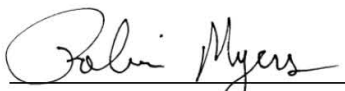
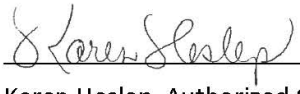
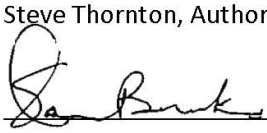
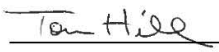
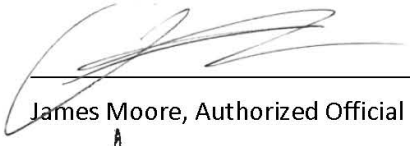
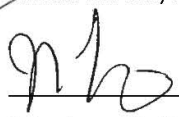
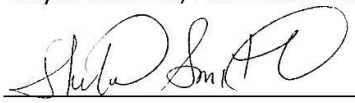
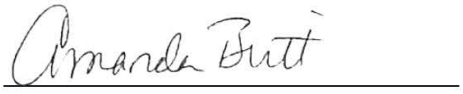
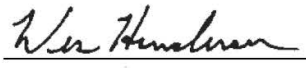
Act 1131 of 2015
Regional Workforce Implementation Grant

APPLICATION COVER SHEET
DUE JUNE 1, 2016

To:	Arkansas Department of Higher Education
Requesting Institution:	Arkansas State University Mountain Home
Title of Project:	Programming/Mobile Application Development
Project Partners:	1. Mountain Home Public Schools 2. Cotter Public Schools 3. Flippin Public Schools 4. Yellville-Summit Public Schools 5. Salem Public Schools 6. Brooks Jeffrey Marketing 7. VisionAmp Marketing 8. Micro Plastics 9. Metova 10. Baxter Regional Medical Center 11. ASUMH Secondary Center
Requested Budget:	$772,400.00
Date Submitted:	05/27/2016
Applicant Contact:	Karen Heslep
Applicant's Information:	1600 South College Street Mountain Home, AR 72653
	870-508-6185
	kheslep@asumh.edu

Authorized Signatures for Institution

ASU Mountain Home	
Lead Institution	Robin Myers, Authorized Official
ASUMH Secondary Center	
Partner	Karen Heslep, Authorized Official
Baxter Regional Medical Center	
Partner	Steve Thornton, Authorized Official
Brooks Jeffrey Marketing	
Partner	Shannon Brooks, Authorized Official
Metova	
Partner	Kent Watson, Authorized Official
Microplastics	
Partner	Tom Hill, Authorized Official
VisionAmp Marketing	
Partner	James Moore, Authorized Official
Mountain Home Public Schools	
Partner	Jake Long, Authorized Official
Salem Public Schools	
Partner	Wayne Guiltner, Authorized Official
Flippin Public Schools	
Partner	Shelena Smith, Authorized Official
Cotter Public Schools	
Partner	Amanda Britt, Authorized Official
Yellville Summit Public Schools	
Partner	Wes Henderson, Authorized Official

Act 1131 of 2015
Regional Workforce Implementation Grant Application

*Please complete each section of this application and submit to the Arkansas Department of Higher Education by **June 1, 2016**. Applications should be emailed to ADHE.Workforce.Grant@adhe.edu. Please note that only projects that were awarded a planning grant are eligible to apply for an implementation grant.*

SECTION 1 – PROGRAM NEED **20 Points**

Proposals will include a thorough description of the labor needs, as determined by the Local Workforce Development Board, and specifically identify the skills gap employers face in the selected region and will continue to face in the future. Entities seeking grant funds must outline the proposed program and/or equipment needed and how creation of the program and/or acquisition of equipment will address those labor needs.

Essential Components:

- Regional data demonstrating the need for action - provide empirical data that illustrates needs of the local workforce, with a particular emphasis on anticipated or future needs.

- Clear linkages between grant activities and local needs- clearly illustrate how the proposed grant project is directly linked to addressing the workforce needs and deficits of the region. Successful applications will provide a thorough description of the region's high-demand and high-skill industrial occupations, and identify how the proposed activity will address job candidate deficits in those areas. **Applicants must also submit letters of support from at least two area employers for the proposal, citing need and outlining benefits for local industry.**

- Alignment with Arkansas economic and workforce goals- describe how the proposed project will increase overall higher education attainment in the region and provide clear linkages between a postsecondary credential and the needs of employers.

Keep the following rubric in mind when completing this section:

	Exemplary	Superior	Adequate	Needs Improvement
Program Need (20 Pts)	Significantly addresses a top 3 workforce need in the region. (18–20 Pts)	Addresses in a more limited way a top 3 workforce need in the region. (15–17 Pts)	Addresses in a limited way a less critical workforce need in the region. (11-14 Pts)	Identified labor need is too narrow or not in a critical area. (0–10 Pts)

Please enter your answer in the box provided below. Feel free to include any necessary charts, graphs or tables.

The 2015-2016 Projected Employment Opportunities List for the Northwest Arkansas Workforce Investment Area indicates an increasing demand for computer programming for the region. An economic development study completed by the University of Arkansas at Little Rock in 2014 documented that there were 192 computer programming/programmer job openings in the Northwest Arkansas Economic Development District during 2012. The total number of computer programming jobs in the NWAEDD region is projected to be 5,832 by 2018. That's a growth of 12% between 2012–2018. Arkansas' 2015-2016 Hot 45 Demand Occupations, published by the Arkansas Department of Workforce Services, includes Computer Programmers on its list of demand occupations and indicates that Computer Systems Design and Related Services is one of the top ten growth industries in the state.

The O*NET OnLine data report projects growth for programmers to be increasing much faster than average for 2014 through 2024. Software Applications Developer, Computer Systems Analysts and Web Developers are specific jobs that are currently in need. A program of study in programming/mobile application development provides training needed for employers in North Central Arkansas to keep and grow opportunities in this region. Working with local advisory councils ASU-Mountain Home has identified a need for programmers in industries ranging from computer services, marketing, healthcare, to manufacturing.

During advisory meetings with local businesses, we have identified a variety of

programming languages employers need. According to these employers, finding qualified applicants with these skills is difficult, and at times, impossible. Employer needs include but are not limited to:

- Programming fundamentals, concepts and logic
- .NET
- C++
- Visual Basic
- Java
- PHP
- SQL
- Ruby
- Mobile (Android, Xcode & IOS)
- Object Oriented Programming principles
- Git
- Database creation and interaction
- Analytics
- GUI
- Current APIs and programming environments

The variety of languages on the list indicates that the need exists in all types of programming – mobile, frontend, and backend. In our research, we have identified that our current Web Development program can support the new Programming/Mobile Application Development degree because they share similar content and technology.

Arkansas Governor Asa Hutchinson has addressed the need for programmers by leading an effort to require every high school in the state to offer computer coding classes. More than 1300 Arkansas high school students took computer coding classes during Fall 2015. The governor hopes to see that number rise to 6000 over the next four years. As secondary students discover career opportunities in the fields of coding and programming, demand for training and education beyond high school will increase.

ASUMH recognizes the high demand in the region in speaking with the partners during the advisory meetings, and seeing the many programming jobs posted on various online sites including indeed.com and monster.com. With the jobs providing the high salaries, the students will desire the highly skilled industrial occupations which covers a large range of

positions. We will provide the education and training to prepare him/her to enter a job with a basic of knowledge readily available to be built upon.

The creation of a program of study in programming/mobile application will develop a skilled workforce in the growing field of computer programming for the area employers by preparing students to be able to step into a position with the necessary technical and soft skills. In addition, the program will support efforts on the state level to increase coding and programming offerings on the secondary level by providing a pathway for students to continue their education in the computer programming field upon graduation from high school.

In consideration of cross-collaboration, a programming degree would be an asset to our already existing Web Development program. The computer programming curriculum offers a number of step-out points allowing the student to complete with a certificate of proficiency after one semester of post secondary instruction or simultaneously with his/her high school graduation; with a technical certificate after one year of instruction; and with an Associate of Applied Science in Programming & Mobile Application Development degree upon completion of 60 credit hours. Our forward thinking plan is to work with universities to assist students to continue into a four year degree. We are considering creating our own four year degree program after reflection and establishing the associate degree over the twenty-four month grant.

To meet the scheduling needs of a diverse student body, innovative course delivery that combines on ground with online instruction is a cornerstone of the plan. Traditionally, classes are offered in one of three formats: seated, online or hybrid (a combination of seated and online). Using the latest collaboration technology, classes will be open for students to attend in person; or, if the student is unable to attend class, he/she can join the discussion virtually; finally, all classes will be recorded so if the student is unable to attend live, he/she can review the recorded class online. This delivery also provides a way for someone seeking additional training for advancement in their job or returning to the workforce after being unemployed to take classes. Allowing students to choose how they participate on a class-by-class basis, rather than requiring them to commit to a specific delivery for the entire semester, expands opportunities for residents of the regions to better their future.

We at ASUMH are working to prepare the students to be able to provide a service to the

region and to receive a high salary. We want to encourage the student to attain the level of higher education to make it possible for him/her to become a successful and productive programmer. By providing experienced educational leaders who partner with the local high schools and regional companies to communicate real world needs while using the state of the art technology in an educational environment, we will offer one of the best Programming & Mobile Application Development degrees along with a variety of options to fit any schedule.

Certificate Programs will offer professional education to help students develop and apply technical skills and knowledge to the industry to improve quality, efficiency, and productivity. These programs will be for programming professionals who want to stay ahead of the competition, and accelerate their skills and expertise.

Considering the distance for some students, the online program would be more suited. It will allow the students the opportunity to choose what will fit in their schedule. Students will be able to collaborate in group work and watch videos related to the coursework during a time that fits their schedule whether it be after work or around the class load. We take into consideration the frameworks required for a high school student along with communication with area high school computer teachers and build upon that knowledge. It is known that more productive people will seek knowledge and experience outside of what is required for a class or a position at work. We want to create a programming degree experience that encourages advance skills that employers are seeking. Adding this program to our existing programs of study, creates an opportunity for alumni to complete a second degree that compliments their current education.

According to research from Education World, Project-based learning (PBL) can engage a broader range of learners and promote workplace skills. With PBL, students learn through experience. When students complete their education and are employed at their workplace, they are expected to work with colleagues, tackle problems, and organize and present their ideas. Employers are seeking employees that will be able to problem solve and think logically in addition to having a basis of programming knowledge. They must also be able to manage objectives and complete them on time. Students learn these skills in a PBL classroom, where collaboration and real-time problem-solving are applied.

No workforce education is complete unless professionalism and soft skills are emphasized. Soft Skills training incorporated into the curriculum will teach and prepare students skills

that are crucial to making them an important and valued employee.

We have a passionate and enthusiastic computer staff. They desire to change the culture from students thinking of education as something with a beginning and end. Rather, the plan is to make learning and gathering of knowledge a part of life. ASUMH encourages their students to be lifelong learners.

SECTION 2 – PROGRAM PLAN **25 Points**

Program plans must be designed to meet the goals and core requirements of the Regional Workforce
Grants program as well as the following Essential Components:

- Measurable objectives for each phase of the project- detail the metrics utilized throughout the project to track how credentialed job candidates possessing the skills needed by employers will be provided.

- Project governance and accountability plan- clearly describe the plan for governance, meetings, and decision-making structure; identify a project director; and identify members of a project steering committee that will maintain oversight throughout the project period.

- Pathways articulation and support- clearly describe the educational pathway(s) and support services that will be developed, or existing pathways that will be enhanced, to meet the identified workforce needs. Pathways should incorporate all appropriate student outcomes from short-term industry-recognized credentials through the highest certificate or degree programs appropriate to the identified career goals and include career step-out points at the completion of each credential.

- Role of equipment request- required only for those proposals seeking equipment purchases. Outline how equipment purchase will specifically address local labor market needs; provide detailed description of equipment, educational value of equipment in preparing workforce, and justification for purchase.
  NOTE: Equipment may not be purchased during the planning phase

- Performance assessment- clearly define measurable outcomes to be achieved through implementation of the plan and strategies to measure and report achievement of those outcomes. Priority will be given to programs which prepare candidates for high wage jobs or which create capacity to move candidates from unemployment to employment.

- Program plans must be designed to meet the goals and core requirements of the Regional Workforce Grants program. At a minimum, the plan must include a detailed project timeline and overview, measurable objectives for each phase of the project, a project governance and accountability plan, pathways articulation

and support, the role of any equipment requested, and a performance assessment.

Keep the following rubric in mind when completing this section:

	Exemplary	Superior	Adequate	Needs Improvement
Program Plan (25 Pts)	Plan addresses all goals and core requirements and properly connects all activities to measurable outcomes that address workforce needs. (22–25 Pts)	Plan addresses most goals and requirements and substantially connects activities to measurable outcomes. (18–21 Pts)	Plan addresses many goals and requirements and connects some activities to measurable outcomes. (14–17 Pts)	Plan lacks significant requirements or connections of activities to measurable outcomes are not clear. (0–13 Pts)

Please enter your answer in the box provided below. Feel free to include any necessary charts, graphs or tables.

Project Timeline of Programming/Mobile Applications Degree:

The project consists of several key areas:
Curriculum development
Instructional methods and delivery
Facilities design
Equipment and Furnishings
Marketing

These areas combine to create an innovative program of study that results in graduates who possess the technical skills and soft skills currently in demand by the region's employers.

Date of completion	*Goal*	*Measure*	*Responsible Person(s)*
August 2016	ASUMH Curriculum Committee reviews proposal for new program to begin Fall 2017	Curriculum committees hears proposal and votes on creation of Programming degree plan	Dean, CIS Instructors
August 2016	Submit new program for consideration at the September Board of Trustees meeting	Program added to the September Board Agenda	Dean, Vice Chancellor for Academic Affairs, Chancellor
September 2016	ASU Board of Trustees approves new program	Program received BOT approval	Chancellor
September 2016	Process of hiring full time programming instructor begins. Position is advertised through campus wide email; ASUMH Web site; Higher Ed Jobs; and other media as needed.	Instructor is hired no later than September 30.	Dean, ASUMH HR department and selection committee
October 1, 2016	Letter of Intent submitted to ADHE for the creation of the Program of Study Programming/ Mobile Application Development to be reviewed at October AHECB meeting	Letter of Intent submitted by the deadline	Dean, Business and Technology and Vice Chancellor for Academic Affairs
October 2016	Programming instructor will visit grant partners and local employers to discuss needs and will finalize the ADHE New Program Proposal	Instructor will meet with all grant partners and ADHE new program proposal will be finalized	Instructor

October 2016	School of Business and Technology Advisory Councils meet/Plans for the new program announced pending ADHE approval	Meeting is held	Instructor and Dean
October 2016	Meetings with architects and design professionals begin. Facility renovation plans will be finalized and put out for bid.	Bids will be submitted	CIS Instructors and Facilities Director
October 2016	Schedule a Spring event/workshop at the Donald W. Reynolds Library to promote the program	Event scheduled	CIS Instructors
November 1, 2016	New program proposal to ADHE along with employer support/employer need survey for review at the January 2017 AHECB meeting.	Proposal is submitted to ADHE by the deadline.	Instructor, Dean and Vice Chancellor for Academic Affairs
November - December 2016	Accept bids for renovation project.	Request for bids will be posted	Facilities Director, Vice Chancellor for Administration, Instructor
December 2016	Visit Bretford showroom to begin process of selecting furnishings for the new program facilities	Tentative list of desired furnishings is created	CIS faculty and Dean
December 2016	Participate in Computer Science Week Boot Camp for high school and junior high students and in Hour of Code - a program that provides exposure and	An activity will be hosted by ASUMH	Instructor

	education to students about computer technology careers		
January 2017	ADHE acts on the new program proposal	ADHE approves new program	Instructor, Dean, and Vice Chancellor
January 2017	Work with financial aid to ensure program is financial aid eligible	Program is financial aid eligible	Dean, Financial Aid Director
February-May 2017	Visit a minimum of eight area high schools to promote the new program, articulated credit and dual enrollment opportunities	Instructor will visit, at a minimum, the eight area high schools that have articulation agreements with ASUMH	Instructor
February 2017	Begin Renovations program space	Renovations begin	Facilities Director
February 2017	Finalize selection of equipment/furnishings	List of equipment and furnishings to be ordered will be finalized	CIS Instructors and Dean
March 2017	Participate with booth at Teen Girls go to College event	Program will have a booth.	Instructor
March 2017	Participate with a booth at Career Fair hosted by ASUMH, Mtn. Home Area Chamber of Commerce, Goodwill and Department of Workforce Services	Program will have a booth.	Instructor
April 2017	Project Based Learning (PBL) training for all faculty teaching classes that make up the programming	Training will be conducted/Faculty incorporate PBL into instruction	Dean, Instructors

	curriculum		
April 2017	Spring advisory council meeting	Council meets	Instructor
April 2017	Conduct a workshop at High School Career Day organized by the ASUMH Career Coach	Workshop is held.	Instructor
June 2017	Offer a session at ASUMH Kids' College - a summer educational program for students in grades 1 - 6	Programming session is offered at Kids' College	Instructor
June 30, 2017	Renovation will be complete	Renovations complete	Facilities Dir., Instructor, Dean
July 2017	IT Infrastructure and equipment installation completed	IT infrastructure and instructional equipment installed	IT Department, Instructor, Dean
August 2017	Furniture installation complete	Furniture installed	Maintenance, Instructor, Dean
August 2017	Articulation meeting with area high school teachers and counselors	Updated list of classes eligible for articulated credit is developed	Dean, CIS Instructors
August 2017	Open House for community and incoming students	Open house held prior to start of fall classes	Dean, CIS faculty
August 21, 2017	Classes Begin	Initial cohort, with a minimum of 12 students, begins classes	Instructor
September 2017	Project Based Learning Sustain and Support Visit	First PBL support visit is	Dean

		completed/Faculty receive assistance in implementing PBL in the classroom	
October 2017	Advisory Council meeting	Advisory Council meets	Instructor, Dean
November 2017	Final Project Based Learning Sustain and Support Visit	Second PBL support visit is completed/Faculty have confidence in ability to sustain use of PBL in the classroom	Dean
December 2017	First students complete certificate of proficiency	90% of cohort completes the CP	Instructor
April 2018	Spring advisory council meeting	Council meets	Instructor
April 2018	Fall 2018 pre-registration	75% of initial cohort pre-registers for Fall 2018 with plans to complete the AAS by May 2019	Instructor
May 2018	First students complete technical certificate	80% of initial cohort completes the TC	Instructor

The ASUMH Programming/Mobile Application Development program is a collaboration among local business and industry, area high schools, the ASUMH Secondary Center and the ASUMH School of Business and Technology. A variety of metrics are in place to continually measure the effectiveness of the program as it relates to meeting the needs of local and regional employers.

Advisory Councils: ASUMH Computer Information Systems faculty will meet twice a year with an advisory council made up of area employers to discuss the Programming/Mobile

Application Development program and how ASUMH can better serve the area industry and community. Council members provide feedback on how well our graduates meet their expectations once hired and evaluated.

Internships: The curriculum includes a required internship. Feedback received from internship site coordinators will provide valuable insights into any gaps that may exist between what is needed by employers and what is being taught in the program.

Career Placement: George Truell, the ASUMH Career Placement Coordinator, plays a vital role in gathering information from employers regarding the performance of our graduates in the workplace. He will communicate employers needs as he receives job leads. Successful placement of our students in careers related to their program of study will serve as another measure of whether or not our graduates possess the skills required by employers.

Graduate Exit Surveys: ASUMH surveys all graduates. Feedback from graduates related to employment will serve as additional source of documentation on how well the program meets the needs of employers.

All the the measures listed above will not only provide feedback on the technical skills of our graduates, but also on their soft skills. We recognize that many times an employer's greatest disappointment is not with an employee's technical skills but more with issues related to professionalism, integrity, productivity, attendance, initiative, cooperation, teamwork, appearance, attitude, problem solving, and communication. The curriculum will incorporate two initiatives to address soft skills training:

1. Soft Skills Rubric: Grading in all technical classes will be weighted so that a percentage of the final grade will be based on soft skills such as those mentioned in the paragraph above. Program faculty will work together to create a rubric similar to the one provided in Appendix A.

2. Ready 2 Work: Ready 2 Work is a local program developed by the ASUMH Workforce Education Director in cooperation with a team of human resources professionals representing area manufacturers. Students complete a specific curriculum addressing areas of workplace behavior that local employers have identified as common areas where employees are not meeting the expectations of their employers. Students who successfully complete the Ready 2 Work curriculum receive a certificate of

completion. Companies who choose to participate in Ready 2 Work guarantee an interview to any applicant holding a Ready 2 Work certificate. While the program is currently operating primarily in manufacturing, it is our intent to broaden the program to include all types of employers and formalize the process for employers to sign up as "Ready 2 Work" participants.

Project Governance and Accountability

Project steering committee and project directors are as follows:

- Interim project directors: Mindy Fulcher, Graphics and Design Instructor and Shawn Dennis, Computer Networking Instructor (This role will transition to the future programming instructor, who will posses expertise in the field of programming, during the fall of 2016.);
- Karen Heslep, Dean of Business/Technology;
- Melinda Burcham, Grant Coordinator;
- Representatives of Brooks Jeffrey Marketing, VisionAmp Marketing, Baxter Regional Medical Center, ASUMH Secondary Center Director and Micro Plastics;
- Computer Instructors from Mountain Home Public Schools, Cotter Public Schools, Flippin Public Schools, Yellville-Summit Public Schools, and Salem Public Schools; and
- Future Programming/Mobile Application Instructor

The following structure will be used to hold the program accountable to continuous improvement and to maintain an ongoing commitment to developing meaningful pathways for students:

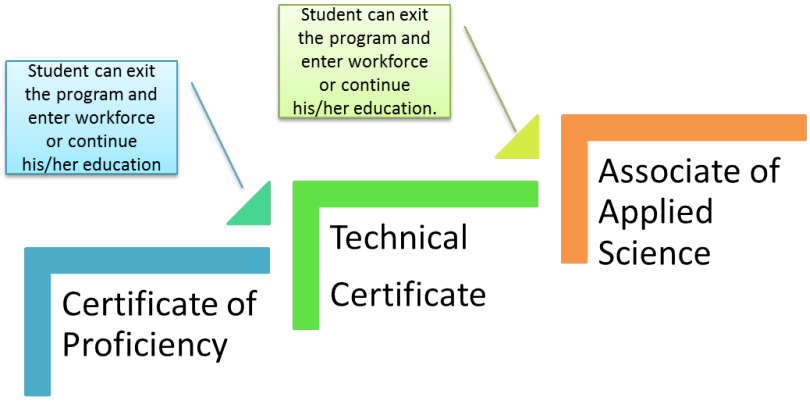
- An advisory council made up of local business professionals will meet a minimum of twice annually to review the needs of the program.
- An annual meeting will be held with career and technical educators from area high schools to review articulated credit and potential concurrent credit opportunities.
- ASUMH career placement office will maintain and review placement data on graduates.

A streamlined decision-making structure is required if our program hopes to be responsive to changes in the business environment. ASUMH has empowered each School at ASUMH, and each department within those schools, to act on data-driven decisions with limited bureaucracy, as long as the desired decision honors current policy, procedures and practices and does not exceed the approved budget. The computer programming instructor, in cooperation with other computer information systems faculty, will manage the department's budget.

Pathways Articulation and Support Services

ASUMH will offer three opportunities for students to earn a credential and either step-out of the program or move on to the next level of educational attainment. Educational pathways include CP (Certificate of Proficiency), TC (Technical Certificate), AAS (Associate of Applied Science). Secondary students have three options available which will allow them to begin their college education prior to high school graduation: ASUMH Secondary Center; articulated credit; and concurrent credit. Continuing Education, a renewal or an update of skills or education that broadens an individual's current skill level, will be offered by the program as a way to sustain promotion of the educational pathways and to keep the program relevant to local employers.

Students beginning the program are expected to come to ASUMH with varied educational backgrounds. High school students, first time college students, transfers from another college, and graduates who choose to return for a second degree will enter and exit the educational pathways at points prescribed by their past experience and current career goals.



Please reference attached tentative degree plan for Associate of Applied Science, Technical Certificate and Certificate of Proficiency in Programming and Mobile Application Development: Appendix C. Degree plans will be finalized upon hire of new programming instructor.

High school juniors and seniors ready to begin their college education will have the option of taking a total of four classes via the ASUMH Secondary Center. This will allow the secondary student to complete the certificate of proficiency while still in high school. By researching the frameworks of computer programming classes approved by the Arkansas Department of Career and Technical Education and through meetings with area high school

computer programming instructors, we have identified two classes offered at area high schools that will be eligible for articulated credit: Computer Science and Mathematics (Course Number 439100/460050) and Essentials of Computer Programming (Course Number 460020). Students who take these classes in high school, attend ASUMH within 18 months of graduation, and successfully complete 12 credit hours at ASUMH will be eligible to receive college credit for work completed while in high school. Finally, concurrent credit is available at area high schools in general education subjects such as English and Math. Concurrent credit is one additional opportunity for secondary students to get a head start on their college education.

The Program of Study in Programming/Mobile Application Development will also be an added asset to those who are majoring in a subject outside of the computer department but desiring an additional major to increase their marketability. We see significant crossover with the web development and mechatronics programs already offered at ASUMH.

Several industry certifications are available in the programming field such a Visual Basic, JAVA, C and C++. Attaining an industry certification is a valuable credential to help start or enhance a career in the programming field. Industry certification demonstrates to potential employers that the student has the knowledge and skills to be productive using the programming language in a workplace environment. In addition, by combining the Programming/Mobile Application Development degree with an industry certification, students can increase their employment potential.

O*net OnLine Job number 15-1131.00 Computer Programmers reports the average median was $37.28 hourly with an annual income of $77,550. Companies in our area and across the United States are searching for programmers, mobile application developers and other related skills to fill positions currently available and in planning for future needs. In searching Monster.com and Indeed.com, we found programming positions available now for students possessing the skills included in this new program offering. Demand exceeds supply in the Programming/Mobile Application Development field.

Creation of this program provides students a pathway to learn programming and mobile application development and achieve their career objectives. Whether their desire is to obtain the required training to become a programmer, add an additional certification to existing credentials, earn a degree, or advance in their career, this program provides the flexibility and support needed for success. Completers will be properly trained in technical and soft skills and ready to enter the workforce.

Relevant curriculum, career step-out points, relationships with business, industry and area high schools are vital to the success of this proposal. But without adequate student support

services, many, and possibly most, students will never achieve their ultimate career goals. ASUMH provides a number of services for students that address academic needs, as well as helps with the personal challenges most of our students face.

First and foremost, we recognize that the key to retention is relationships. Our academic advisers and instructors call students by name and get to know them on a personal level. ASUMH has adopted Appreciative Advising as its advising model. Appreciative Advising is a collaborative practice of asking positive, open-ended questions that help students optimize their educational experiences and achieve their dreams, goals, and potentials. It is perhaps the best example of a fully student-centered approach to student development.

The Norma Wood Library offers a variety of services that are available both locally and remotely. Built in 2000, the library is home to a collection of print journals, monographs and videos as well as an open computer lab for student use. The print collection consists of over 18,000 books and 98 currently subscribed journal titles. The online services offered by the library connect students to over 24,000 full-text journals and over 150,000 full-text books digitally. The entire catalog of library holdings can be accessed via the web.

The Tutoring Center at Arkansas State University Mountain Home provides overall academic support for students needing assistance in a comfortable environment in which learning can take place. A goal of the tutoring center is to provide successful learning experiences for our students. Individual and group tutoring sessions are designed to help students develop their skills not only in the classroom, but for studying in general. Tutoring methods tailor activities to students' learning needs and styles, empowering them to take responsibility for both their successes and their failures. We hope that as students accomplish this, they will gain an increase in confidence and the ability to learn independently, and ASUMH will enjoy the accomplishment of greater student success and retention.

The computer programming program is a workplace ready program and our ultimate goal is for every student to enter the workforce as a highly skilled, productive employee. The ASUMH Career Placement coordinator works with students to prepare them for the job search through resume assistance and interview training. In addition, this office maintains an extensive list of job leads and facilitates connecting our students with employers.

In addition to offering academic services, ASUMH offers a number of additional support services which include but are not limited to a food pantry, a professional dress closet to help with interview attire, a Student Emergency Fund, free use of recreation equipment such as tents, canoes and bicycles, and a fitness center.

Equipment & Technology List

ASUMH will establish a climate where Project Based Learning and teamwork elements are emphasized. The learning environment will emulate the workplace so that students can easily transition from student to employee. Traditional course scheduling and the delivery method of curricula are no longer conducive for today's student. ASUMH has a diverse student body consisting of traditional students, non-traditional students, parents, and heads of households. Students seeking a flexible and creative schedule that fits their needs shall be provided for in this new, modern, educational environment. They are no longer bound to a physical location in order to fulfill their educational goals. To meet this need, ASUMH will employ a flexible delivery system that meets the learning styles of all students. Courses can be scheduled as seated, hybrid, and online depending on the method selected by the student.

In order to accomplish this task, collaboration equipment and software, such as Zoom, provides cloud-based video communications offering both cloud meeting and webinar software, which combines video conferencing, online meetings and mobile collaboration into one platform. Redbooth is an easy-to-use project management software for creating high-performing teams that provides users with time tracking, delegation and due date properties for tasks. Students will have the ability to collaborate regardless of location and schedule. This flexibility makes them a successful and productive student which can easily translate to the workplace.

The laptops, instructor computer, touch screen TVs, printers, and projectors will be used in the classroom for student access and to aid the instruction of the faculty member. The laptops will be housed in a mobile cart for transportability within the classroom and for storage capabilities. The docking stations along with large screen monitors can allow laptop computers to become a substitute for a desktop computer, without sacrificing the mobile computing functionality of the machine. The large screen monitors provide ease of readability of extensive or complex projects. The Mac laptops will provide an additional platform and operating system. Students trained in cross platform technology will add to their marketability and skill set and will ensure students are prepared for the career field.

Lynda.com courses focus on a variety of technological subjects. Courses specific to computer science cover 116 programming languages and 5,347 video tutorials specific to programming. These programming materials will provide additional support for instructors as well as students. Students will have a Lynda.com subscription which provides access to multiple programming languages. This will save on textbook purchases and the course content is always up-to-date. In addition, several programming languages and mobile applications use open source or are free downloads which, in turn, will save the cost of purchasing software.

Casting devices such as Apple TV and Google Chromecast foster group work and collaboration among students that provides simple and intuitive access to a large monitor for sharing.

Apple iOS devices such as Ipad Air 2 and Iphone SE along with Android phones will be used as testing equipment for students writing mobile applications. Testing must be performed on a variety of platforms to ensure interoperability with different devices. Testing will also be performed using free simulation software. However, simulators cannot replace the capabilities of the actual equipment as the simulators are sometimes not accurate.

The purpose of a testing server is to provide students the experience of back end programming skills to create dynamic web pages using PHP and SQL. This will also provide the student the ability to create and manipulate databases. Servers are essential to Web programming and to create storefronts for e-commerce. Students often don't have the financial means to buy server space for each website they are creating. The testing server would also give students the ability to collaborate on multi-page websites as they would in the career field.

The Raspberry Pi allows the student to build and configure a tiny and affordable computer and download/install an operating system. Students can use the Raspberry Pi to learn programming and electronics through fun, practical projects. This provides the student with a hands-on component that solidifies the concepts. This device can be used in other academic degrees and courses such as Mechatronics and Networking.

To accommodate the increase of devices being added to the network, the networking equipment and infrastructure must be updated to provide greater availability, stability, and security.

Location	Description	Quantity
Classrooms	Collaboration equipment software/cameras/microphones	1
	Project management software	1
	Instructor computer (laptop)	1
	Projector	1

	Touch screen TV with speakers	2
	Laser Printers	3
	Mobile Lab-20 Laptops with cart	2
	Laptop Docking Stations	20
	24” Docking Station monitors	20
	Mac laptops	20
	Lynda.com subscription	20
	Casting devices and peripherals	4
	Testing devices for mobile applications	15
	Server (In Room)	1
	Raspberry Pi 3 - 32GB	15
IT Infrastructure	computer/reliable wireless capability	1

Furnishings

ASUMH desires to revitalize the learning environment to allow students collaboration opportunities and working in teams. We want to move away from the old cookie cutter style classroom of desks or tables and chairs only. We want to motivate, stimulate, communicate and encourage creativity while learning. We believe learning in a positive environment will build confidence in our future programmers.

We have chosen to adopt the Bretford.com approach to a learning environment. We need our students to collaborate, work in teams and work with technology. The Bretford’s Educational Spaces are built to enable all of these things. Bretford.com states how they design and build smart furniture that makes room for change, enables technology, and adapts to new modes of connecting. This flexibility enhances the experience of students and teachers alike. It allows them to think out loud.

Performance Assessment

Our goal is to establish a Program of Study in Programming/Mobile Application to meet the

high demand for employees in this field and to create opportunities for our students to step into a high wage position prepared.

O*net Online Job Site reports the average median income for a Computer Programmer is $77,550 annually. This program can educate an individual who has been laid off from a previous job, someone seeking a career change, a high school student exploring careers, as well as, a technology professional who seeks to broaden his/her education, making it possible for residents of the regions to pursue high wage, high skill positions in north central and northwest Arkansas.

Performance assessment will be measured using feedback from local business and industry representatives, retention of our students, and placement upon completion of the certificate of proficiency, technical certificate or associate of applied science.

Summary of assessment measures and expected outcomes:

Assessment Measure	**Expected Outcome**
Enrollment	Initial class enrollment of 12
Certificate of Proficiency Completers	90%
Technical Certificate Completers	80%
Associate of Applied Science Completers	70%
Placement rates	80% placed in programming or a related field within six months of completion
Advisory Council Meetings	Business and industry will continue to suggest improvements for the program, will serve as internship sites and will hire graduates.

In keeping with the primary goal of the WIOA Regional Workforce Grant Program, ASUMH is committed to developing long-term relationships with local industry that will accurately identify and address the skills gaps faced by local job candidates. Additionally, developing a curriculum that provides a guided pathway across educational institutions is essential to the purpose of the program. Allowing the student to begin the program while enrolled in high school and easily transfer into the post-secondary program upon graduation will fast track the student into the workforce. In addition to the programming curriculum, students will engage in soft skills/professional skills training.

SECTION 3 – STRENGTH OF PARTNERSHIP **20 Points**

Proposals are required to address how the program plan incorporates each of the mandatory partners, as identified above, in a meaningful role.

Essential Components:

- Detailed description of role of each partner in implementation of the project- describe how each partner will carry out components of the grant project; provide a description of assigned tasks for each of the mandatory partners; identify specific personnel and the roles they will play throughout the project; describe the integration of each role into the overall project; and describe the process for implementing fully articulated pathways from K-12 through a baccalaureate degree, as appropriate.

- Capabilities of each partner in ensuring project success- discuss the unique strengths of each partner in executing planned proposal; describe how each partner is qualified to participate in the proposed project and how each partner's strengthens the overall partnership.

- Consideration of all potential partners in the region – describe the process for identifying each selected partner, including the consideration of regional community colleges, universities, public schools, education service cooperatives, businesses and industries, career and technical education programs, multi district vocational centers, and private partnerships.

Keep the following rubric in mind when completing this section:

	Exemplary	**Superior**	**Adequate**	**Needs Improvement**
Strength of Partnership (20 Pts)	Plan includes broad representation and each partner has a defined role with identified critical contributions. (18–20 Pts)	Plan includes broad representation but partner roles are not clearly defined. (15–17 Pts)	Plan lacks one or two important partners or not all partners are critical to success of the plan. (11–14 Pts)	Partner participation is too narrow or some partners do not contribute meaningfully. (0–10 Pts)

Please enter your answer in the box provided below. Feel free to include any necessary charts, graphs or tables.

The strength of partnerships is key to providing a guided pathway for the student across the institution.

Local Area High Schools/ASUMH Secondary Center: Through a combination of articulated credit and concurrent credit offered by local area high schools and possibly through the ASUMH Secondary Center, secondary students earn college credit toward a certificate or degree in computer programming.

ASUMH enjoys a strong relationship with high schools in its service area. Articulation agreements are in place with eight area high schools. Each year ASUMH meets with career and technical education instructors to re-evaluate what is accepted through articulated credit. Mountain Home High School is the largest school in the area with more than 750 students. They currently offer the Network Systems Pathway. This partnership will explore the possibility for offering additional pathways through the high school and/or the ASUMH Secondary Center.

Mountain Home Public Schools, Cotter Public Schools, Flippin Public Schools, Salem Public Schools, and Yellville-Summit Public Schools will assist ASUMH in preparing their public school students to work toward a Certificate of Proficiency in Programming/Mobile Applications through ASUMH with three to four courses beginning at the high school junior level with intentions of the courses being completed by high school graduation. This will allow the high school students to earn concurrent/dual credit for high school and college/technical school level credits. The Certificate of Proficiency in Programming/Mobile Applications will also allow a student majoring in another subject to get a Certificate of Proficiency in Programming. High school students who complete the certificate of proficiency and who take advantage of concurrent credit available at their high school, will be able to complete the associate of applied science degree in a maximum of three semesters. Students who choose to take summer classes could complete the AAS within 12 - 15 months of high school graduation.

Business and Industry: ASUMH began discussions last year with its existing advisory councils on the needs associated with programming education. All of the programming needs presented in this proposal are needs that have been identified by local business leaders.

Our business partners, such as Brooks Jeffrey Marketing and VisionAmp Marketing, have identified needs in mobile and Frontend programming. Other partners such as Micro Plastics and Baxter Regional Medical Center have a greater need in Backend programming languages. Although, all employers acknowledged the need for employees trained in the basics of all areas of programming.

Business and industry partners will assist in the development of the program by defining program goals, identifying skills and competencies, providing assistance with program design and delivery, providing work-based training/internship opportunities, and by hiring qualified completers of the program(s).

ASUMH's rich history of strong relationships with area schools and local business and industry made identifying these partners easy. The area high schools involved in the plan include the schools currently sending students to the ASUMH Secondary Center. All eight schools with articulation agreements were invited to multiple planning meetings.

Business and industry partners were selected because of their expressed interested in the creation of a programming degree or because they have had a job opening in programming or a closely related field within the past year.

SECTION 4 – BUDGET PLAN **15 Points**

Proposals will include a detailed financial plan that maximizes efficient use of existing resources and a completed budget template.

Essential Components:

- Clear alignment between funding request and grant activities- detailed discussion of how each component of the grant budget supports the goals and stated outcomes of the program.

- Local match of at least 10% of the total request, with a maximum cap of $50,000- all proposals will include a plan for local funding to match 10% of the total grant proposal. For example, a grant requesting $400,000 in funding would be required to provide $40,000 in matching funds. However, the local match is capped at $50,000, meaning grants in excess of $500,000 will have the same match as a $500,000 project.

Note: With a submitted written commitment and payment guarantee from an industry partner, internship wages paid during the initial twenty-four (24) months of this program may be used to offset the local match amount on a dollar-to-dollar basis. Additionally, wages paid to incumbent workers of the employer while enrolled in academic training may be deducted from the match as well. Any entity wishing to utilize this method of funding the match must include the appropriate documentation with their proposal and, if selected for funding, will be monitored to ensure compliance.

Keep the following rubric in mind when completing this section:

	Exemplary	**Superior**	**Adequate**	**Needs Improvement**
Budget Plan (15 Pts)	Plan identifies efficiencies that take full advantage of existing human and physical resources and all requested resources clearly support the goals of the	Plan includes significant efficiencies from existing resources and all requested resources clearly support the goals of the plan. (10-12 Pts)	Plan includes limited efficiencies from existing resources or includes some questionable resource requests. (7-9 Pts)	Budget includes limited or no existing resources from partners or includes requests deemed unnecessary. (0–6 Pts)

	plan. (13-15 Pts)			

Section 4.1 – Budget Plan Detail

Please provide your detailed financial plan in the box below.

A. PROGRAM LEADERSHIP SUPPORT COSTS

1. **Personnel /Stipend (2 yrs) - $125,000.00**

This amount will cover the instructor salary for two years, and a stipend for the interim project directors for planning/teaching.

2. **Travel - $7,200.00**

This amount will cover travel expenses to the furniture showrooms, conferences, and professional development/training.

B. OTHER DIRECT COSTS

1. **Materials and Supplies - $9,700.00**

Subscriptions/Memberships

Lynda.com courses focus on a variety of technological subjects. Courses specific to computer science cover 116 programming languages and 5,347 video tutorials specific to programming. These programming materials will provide additional support for instructors as well as students. Students will have a Lynda.com subscription which provides access to multiple programming languages. This will save on textbook purchases and the course content is always up-to-date.

Collaboration software, such as Zoom, provides cloud-based video communications offering both cloud meeting and webinar software, which combines video conferencing, online

meetings and mobile collaboration into one platform. Redbooth is an easy-to-use project management software for creating high-performing teams that provides users with time tracking, delegation and due date properties for tasks. Students will have the ability to collaborate regardless of location and schedule. This flexibility makes them a successful and productive student which can easily translate to the workplace.

PhoneGap Build is an important component to the education of the Mobile Programming students. This software reduces Mobile Application development time, speeds up collaboration and cross-platform deployment for Target IOS, Android, and Windows Phone 8.

2. **Publication (Marketing & PR) - local/regional/national - $15,000**
   Costs/Documentation/Dissemination

Below are expenses for online and print promotion of the ASUMH Programming/Mobile Application Development program to advertise to future students and raise awareness within our region. Internet advertising will increase our reach beyond our local area.

Public Relations – Free In-house press releases and other public relations needs.

Brochures
Free design of brochures in-house by ASUMH marketing department. Printing of 1,000 brochures = $500.

Billboards
Free design in-house.
For traditional billboards, rent is about $3,000/year and vinyl wraps run about $750.
The digital board is $325 per side, per month.

Radio ads – Free in-house production of ads. Radio spots run about $29 a combo rate on all 3 of KTLO's stations, 30 second ads. A one week run saturating the market would be about $500, 2 weeks $1,000.

Flyers, print ads & publication costs
Free design of print ads by ASUMH.
Publication costs: $1,000 per full page ad one time in the Baxter Bulletin newspaper.
½ page = $500 and ¼ page is about $250 in color.
There are discounts for each additional run of the same ad.
Flyers are also something we design and print in-house.

Online ads
Free design services in-house.
$2,200 a year for online ad boosts.
Online services from the Baxter Bulletin to saturate the market with pop-up and online ads on websites = $500 a month with a minimum buy of 4 months

Events advertising and giveaways
$800 for promo items and set-up costs such as: backpacks, tshirts, pen/stylus, powerbanks, etc.

MISC advertising items
Degree Advertising Banner $200
Table cloth personalized $500
Pop up stands $200

3. Other

Onsite professional development in Project Based Learning (PBL) - $40,000
Research confirms that PBL is an effective and enjoyable way to learn and develop deeper learning competencies required for success in college, career, and civic life. After completing a project, students understand content more deeply, remember what they learn and retain it longer than is often the case with traditional instruction. Because of this, students who gain content knowledge with PBL are better able to apply what they know and can do to new situations. Projects provide students with empowering opportunities to make a difference, by solving real problems and addressing real issues. Students learn how to interact with organizations and are exposed to workplaces.

This professional development is anchored in two primary forms of support. The PBL 101 Workshop is BIE's foundational three-day (consecutive, 7.0 hours per day, including lunch) onsite workshop. The workshop provides faculty with the skills and knowledge needed to design, assess, and manage a rigorous, relevant, and standards-based project. The workshop models the project process. Participants are actively engaged in project design and generate a project plan that receives formative feedback from both participants and BIE National Faculty. All participants (limited to 35 per workshop) receive a free copy the PBL 101 Workbook.

The Buck Institute for Education (BIE) promotes transformational, ongoing change in teacher practice through Project Based Learning. Therefore, follow-up support to the 101 through Sustained Support Visits is required. These are onsite instructional coaching events for participants who attended the PBL 101 Workshop. The training includes two required onsite visits. Studies have indicated the importance of ongoing support as a feature of successful professional development and transformation in teacher practice. These visits (usually scheduled as single days) are spaced throughout the year following the 101, and are based on school need. BIE conducts a survey of participating teachers and administrators and uses that data to develop a tailored session to support teachers in areas related to project design, assessment, and management.

Architect/Design Services - $10,000
Renovation of instructional space - $250,000
ASUMH has committed approximately 6000 square feet, which make up the entire third floor of Integrity First Hall, to the new computer programming department. Design services and renovation funds will be used to transform what is currently traditional lecture and lab classroom space into an open floor plan featuring bright colors, glass walls and doors, three instructional spaces, and three small collaboration labs for small groups/teams. Existing faculty offices, restrooms and storage space will remain as is and support the newly designed, cutting edge, instructional areas.

Using Planning Grant travel funds, ASUMH faculty visited an innovative school is LaGrange, GA and Metova's new offices in Northwest Arkansas. Those visits confirmed what we see happening, today's technological workplace is moving toward open spaces and working in teams. Research shows that education and learning have moved from the structured, standardized, factory model of the industrial era to the mobile, networked, personal learner focused model of the digital age. Learning spaces need to change to support, enable and enhance the new learning paradigm.

Furnishings - $150,000
We have chosen to adopt the Bretford.com approach to a learning environment. Bretford designs and builds smart furniture that makes room for change, enables technology, and adapts to new modes of connecting. This flexibility enhances the experience of students and teachers alike.

Educational spaces are, more than ever, all about collaboration. They're places to think out loud. And because of the power and reach of mobile devices, students now have more ways to connect to teachers, lessons, each other, and new ways of learning. Education design isn't decoration. It's a critical component of how we communicate and compete. Bretford products help attract and retain top students with technology-friendly places to work, study, and play.

ASUMH will create learning spaces that foster collaboration and working in teams. The classroom design will motivate, stimulate, communicate and encourage creativity while learning. In addition, these spaces will meet the needs of today's student. We believe learning in a positive, innovative, creative environment will build confidence in our future programmers.

Equipment - $165,500.00

ASUMH will establish a climate where Project Based Learning and teamwork elements are emphasized. The learning environment will emulate the workplace so that students can easily transition from student to employee. Traditional course scheduling and the delivery method of curricula are no longer conducive for today's student. ASUMH has a diverse

student body consisting of traditional students, non-traditional students, parents, and heads of households. Students seeking a flexible and creative schedule that fits their needs shall be provided for in this new, modern, educational environment. They are no longer bound to a physical location in order to fulfill their educational goals. To meet this need, ASUMH will employ a flexible delivery system that meets the learning styles of all students. Courses can be scheduled as seated, hybrid, and online depending on the method selected by the student.

The laptops, instructor computer, touch screen TVs, printers, and projectors will be used in the classroom for student access and to aid the instruction of the faculty member. The laptops will be housed in a mobile cart for transportability within the classroom and for storage capabilities. The docking stations along with large screen monitors can allow laptop computers to become a substitute for a desktop computer, without sacrificing the mobile computing functionality of the machine. The large screen monitors provide ease of readability of extensive or complex projects. The Mac laptops will provide an additional platform and operating system. Students trained in cross platform technology will add to their marketability and skill set and will ensure students are prepared for the career field.

Casting devices such as Apple TV and Google Chromecast foster group work and collaboration among students that provides simple and intuitive access to a large monitor for sharing.

Apple iOS devices such as Ipad Air 2 and Iphone SE along with Android phones will be used as testing equipment for students writing mobile applications. Testing must be performed on a variety of platforms to ensure interoperability with different devices. Testing will also be performed using free simulation software. However, simulators cannot replace the capabilities of the actual equipment as the simulators are sometimes not accurate.

The purpose of a testing server is to provide students the experience of back end programming skills to create dynamic web pages using PHP and SQL. This will also provide the student the ability to create and manipulate databases. Servers are essential to Web programming and to create storefronts for e-commerce. Students often don't have the financial means to buy server space for each website they are creating. The testing server would also give students the ability to collaborate on multi-page websites as they would in the career field.

The Raspberry Pi allows the student to build and configure a tiny and affordable computer and download/install an operating system. Students can use the Raspberry Pi to learn programming and electronics through fun, practical projects. This provides the student with a hands-on component that solidifies the concepts. This device can be used in other academic degrees and courses such as Mechatronics and Networking.

To accommodate the increase of devices being added to the network, the networking equipment and infrastructure must be updated to provide greater availability, stability, and security.

D. COST SHARING - $50,000
ASUMH will provide the following match:
Equipment - $25,000
ASUMH will provide the following equipment for the classrooms: two instructor computers, one smart board, one projector, 20 desktop PCs, and four iMac desktop computers.

Furnishings - $2,500
ASUMH will provide and furnish office space for the new computer programming instructor. This will include a desk and desk chair, computer table, two side chairs, file cabinet, bookshelf, dry erase board, instructor computer.

Marketing and In-House Design services - $5,000
ASUMH's marketing department will provide public relations and design services.

Renovations - $17,5000
ASUMH will provide labor and supplies required for demolition of the existing space, some electrical installation and re-work, installation of doors, and project oversight. In addition, ASUMH will provide labor and supplies required for installation of new equipment and added IT infrastructure.

Section 4.2 – Budget Plan Template

Please complete the budget template below. Totals will calculate automatically based on your input.

Requesting Institution:	Arkansas State University Mountain Home
Title of Project:	Programming/Mobile Application Development

A. PROGRAM LEADERSHIP SUPPORT COSTS	
1. Personnel/Stipend (2 yrs)	$125,000
2. Travel	$7,200.00
3. Other (Explain Below)	$0.00
Briefly Explain Other Costs	
TOTAL PARTNER PARTICIPANT COSTS	$132,200.00
B. OTHER DIRECT COSTS	
1. Materials and Supplies subscriptions/memberships	$9,700.00
2. Publication(Marketing & PR) Costs/Documentation/Dissemination	$15,000.00
3. Other (Explain Below)	$615,500.00
Briefly Explain Other Costs: Onsite professional development in Project Based Learning ($40,000) Architect/Design services ($10,000) Renovation of instructional space ($250,000) Furnishings ($150,000) Equipment ($165,500)	
TOTAL OTHER DIRECT COSTS	$640,200.00
C. TOTAL DIRECT COSTS (A & B)	$772,400.00
D. COST SHARING (Minimum 10% of C; up to $50,000)	$50,000
Total Requested Implementation Grant Budget	$772,400.00

Other Notes

SECTION 5 - SUSTAINABILITY **20 Points**

Proposals will include a commitment and detailed plan for sustaining grant activities beyond the twenty-four (24) month implementation period. Equipment requests will clearly specify how purchased equipment will continue to be linked to addressing labor and workforce needs beyond the grant period.

Essential Components:

- Detailed plan for sustaining the program beyond the twenty-four (24) month implementation grant funding period- describe how the work supported by this grant will continue beyond the grant period; outline the roles and funding sources of each partner after the grant period.

- Detailed plan for maintaining communication and sharing resources among all the program partners beyond the twenty-four (24) month funding period;

- Identify availability of long-term resources to maintain and/or repair any equipment requested.

- Describe plan for redistribution of equipment to meet additional workforce needs once the employer needs addressed by the proposal have been satisfied.

	Exemplary	**Superior**	**Adequate**	**Needs Improvement**
Sustainability (20 Pts)	Identifies existing resources to continue the program with no reduction in services at the end of grant funding period. (18–20 Pts)	Identifies significant resources to continue the program with limited reduction in services at the end of grant funding period. (15-17 Pts)	Identifies limited resources to continue the program or proposes significant reduction in services at the end of grant funding period. (11-14 Pts)	New funding sources must be identified for continuation of program at the end of grant funding. (0-10 Pts)

Please enter your answer in the box provided below. Feel free to include any necessary charts, graphs or tables.

Funding
Funding beyond the first 24 months will be needed to maintain the full-time faculty position and to maintain equipment.

ASUMH is committed to funding the faculty position after the twenty-four month grant period. The work supported by the grant will assist in establishing enrollment during the first twenty-four month period. The opportunity to build enrollment prior to incorporating a full-time salary into the budget is unique and eases the demand on the operating budget. Proceeds from secondary center enrollment will be used to maintain classroom equipment.

ASUMH is investigating a laptop rental program that will make computers available to all students in the labs while keeping them up-to-date. Each student in the program would be issued a laptop and charged a rental fee. The generation of the rental fee will create funding for technology updates. Students will not be required to purchase textbooks. Since this fee will be less than the cost of most college textbooks, the fee will not put an undue hardship on the student.

We plan to apply for the Continuation Grant to aid in the process of upholding and maintaining the long-term vision ASUMH has for the program of study in programming to assist the students to step into a high paying position and help with the high need in the job market.

Communication
Continuing communication to meet the needs of the programming firms will be exercised during bi-annual Advisory Council meetings and visits. We will sustain the program with communication with universities to assist the students into a four year program. In addition, we host an annual articulation meeting with all area high schools to review courses and updated articulated agreements.

We will use our marketing plan which includes promoting the Programming/Mobile Application Development degree with our website, brochures, billboards, public relations flyers, and a customized letter mailed to potential students. We will visit with high schools counselors and career coaches to continue developing a cohort. Involvement in campus, community and regional events will continue to create awareness of our program. These events include partnering with the Donald W. Reynolds Library to offer workshops, Computer Science Week/Boot Camp, Hour of Code, Teen Girls Go To College program, Girls Who Code, along with the Kids College Summer Program. Scholarships are available to encourage students to apply for the programming program. We will maintain communication and sharing resources by encouraging feedback from our Career Placement Office, from interns and the employers, alumni surveys and follow-up surveys with employers hiring our graduates.

Maintenance/Redistribution

ASUMH is fortunate to have a skilled and dedicated in-house IT staff. This department will assist in maintaining and repairing equipment as needed.

We have a process in place in which departments can communicate during budget meetings to present needs and find resources available. The computer department reallocates older technologies and equipment to other departments on our campus as needed. In the past, this has been a successful process and mutually beneficial to our various institutional departments. As equipment is replaced or reaches end of life, those devices can be deployed to other academic programs as well, such as the A+ Computer Technician program where students repair/replace components or can be used for demonstration purposes.

SUBMIT BY JUNE 1, 2016

Email to ADHE.Workforce.Grant@adhe.edu

Applications will only be accepted for projects that were awarded a planning grant.

IMPLEMENTATION GRANT SCORING RUBRIC

Critical Elements	Exemplary	Superior	Adequate	Needs Improvement	Value
Program Need	Significantly addresses a top 3 workforce need in the region. (18–20 Pts)	Addresses in a more limited way a top 3 workforce need in the region. (15–17 Pts)	Addresses in a limited way a less critical workforce need in the region. (11-14 Pts)	Identified labor need is too narrow or not in a critical area. (0–10 Pts)	20 Pts
Program Plan	Plan identifies efficiencies that take full advantage of existing human and physical resources and all requested resources clearly support the goals of the plan. (13-15 Pts)	Plan includes significant efficiencies from existing resources and all requested resources clearly support the goals of the plan. (10-12 Pts)	Plan includes limited efficiencies from existing resources or includes some questionable resource requests. (7-9 Pts)	Budget includes limited or no existing resources from partners or includes requests deemed unnecessary. (0–6 Pts)	25 Pts
Strength of Partnership	Plan includes broad representation and each partner has a defined role with identified critical contributions. (18–20 Pts)	Plan includes broad representation but partner roles are not clearly defined. (15–17 Pts)	Plan lacks one or two important partners or not all partners are critical to success of the plan. (11–14 Pts)	Partner participation is too narrow or some partners do not contribute meaningfully. (0–10 Pts)	20 Pts
Budget Plan	Plan identifies efficiencies that take full advantage of existing human and physical	Plan includes significant efficiencies from existing resources and all requested	Plan includes limited efficiencies from existing resources or includes some questionable	Budget includes limited or no existing resources from partners or includes requests deemed	15 Pts

	resources and all requested resources clearly support the goals of the plan. (13-15 Pts)	resources clearly support the goals of the plan. (10-12 Pts)	resource requests. (7-9 Pts)	unnecessary. (0–6 Pts)	
Sustainability	Identifies existing resources to continue the program with no reduction in services at the end of grant funding. period (18–20 Pts)	Identifies significant resources to continue the program with limited reduction in services at the end of grant funding. period (15-17 Pts)	Identifies limited resources to continue the program or proposes significant reduction in services at the end of grant. funding period (11-14 Pts)	New funding sources must be identified for continuation of program at the end of grant funding. (0-10 Pts)	20 Pts
				Total Points Possible	**100 Pts**

APPENDIX A - SAMPLE SOFT SKILLS RUBRIC

			1	2	3	4	5
	Element/Soft Skill	**Behavior**	**Description of unacceptable performance (Seldom)**	**Description of mediocre performance (Sometimes)**	**Description of acceptable performance (Frequently)**	**Description of successful performance (Consistently)**	**Description of distinguished performance (Always)**
T	**Sense of Urgency Adaptability**	Demonstrates a sense of urgency in all tasks; adapts easily to changes in task and environment	Not working, has not begun task on time, does not make transitions	Slow to begin, off task, slow to make transitions	On task, prepared with materials ready, on time	Ahead of schedule on assignments and tasks	Begin tasks immediately, when task is completed tries to improve for next time or improve own submission
	Attitude	Demonstrates appropriate tone and demeanor in all settings	Fights and/or verbally assaults others, self-centered	Some cooperation evident	Works through situations when conflicts occur	Talks calmly and rationally to compromise	Empathy, mediation, comes to solution
	Problem Solving	Perseveres when seeking innovative solutions to problems	Plays it safe all the time, no innovation	Occasionally innovatiive, but on the safe side	Thinks differently and is innovative, uses all available resources	Displays innovation and contributes to others' new ideas	Helps figure out new outlook, if wrong answer, looks for other applicable areas for the solution, comes up with new working solution
H	**Communication**	Communicates appropriately (verbal and nonverbal) in each setting and situation	Slouching or angry posture, argumentative, negative comments, whining	Negative self talk, negative peer communication, use of profanity	Pleasant and positive communication with others	Positive communication, accepts consequences and/or constructive criticism with grace	Helps others who are struggling with own attitude, stance, gestures, and is self-aware
	Respect	Demonstrates respect for self, others, and resources	Uses generally disrespectfuul language, refusal to allow others to speak	Occasionally disrespectful to others; only allows others to speak occasionally	Appropriate communication between peers and adults, allows open and fair discussion of topics	Appropriate communication between peers and adults, recognizes the importance of other people's views	Displays professional commuunication at all times with respect to all
I	**Attendance**	Present and on time to classes and extracurricular activities	Does not show, unreliable attendance	Often tardy and unprepared	Prepared and on time	Be present with mind and body, carefully considers absences, takes pride in attendance	Early for class and assignments, perfect attendance, always prepared
	Initiative Cooperation Teamwork	Self-motivated to ensure own success; participates in class activities and discussions; shows initiative and develops win-win solutions; demonstrates the ability to work well in a team environment	Refuses to communicate with others, does not give credit where credit is due, does not contribute to the group, uncooperative, never participates or contributes	Seldom participates and/or contributes, requires motivation to cooperate	Plays the expected role, only works with friends, sometimes participates and/or contributes	Works well with others, frequently participates and contributes while encouraging and validating classmates	Willing to be a leader, recognizes efforts of others above and beyond helping others, works with everyone, shows initiative in cooperative behavior
	Productivity	Demonstrates the ability to follow instructions and critically evaluate own work	No effort, submitted work has obvious errors, made no effort to follow instructions	Minor errors in work, makes minimal effort to follow instructions	Follows instructions, no errors in work	Follows instructions, no errors in work, clarifies instructions and details for classmates	Exceeds expectations of assignments, with no errors, anticipates and/or clarifies instructions for others
N	**Appearance**	Dresses appropriately for the environment	Obviously out of dress code, visual top or bottom cleavage, sagging pants, presents safety hazard	Minor dress code infractions, minor safety concerns	Meets dress code, meets professional standard for safety	Meets dress code, meets safety standards, encourages others to do so	Regularly exceeds dress code requirements, superior requirements of dress for success and safety, encourages others to do so
C	**Attention to Details**	Demonstrates care of THINC property and resources	Consistently fails to straighten up area, is destructive of property	Occasionally fails to clean up area	Cleans up individual messes	Cleans individual area and assists others with clean up	Cleans own area and assists others with clean up, improves facilities and property without being prompted
	TOTAL						

TOTAL SCORE_____

Modifi

APPENDIX B – Letters of Support

BrooksJeffrey
MARKETING, INC.

19 Medical Plaza, Mountain Home, AR 72653
800.506.8064 | FAX 870.424.4996 | 870.425.8064
BrooksJeffrey.com

April 27, 2016

Dr. Robin Myers
Arkansas State University-Mountain Home
1600 S. College
Mountain Home, AR 72653

RE: Letter of commitment for the Regional Workforce Implementation Grant
ASUMH – Computer Programming/Mobile Development

Dr. Myers:

Brooks Jeffrey Marketing, Inc. would like to extend our earnest support for Arkansas State University-Mountain Home's plan to create and offer a program of study in Computer Programming/Mobile Development.

Brooks Jeffrey welcomes ASUMH's implementation of this high-demand program of study. We appreciate and applaud your efforts to train the workforce in specific skills needed by businesses and industries within our region.

As a multifaceted organization, Brooks Jeffrey is constantly evolving to meet the rapidly changing, consumer-driven technological demands of digital media. A qualified workforce trained in computer programming and mobile web-based technologies is integral to the success of Brooks Jeffrey's business interests:

- **Brooks Jeffrey Marketing, Inc.,** an award-winning, integrated marketing firm specializing in mobile-friendly websites, apps and digital design;
- **Brooks Jeffrey Computer Store,** a computer services company employing a team of certified computer technicians who build and maintain large commercial networks as well as residential systems in northern Arkansas and southern Missouri;
- **Jclare Photography Studios,** a professional photography and videography studio specializing in digital media and utilizing 4K technology;
- **MostWantedGovernmentWebsites.com**, providing digital web-based solutions for government, law enforcement, associations and educational institutions throughout the United States.

ASUMH's implementation of this program of study will help ensure the availability of qualified, knowledgeable applicants, as the scope of digital services offered by our local business interests expand.

As active supporters of ASUMH and as an employer of many ASUMH graduates, Brooks Jeffrey will utilize our business resources to promote and support this new program. Working with ASUMH to facilitate continuous program improvements, our team will provide frequent evaluation and feedback to help ensure the program's success.

We look forward to continuing our work with and support of Arkansas State University-Mountain Home in the development of the Computer Programming/Mobile Development program.

Sincerely,

Shannon Brooks, President

3301 Aspen Grove Drive
Suite 301
Franklin, Tennessee 37067

T +1.615.771.0975
F +1.866.397.6303

www.metova.com

May 23, 2016

Dr. Robin Myers
Arkansas State University Mountain Home
1600 S. College
Mountain Home, AR 72653

RE: Letter of commitment for the Regional Workforce Implementation Grant
ASUMH – Computer Programming/Mobile Development

Dr. Myers:

I am writing in support of ASU Mountain Home's intent to create and offer a program of study in computer programming/mobile development. We are interested in working in partnership with ASU to help define relevant curriculum in programming and mobile software development, and consider employment for students who meet our technical standards. We believe that programs such as this are critical to prepare students with skills necessary to gain meaningful employment in the technology workforce in Arkansas, and to help meet the demand for high tech talent in the state.

Founded in 2006, Metova set out to build beautiful mobile applications while creating a great place for people to work. Today, Metova focuses on creating mobile, web and cybersecurity solutions for Government and Commercial markets. Metova's work environment promotes a unique culture of teamwork, creativity and personal development that has attracted leading engineering, strategy and design talent.

Metova opened offices in Fayetteville, Arkansas, in February 2016 initially planning to create more than 60 new jobs. In 2015 Metova expanded from its main office in Nashville, Tennessee to open an office in Conway, Arkansas with 160 new jobs. Metova continues to experience rapid growth and is expecting the state's workforce skillset to keep up with the continued demands Metova and similar technology businesses need to succeed.

Metova's processes and culture allow it to easily adapt to the ever-changing mobile environment and adoption of new technologies, putting further emphasis on the state's workforce training initiatives. Having worked on the BlackBerry, Android, and iOS platforms since their release, Metova is considered a veteran in the mobile world. When web applications and cybersecurity became a necessity, Metova expanded their capabilities to include Apache Cordova, AngularJS, Ruby on Rails and cybersecurity solutions such as Cyber Health Assessments.

Sincerely,

Kent Watson
Vice President of Technology

4/25/16

Dr. Robin Myers
Arkansas State University Mountain Home
1600 S College St.
Mountain Home, AR 72653

Dr. Myers:

I am writing in support of ASU Mountain Home's intent to create and offer a program of study in computer programming/mobile development.

As a representative of the secondary partnership, our school will assist in this effort by providing assistance with development of curriculum alignment for articulated in concurrent credit. We will be involved in program evaluation and feedback that provides information for continuous program involvement for this project.

We appreciate efforts being made to train the workforce in specific skills needed in this region. We applaud efforts being made to create programs which will flow seamlessly from the secondary schools into post-secondary, speeding the time it takes for a student to graduate and enter the workforce.

We look forward to working with ASU Mountain Home in the development and continuous improvement of high demand programs of study such as the programming/mobile development project.

Sincerely,

Tom Hill

Tom Hill
President
Micro Plastics, Inc.

PO Box 149
111 Industry LN
Flippin, Arkansas 72634
Phone: 870.453.2261
Toll Free: 800.466.1467

VISIONAMP marketing inc

April 18, 2016

Dr. Robin Myers
Arkansas State University Mountain Home
1600 S. College
Mountain Home, AR 72653

RE: Letter of commitment for the Regional Workforce Implementation Grant
ASUMH – Computer Programming/Mobile Development

Dr. Myers:

I am writing in support of ASU Mountain Home's intent to create and offer a program of study in computer programming/mobile development.

As a representative of the secondary partnership, our school will assist in this effort by providing assistance with development of curriculum alignment for articulated and concurrent credit. We will be involved in program evaluation and feedback that provides information for continuous program improvement for this project.

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We look forward to working with ASU Mountain Home in the development and continuous improvement of high demand programs of study such as the programming/mobile development project.

Sincerely,

James Moore

May 19, 2016

Dr. Robin Myers
Arkansas State University Mountain Home
1600 S. College
Mountain Home, AR 72653

RE: Letter of commitment for the Regional Workforce Implementation Grant
ASUMH – Computer Programming/Mobile Development

Dr. Myers:

I am writing in support of ASU Mountain Home's intent to create and offer a program of study in computer programming/mobile development.

As a representative of the secondary partnership, our business will assist in this effort by providing assistance with development of curriculum alignment for articulated and concurrent credit. We will be involved in program evaluation and feedback that provides information for continuous program improvement for this project.

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We look forward to working with ASU Mountain Home in the development and continuous improvement of high demand programs of study such as the programming/mobile development project.

Sincerely,

Steve Thornton
Baxter Regional Medical Center
Systems Manager

March 3, 2016

Dr. Robin Myers
Arkansas State University Mountain Home
1600 S. College
Mountain Home, AR 72653

RE: Letter of commitment for the Regional Workforce Implementation Grant
ASUMH – Computer Programming/Mobile Development

Dr. Myers:

I am writing in support of ASU Mountain Home's intent to create and offer a program of study in computer programming/mobile development.

As a representative of the secondary partnership, our school will assist in this effort by providing assistance with development of curriculum alignment for articulated and concurrent credit. We will be involved in program evaluation and feedback that provides information for continuous program improvement for this project.

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We look forward to working with ASU Mountain Home in the development and continuous improvement of high demand programs of study such as the programming/mobile development project.

Sincerely,

Jake Long

MHHS Superintendent

Salem Public Schools

BOARD OF EDUCATION
DR. GUY SMITH, PRESIDENT
BURTON YARNELL, VICE PRESIDENT
WANDA KOELLING, SECRETARY
KAREN COFFMAN
BARRY ABNEY

KEN RICH, SUPERINTENDENT
313 HWY 62 E – SUITE 1
SALEM, ARKANSAS 72576
OFFICE: (870) 895-2516
FAX: (870) 895-4062
www.salemschools.net
NORTH CENTRAL ACCREDITED

HIGH SCHOOL PRINCIPAL
WAYNE GUILTNER
ELEMENTARY PRINCIPAL
COREY JOHNSON

April 18, 2016

Dr. Robin Myers
Arkansas State University Mountain Home
1600 S. College
Mountain Home, AR 72653

RE: Letter of commitment for the Regional Workforce Implementation Grant

ASUMH – Computer Programming/Mobile Development

Dr. Myers:

I am writing in support of ASU Mountain Home's intent to create and offer a program of study in computer programming/mobile development.

As a representative of the secondary partnership, our school will assist in this effort by providing assistance with development of curriculum alignment for articulated and concurrent credit. We will be involved in program evaluation and feedback that provides information for continuous program improvement for this project.

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We look forward to working with ASU Mountain Home in the development and continuous improvement of high demand programs of study such as the programming/mobile development project.

Sincerely,

Wayne Guiltner
Salem High School Principal
870-895-3293
wayne.guiltner@salemschools.net

Salem Public Schools

BOARD OF EDUCATION
DR. GUY SMITH, PRESIDENT
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KAREN COFFMAN
BARRY ABNEY

KEN RICH, SUPERINTENDENT
313 HWY 62 E – SUITE 1
SALEM, ARKANSAS 72576
OFFICE: (870) 895-2516
FAX: (870) 895-4062
www.salemschools.net
NORTH CENTRAL ACCREDITED

HIGH SCHOOL PRINCIPAL
WAYNE GUILTNER
ELEMENTARY PRINCIPAL
COREY JOHNSON

March 15, 2016

Dr. Robin Meyers
Arkansas State University Mountain Home
1600 S. College
Mountain Home, AR 72653

RE: Letter of commitment for Regional Workforce Implementation Grant
ASUMH – Computer Programming/Mobile Development

Dr. Myers,

The Salem School District supports your effort to create and offer a program of study in computer programming/mobile development.

As a partner in the secondary center, we will assist your effort in any way that we can. We feel that this program of study will be a viable option for our students that wish to enter this field of work. We will work with ASU-MH by providing assistance in curriculum alignment and concurrent credit.

We appreciate your efforts to provide vocational programs for our area students that will ready our workforce for jobs that are needed and available in our local area. We will continue to support your efforts during the development and implementation of programs of study that are currently in place and new ones such as the computer programming/mobile development project.

Sincerely,

Ken Rich
Superintendent
Salem School District

March 3, 2016

Dr. Robin Myers
Arkansas State University Mountain Home
1600 S. College
Mountain Home, AR 72653

RE: Letter of commitment for the Regional Workforce Implementation Grant
ASUMH – Computer Programming/Mobile Development

Dr. Myers:

I am writing in support of ASU Mountain Home's intent to create and offer a program of study in computer programming/mobile development.

As a representative of the secondary partnership, our school will assist in this effort by providing assistance with development of curriculum alignment for articulated and concurrent credit. We will be involved in program evaluation and feedback that provides information for continuous program improvement for this project.

We appreciate efforts begin made to train the workforce in specific skills needed in the region. We applaud efforts being made to create programs which will flow seamlessly from the secondary schools into post-secondary, speeding the time it takes for a student to graduate and enter the workforce.

We look forward to working with ASU Mountain Home in the development and continuous improvement of high demand programs of study such as the programming/mobile development project.

Sincerely,

Shelena Smith

Flippin HS Counselor

Yellville-Summit Public Schools

1124 North Panther Avenue
Yellville, Arkansas 72687-9318

CALVIN MALLETT
Principal - Elementary School
(870) 449-4244
Fax (870) 449-2214

WES HENDERSON
Superintendent of Schools
(870) 449-4061
Fax (870) 449-5003

DAVID WYATT
Principal - High School
(870) 449-4066
Fax (870) 449-4773

March 3, 2016

Dr. Robin Myers
Arkansas State University Mountain Home
1600 S. College
Mountain Home, AR 72653

RE: Letter of commitment for the Regional Workforce Implementation Grant
ASUMH – Computer Programming/Mobile Development

Dr. Myers:

I am writing in support of ASU Mountain Home's intent to create and offer a program of study in computer programming/mobile development.

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We look forward to working with ASU Mountain Home in the development and continuous improvement of high demand programs of study such as the programming/mobile development project.

Sincerely,

Wes Henderson

An Accreditation Division of AdvancED
NCA
Accredited

COTTER PUBLIC SCHOOLS

P.O. BOX 70 · COTTER, ARKANSAS 72626

AIRL CHEEK
Elementary Principal
(870) 435-6655

DON SHARP
Superintendent
(870) 435-6171
Fax (870) 435-1300

AMANDA BRITT
High School Principal
(870) 435-6323

May 23, 2016

Dr. Robin Myers
Arkansas State University Mountain Home
1600 S. College
Mountain Home, AR 72653

RE: Letter of commitment for the Regional Workforce Implementation Grant ASUMH-Computer Programming/Mobile Development

Dr. Myers,

I am writing in support of ASUMH's intent to create and offer a program of study in computer programming/mobile development.

As a representative of the secondary partnership, our school will assist in this effort by providing assistance with development of curriculum alignment for articulated and concurrent credit. We will be involved in program evaluation and feedback that provides information for continuous program improvement for this project.

We appreciate efforts being made tot rain the workforce in specific skills needed in the region. We applaud efforts being made to create programs which will flow seamlessly from the secondary schools into post-secondary, speeding the time it takes for a student to graduate and enter the workforce.

We look forward to working with ASU Mountain Home in the development and continuous improvement of high demand programs of study such as the programming/mobile app development project.

Should you have any questions or need further clarification, please do not hesitate to contact me at 870-435-6323.

Sincerely,

Amanda Britt

Amanda Britt, Principal

APPENDIX C – Tentative Degree Plan

ARKANSAS STATE UNIVERSITY MOUNTAIN HOME

2017-2018

ADVISING DOCUMENT

FOR

ASSOCIATE OF APPLIED SCIENCE

Programming & Mobile Application Development

NOTE: While this advising copy is intended to be accurate, official requirements for degree are verified through the Office of the Registrar.

Name: _____ Date: _____

Advisor: _____

COURSE CODE		COURSE NAME	CREDIT HOURS	HOURS COMPLETED
General Education Requirements (18 credit hours)				
MATH	XXX	Applied Math	3	_____
CIS	2503	Microcomputer Business Applications	3	_____
ENG	1003	Composition I	3	_____
ENG	1013	Composition II	3	_____
BUS	2563	Business Communications or Oral Communication (SPCH 1203)	3	_____
		Social Science Elective (Choose from any three credit hour course from GEOG, HIST, POSC, PSY or SOC)	3	_____
Computer and Business Core (18 credit hours)				
XXX	XXX	Business or Design Elective	3	_____
CIS	XXX	Programming Fundamentals & Logic	3	_____
CIS	XXX	A+ Computer Technician I	3	_____
CIS	1503	Introduction to Operating Systems	3	_____
CIS	XXX	Mobile Application Development	3	_____
CIS	2673	Computer Security	3	_____
Programming (24 credit hours)				
CIS	XXX	Internet Programming	3	_____
CIS	XXX	Back End Programming	3	_____
CIS	XXX	Programming Languages and APIs	3	_____
CIS	XXX	GUI	3	_____
CIS	XXX	Database Creation/Interaction (SQL)	3	_____
CIS	XXX	Mobile Application Deployment	3	_____
CIS	XXX	Front End Programming	3	_____
CIS	XXX	Programming Internship	3	_____

Program Total 60 Hours

Delivery: Course will be delivered using a flexible course delivery to reach many different students with varying schedules and logistics:
Seated, Online or a combination of both (hybrid)

5/26/16

The certificate of proficiency and the technical certificate programs give the student the opportunity to earn certificates while completing steps toward an Associate of Applied Science degree.

ARKANSAS STATE UNIVERSITY MOUNTAIN HOME

ADVISING DOCUMENT

2017-2018

REQUIREMENTS FOR

CERTIFICATE OF PROFICIENCY IN PROGRAMMING & MOBILE APPLICATION DEVELOPMENT

NOTE: While this advising copy is intended to be accurate, official requirements for degree are verified through the Office of the Registrar.

Name: _____ Date: _____

Advisor: _____

COURSE CODE		COURSE NAME	CREDIT HOURS	HOURS COMPLETED
CIS	XXX	Programming Fundamentals & Logic	3	_____
CIS	XXX	Internet Programming	3	_____
CIS	XXX	Programming Languages and APIs	3	_____
CIS	XXX	Mobile Application Development	3	_____

Program Total 12 Hours

ARKANSAS STATE UNIVERSITY MOUNTAIN HOME

2017-2018

ADVISING DOCUMENT

REQUIREMENTS FOR

TECHNICAL CERTIFICATE IN PROGRAMMING & MOBILE APPLICATION DEVELOPMENT

NOTE: While this advising copy is intended to be accurate, official requirements for degree are verified through the Office of the Registrar.

Name: _____ Date: _____

Advisor: _____

COURSE CODE		COURSE NAME	CREDIT HOURS	HOURS COMPLETED
XXX	XXX	Business or Design Elective	3	_____
CIS	XXX	Programming Fundamentals & Logic	3	_____
CIS	1113	A+ Computer Technician I	3	_____
CIS	2503	Microcomputer Business Applications	3	_____
CIS	1503	Introduction to Operating Systems	3	_____
CIS	XXX	Database Creation/Interaction (SQL)	3	_____
CIS	2673	Computer Security	3	_____
		CIS Programming Elective	3	_____
		CIS Programming Elective	3	_____
		CIS Programming Elective	3	_____

Program Total 30 Hours