent with prior years and similar to the three-year average. The number of Land Surveying A.S., Forest Technology A.A.S., and Forest Resources M.S. degrees were consistent with prior years as well.

The Natural Resources Management and Agriculture A.S. degrees declined from the prior year. This reduction was likely due to the length of time these degrees have been offered by CFANR and degrees awarded to existing students in the initial years of their being offered. The Natural Resources A.S. degree has been offered since 2017-2018, and the Agriculture A.S. since 2019-2020. In the initial years of the A.S. degrees, they were awarded to sophomore, junior, and senior students due to their new eligibility for the degrees. As of last year, the degrees have been offered long enough that primarily sophomores were awarded them. Another contributor to the decline was also likely the smaller size (approximately 60% smaller) of the Natural Resource Management sophomore class relative to prior years.

The Land Surveying and Land Surveying Technology programs continued to have relatively low degrees awarded as a function of low enrollment. Modifications to the Land Surveying Technology program to align better with sequencing of the Land Surveying program are underway, and CFANR is investigating the prospect of converting the B.S. program to a B.A.S. program.

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**
Babst, Benjamin A.	Assoc. Prof.	Ph.D.	Ecophysiology		9	6	2	70% AAES[1]
Bataineh, Mohammad M.	Assoc. Prof.	Ph.D.	Forest Health			15		70% AAES
Ficklin, Robert L.	Prof.	Ph.D.	Soil Science	6	5	9	3	9% AAES, Administration
Francis, Paul	Prof.	Ph.D.	Plant & Soil Science		10	9		
Hammock, Jolene						3		
Jacobs, Thomas D.	Instr.	B.S.	Land Surveying		25	15		
Jones, Rusty	Rodeo Coach	M.S.	Rodeo	3	5	1		
Lindsey, Rocky	Asst. Prof.	DVM	Animal Science		17	12		
Osborne, Douglas C.	Assoc. Prof.	Ph.D.	Wildlife Management		2	6		66% AAES
Pelkki, Matthew H.	Prof.	Ph.D.	Forest Economics		8	5		47% AAES , Administration
Stark, Robert C. Jr.	Prof.	Ph.D.	Agricultural Economics		15	12		
Saud, Pradip	Asst. Prof.	Ph.D.	Biometrics			6		70% AAES
Tappe, Philip A.	Prof./Dean	Ph.D.	Administration					31% AAES, 31% CES
Tian, Nana	Asst. Prof.	Ph.D.	Natural Resource Policy		6			70% AAES
Watt, Chris	Instr.	M.S.	Program Support/ Wildlife Management		5			91% AAES
Webb, Bobby					2			15% AES
White Jr., Donnell D.	Prof.	Ph.D.	Wildlife Management		5			70% AAES

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

Dr. Phil Tappe retired in December 2020, resulting in Dr. Robert Ficklin assuming interim Dean/Director responsibilities for the remainder of the academic year. Faculty positions vacated in 2018-19 by Drs. Hal Liechty, John Dennis, Matt Olson, Lu Liang, and Kenny Wallen were unfilled for this academic year. Searches were conducted and completed for the Liang and Wallen positions by the end of the academic year. The position vacated in 2018-19 by Dr. William Headlee was filled by Dr. Pradip Saud in this academic year. A search was conducted for the Matt Olson position, but the position remains unfilled due to a lack of consensus about viable candidates; the search is continuing into the next academic year.

The positions vacated by Drs. Liechty and Dennis were not approved to refill and represent a potential long-term unit reduction in faculty.

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

Academic Year	Total SSCH Production	Percentage Change	Comment
2011-12	2518	-1.3	
2012-13	2680	6.4	
2013-14	2909	8.5	
2014-15	2832	-2.6	
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	2502	1.0	

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 modest 1% increase in CFANR SSCH in 2020-21. This was likely due to consistency in enrollment from the prior year and addition of a new faculty member to replace one of five vacancies from the prior year.

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	7/2016	Open	N/A
CFANR- NRM	MOU- UA Morrilton	Course Transfers	6/2017	Open	N/A
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.

REFEREED JOURNAL PUBLICATIONS

Bataineh, M.M. 2020. Above-ground carbon stock and distribution in managed andunmanaged mature, natural-origin, pine-hardwood forest stands. In Proceedings of the 20th biennial southern silvicultural research conference, Shreveport, Louisiana,

March 12-14, 2019. Edited by Don Bragg, Nancy Koerth, and Gordon Holley. USDA Forest Service, Southern Research Station Asheville, NC. pp. 279-286.

Bataineh, M., Oswald, B., Williams, H., Unger, D., Hung, I-Kuai. 2020. Reconstruction of Piñon-Juniper Woodlands in the Sky Islands of the Davis Mountains, Texas, USA. Forests 11(1079): 1-15.

Bataineh, M., **Walters, B.,** Clarke, S., **Babst, B., Ficklin, R.** 2020. Emerald ashborer infestation in Arkansas: extent, severity, and progression. In Forest health monitoring national status and trends report, USDA Forest Service, Southern Research Station Asheville, NC. Chapter 13.

Klimas, S.R., J.M. Osborn, **D.C. Osborne**, J.D. Lancaster, C.N. Jacques, A.P. Yetter, and H.M. Hagy. 2020. Body condition of spring-migrating green-winged teal. Canadian Journal of Zoology 98: 96-104, https://doi.org/10.1139/cjz-2019-0155.
Li G, Lin R, Ebiringa C, Blakeslee J, Pettengill E, Murphy AS, Peer WA, Islam N, **Babst BA**, Gao F, Komarov S, Tai Y-C, Coleman GD (2020) Seasonal N remobilization and the role of auxin transport in poplar trees. Journal of Experimental Botany 71: 4512-4530.

Massey, E.R., L.G. Carlson, and **D.C. Osborne**. 2020. Temporal trends in body condition of arctic geese wintering in the Mississippi Alluvial Valley. Journal of Fish and Wildlife Management 11: 11-21; https://doi.org/10.3996/062018-JFWM-047.

Masum, Md Farhad H., Mehmood, Sayeed R., **Pelkki, Matthew H., and Hal O. Leicht**y. 2020. Estimating Carbon Efficiency of Bioenergy Systems in the Mississippi River Valley. Forests 2020, 11, 899; doi.org:10.3390/f11090899

Mohler, C., Bataineh, M., Bragg, D., **Ficklin, R. Pelkki, M., and Olson, M.** 2020. Oak competitive status in 27-year-old group openings in a West Gulf Coastal Plain pine-hardwood forest. In Proceedings of the 20th biennial southern silvicultural research conference, Shreveport, Louisiana, March 12-14, 2019. Edited by Don Bragg, Nancy Koerth, and Gordon Holley. USDA Forest Service, Southern ResearchStation Asheville, NC. pp. 221-229.

Olson, M., **Bataineh, M.**, **Cunningham, K.**, Fristoe, C., Headlee, W. and Hossain, S. 2020. Status of planted oak monocultures on a coastal plain minor bottom in the fifth decade after establishment. In Proceedings of the 20th biennial southern silvicultural research conference, Shreveport, Louisiana, March 12-14, 2019. Editedby Don Bragg, Nancy Koerth, and Gordon Holley. USDA Forest Service, Southern Research Station Asheville, NC. pp. 200-206.

Pelkki, Matthew and Gabrielle Sherman. 2020. Forestry's Economic Contribution in the United States, 2016. Forest Products Journal 70(1):28-38.

Sample RD and Babst BA (2020) Autumn flooding disrupts seasonal nitrogen storage and impacts spring growth in Quercus

texana seedlings. Trees 34: 813-823.

Sherman, Gabrielle, Walkingstick, Tamara, Wallen, Kenneth, and Matthew Pelkki. 2020. Architect Familiarity and Perceptions Surrounding Sustainable Design, LEED, and Engineered Wood Products in Arkansas. Journal of Sustainable Architecture and Civil Engineering Vol 2, No. 27: 16-31. DOI 10.5755/j01.sace.26.2.25104

Tyler K. Chafin, Marlis R. Douglas, Bradley T. Martin, Zachery D. Zbinden, Christopher R. Middaugh, Jennifer R. Ballard, M. Cory Gray, **Don White, Jr.,** and Michael E. Douglas. 2020. Age structuring and spatial heterogeneity in prion protein gene (PRNP) r. Prion 14:238-248.

Wallen, K.E., J.G. Spears, **T.J. Linde**r, and **D.C. Osborne**. 2020. Climate change beliefs among Arkansas waterfowl hunters. Human Dimensions of Wildlife 25: 498-501. https://doi.org/10.1080/10871209.2020.1755477

NON-REFEREED PUBLICATIONS

Brasher, M, J. Brian Davis, and **D.C. Osborne**. 2020. Understanding Waterfowl: Going Home. Ducks Unlimited, Conservation Waterfowl Research Series. https://www.ducks.org/conservation/waterfowl-research-science/understanding-waterfowl-going-home?poe=waterfowl-research-&-science

Henry, C., **P. B. Francis**, L. Espinoza, and M. Ismanov. 2020. Timing the Final Irrigation Using Watermark™ Sensors. University of Arkansas Cooperative Extension Service FSA59-PD-4-2020N. Available for viewing at: https://www.uaex.edu/environment-nature/water/FSA59%20Termination.pdf.

McPeake, B., J.M. Tomeček, and **D. White, Jr.** 2020. Chronic wasting disease in deer and elk in Arkansas. Fact sheet FSA9110. University of Arkansas Division of Agriculture, Cooperative Extension Service, Little Rock, Arkansas.

Osborne, D.C. and J. Wood (AGFC) The Gamekeepers of Mossy Oak titled Turkey Biology and Behavior. The episode was scheduled to air 27 October 2020 on the sportsmen's channel. It can be viewed here. https://vimeo.com/465901655/d4116d1f06

PUBLISHED ABSTRACTS

Sherman, Gabrielle, Pelkki, Matthew, and Kenneth Wallen. 2020. Architect awareness and opinions regarding sustainable design and engineered wood products in Arkansas. Society of American Foresters National Convention Session R1-3.

Tian, N., N.C. Poudyal, O. Joish. 2020. Segmenting landowners of Shandong, China based on their attitudes towards forest

certification. International Society of Forest Resource Economics. March 19-21, 2018. Gatlinburg, TN.

White, D., Jr., J. McVey, C.L. Watt, and C. Rota. October 10, 2020. Resource selection of a translocated elk population in Arkansas. The 27th Annual Conference of the
Wildlife Society.

PROFESSIONAL PRESENTATIONS

Walters, **B**., **Weatherly**, **D**., **Bataineh**, **M**., and Clarke, S. 2019. Reconstructing emeraldash borer induced-mortality patterns in Arkansas. National Forest Health Monitoring Workshop, Raleigh, North Carolina, February 24-27, 2020. (Poster)

Clowers, S.A., R.L. Ficklin and S. Wilson. 2020. White-rot fungi colonization on woodas a pretreatment for nanocellulose extraction. American Association for the Advancement of Science International Meeting. February 13-16, 2020. Seattle,WA.

Klimas, S.T., J.M. Osborn, **D.C. Osborne**, J.D. Lancaster, C.N. Jacques, A.P. Yetter, A.M.V. Fournier, and H.M. Hagy. Body condition of spring-migrating green-winged teal. 80th Annual Midwest Fish and Wildlife Conference, Springfield, Illinois, 26–29 Jan 2020.

Mhotsha, O., Tian, N., Pelkki, M. 2020. Modeling growth and stem profile of oak trees in Arkansas. Society of American Foresters National Convention (virtual).

Osborne, D.C. Gobbler activity and harvest rates of wild turkey on freelance public walk-in hunting areas in Arkansas' Ozark-Ouachita Highlands. Arkansas Game and Fish Commission-Wild Turkey Workshop, Little Rock, Arkansas, 2-3 Mar 2020.

Osborne, D.C. Winter Mallard Banding: An Arkansas Update. Mississippi Flyway Council Technical Section Winter Meeting, Duck distribution, movements, and vulnerability agenda, 24-28 Feb 2020.

Pelkki, M. 2020. Markets and Utilization of Southern Pine Forest Products. USDA National Advanced Silviculture Program (NASP). Adobe Connect Remote Conference. 27 April 2020.

Pelkki, M. and N. Tian. 2020. Arkansas's Forests and Forest Industries: the First 20 Years of the 21st Century. Ouachita Society of American Foresters and Arkansas Board of Registered Foresters Professional Development Zoom Conference. 12 August 2020.

Pelkki, M. 2020. Marketing in a Sea of Plantation Pine. Ouachita Society of American Foresters and Arkansas Board of Registered Foresters Professional Development Zoom Conference. 12 August 2020.

Pelkki, M. 2020. Factors that affect economic impact of forest industry. Ouachita Society of American Foresters and Arkansas Board of Registered Foresters Professional Development Zoom Conference. 2 September 2020.

Sherman, Gabrielle, Pelkki, Matthew, and Kenneth Wallen. 2020. Architect awareness and opinions regarding sustainable design and engineered wood products in Arkansas. Society of American Foresters National Convention Session R1-3 Science Flash Zoom Presentation, 30 October 2020.

Tian, N., Pelkki, M. 2020. Economic viability of loblolly and shortleaf pine plantation management in Arkansas.

White, D., Jr. April 28, 2020. Chronic wasting disease: Current knowledge and future perspectives. US Forest Service National Advanced Silviculture Program. Virtual presentation.

White, D., Jr. September 2, 2020. Chronic wasting disease: Current knowledge and future perspectives. Annual Meeting of Arkansas Foresters. Virtual presentation.

White, D., Jr., J. McVey, C.L. Watt, and C. Rota. October 10, 2020. Resource selection of a translocated elk population in Arkansas. The 27th Annual Conference of the Wildlife Society. Virtual presentation.

White, D., Jr., J. McVey, C.L. Watt, and C. Rota. July 16, 2020. Resource selection of a translocated elk population in North Carolina. The 23rd Annual Eastern Elk Management Workshop. Virtual presentation.

4

White, D., Jr. March 2, 2020. Subspecific status of the eastern elk. The Arkansas Chapter of the Wildlife Society. C.A. Vines Arkansas 4-H Center, Ferndale, Arkansas

GRANTS CURRENTLY ACTIVE

Investigators	Title	Agency/Source	Years Funded	Total Amt.($)
B.Babst	Timing and cues for tree root dormancy: Implications for Greentree Reservoir Management	Arkansas Game and Fish Commission	2019 – 2023	$618,147
B. Babst (PI) M Bataineh, K Cunningham, D Osborne, M Pelkki, J Dennis	Evaluation of Wetland Easements and their Management Needs to Achieve NRCS Goals	NRCS	2018-2021	460,443
Francis, P.	Pink Tomato Project	Arkansas Agriculture Department	2019 to 2020	$13,000
Francis, P.	Improving Soybean Yield and Yield Stability for Irrigated Soybeans	Arkansas Soybean Promotion Board	2019 to 2021	$7,357
R.L. Ficklin	Factors Influencing Properties of Wood Cellulose	NSF-EPSCoR	2019 – 2020	$140,860
R.L. Ficklin	Monitoring of NADP Site AR02	USGS-NADP-NTN	2017 - 2022	$46,982
Jin Woo Kim et al. B. Babst, W Headlee	Center for Advanced Surface Engineering	NSF EPSCoR	2015 – 2020	~$20M
Osborne	Using GPS transmitter to	Delta Waterfowl	2019 – 2020	$78,357

	analyze movements of ducks: Dabbling ducks tracking	Foundation		
Osborne	Food selection and body condition of wintering waterfowl on National Wildlife Refuge moist-soil wetlands	US Fish and Wildlife Service	2020	$15,000
Osborne	Assessing sanctuary use of wintering mallards on National Wildlife Refuges	US Fish and Wildlife Service	2019-2020	$20,000
Osborne	UofA Waterfowl Research Foundation Account	Private Donations	2020	$24,250
Osborne	Graduate Certification in Wetland & Waterfowl Management	Five Oaks Foundation, Soon to be Five Oaks Research & Education Center	2020 - 2023	$686,645
Philip Tappe, Matthew Pelkki	Arkansas Wood Utilization Council	USDA Forest Service Wood Innovations Program	2017-2021	$250,000
M. Pelkki	Seasonal and operational dynamics of moisture content in logs at the Highland	Highland Pellets, LLC	2018-2020	$27,306

	Pellets mill in Pine Bluff, AR			
Nana Tian	Understanding private landowners' attitudes and interests in forest certification in Arkansas	Faculty Research Committee Grant	2020	$1,500
Don White, Jr., and Michael Stroeh	USFWS-UAM Student Internship Program, Summer 2020	US Fish and Wildlife Service	2020	$24,000
Don White, Jr., and Richard Crossett	Landscape-level Habitat Suitability Models for Black Bear, Prothonotary Warbler, and Rafinesque's Big-Eared Bat to Guide Management Decisions in the Lower White and Cache River Floodplains of Arkansas	US Fish and Wildlife Service	2020-2021	$53,000

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

No changes were made in programs/degrees in CFANR in 2020-21. In the 2021-22 academic year, CFANR will undergo accreditation review by Society of American Foresters, which will likely prompt program/degree changes. During the 2020-21 academic year two agricultural faculty announced their intention to retire, and the new hires for those positions, as well as new wildlife, agriculture, and surveying instructor hires, will likely prompt program/degree changes in 2021-22.

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

No program/curricular changes were made in the past academic year due to the reasons listed above.

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

Teaching and learning were substantially affected by COVID-19 containment measures in 2020-21. Teaching, learning, and student engagement were enhanced via remote delivery of lectures to students needing to quarantine as well as synchronous delivery of courses via in-person and remote delivery (to personal computers and/or adjacent labs and lecture rooms) for courses held in rooms and student numbers that prevented adequate social distance space. Student advising was also offered via remote delivery for student and instructor safety; students were provided advice on resources available to help them in their studies during the pandemic in addition to conventional class scheduling. Grade change flexibility and special financial aid assistance were frequent topics in advising to aid with student learning and engagement during the challenging academic year.

Other Unit Student Success Data

Include any additional information pertinent to this report. Please avoid using student information that is prohibited by FERPA.

Revised February 8, 2018

Addendums

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 with retention and graduation rates that meet or exceed its peer institutions.
Through these efforts, UAM will develop key relationships and partnerships that contribute to the economic and quality of life indicators in the community, 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.

- *Diversity*: We embrace difference by cultivating inclusiveness and respect of both people and points of view and by promoting not only tolerance and acceptance, but also support and advocacy.

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 sensitivity to and understanding of diversity issues pertaining to race, ethnicity, and gender and will be capable of anticipating how their actions affect campus, local, and global communities.
- *Teamwork:* Students will work collaboratively to reach a common goal and will demonstrate the characteristics of productive citizens.

STRATEGIC PLAN

1. STUDENT SUCCESS—fulfilling academic and co-curricular needs

- Develop, deliver, and maintain quality academic programs.
  - Enhance and increase scholarly activity for undergraduate and graduate faculty/student research opportunities as well as creative endeavors.
  - Revitalize general education curriculum.
  - Expand academic and degree offerings (technical, associate, bachelor, graduate) to meet regional, state, and national demands.

- Encourage and support engagement in academics, student life, and athletics for well-rounded experience.
  - Develop an emerging student leadership program under direction of Chancellor's Office.
  - Enhance and increase real world engagement opportunities in coordination with ACT Work Ready Community initiatives.
  - Prepare a Student Affairs Master Plan that will create an active and vibrant student culture and include the Colleges of Technology at both Crossett and McGehee.

- Retain and recruit high achieving faculty and staff.
  - Invest in quality technology and library resources and services.
  - Provide opportunities for faculty and staff professional development.
  - Invest in quality classroom and research space.
  - Develop a model Leadership Program (using such programs as American Council on Education, ACE and/or Association of American Schools, Colleges, and Universities, AASCU) under the direction of the Chancellor's Office to grow our own higher education leaders for successive leadership planning.
  - Create an Institute for Teaching and Learning Effectiveness.

- Expand accessibility to academic programs.
  - Engage in institutional partnerships, satellite programs, alternative course delivery, and online partnerships with eVersity.
  - Create a summer academic enrichment plan to ensure growth and sustainability.
  - Develop a model program for college readiness.
  - Revitalize general education.
  - Coordinate with community leaders in southeast Arkansas to provide student internships, service learning, and multi-cultural opportunities.

2. ENROLLMENT and RETENTION GAINS

- Engage in concurrent enrollment partnerships with public schools, especially in the areas of math transition courses.

- Provide assistance and appropriate outreach initiatives with students (working adults, international, transfers, and diversity) for successful transition.
- Coordinate and promote marketing efforts that will highlight alumni, recognize outstanding faculty and staff, and spotlight student success.
- Develop systematic structures for first year and at-risk students. Identify and enhance pipeline for recruiting.

3. INFRASTRUCTURE REVITALIZATION and COLLABORATIONS

- Improve Institutional Effectiveness and Resources through participation in a strategic budget process aligned with unit plans and goals for resource allocations.

- Conduct and prepare Economic Impact Studies to support UAM efforts and align program and partnerships accordingly.

- Prepare and update University Master Plan.

- Partner with system and state legislators to maximize funding.

- Increase external funding opportunities that will create a philanthropic culture among incoming students, graduates, and community.
  - Increased efforts to earn research and grant funds.
  - Creation of philanthropic culture among incoming students, graduates and community.
    - Collaborating with Athletics Fundraising to maximize synergies.
    - Create a Growing our Alumni Base Campaign.
  - Encourage entrepreneurial opportunities where appropriate.
  - Participation in articulation agreements to capitalize on academic and economic resources.
  - Partner with communities to address the socio economic, educational, and health and wellness (safety needs) of all citizens.

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