



**2021-2022 Summer Career and Technical Education Grant  
Letter of Interest (LOI) Application Due 11:59 p.m. CT, March 28, 2022**

NOGA ID [Redacted]

Authorizing legislation **General Appropriations Act, House Bill 1, Article IX, Section 18.114(c)(v)**

This LOI application must be submitted via email to **loiapplications@tea.texas.gov**.

The LOI application may be signed with a digital ID or it may be signed by hand. Both forms of signature are acceptable.

TEA must receive the application by **11:59 p.m. CT, March 28, 2022**.

Grant period from **April 29, 2022-September 30, 2022**

Pre-award costs permitted from **Award Announcement Date**

Application stamp-in date and time

**Required Attachments**

1. Excel workbook with the grant's budget schedules (linked along with this form on the TEA Grants Opportunities page)

See the Program Guidelines for for additional attachment information.

**Select Focus Area (Applicants May Select One or Both Focus Areas)**

- Focus Area 1: Career and Technical Education Course
- Focus Area 2: Work-Based Learning Experiences

**Amendment Number**

Amendment number (For amendments only; enter N/A when completing this form to apply for grant funds): **N/A**

**Applicant Information**

Organization **Region 10 Education Service Center** CDN **057950** Campus [Redacted] ESC **10** DUNS **074875592**

Address **400 E. Spring Valley** City **Richardson** ZIP **75081** Vendor ID **1751249185**

Primary Contact **Ligia Curtis** Email **ligia.curtis@region10.org** Phone **972-348-1370**

Secondary Contact **Chris Grey** Email **chris.grey@region10.org** Phone **972-348-1522**

**Certification and Incorporation**

I understand that this application constitutes an offer and, if accepted by TEA or renegotiated to acceptance, will form a binding agreement. I hereby certify that the information contained in this application is, to the best of my knowledge, correct and that the organization named above has authorized me as its representative to obligate this organization in a legally binding contractual agreement. I certify that any ensuing program and activity will be conducted in accordance and compliance with all applicable federal and state laws and regulations.

I further certify my acceptance of the requirements conveyed in the following portions of the LOI application, as applicable, and that these documents are incorporated by reference as part of the LOI application and Notice of Grant Award (NOGA):

- LOI application, guidelines, and instructions
- Debarment and Suspension Certification
- General and application-specific Provisions and Assurances
- Lobbying Certification

Authorized Official Name **Gordon Taylor** Title **Executive Director**

Email **gordon.taylor@region10.org** Phone **972-348-1004**

Signature *Gordon D. Taylor* Date **Mar 21, 2022**



**Shared Services Arrangements**

Shared services arrangements (SSAs) are permitted for this grant. **Check the box below if applying as fiscal agent.**

The LEA or ESC submitting this application is the fiscal agent of a planned SSA. All participating agencies will enter into a written SSA agreement describing the fiscal agent and SSA member responsibilities. All participants understand that the "Shared Services Arrangement Attachment" must be completed and signed by all SSA members, and submitted to TEA before the NOGA is issued.

**Statutory/Program Assurances**

The following assurances apply to this program. In order to meet the requirements of the program, the applicant must comply with these assurances.

Check each of the following boxes to indicate your compliance.

- 1. The applicant provides assurance that program funds will supplement (increase the level of service), and not supplant (replace) state mandates, State Board of Education rules, and activities previously conducted with state or local funds. The applicant provides assurance that state or local funds may not be decreased or diverted for other purposes merely because of the availability of these funds. The applicant provides assurance that program services and activities to be funded from this LOI will be supplementary to existing services and activities and will not be used for any services or activities required by state law, State Board of Education rules, or local policy.
- 2. The applicant provides assurance that the application does not contain any information that would be protected by the Family Educational Rights and Privacy Act (FERPA) from general release to the public.
- 3. The applicant provides assurance to adhere to all the Statutory and TEA Program requirements as noted in the 2021-2022 Summer Career and Technical Education Grant Program Guidelines.
- 4. The applicant provides assurance to adhere to all the Performance Measures, as noted in the 2021-2022 Summer Career and Technical Education Grant Program Guidelines, and shall provide to TEA, upon request, any performance data necessary to assess the success of the program.
- 5. The applicant provides assurance that curriculum will be appropriately aligned to regional labor market supported CTE programs of study.
- 6. The applicant provides assurance to provide data to TEA on student completion of courses through a special collection process run by TEA.
- 7. The applicant assures that any Electronic Information Resources (EIR) produced as part of this agreement will comply with the State of Texas Accessibility requirements as specified in 1 TAC 206, 1 TAC Chapter 213, Federal Section 508 standards, and the WCAG 2.0 AA Accessibility Guidelines.

**Summary of Program**

Provide an overview of the program to be implemented with grant funds. Include the overall mission and specific needs of the organization. Describe how the program will address the mission and needs. **NOTE: If applying for both Focus Areas, applicant must CLEARLY distinguish between the two in your response.**

The information industry is suffering a shortage of qualified computer software developers. In the North Central Texas service region, software development displays high demand, has shown strong growth, and pays competitive wages. In the next five years the need for software development will grow by 20% and maintain the third highest entry wage in the information industry at \$33.59 per hour or \$69,867.20 annually. The software development sector of the information industry is one of the most accessible to students leaving high school only needing a certification in order to access this fast growth high wage career.

One of the barriers that many schools districts like Ennis ISD and Red Oak ISD and rural school districts like Avalon ISD, Milford ISD, Italy ISD, Maypearl ISD, Palmer ISD, Princeton ISD and Community ISD face when trying to implement high quality programming and software development programs of study is the lack of knowledgeable software development (computer science) educators. This grant and the funds will focus on the development of current rural ISD educators in software development in order for these schools to create a programming and software development program of study. In a partnership with Unity (software development platform) and Gearbox Studios, Region 10 Education Service Center will become a develop hub for high quality software development educators through the use of the computer language C# and the utilization of video game programming. Region 10 will utilize the boot camp model for educators to obtain the knowledge and skills needed to instruct a high quality software development program of study.

Educators that go through the software development boot camp will obtain the technical skills and knowledge to pass the Unity Certified Programmer certification identified on the industry based certifications (IBC) list under information technology. Throughout the boot camp program, Region 10 will create a digital Professional Learning Network (PLN) for all participants in order to better develop best instructional practices, support educators learning, and connect participating educators with industry experts to establish Work Based Learning (WBL) mentoring opportunities.

**Qualifications and Experience for Key Personnel**

Outline the required qualifications and experience for primary project personnel and any external consultants projected to be involved in the implementation and delivery of the program. Include whether the position is existing or proposed.

Title and Responsibilities of Position	Required Qualifications and Experience
Michael Pflug, CTE Grants Consultant Region 10 ESC	Master Degree in C&I, Designed, developed and executed K-12 comprehensive STEAM program, Wrote Curriculum for computer science and video game design, and coached Computer Science and Video Game Design teachers.



**Goals, Objectives, and Strategies**

Describe the major goals/objectives of the proposed program. What activities/strategies will be implemented to meet those goals/objectives? **NOTE: If applying for both Focus Areas, applicant must CLEARLY distinguish between the two in your response.**

Identified by John Hattie as the most effective component of teaching, efficacy on the teachers' part as software developers/ computer scientists will have the greatest impact on student growth with the corresponding effect sizes predicting one to two years of growth in students within normal instruction. Through this grant Region 10 in partnership with Gearbox Studios will aim to train and create confident needed software development/ computer science teachers for rural school districts. This grant will create a boot camp that builds teacher efficacy, allows teachers to master the needed knowledge and skills that surround the software development industry, and implement research based instructional practices that are shown to provide at least a year of growth in students. In addition to the boot camp Region 10 will establish and maintain a PLN for all the teachers involved in the boot camp to support them once they return to their home campuses.

**Performance and Evaluation Measures**

Describe the performance measures identified for this program which are related to student outcomes and are consistent with the purpose of the program. Include the tools used to measure performance, as well as the processes that will be used to ensure the effectiveness of project objectives and strategies. **NOTE: If applying for both Focus Areas, applicant must CLEARLY distinguish between the two in your response.**

John Hattie's meta research "Visible Learning," the 138 ranked influences that are related to learning outcomes identify collective teacher efficacy(1.57), Self-efficacy(0.92), Teacher credibility(0.9), and Problem-solving teaching (0.68) as some of the top factors for positive student growth. When comparing the 138 influences, Hattie identifies a 0.4 as equivalent to one year of growth and a 1 equivalent to 2 or 3 years of growth in students. This grant will measure these high leverage positive learning outcomes as educators work their way through the software development boot camp, take part in the digital PLN, and learn from industry experts at Gearbox Studios.

Educators that attend the software development boot-camp will participate in self-efficacy surveys (beginning-mid-post). They will be designed to measures how much the educators agree or disagree on a 6 point scale with statements that are tied to the standards of the Unity Certified Programmer certification. The goal will be for significant positive growth of half a point in 80% of teachers by the end of the software development boot-camp. Following up at the end of the grant period and after teachers have worked with Gearbox Studios through their PLN, our goal will be for overall self-efficacy growth of another half point for a total of one point.

The educators that take part in this grant will complete the software development boot-camp and take part in the digital PLN giving them the skills needed to take and pass the Unity Certified Programmer certification. At the end of the grant period, the goal will be to have 95% of the participating educators take and pass the Unity Certified Programmer certification.

Jay Mcthige, Co-author of Understanding by Design, points to authentic performance as a major component of any curriculum that wants to prepare students for all College, Career, and Military post secondary options. Mcthige uses cornerstones tasks (problem-solving teaching) embedded in instruction in order to create these authentic performances. 95% of educators that take part in this grant will be able to facilitate this type of assessment and implement this teaching paradigm shift by the end of the grant.

**Budget Narrative**

Describe how the proposed budget will meet the needs and goals of the program, including for staffing, supplies and materials, contracts, travel, etc. If applicable, include a high-level snapshot of funds currently allocated to similar programs. Include a short narrative describing how adjustments will be made in the future to meet needs. **NOTE: If applying for both Focus Areas, applicant must CLEARLY distinguish between the two in your response.**

With the ever changing landscape of software development, school districts struggle to provide equipment that can handle the graphic intensive development process involved in video games software development. An instructor that has access to equipment that is able to allow them to teach and learn for several years is crucial to instruction. Each district that sends a teacher to the software development boot camp will receive a laptop that will be specked to run even the most intense of game development software. Region 10 will become a testing center for Persons Certiport in order to certify and purchase Unity Certified Programmers exams for each participating teacher. Region 10 will also provide materials, staffing, and a location for the boot camp. Lastly the grant will help stipend industry professionals to take part as mentors throughout the grant. All of this will require the maximum amount for the grant of 50,000 dollars.

- Laptops- 20,000
- Unity Certification- 8000
- Region 10 Materials, Staffing, and Location- 6000
- Stipends for Mentors- 16000



**Program Requirements**

1. **Focus Area 1:** Applicants must specify which program(s) of study and the CTE course(s) in the program(s) of study that will be offered (see <https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/cte-programs-of-study> for a list of the approved statewide programs of study). Include the number of students who be engaged and supported in this focus area.

This grant will focus on the Programing and Software Development Program of Study with emphasis on video game design. The courses that the grant will address are Game Programming and Design and Introduction to C# programming. The rural school districts will send one teacher to participate in the software development boot camp. This leads to an average of 7%-10% of the student body that will receive high level instruction in software development/ computer science.

2. **Focus Area 2:** Applicants must specify business and industry partners who will be involved in the program. Additionally, specify the work-based learning model(s) which will be utilized and the number of students who will be engaged and supported.

NA

**Appendix I: Amendment Description and Purpose** (leave this section blank when completing the initial application for funding)

An amendment must be submitted when the program plan or budget is altered for the reasons described in the "When to Amend the Application" document posted on the [Administering a Grant](#) page. The following are required to be submitted for an amendment: (1) Page 1 of the application with updated contact information and current authorized official's signature and date, (2) Appendix I with changes identified and described, (3) all updated sections of the application or budget affected by the changes identified below, and, if applicable, (4) Amended Budget Request. Amendment Instructions with more details can be found on the last tab of the budget template.

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**Amended Section**

**Reason for Amendment**

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