# Education Foundation of Lake County, Inc 2018-19 CTE Grant Application Deadline to Apply: August 31, 2018

Basic Project Inform	mation	
Principal Name:	Benson Steven	
School Name:	South Lake High School	
Teacher Name(s):	Sinaya Dayan	
CTE Program Name:	Geographic Information Systems (GIS)	
Grade levels:	9 <sup>th</sup> -   12 <sup>th</sup>	
Number of Students:	55	
Number of Participating Teachers:	One, at the moment	
Amount Requested: ::	\$8,000	

Would you consider this a multi-year project? (are funds to be used this year that support future efforts and greater impacts to students in subsequent years) If so, please outline multiyear goals and expected measurable metrics.

Yes, this would be considered a multi-year project.

### Goals:

# Year I

- 1. Enhance the work experience and learning environment for currently enrolled students
- 2. Increase enrollment for upcoming years (Program Marketing)
- 3. Establish a GIS club
- 4. Increase the number of students that earn the ArcGIS desktop entry certificate

#### Year 2

- I. Increase the number of club members
- 2. Participate in ESRI's International poster competition
- 3. Participate in the ArdGIS Online Competition for U.S. High School & Middle School Students

### Year 3

- I. Introduce Students into the professional GIS work and facilitate "Real-World" project participation
- 2. Support the Lake County GIS project workload (Offsetting costs and providing employment opportunities)

#### Measurable Metrics:

- 1. Publish GIS work generated by students on and off campus (Total publications)
- 2. Participate in ESRI's International poster competition (Total submissions)
- 3. Participate in ESRI's International Story map competition (Total submissions)
- 4. Publish work to the Lake County School ArcGIS portal (Total submissions)
- 5. Increase the number of enrolled student to maximum capacity (Percent increase)
- 6. Increase the number of students that earn the ArcGIS desktop entry certificate (percent increase)
- 7. Increase the number of offered GIS classes to include specialized software applications by ESRI. (Total new classes)

## **Project Abstract**

The objective of this project is to enhance the learning environment for enrolled students. Students, ideally, would have access to improved equipment that would facilitate effective learning and software

interaction. The funds secured by this grant opportunity would be used to furnish the GIS lab with a poster printer (ink, paper rolls, toners, etc...), replace all keyboards and mice, and purchase mouse pads for each work station. Students and faculty would have the ability to print GIS related work for in-class presentation purposes, GIS poster competitions, marketing purposes, and more. Having access to improved hardware and technology can transform the learning experience of the students, allowing them to engage in their learning environment and be more receptive to instructional material.

# **Project Detail**

In the space below, please provide a detailed outline of your project activities. Please be sure to include the following: Goals and objectives of your project activities, expected timeline for project activities, when certification exams will be taken, etc.

The objective of this project is to enhance the learning environment for enrolled students. Students, ideally, would have access to improved equipment that would facilitate effective learning and software interaction. The funds secured by this grant opportunity would be used to furnish the GIS lab with a poster printer (ink, paper rolls, toners, etc...), replace all keyboards and mice, and purchase mouse pads for each work station. Students and faculty would have the ability to print GIS related work for in-class presentation purposes, GIS poster competitions, marketing purposes, and more.

Currently, the GIS lab is furnished with computer hardware that is not optimal for GIS and graphics work. The mice are slow, unresponsive and inaccurate, which make it challenging to students to comfortably accomplish their learning goals and computer activities. The keyboards are not all functional and could use an upgrade. Ideally, computer mice used for GIS work would have high sensitivity to support accuracy and precision needs, have faster response, and would be more durable than traditional mice. GIS computer activities involve lots of movement, clicking and scrolling and rely heavily on the hardware that supports its essential commands. When the conditions are not optimal, it can be very frustrating to the operator who is unable to perform their activities smoothly.

Additionally, the lab isn't furnished with any printers but most importantly, it does not have a poster printer, which is essential for final outputs and dissemination of results. During class, students are required to develop poster presentations, maps and additional work that require a significant time investment. However, students are not able to showcase their results and talents to a greater audience. Work generated by students stays 'hidden' digitally and we miss out on a phenomenal opportunity for this work to inspire, generate ideas, educate, and spark interest in other students. Further, student who wish to participate in poster competitions have to pay for their printing expenses which can reach up to \$100 per poster, when using printing services. High costs for professional prints inhibit participation if students cannot afford the cost of printing. Having in-house printing capabilities would remove any barriers that may be preventing students from taking part in poster competitions, would assist the marketing effort of the program, and enable the distribution of work and content across our campus. Having a professional, well equipped, GIS lab would set a prestige value for the program and draw more attention, which in turn will increase enrollment.

In addition to the curriculum offered during regular hours, it is desired that the program establishes a GIS club for enhanced learning opportunities and real-world project participation. Having access to an upgraded lab would not only entice students to join the club but more importantly, it would provide them with necessary tools to perform and present their work more effectively. Club members would actively participate in marketing activities, for both the program and the club, which would benefit from having inhouse printing capabilities.

Furnishing the lab with newer and necessary equipment is believed to have an impact beyond the immediate fulfillment of needs attention across many professional fields & Industries, academic majors and geographies. It is an "easy sell" once it is properly explained and marketed. Lastly, a field that relies heavily on visualization of information requires the proper tools and stage for its capabilities and an audience who can appreciate its values. This grant opportunity can be the primer in unlocking this program's true potential.

## Program goals are:

## Year I

- 1. Enhance the work experience and learning environment for currently enrolled students
- 2. Increase enrollment for upcoming years (Program Marketing)
- 3. Establish a GIS club
- 4. Increase the number of students that earn the GIS desktop associate certificate

## Year 2

- I. Increase the number of club members
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- 3. Participate in the ArdGIS Online Competition for U.S. High School & Middle School Students

# Year 3

- I. Introduce Students into the professional GIS work and facilitate "Real-World" project participation
- 2. Support the Lake County GIS project workload (Offsetting costs and providing employment opportunities).

Certificate exams will be offered by April of every year for students that complete the 4 year program, successfully. Every student who is enrolled in the program is expected to take the certificate test at the end of the 4 years. Ultimately, graduates would possess necessary skill for immediate, entry level, employment opportunities. Graduate would have strong GIS foundations for college level GIS majors.

#### Outcome Measures

## Outcomes (changelimprovement in knowledge, behavior, skills scores)

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#### Year 2

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### Year 3

- 1. Introduce Students into the professional GIS work and facilitate "Real-World" project participation
- 2. Support the Lake County GIS project workload (Offsetting costs and providing employment opportunities while students are still enrolled)
- 3. Develop internship apportunities with the private and public sectors

# What certifications are offered through this CTE program?

The certificate offered through the CTE program is the 'ArcGIS Desktop Entry' by ESRI (Industry leader in the GIS marketplace).

What is your target number of students receiving certifications that you are trying to reach? The target is in the range 80%-100%

# **Budget**

### NO GENERAL ADMINISTRATIVE OR INDIRECT CHARGES MAY BE APPLIED TO THIS GRANT. Allowable expenditures include: training/conferences, professional and technical services, classroom materials, computer software, computer hardware, other equipment, program supplies, and Non-Allowable expenditures include: administrative expenses, capital improvements, support of interscholastic athletics, refreshments, transportation, food items, decorative items, awards for outstanding service, and the entertainment of dignitaries. Category of Category of Expenditure Amount Expenditure Related Activity Professional Contracted Workers (i.e. stipend workers, trainers, work for fee etc.) Program supplies \$700 Classroom mapping Ink, toners, paper rolls (technical and projects, poster mapping/gloss paper) presentations, and marketing of program Computer Software Computer Hardware\* \$2,000 Mice, keyboards, Classroom projects mouse pads and software training. Other Equipment (not computers) \$5,300 **Poster Printer** Classroom mapping 44" inch (HP projects, poster presentations, and DesignJet T1700) marketing of program Printing Tuition/Training/Conferences/Admission Room Rental Fees **TOTALS** \$8,000 **Key Terms:** Category of expenditure (Short Related Activity (What activity does this support description for categories of expenses) in the grant? i.e. classroom project, training, computer project, etc.) Program Approved By and and Operations **CTE** Coordinator (Request must be approved by all three departments before being submitted to the Foundation). Requesting party has read and agrees with the funding policies of the Educational Foundation. Date: 8/29/18 Principal's Signature: Email: bensons @ lake k12.fl.us

To be completed by foundation staff/board

Program meets Foundation Mission/Funding Policy: Yes or No

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Visioning Committee Recommendations:	
Executive Board Recommendations:	
ApprovedDenied	
President Signature  Date	
Please submit the completed application to: Educational Foundation of Lake County, Inc 2045 Pruitt Street Leesburg, FL 34748 Or Email: Cullen-battc@lake.k12.fl.us	
All funds must be used by May 1, 2019. A final program evaluation must be submit May 15, 2019.	tted by

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