



ARKANSAS DEPARTMENT OF EDUCATION

CONTRACT/GRANT AWARD ROUTING FORM

Use this routing form for obtaining approvals (in the order listed below) for every Professional or Technical Services Contract, MOU, Grant Award or other agreement exceeding \$10,000. When the form is complete, the contract must be returned to the Finance Office. The Finance Office will forward those exceeding \$50,000 to DFA for additional approvals.

Contract with: U of A

Approved: [Signature] Date: 03/26/16
Unit Leader

Approved: _____ Date: _____
Assistant Commissioner

Approved: [Signature] Date: 4/7/16
Finance Office

Approved: [Signature] Date: 4/15/16
Legal Office

Approved: [Signature] Date: 4/20/16
Commissioner/Deputy Commissioner

Comments _____



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Comments _____



2016 Computer Science Professional Development Program Grant Memorandum of Understanding

This memorandum of understanding (MOU) is being entered into between the Arkansas Department of Education (ADE) and the Arkansas STEM Center, Arkansas Educational Service Cooperative, Arkansas public university, Arkansas public community college, or other public institution listed in Section I, hereinafter "INSTITUTION".

Section I – INSTITUTION Information

Name: **Board of Trustees, University of Arkansas**
Address: **210 Administration Building; 1 University of Arkansas
Fayetteville, AR 72701-1201**
Contact Name: **Betsy Orr**
Contact Email: **borr@uark.edu**

Section II – Funding Information

Grant funding is subject to the availability of funds appropriated by legislative act for the purpose stated in the grant award. ADE reserves the right to reduce or void the grant award upon appropriated funds becoming reduced or unavailable. In addition, a grant agreement may be terminated by ADE at any time for any reason upon notice to the grant recipient.

ADE reserves the right to reduce funding if the initial funding projections are determined not to have been realistic based upon the number of actual applicants or other factors. Should additional funds become available for distribution, ADE will determine how these funds will be distributed.

Program funds shall not be obligated for expenditure before the beginning date of the grant or after the ending date of the grant. Funds may be requested only for those items that are reasonable and necessary for accomplishing the objectives of the program as defined in the application notice and for implementing activities as described.

Costs not included in the approved grant budget, including approved budget revisions, will not be reimbursed by ADE. Any costs that are incurred either before the start of the grant award or after the expiration of the grant award performance period are not allowable.

INSTITUTION must receive the benefit and liquidate all obligations incurred under the grant award no later than June 30, 2017.

For costs to be allowable to be charged to a grant, costs must generally meet the following criteria:

- Be necessary and reasonable for the performance of the grant and be allocable under the applicable cost principles



- Conform to limitations or exclusions set forth in the grant agreement as to types or amount of costs
- Be consistent with policies and procedures that apply uniformly to federally or state-funded activities and activities funded from other sources
- Be determined in accordance with generally accepted accounting principles (GAAP)
- Be adequately documented.

ADE will provide INSTITUTION up to **\$34,604.00** in grant funding for the ADE approved 2016 Computer Science Professional Development Program. Forward funding, not to exceed 50% of total program funding, in the amount of **\$17,302.00** will be made available to INSTITUTION on or before **April 29, 2016**. The remaining funding amount will be made available to INSTITUTION as reimbursements per the following schedule, subject to ADE receipt of invoices and attestations of meeting program requirements and MOU assurances.

The grant period for this funding is April 1, 2016 – June 30, 2017; INSTITUTION will return all funds not liquidated before June 30, 2017 to ADE by July 31, 2017.

FY2016 – Q4 Reimbursement

- Expenses, beyond already transferred amount, through June 20, 2016
- Invoice and attestation due to ADE on or before June 22, 2016
- Made available on or before July 29, 2016

FY2017 – Q1 Reimbursement

- Expenses, beyond already transferred amounts, through September 30, 2016
- Invoice and attestation due to ADE on or before October 4, 2016
- Made available on or before November 11, 2016

FY2017 – Q2 Reimbursement

- Expenses, beyond already transferred amounts, through December 31, 2016
- Invoice and attestation due to ADE on or before January 13, 2017
- Made available on or before February 24, 2017

FY2017 – Q3 Reimbursement

- Expenses, beyond already transferred amounts, through March 31, 2017
- Invoice and attestation due to ADE on or before April 5, 2017
- Made available on or before May 5, 2017

FY2017 – Q4 Reimbursement

- Expenses, beyond already transferred amounts, through June 20, 2017
- Invoice and attestation due to ADE on or before June 26, 2017



- Made available on or before July 29, 2017

FY2017 – Final Reimbursement

- Expenses, beyond already transferred amounts, through June 30, 2017
- Invoice and attestation due to ADE on or before July 10, 2017
- Made available on or before August 4, 2017

Section III – Program Delivery

INSTITUTION will provide professional development in the content area of computer science in accordance with the attached Computer Science Professional Development Program Grant Application 2016 submitted to ADE by INSTITUTION. Any provisions within the attached Computer Science Professional Development Program Grant Application 2016 that are in conflict with any provision within this MOU are declared invalid, and INSTITUTION must adhere to all provisions within this MOU.

INSTITUTION must commence and perform project activities according to established timelines. Failure to do so may result in reduction and reallocation of funds.

Section IV - Funding Use

INSTITUTION will utilize all funding awarded under this grant for activities to provide professional development to Arkansas educators in the content area of computer science, at no charge to said educators or their employing institutions.

INSTITUTION will use Fiscal control and accounting procedures that permit the tracing of funds to a level of expenditure adequate to establish that funds have been used in accordance with grant award. The INSTITUTION must maintain effective control over and accountability for all funds, property, and other assets. The INSTITUTION'S financial management system must provide for the following:

- Identification, in its accounts, of grant awards received and expended for the program under which they were received.
- Accurate, current, and complete disclosure of the financial results of each grant award or program
- Records that identify adequately the source and application of grant funds
- Effective control over, and accountability for, all funds, property and other assets

INSTITUTION acknowledges that funding awarded under this grant is subject to all applicable federal and state laws and regulations in addition to the provisions herein Section II – Funding Information.

INSTITUTION acknowledges that it has reported planned uses for the funding and will not substantially deviate from the program approved and as indicated within the attached Computer



Science Professional Development Program Grant Application 2016 submitted to ADE by
INSTITUTION

INSTITUTION will not use any grant award funds to either forward fund or reimburse program participants for any PRAXIS fees; INSTITUTION will direct participants that are seeking licensure endorsement to use the ADE CS PRAXIS Reimbursement Form found at <http://goo.gl/yHWjFF>.

INSTITUTION will insure, prior to any participant receiving a stipend as allowed under this MOU, that participant must satisfy one of the following requirements on or before June 1, 2017:

- for classroom educators completing a K-8 focus program must take part in follow-up opportunities for one school year through which they demonstrate proper CS embedding within their classes and support of other educators within their school and/or district. (maximum stipend amount of \$1,250.00)
- for district or school level educators completing a K-8 focus program must take part in follow-up opportunities for one school year through which they demonstrate how they are supporting broad classroom integration of the CS embedded standards through ongoing and meaningful professional development. (maximum stipend amount of \$1,250.00)
- for classroom educators completing the 7th/8th Grade Coding Block focus program must successfully instruct students in the 7th/8th Grade Coding Block standards and demonstrate support of other educators within their school and/or district in the 7th/8th Grade Coding Block standards and the embedded K-8 Computer Science Standards. (maximum stipend amount of \$1,500.00)
- for district or school level educators completing the 7th/8th Grade Coding Block focus program must take part in follow-up opportunities for one school year through which they demonstrate how they are supporting district-wide or school-wide implementation and instruction of the 7th/8th Grade Coding Block and the embedded K-8 Computer Science Standards through ongoing and meaningful professional development. (maximum stipend amount of \$1,500.00)
- for any individual completing an approved professional development offering focused on preparation to pass the assessment necessary to gain an ADE Computer Science Endorsement or provisional license for non-traditional programs must be successful in attaining the ADE Computer Science Endorsement (or ADE Provisional License in Computer Science) and supporting the instruction of one or more of the approved Act 187 courses through either a face-to-face or hybrid instructional model for the 2016-2017 school year. (maximum stipend amount of \$1,750.00)

INSTITUTION and participant will ensure that acceptance of any stipend is allowed under all applicable laws and rules, including district policy, prior to stipend award.

If the INSTITUTION fails to comply with any of the terms of the grant award, whether stated in a federal statute or regulation, an assurance, a state plan, application, grant award notification, or elsewhere, ADE may take one or more of the following actions:



- Temporarily withhold payments pending correction of the deficiency by the grant recipient;
- Disallow or deny both use of funds and matching credit for all or part of the cost of the activity or action not in compliance with the grant;
- Wholly or partly suspend or terminate the grant award;
- Withhold further awards for the grant program; or,
- Take other remedies that may be legally available

Section V – Reporting

INSTITUTION will complete and submit with each reimbursement request an ADE Grant Budget/Expenditure Report and Budget Narrative found at <http://goo.gl/forms/1ed8hVU4x5>. Reimbursement funds will not be released to INSTITUTION until the requisite Grant Budget/Expenditure Report and Budget Narrative is submitted.

INSTITUTION will report to the ADE grant coordinator for this grant a list, in .xls file format, of all participants on July 1, 2016 and June 30, 2017 and include the following participant information:

- First and Last Name
- Arkansas Educator Licensure System Case ID – available at <https://goo.gl/gDI4hl>
- Official Email Address
- Employing LEA
- Current Licensure Codes – *same cell, comma delimited*
- Grades Currently Teaching – *using grade bands K-2, 3-5, 6-8, 9-12*
- Percentage of program competition – *INSTITUTION determined*
- Number of scheduled PD hours, as part of this MOU, in which participant was expected to participate
- Number of scheduled PD hours, as part of this MOU, in which participant has actually participated
- Amount of any stipend awarded to participant – *N/A for July 1, 2016 report*

Section VI – Failure to Comply

ADE reserves the right to revoke a grant award for reasons including but not limited to the following:

- Noncompliance with the specified purpose of the grant award
- Failure to account for grant funds in accordance with standards for financial management, to retain proper documentation for grant expenditures, or to provide information to auditors or program monitors
- Failure to provide accurate, timely, and complete information as requested by ADE to evaluate the effectiveness of the grantee



Section VII – Other Assurances

Administration of the program, activities, and services facilitated by the funding awarded within this MOU will be in accordance with all applicable state and federal statutes and regulations.

INSTITUTION will evaluate its program semiannually to assess its progress toward achieving its goals and objectives and use its evaluation results to refine, improve, and strengthen its program and to refine its goals and objectives as appropriate.

INSTITUTION will provide ADE representatives, and/or other state agency representatives, reasonable access to the campus and classrooms where programs and/or activities facilitated by grant funds awarded under this MOU.

INSTITUTION must disclose, in a timely manner, in writing to ADE all violations of criminal law involving, but not limited to fraud, bribery, or gratuity violations potentially affecting the grant recipient. Failure to make required disclosures can result in any of the actions described in the **Failure to Comply** section.

INSTITUTION will select and utilize a system of participant selection that is impartial and does not exclude, based on district of employ or federally protected class, any ADE Licensed Arkansas Educator.

INSTITUTION must disclose in writing any potential conflict of interest between the recipient and ADE employees. In addition, all grant recipients that receive in excess of \$25,000 will be required to complete the **“Contract and Grant Disclosure and Certification Form.”**

Section VIII – Commingling of Funds

INSTITUTION must not deposit or record funds in a general account without the ability to identify each specific source of funds for any expenditures, which is known as commingling of funds. Funds from each Federal, State, local, and private funding source must be identified with a clear audit trail for each source. The accounting systems of all grant recipients must ensure that grant funds are not commingled with funds from other State or Federal agencies or private entities. Funds specifically budgeted and/or received for one project may not be used to support another

Section IX – Record Retention

Financial records, supporting documents, statistical records and all other records pertinent to the grant award shall be retained by the grant recipient for four years following the end of the grant award performance period. The retention requirement extends to books of original entry, source documents supporting accounting transactions, the general ledger, subsidiary ledgers, personnel and payroll records, cancelled checks, and related documents and records.

- Source documents include paper or electronic copies of all grant awards, applications and required financial and narrative reports.



- Personnel and payroll records shall include the signed time and attendance reports for all individuals included in the project, whether they are employed full-time, part-time, or on a volunteer basis.
- Time and effort reports are required for employees with grant-funded salaries.

Grant recipients must further agree to permit access to these records to ADE program or fiscal staff, or any of their authorized representatives, as needed for monitoring purpose.

Section X – Carryover of Grant Funds

All encumbrances/obligations shall occur on or between April 1, 2016 and June 30, 2017.

INSTITUTION must receive the benefit and liquidate all obligations incurred under the grant award no later than June 30, 2017

If the grant recipient has not obligated all of its grant funds by June 30, 2017, any unexpended grant funds will be requested for return to ADE.

Johnny Key, Commissioner of Education
Arkansas Department of Education

Date

INSTITUTION Authorized Representative
Printed Name

INSTITUTION Authorized Representative
Title

INSTITUTION Authorized Representative
Signature

Date



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Johnny Key, Commissioner of Education
Arkansas Department of Education

4/26/16
Date

Jennifer E. Taylor, PhD, MBA
INSTITUTION Authorized Representative
Printed Name

Asst. Vice Provost for Research and Director of RSSP
INSTITUTION Authorized Representative
Title

J. Taylor
INSTITUTION Authorized Representative
Signature

4-25-16
Date

#22

**COMPLETE**

Collector: Web Link 1 (Web Link)
Started: Thursday, February 25, 2016 4:14:39 PM
Last Modified: Friday, February 26, 2016 11:18:03 AM
Time Spent: 19:03:23
IP Address: 130.184.23.80

PAGE 1: General Information

Q1: Organization Name	Board of Trustees, University of Arkansas
Q2: Organization Type	Arkansas based public university
Q3: Organization LEA (if applicable)	NA
Q4: Organization Mailing Address (Line 1)	210 Administration Building
Q5: Organization Mailing Address (Line 2) - optional	1 University of Arkansas
Q6: Organization Mailing Address (City)	Fayetteville
Q7: Organization Mailing Address (Zip Code)	72701-1201
Q8: Contact Person (First Name)	Betsy
Q9: Contact Person (Last Name)	Orr
Q10: Contact Person (Email Address)	borr@uark.edu
Q11: Contact Person (Telephone XXX-XXX-XXXX)	479-530-2455
Q12: Contact Person (Title)	Associate Professor

PAGE 2: Program Focus Selection

Q13: Please select a program focus for this application (NOTE: each organization may submit a separate application for each focus area for which they wish to offer)	Computer Science Endorsement and High School Level Computer Science Instruction Preparation
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PAGE 3: Program Information

Q14: Provide a program description. Be certain to provide information related to the curriculum, content guide, and materials to be utilized

Note: Applicants to the program must meet admission guidelines for the University of Arkansas Graduate School.

Program Description: The course will provide an introduction to the foundations of teaching methods for computer programming in the secondary schools. Methods of computer programming instruction will include teaching strategies in coding, developing computational thinking, problem-solving skills, and applying key programming concepts. This will be an introductory level course that will prepare existing Arkansas educators to pass the assessment necessary to gain

Computer Science Professional Development Program Grant Application 2016

be an introductory level course that will prepare existing Arkansas educators to pass the assessment necessary to gain the ADE Computer Science Endorsement in order to teach high school level computer science.

Competencies:

1. Develop the ability to write a computer program for creative expression or to solve a real-world problem;
2. Understand the basic design of a computer program;
3. Select and implement the appropriate programming language to solve a problem;
4. Evaluate a computer program and its functionality;
5. Understand multiple ways that digital data can be represented and interpreted;
6. Demonstrate the ability to work with and analyze large data sets;
7. Demonstrate the ability to design, process, and utilize media for desktop and mobile applications;
8. Understand and use computing tools and devices for a variety of purposes;
9. Collaborate in the creation of computational artifacts;
10. Explain the abstractions in the Internet and how the Internet functions;
11. Identify existing cybersecurity concerns and potential options to address these issues with the Internet and the systems built on it;
12. Analyze the beneficial and harmful effects of computing;
13. Explain the connections between computing and economic, social, cultural contexts, and global impact;
14. Utilize the vocabulary, primary concepts, definitions, and models applicable to the secondary computer science classroom; and
15. Demonstrate an ability to use a variety of pedagogical strategies to enhance logical thinking in secondary students.

Course Outline:

1. Developing Computer Programs
 - a. program design
 - i. developing flowcharts
 - ii. agile method
 - iii. back-log
 - iv. pseudo-codes
 - v. algorithms
 - vi. abstractions
 - b. writing programs with at least two different languages (Scratch, Java, Javascript, Python, App Inventor, Alice, C+, etc.)
 - i. data types and variables
 - ii. arrays, lists, and sorts
 - iii. conditional branching and iteration
 - iv. functions and blocks
 - v. events and parameters
 - vi. operations, operators, and random operation
 - vii. encapsulation and recursion
 - c. program enhancement and modification
 - i. debugging
 - ii. testing
2. Working with data
 - a. representing digital data
 - i. binary, decimal, octal, ASCII, and hexadecimal code
 - b. examining large data
 - i. usage, sorting, and analytics
3. Developing and processing media for desktop and mobile applications
 - a. graphics
 - b. sound
 - c. video
 - d. animations
4. Use of computer tools and devices
 - a. hardware
 - b. software
 - c. networks
 - d. mobile devices
5. Internet and World Wide Web
 - a. structure
 - b. coding
 - c. cyber-security

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- d. ethics (digital responsibility, fair-use)
- 6. Global impacts
 - a. crowdsourcing, social media, data mining

Q15: If your organization plans to contract with an outside vendor/provider to provide professional development, provide the name and website URL for that vendor/provider. (N/A for not applicable)

N/A

Q16: Provide a schedule for the program. Be certain to include the days, times, and number of hours that the sessions are to meet.

July 5, 2016 - August 5, 2016, Monday - Friday, 9:15 AM - 10:45 AM, Peabody Hall computer lab

Q17: Provide a detailed plan to document evidence of program performance and success of the participants including all required and requested reporting.

Learning assessments will be designed to prepare the student to deliver course-related materials in the secondary computer science classroom. Assessment include:

1. Individually developed program (agile method)
2. Collaboratively developed program
3. Automated system project
4. Programming log
5. Portfolio/website development project
6. Successful completion of Praxis exam

Q18: Provide the qualifications required for all staff and instructors. If a project manager or director can be identified, please do so at this time.

Master's degree or considered highly competent by the Career and Technical Education faculty. An advisory committee of teachers in the Springdale and Fayetteville school district developed the syllabus for the course. The content of the course includes required information from the curriculum frameworks, Praxis Study Companion for Computer Science, and practicing teacher(s) resource materials.

PAGE 4: Program Budget

Q19: Total Grant Amount Requested	34604.0
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Q20: Grant Forward Funding Requested in Dollar Amount (maximum of 50% of total proposed grant) - NOTE: organization will be required to return all unused or excess funding once program completion information is submitted.	17302
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Q21: Proposed Cost Per Participant	1504.0
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Q22: Estimated Number of Participants	18.0
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Q23: Summary of the Program's Proposed Budget

Tuition and Fees (18 participants) - \$24,372
---Estimated graduate tuition and fees (3 hours) \$1,354
Faculty Salary for Summer Class - \$3,000 +\$487 fringe
Faculty Course Development Stipend - \$3,000 +\$487 fringe
Cost of Course Materials for Students - \$2,700 (\$150 per student)

Indirect Costs on Salary/Fringe \$6,974 x 8% = \$558

Q24: Completer Individual Stipend Amount (if applicable) *Respondent skipped this question*

Q25: Total Amount Allocated for Participant Stipends (if applicable) *Respondent skipped this question*

PAGE 5: Assurances and Certification

Q26: WE, THE UNDERSIGNED, CERTIFY that the information contained in this application, is complete and accurate to the best of our knowledge; that the necessary assurances of compliance with applicable state and federal statutes, rules, and regulations will be met; and, that the indicated organization designated in this application is authorized to administer this grant. WE FURTHER CERTIFY that the assurances listed above, have been or will be satisfied and that all facts, figures, and representations in this application are correct to the best of our knowledge. Yes

Q27: First and last name of the authorized Representative certifying this application on behalf of the organization. Jennifer Taylor, PhD, MBA

Q28: Title of authorized Representative certifying this application on behalf of the organization. Asst. Vice Provost for Research, Director RSSP
