### PROPOSAL – 1

### NEW DEGREE PROGRAM

1. **PROPOSED PROGRAM TITLE:**

Master of Science in Construction Management (CSMGMS)

2. **CIP CODE REQUESTED:**

Link for CIP Codes:  <http://nces.ed.gov/ipeds/cipcode/resources.aspx?y=55>.

52.2001

3. **PROPOSED STARTING DATE:**

Fall 2021

4. **CONTACT PERSON**

Name (Provost/Academic Affairs Officer): Dr. Terry Martin

Title: Senior Vice Provost for Academic Affairs

Name of Institution: University of Arkansas Fayetteville

E-mail Address: tmartin@uark.edu

Phone Number: (479) 575-2151

Name (Program Contact Person): Dr. Micah Hale

Title: Professor and Department Head, Civil Engineering

E-mail Address: micah@uark.edu

Phone Number: 479-575-6348

5. **PROGRAM SUMMARY**

Provide a general description of the proposed program. Include overview of any curriculum additions or modifications; program costs; faculty resources, library resources, facilities and equipment; purpose of the program; and any information that will serve as introduction to the program.

**General Description.** The proposed Master of Science in Construction Management (CSMGMS) will be a 30 hour, online, distance education program. The curriculum will contain topics including but not limited to scheduling, project finance, construction productivity, construction safety, and legal aspects of construction.

**Curriculum Additions.** Seven, three-hour courses will be developed to support the program and three courses from the University of Arkansas’ (UofA’s) Master of Science in Engineering (MSE) program and the Master of Science in Operations Management will complete the 10 course, 30 credit hour degree plan. The courses are discussed in greater detail in Section 7, Curriculum.

**Program Costs.** All courses will be delivered online through a format that is similar to MSE that is offered through the College of Engineering (COE). Two courses have been developed which leaves five courses for development. Twenty-five thousand dollars will be necessary for course development ($5000 per course). Additional expenses may include a portion of staff salary for course delivery ($25,000 per year). It is expected that the tuition and fees for the program would be similar to that of the MSE.

A three-year budget including all expenses and projected income is shown below. This budget is based on 10 students per cohort and based on current MSE tuition and fees.

Total Net Tuition & Fees to College of Engineering $ 47,425.50

Total Instructional Cost Recovery to Engineering $ 86,895.00

Total to Central Administration $ 14,955.30

Total to Global Campus $ 23,470.20

**Total Program Income $115,164.00**

A five-year budget including all expenses and projected income is shown below. This budget is based on 10 students per cohort and based on current MSE tuition and fees.

Total Net Tuition & Fees to College of Engineering $ 79,042.50

Total Instructional Cost Recovery to Engineering $144,825.00

Total to Central Administration $ 24,925.50

Total to Global Campus $ 39,117.00

**Total Program Income $287,910.00**

**Faculty Resources.** Faculty will make use of current distance education technology on the UofA campus. Therefore, additional faculty resources in regards to classroom or technology needs will not be necessary.

**Library Resources.** Additional library resources will not be needed.

**Facilities and Equipment.** See above. No additional facilities or equipment is necessary.

**Purpose of the Program.** The CSMGMS will be the first online, graduate program in construction management in Arkansas. Graduates from the proposed program can plan and manage a construction project from its design until completion. Also, throughout the duration of the program, students will have the opportunity to obtain professional certifications from the Lean Construction Institute, Six Sigma, Project Management Professionals and others. After speaking with future employers, the degree and the certifications will make the graduates very marketable. With the economic boom that Northwest Arkansas has experienced over the last 20 years and the potential future growth, there is a need for this program.

List degree programs or emphasis areas currently offered at the institution that support the proposed program.

There are several programs at the University of Arkansas that that will support the proposed Master of Science in Construction Management (CSMGMS). The programs include the degree programs listed below.

Master of Science in Operations Management  
Master of Science in Engineering

Master of Science in Civil Engineering

6. **NEED FOR THE PROGRAM**

**(Submit Employer Needs Survey Forms)**

**Provide survey data. Submit numbers that show job availability, corporate demands and employment/wage projections, not student interest and anticipated enrollment. Focus mostly on state needs and less on regional and national needs, unless applicable to the program.**

**Survey data can be obtained by telephone, letters of interest, student inquiry, etc. Focus mostly on state needs for undergraduate programs; for graduate programs, focus on state, regional and national needs.**

Workforce Analysis Request Form is Appendix A and used as a substitute for this section

**Provide names and types of organizations/businesses surveyed.**

Faculty at the UofA became aware of the need for a CSMGMS program after discussions with alumni from the Civil Engineering (CVEG) program. After speaking with several local construction companies, a formal survey was conducted by the CVEG Department Head, Micah Hale. Below is a summary of the companies surveyed (Table 1). Also included is the office location that completed the employer survey.

**Table 1. Companies Surveyed**

**Company Office Location**

Alessi Keyes Construction North Little Rock, AR

Baldwin & Shell Construction Company Rogers, AR

BGE, Inc Springdale, AR

CDI Contractors, LLC Fayetteville, AR

Clark Contractors, LLC Bentonville, AR

CR Crawford Fayetteville, AR

Crossland Construction Co, Inc. Rogers, AR

Cyntergy Tulsa, OK

Turner Construction Company Memphis, TN

Shown below in Table 2 are the number of future positions that the company would hire within the next 2 to 5 years. All data were provided by the surveyed companies. These future positions are individuals who would benefit from having the CSMGMS degree. Due to the number of different positions, similar titles were combined into the four positions listed below. The size of the companies who responded varied which is represented in the numbers below. For example, the smaller companies reported hiring a minimum of 2 employees per position while the larger companies reported hiring up to 100 employees for the given position over the next 2 to 5 years.

**Table 2. Future Positions**.

|  |  |
| --- | --- |
| **Job Title** | **Number of Future Positions** |
| Project Engineers | 2 to 20 |
| Project Managers | 2 to 100 |
| Project Superintendents | 2 to 100 |
| Preconstruction Managers | 2 to 100 |

**Letters of support should address the following when relevant: the number of current/anticipated job vacancies, whether the degree is desired or required for advancement, the increase in wages projected based on additional education, etc**.

See Workforce Analysis Request Form Appendix A

**Indicate if employer tuition assistance is provided or if there are other enrollment incentives.**

All employers surveyed indicated that they would provide some type of support for the proposed program. Seven of the nine companies stated that they would provide tuition reimbursements. Six employers indicated that they would offer internships to students in the program. Three companies offered the use of current employees as instructors in the program.

**Describe what need the proposed program will address and how the institution became aware of this need.**

The proposed program will address and fill a need in the construction industry. Graduates of the CSMGMS program will be able to enter the construction industry in entry level positions or be able to advance in their careers to higher level positions within the construction industry. Since the CSMGMS will be online, this will allow students to complete the program while continuing their careers and without having to come to campus.

**Indicate which employers contacted the institution about offering the proposed program.**

The Department of Civil Engineering was contact by VCC and CDI about offering and developing the CSMGMS program

**Indicate the composition of the program advisory committee, including the number of members, professional background of members, topics to be considered by the members, meeting schedule (annually, bi-annually, quarterly), institutional representative, etc.**

Once approved, an advisory council will be established with 7 individuals. All companies who completed the survey indicated that they would be willing to serve on the advisory council. Six of the 7 individuals will be from the companies surveyed, the seventh member will be a construction management faculty member from another university, with Dr. Micah Hale, College of Engineering, will serve as the institutional representative. The council will meet biannually to discuss curriculum, certifications opportunities within the program, and review program outcomes. It is expected that the curriculum will evolve to address industry needs.

**Indicate the projected number of program enrollments for Years 1 - 3.**

All employers surveyed indicated that they would provide some type of support for the proposed program. Seven of the nine companies stated that they would provide tuition reimbursements. Six employers indicated that they would offer internships to students in the program. Three companies offered the use of current employees as instructors in the program. Based on the number of future positions and the number of companies offering tuition assistance, the projected enrollment for the program is approximately 10 students per year in years 1 through 3.

**Indicate the projected number of program graduates in 3-5 years.**

By years 3 to 5, the number of graduates should be 15 students per year.

7. **CURRICULUM**

# **Provide curriculum outline by semester (include course number and title).**

# **(For bachelor’s degree program, submit the 8-semester degree plan.)**

The twenty-one hours listed below are required courses in the program with the remaining 9 hours taken as elective courses selected from existing courses in the MSE program:

CVEG 5503 - Construction Safety

CVEG 5513 - Construction Scheduling

CVEG 5523 - Construction Productivity

CVEG 5533 - Legal Aspects of Construction

CVEG 5543 - Sustainability in Construction Management

CVEG 5553 - Risk and Financial Management in Construction

CVEG 5563 - Building Information Modeling for Design and Construction

**Give total number of semester credit hours required for the program, including prerequisite courses.**

30 hours are required for the degree.

**Identify new courses *(in italics)* and provide course descriptions.**

**\****CVEG 5503 – Dr. Kirk Morrow*

*Construction Safety* – Prerequisite, Graduate Standing or Permission of the Instructor. Fundamentals of safety management principles. Detailed review of OSHA regulations and standards critical to construction engineers and managers who expect to design and administer safety related systems in a construction project. Analysis and design of example minimum safety requirements for application in construction field operations. Review of OSHA Standards for the Construction Industry, a review of selected sections of OSHA Standards for General Industry, a review of general principles of construction safety management.

*\*CVEG 5513 – Dr. Eric Fernstrom*

*Construction Scheduling -* Prerequisite, Graduate Standing or Permission of the Instructor.Develop an understanding of modern scheduling techniques used for the management of construction projects. Learn the underlying logical principles, calculation methods, and presentation formats for PDM, the most prevalent technique. Load schedules with resources and costs to enable leveling, smoothing, and earned value analysis. Learn to update schedules for actual progress, identify problems, and compress or crash activities.

*\*CVEG 5523 – Dr. Kirk Morrow*

*Construction Productivity -* Prerequisite, Graduate Standing or Permission of the Instructor. Construction productivity improvement by group field studies. In-depth study of the way overtime, changes, weather, and staffing levels influence productivity. Industrial engineering techniques are applied to the construction environment to improve the use of equipment and human and material resources.

*\*CVEG 5533 – Dr. Carl Circo*

*Legal Aspects of Construction -* Prerequisite, Graduate Standing or Permission of the Instructor.Legal concepts applied in contracts for engineering and construction services with a focus on management of risk and liability. Includes owner-engineer-constructor relationship and responsibilities, types of construction contracts, contract documents and language, claims including frequent causes, claims avoidance and settlement, alternative dispute resolution, litigation, indemnification, agency, insurance, and bonding. Analysis of recent construction related cases and relevant statutes

*\*CVEG 5543 – Dr. Andrew Braham*

*Sustainability in Construction Management -* Prerequisite, Graduate Standing or Permission of the Instructor.Sustainability in Construction Management will explore traditional concepts of construction management through the lens of sustainability. Topics covered will include elements of sustainable design and construction, sustainable project requirements and management, choosing materials and production, sustainability design and construction economics, understanding specifications, community participation, waste management, regulatory agencies, and worker safety and roles. These topics will be viewed through the lens of the three pillars of sustainability: economics, environmental, and social.

*\*CVEG 5553 – WCOB Faculty*

*Risk and Financial Management in Construction -* Prerequisite, Graduate Standing or Permission of the Instructor.Fundamental concepts in financial and risk analysis in construction; accounting and financial metrics in construction; risk assessment and risk management in construction including the cost of risk, decision making strategies, the role of sureties, effects of risk in project delivery methods and contract types; risk effects in project financing including a review of financing sources, considerations for financing local and international projects; and the impact of financial and risk management in strategic planning in construction.

*\*CVEG 5563 – Dr. Nat Sobin*

*Building Information Modeling for Design and Construction -* Prerequisite, Graduate Standing or Permission of the Instructor. This course provides students with a comprehensive overview of building information modeling (BIM) within the context of multiple project delivery methods and from the different perspectives of owners, architects/engineers and contractors/subcontractors. The course includes “hands-on” experiences using BIM software (Autodesk Revit) and will provide students with a basic working knowledge of the software. The curriculum also covers a systems perspective of how BIM works in different contractual relationships and workflows. Finally, the course will provide students with an understanding of how to implement BIM for companies that have not already done so. The course culminates with a student-modeled project in BIM, in conjunction with a real-world example in how your company can implement BIM.

**Identify required general education courses, core courses and major courses.**

Not applicable

**For each program major/specialty area course, list the faculty member assigned to teach the course.**

See course list above

**Identify courses currently offered by distance technology (with an asterisk\*) and endnote at the end of the document.**

See asterisks by courses above and note at end of document

**Indicate the number of contact hours for internship/clinical courses.**

Not applicable

**State the program admission requirements.**

Applicants to the program must meet the following admissions requirements. This includes having a bachelor of science, bachelor of arts, or bachelor of architecture from an accredited university. The applicant should have an undergraduate grade point average (GPA) of 3.0 or better (A=4.0) on all course work taken prior to receipt of the bachelor degree, or a GPA of 3.0 or better on the last 60 hours of course work taken prior to receipt of the bachelor degree. An entrance exam, such as the GRE, is not required.

**Describe specified learning outcomes and course examination procedures.**

The overall objective of the CSMGMS program is to pursue these goals:

* Prepare students to pursue careers in the broad field of construction management.
* Prepare students to demonstrate advanced technical knowledge related to construction management.
* Prepare students to pursue further education in construction management.

The student learning outcomes which are the knowledge, skills, and abilities that graduates of the program are expected to possess at the time of graduation include:

* Develop a system or process to meet desired needs.
* Identify and solve complex construction management problems by selection and applying appropriate tools and techniques.
* Locate and evaluate pertinent published literature relevant to a given topic, and apply the information gained to a design, analysis or research effort.

**Include a copy of the course evaluation to be completed by the student.**

Course Evaluation is Appendix B

**Include information received from potential employers about course content.**

Over the course of 2 years, meetings were conducted with several construction companies regarding the program and course content. In these meetings, the companies discussed the need for courses in scheduling, contracts, and construction safety. Additional meetings mentioned courses in construction technology and risk/financial management. A preliminary list of courses was developed and then circulated amongst many of the construction companies included in the survey. The courses were then compared to those offered in the top, construction management programs

**Provide institutional curriculum committee review/approval date for proposed program**.

February 12, 2020

8. **FACULTY**

**List the names and credentials of all faculty teaching courses for the proposed program. Include college/university awarding degree; degree level; degree field; subject area of courses faculty currently teaching and/or will teach. (For associate degrees and above: A minimum of one full-time faculty member with appropriate academic credentials is required.)**

Faculty CVs is Appendix C

**Indicate lead faculty member or program coordinator for the proposed program.**

Dr. Micah Hale will serve as the program coordinator for the proposed program.

**Total number of faculty required for program implementation, including the number of existing faculty and number of new faculty. For new faculty, provide the expected credentials/experience and expected hire date.**

Total number of faculty in the program will be seven.

**For proposed graduate programs: Provide the curriculum vita for faculty teaching in the program, and the expected credentials for new faculty and expected hire date. Also, provide the projected startup costs for faculty research laboratories, and the projected number of and costs for graduate teaching and research assistants.**

Faculty CVs is Appendix C

9. **DESCRIPTION OF RESOURCES**

**Current library resources in the field**

**Current instructional facilities including classrooms, instructional equipment and technology, laboratories (if applicable)**

**New instructional resources required, including costs and acquisition plan**

**Library Resources.** The University of Arkansas Libraries provides access to information resources that support the educational objectives and outcomes of the University of Arkansas, including the College of Engineering. The libraries house more than 2 million print volumes and over 5.5 million microforms. The annual reports can be found at <http://libinfo.uark.edu/info/annualreport.asp>. All electronic resources purchased by the libraries, including databases, are accessible from anywhere in the world on a 24 hour/7 days per week basis.

There are over 42,000 current journals and serials maintained by the libraries. The journal, book and conference publications, and other engineering societies are well represented in the libraries. Most of the current subscriptions for science and technology journals are in electronic format. The libraries also provide access to full text of newspapers, trade journals magazines, and interdisciplinary scholarly journal articles through Academic Search Complete and Business Source Complete (EbscoHost), ABI Inform (ProQuest), and Academic Universe (Lexis Nexis).

The Libraries maintain a subscription to appropriate portions of Knovel, which enriches access to interactive texts and data sources. Other texts and textbook materials may be purchased as e-books. ASTM, ASCE, and IEEE standards are fully accessible through online venues. A selected number of standards from organizations such as AASHTO, ASME, and ISO are available in the print collection.

10. **NEW PROGRAM COSTS – Expenditures for the first 3 years**

The expenditures for the first three years would be approximately $80,000. This includes the instructional costs, instructional fringes, and a part-time staff member.

**New administrative costs (number and position titles of new administrators)**

There will be no new administrators. There will be a part-time staff member hired to help administer the program.

**Number of new faculty (full-time and part-time) and costs**

There will be no new faculty.

**New library resources and costs**

There will be no new library resources.

**New/renovated facilities and costs**

There will be no new facilities and no facilities will be renovated.

**New instructional equipment and costs**

New instructional equipment is not needed.

**Distance delivery costs (if applicable)**

There will no new distance delivery costs.

**Other new costs (graduate assistants, secretarial support, supplies, faculty development, faculty/students research, program accreditation, etc.)**

There will no additional new costs.

**If no new costs required for program implementation, provide explanation.**

**Program Costs.** All courses will be delivered online through a format that is similar to the Master of Science in Engineering (MSE) that is offered through the COE. Approximately $5,000 will be necessary for course development ($5000 per course). Additional expenses may include a portion of staff or Instructor salary for course delivery ($25,000 per year). Estimated total expenses for the first three years would be approximately $80,000. This does not include faculty compensation for teaching the courses. Like the MSE program, Instructor pay will be based on course enrollment.

11. **SOURCE OF PROGRAM FUNDING – Income for the first 3 years of program operation**

**If there will be a reallocation of funds, indicate from which department, program, etc.**

**Provide the projected annual student enrollment, the amount of student tuition per credit hour, and the total cost of the program that includes tuition and fees.**

**Indicate the projected annual state general revenues for the proposed program (Provide the amount of state general revenue per student).**

**Other (grants [list grant source & amount of grant], employers, special tuition rates,   
 mandatory technology fees, program specific fees, etc.).**

Estimated Income from the CSMGMS Program:

|  |  |  |  |
| --- | --- | --- | --- |
| Estimated Enrollment | | 10 | students |
| Number of Credit Hours for the MSCM | | 30 | hours |
| Instructional Cost | | $5000.00 | per class |
| Instructional Fringes | | $793.00 | per class |
|  | | | |
| Tuition and Fees | | | |
| $303.88 | Tuition per credit hour | | |
| $50.00 | Technology Fee (Engineering) | | |
| $30.00 | Off-Campus Fee (Global Campus) | | |
|  | | | |
| $91,164.00 | Total Program Tuition | | |
| $57,930.00 | Less Instructional Costs & Fringes | | |
| ***$33,234.00*** | ***Net Program Tuition Split*** | | |
|  | | | |
| $16,617.00 | 50% to College of Engineering | | |
| $9,970.20 | 30% to Central Administration | | |
| $6,646.80 | 20% to Global Campus | | |
|  | | | |
| $15,000.00 | Total Technology Fees (Engineering) | | |
| $9,000.00 | Total Off-Campus Fees (Global Campus) | | |
|  | | | |
| $31,617.00 | Total Net Tuition & Fees to COE | | |
| $57,930.00 | Total Instructional Cost Recovery to COE | | |
| $9,970.20 | Total to Central Administration | | |
| $15,646.80 | Total to Global Campus | | |
| ***$115,164.00*** | ***Total Program Income*** | | |

12. **ORGANIZATIONAL CHART REFLECTING NEW PROGRAM**

**Proposed program will be housed in (department/college)**

13. **SPECIALIZED REQUIREMENTS**

**If specialized accreditation is required for program, list the name of accrediting agency.**

**Indicate the licensure/certification requirements for student entry into the field.**

# **Provide documentation of Agency/Board review/approvals (education, nursing—initial approval required, health-professions, counseling, etc.)**

Not Applicable

14. **BOARD OF TRUSTEES APPROVAL**

**Provide the date that the Board approved (or will consider) the proposed program**.

**Provide a copy of the Board meeting agenda that lists the proposed program, and written documentation of program/unit approval by the Board of Trustees prior to the Coordinating Board meeting that the proposal will be considered.**

May 21, 2020

15. **SIMILAR PROGRAMS**

# **List institutions offering program:**

## **Proposed undergraduate program – list institutions in Arkansas**

**Proposed master’s program – list institutions in Arkansas and region**

**Proposed doctoral program – list institutions in Arkansas, region, and nation**

**State why proposed program needed if offered at other institutions in Arkansas or region.**

**List institution(s) offering a similar program that the institution used as a model to   
 develop the proposed program.**

**Provide a copy of the e-mail notification to other institutions in the state notifying them of the proposed program. Please inform institutions not to send the response to “Reply All”. If you receive an objection/concern(s) from an institution, reply to the institution and copy ADHE on the email. That institution should respond and copy ADHE. If the objection/concern(s) cannot be resolved, ADHE may intervene.**

**Note: A written institutional objection/concern(s) to the proposed program/unit may delay Arkansas Higher Education Coordinating Board (AHECB) consideration of the proposal until the next quarterly AHECB meeting.**

There are no online, MSCM programs offered in the State of Arkansas. The University of Arkansas at Little Rock offers an on-campus, MSCM program, but not a distance education program. Missouri Science and Technology in Rolla, MO offers an online MS in Civil Engineering with an emphasis in Construction Engineering. The University of Kansas offers an online MS in Project Management which is similar to the proposed program. Louisiana State University, the University of Houston, and University of Florida all offer online MSCM programs, and these programs were used as a model to develop the proposed program.

16. **DESEGREGATION**

**State the total number of students, number of black students, and number of other minority students enrolled in related degree programs, if applicable.**

Not Applicable

1. **INSTITUTIONAL AGREEMENTS/MEMORANDUM OF UNDERSTANDING (MOU)**

**If the courses or academic support services will be provided by other institutions or organizations, include a copy of the signed MOU that outlines the responsibilities of each party and the effective dates of the agreement.**

Not applicable

1. **ACADEMIC PROGRAM REVIEW**

**Provide scheduled program review date (within 10 years of program implementation date).**

2023-2024

1. **PROVIDE ADDITIONAL INFORMATION IF REQUESTED BY ADHE** **STAFF**
2. **INSTRUCTION BY DISTANCE TECHNOLOGY**

**If the proposed program will be offered by distance technology, provide the following information:**

**Summarize institutional policies on the establishment, organization, funding and management of distance courses/degrees.**

**Describe the internal organizational structure that coordinates (development, technical support, oversight) distances courses/degrees.**

**Summarize the policies and procedures to keep the technology infrastructure current.**

**Summarize the procedures that assure the security of personal information.**

**Provide a list of services that will be outsourced to other organizations (course materials, course management and delivery, technical services, online payment, student privacy, etc.).**

**Institutional policies on the establishment, organization, funding and management of distance courses/degrees**.

An academic department intending to propose new distance programs are required to identify the program’s anticipated costs, funding sources, demand, and need for library resources, and to present plans to address the increased workload. The proposal needs to be approved by Vice Provost for Distance Education, Academic College, University Course and Programs Committee, Graduate Council (if at the graduate level), Faculty Senate, Provost, Board of Trustees, and Arkansas Department of Higher Education. Change requests for existing distance courses and programs follow similar approval processes. Global Campus assists programs during the conceptualization, market research, and planning stage.

**Internal organizational structure that coordinates distances courses/degrees**

Global Campus is a supporting unit that provides assistance in course development and maintenance, technical support for both faculty and students, quality assurance, and compliance with interstate regulatory requirements to all online programs across the campus.

**Policies and procedures to keep the technology infrastructure current**

IT Services maintains the technology infrastructure to ensure the security and compatibility of enterprise systems as guided by the [Computer and Network Security Policy](https://its.uark.edu/policies/network-security/), [Data Management Use and Protection Policy](https://vcfa.uark.edu/policies/fayetteville/uits/3095.php), and [Acquisition of Enterprise Systems Policy](https://vcfa.uark.edu/policies/fayetteville/uits/3096.php). The [Computer Activities Council](https://provost.uark.edu/committees/cac.php) (CAC), the information technology governance structure at the University, facilitates participation of students, faculty, staff, and administrators in long-range planning and setting of priorities for IT Services.

**Procedures to assure the security of personal information**

Procedures are in accordance with the [Computer and Network Security Policy](https://its.uark.edu/policies/network-security/), [Code of Computing Practices](https://its.uark.edu/policies/code/), and [Privacy Policy](https://its.uark.edu/policies/privacy/). The IT Security group monitors university systems, performs security audits of resources, and provides security services such as security information, anti-virus software, and security alerts. University systems (student information system, learning management system, etc.) require authentication. Privileged supervisory accounts are limited and managed by system administrators. Links to the [privacy policies of third-party tools used in online instruction](https://tips.uark.edu/privacy-policy-links/) are provided in the information section of online courses and support sites.

**Services that will be outsourced to other organizations**

The only service outsourced is the online proctoring service. The University of Arkansas partners with ProctorU for online test proctoring services for some online exams.

\*Indicates courses included in the proposed program offered by distance technology