Affordable Materials Grants, Round 21:

Continuous Improvement Grants

(Spring 2022-Spring 2023)

Proposal Form and Narrative

# Notes

* The proposal form and narrative .docx file is for offline drafting and for our review processes. Submitters must use the online Google Form for proposal submission, including uploading this document.
* The only way to submit the official proposal is through the Google Form. The link to the online application is on the [Round 21 RFP Page](https://www.affordablelearninggeorgia.org/about/rfp_r21).
* The italic text provided below is meant for clarifications and can be deleted.

The Round 21 Kickoff will include an asynchronous training module, required for all team members to complete, followed by the synchronous Kickoff Meeting on March 25, 2022 from 1pm-4pm. At least two team members from each awarded team (unless the award is for one individual) are required to attend the synchronous Kickoff Meeting.

# Applicant and Team Information

*The* ***applicant*** *is the proposed Project Lead for the grant project. The* ***submitter*** *is the person submitting the application (which may be a Grants Officer or Administrator). The submitter will often be the applicant—if so, just leave the submitter blank.*

|  |  |
| --- | --- |
| Requested information | Answer |
| Institution | Kennesaw State University |
| Applicant name | Lei Li |
| Applicant email | Lli13@kennesaw.edu |
| Applicant position/title | Professor, MSIT program coordinator, & interim department chair. |
| Submitter name | Lei Li |
| Submitter email | Lli13@kennesaw.edu |
| Submitter position/title | Professor, MSIT program coordinator, & interim department chair. |

Please provide the first/last names and email addresses of all team members within the proposed project. Include the applicant (Project Lead) in this list. Do not include prefixes or suffixes such as Ms., Dr., Ph.D., etc.

|  |  |  |
| --- | --- | --- |
| Team member | Name | Email address |
| Team member 1 | Lei Li | Lli13@kennesaw.edu |
| Team member 2 | Zhigang Li | zli8@kennesaw.edu |
| Team member 3 | Seyedamin Pouriyeh | spouriye@kennesaw.edu |
| Team member 4 | Ming Yang | myang8@kennesaw.edu |
| Team member 5 | Richard Halstead-Nussloch | rhalstea@kennesaw.edu |

If you have any more team members to add, please enter their names and email addresses in the text box below.

|  |
| --- |
| Maria Valero de Clemente, mvalero2@kennesaw.edu  Garima Banerjee, instructional designer, gbanerje@kennesaw.edu  Suma Veeravenkatappa, MSIT student, sveerave@students.kennesaw.edu |

# Project Information

| Requested information | Answer |
| --- | --- |
| Type of Project | * *Revision of open educational resources (OER) used in existing courses* * *Creation of ancillaries for existing OER courses* * *Replacement of current OER in courses with new/better OER* |
| Requested Amount of Funding  *$10,000 maximum total award per grant* | $10,000 |
| Course Titles and Course Numbers | IT 5413 Software Design and Development  IT 5423 Computer Architecture, Operating Systems, and Networks  IT 5443 Web Technologies and Application Development  IT 7723 IT Strategy, Policy and Governance  IT 7993 IT Capstone |
| Final Semester of Project | * Spring 2023 |
| Currently Existing Resource(s) to be Revised/Ancillaries Created  *Please provide a title and web address (URL) to each of the currently existing resources that you are revising, creating new ancillary materials for, or replacing. If replacing, please include a title and web address (URL) to the new OER as well.* | IT 5413: <http://ksuweb.kennesaw.edu/~mhan9/ALG/it5413/5413.html>  IT 5423: <http://ksuweb.kennesaw.edu/~hshahria/ALG-R13/IT5423/IT5423.html>  IT 5443: <http://it5443.azurewebsites.net/>  IT 7723 (previously named as IT 7833): <http://ksuweb.kennesaw.edu/~rhalstea/ALG/IT7833/index.html>  IT 7993: <http://facultyweb.kennesaw.edu/lli13/alg/7993/IT7993.php> |

# Project Goals

*In at least one paragraph, describe your project’s goals and what materials will be created or revised.*

The Department of Information Technology at Kennesaw State University (KSU) has employed department-wide strategies to adopt open educational resources (OER) material in its undergraduate and graduate programs since round one of the Affordable Learning Georgia (ALG) initiative. With the support of ALG grants, Master of Science of Information Technology became a zero-textbook-cost degree in fall 2021. The department’s ALG efforts have impacted 6,964 students and saved $1.37 million textbook costs for the students since 2015.

Information technology is a fast-changing field, and it is important for the IT department to offer a state-of-art curriculum by introducing new topics and updating existing courses. The IT department developed a systematic plan to gradually update the courses previously funded by ALG.

In this project, we propose to revise the OER material in five MSIT courses: IT 5413, IT 5423, IT 5443, IT 7723, and IT 7993. IT 7723, previously called IT 7833, was renamed its course number in a recent curriculum revision. IT 5413, IT 5423, IT 7723, and IT 7993 were initially developed in ALG round 13 (#422). IT 5443 was lastly revised in ALG round 10 (M10). While our faculty have been making incremental changes to those courses over the years, they are due for a systematic overall. The overall objectives of the project are listed as follows. The specific plan for each course is described in the action plan section.

* Review the existing OER materials for correctness and accessibility issues.
* Update outdated OER material.
* Revise the course materials based on changes in course learning outcomes.
* Update existing or develop new ancillary material such as assignments, lab material, and test banks.
* Use a department-provided course template to make sure OER material in each course has similar look and feel.
* Ensure all course material comply with the accessibility standards defined by ALG.
* Create a course package that can be imported into D2L Brightspace, the course management system used by the University System of Georgia.

# Action Plan

*Describe the tasks needed to complete the project in as much detail as possible. If this application has more than one team member, include the major roles for each person and which tasks this role is assigned. Estimate the amount of time (e.g. number of hours) each task will take. Include plans for open licensing and plans for making your materials accessible. Indicate if you are using other platforms in addition to the repository to host your created materials.*

**Action Plan for IT 5413 Software Design and Development – Dr. Seyedamin Pouriyeh – Estimated time: 50 hours.**

The IT5413 was designed and developed to enable MSIT students to analyze and formulate software solutions appropriate for an IT organization. The course was developed in ALG round 13 (<https://alg.manifoldapp.org/projects/it-5413-software-design-and-development>). In this course, foundational program constructs, software design, and development are covered. The current version of the course discusses various topics such as Control Structures, Functions, Files and Strings, Sequences and Sets, Class and Object-Oriented Programming. The contents are aligned with the topics however, most of them are outdated and need to be revised. Additionally, the modules should be re-organized in a way to be logically connected so that students can follow and transit among the topics smoothly. Below is the revision plan.

* All learning modules. Estimated working hours: 25 hours
* Make the course material ADA compliant.
* Create new or revise existing PowerPoints slides align with new contents.
* Create a new study guide document for each module to better tie the course learning outcomes to material and provide a detailed guide for students to study for the course material.
* Create a teaching note for each learning module to provide a guide for the instructor on course delivery.
* All assignments.
  + Add a new term project to the course
  + Breakdown the term project into smaller projects as programming assignments.
  + Assign each programming assignment to the corresponding module
* All exams
  + Two exams including midterm and final exams need to be revised based on the new contents.
  + The new rubric and solution for each exam need to be defined.

**IT 5423 Computer Architecture, Operating Systems, and Networks – Dr. Ming Yang and Dr. Maria Valero (50%-50%), Estimated time: 50 Hours**

This course provides an overview of computer networks and system administration. Topics include network protocols, network traffic analysis, operating systems fundamentals, and system management.

In this continuous-improvement ALG project, we propose to update the no-cost, OER learning material added to the course modules 2, 3, 4, 5, 7, 8, 9, and 10. All these project tasks will be performed to improve accessibility, enhance the learning experience, and update the course to include the latest OERs to further benefit our students. Additional open-source materials will be added to the course, the detailed list of modules is as follows:

* Update the lecture materials and modules for accessibility.
* All 10 modules will be equipped with a newly created Study Guide and “WatchMeFirst” videos to explain the overview on how to navigate the module.
* Exams and quizzes will be updated with up-to-date questions.
* Module 2: File Management
  + Add slides and lecture that include Window File System and its functionalities
  + Include overview information of FAT, HPFS, and NTFS file systems
  + Provide systematic comparison with Linux File System
  + Update Lab 2 to utilize College Virtual Machine resources
  + Incorporate web-based Linux operating practices like the one provided by [JSLinux](https://bellard.org/jslinux/)
* Module 3: Shell Scripting
  + Update slides
  + Provide exercises using open and web-based tools like [LearnShell](https://www.learnshell.org/)
  + Integrate examples to Lab 3 questions – See examples first then program
* Module 4: Processes
  + Redesign the module to include processes functionality in different operating systems.
  + Update hands-on lab by incorporating online tests with processes
* Module 5: System administration
  + Update slides
  + Add hands-on lab about commands for system administration using [ShoreWall](https://shorewall.org/)
* Module 7: Application Layer
  + Update lab that uses [WireShark](https://www.wireshark.org/). Update with a new version of the application
  + Update slides of the module
* Module 8: Packet Analysis
  + Update slides
  + Include information about the [3-way hand-shaking process](https://afteracademy.com/blog/what-is-a-tcp-3-way-handshake-process) (To allow students to identify this component in the lab)
  + Update hands-on lab to include the visualization of 3-way hand-shaking processes
* Module 9: Mininet
  + Redesign the hands-on lab regarding [Mininet](http://mininet.org/)
* Module 10: Network Management and routing
  + Incorporate slides and lectures regarding ARP
  + Update lab 10 to incorporate [Kathara](https://www.kathara.org/) tool with ARP

Dr. Ming Yang and Dr. Maria Valero will synthesize the content from current and updated OER web resources and organize them into OER formatted notes to update the course and improve the accessibility of the modules. In addition, he will develop reading overviews and notes for each module and create ancillary material as appropriate such as assignments, lab exercises, projects, and briefing slides. They will spend about 50 hours on these tasks. Students will be able to use these materials, along with additional materials they find in their literature-review research in their case-study team project.

**IT 5443 Web Technologies and Application Development – Dr. Zhigang Li. Estimated time working on this course: 50 hours.**

IT5443 was among one of the first ALG transformed courses. Over the years it was incrementally updated and maintained. However, the instructional materials were created primarily using Microsoft Word and PowerPoint. Although works, the nature of the Microsoft Word and PowerPoint format makes them cumbersome for the content topics presented in the course. In another word, Word and PowerPoint are simply not the best formats to present HTML, CSS, JavaScript, or code snippets of other programming languages. As we are teaching the subject of web development, it would be only fitting to present the learning materials natively using web-specific languages and technologies such as HTML, CSS, and JavaScript.

Furthermore, the current course still teaches PHP for server-side development. Over the past decade, the trend for back-end web development has shifted away from PHP and Node.js has become the dominant server-side development framework. With this trend in mind, we have already shifted subsequent courses such as IT6203 IT Design Studio, which has IT5443 as a pre-request, to Node.js for server-side development. This obviously created a gap as students learn about PHP but then have to abandon that knowledge going into the IT6203.

In this proposal, we aim to take the opportunity to address this issue by introducing Node.js as the server-side technology for back-end development and re-develop all the learning materials using HTML5 format. A detailed list of updates and improvements is as follows.

* + *Update existing instructions in the course to reflect the latest change in HTML, CSS, and JavaScript.* Although the learning materials are maintained and updated on a yearly basis, some of the exercises and code snippets still contain legacy code. Although functional and effective for teaching purposes, they no longer reflect the latest best practices in web development. The faculty developer aims to target this issue and make sure all learning content reflects the latest change in technology.
  + *Developing learning materials for new topics such as Node.js*. As mentioned earlier, the existing course still teaches PHP for server-side development. As the industry is shifting away from PHP, we would like to introduce Node.js for server-side development so that students will have a smooth transition going into IT6203 after taking IT5443 as the foundation.
  + *Redeveloping existing learning materials from Word and PowerPoint format to HTML and making them ADA compliant*. The learning materials in the current course were developed in Word and PowerPoint format. Despite having their advantages, Word and PowerPoint formats are not well suited for the D2L web environment. Converting them to HTML allows for better integration with D2L, better accessibility compliance, better readability, better integration with multimedia, and lastly, better learner experience. 20 hours are estimated for this task.
  + *Creating video lectures/tutorials for the course*. Outside of the online resources that are presented as URLs in the course, the learning content in the current course is entirely text-based. In this project, the faculty developer aims to record one or more video lectures/tutorials for each module to either guide students through the web development process or highlight important concepts or information that may be overlooked otherwise. 15 hours are estimated for this task.

**IT 7723 IT Strategy, Policy and Governance – Dr. Richard Halstead-Nussloch. Estimated time working on this course: 50 hours.**

This course uses OER and cost-free materials that focus on connecting and harnessing IT within the business, centering on the executive level and organizational governance that were put in place during the ALG Round 13 Textbook Replacement grant in 2019. Many of the learning materials used in the current course are either no longer available as Web-based OER or if currently available are relatively outdated and obsolete due to a) over the past couple of years the disruptive changes in how organizations govern, set policy for, and align their IT functions with business strategy, e.g., the fast, seemingly overnight adoption of an updated IT strategy, policy, and governance (ITSPG) in support of working from home due to the pandemic and b) the rapidly changing environment of organizations providing IT systems and their business processes for sale, lease, rent, etc. For example, Amazon Web Services (AWS), the premier provider of cloud-based IT systems, has experienced more than 30% yearly growth over the period and had 2021 revenue of over $71B. Similarly, other environmental factors for ITSPG, including frameworks, resources, and best practices for ITSPG are rapidly changing, including the emergence of multiple best-practice ITSPG frameworks in addition to COBIT, which serves as a reference framework for the 2019 version of IT7723. An update to the materials and exercises to reflect the new ITSPG environment is thus in urgent need. In addition, the faculty developer also aims to introduce contemporary topics in ITSPG that are currently in high demand in the job market, such as ITSPG for leading the Digital Transformation (DX) of the organization, ITSPG and IT Governance, Risk Management, and Compliance (IT GRC), ITSPG for supporting entrepreneurs, innovators, and researchers in the knowledge economy, and ITSPG and the C-Suite. Other improvements such as ALG accessibility compliance will also be implemented. A detailed list of updates and improvements are as follows.

* + *Review and revision of current OER and cost-free material in the existing learning modules and possible updated and additional OER available on the Web*. The actions in this step mainly involve checking for broken links, examining if the content is still appropriate and pruning content deemed outdated or inappropriate, adding new material if appropriate and needed, incorporating accepted best-practices in the presentation of the OER material, and ensuring all materials and content are ALG-compliant for accessibility. The list below provides some of the major sources of OER material currently available for IT7723; the list is deep, robust, and educationally rich. 10 working hours are estimated for this task.

Preliminary sources of Web-available additional and updated OER to meet the IT7723 outcomes:

* + - <https://cio-wiki.org/wiki/Main_Page> The CIO-Wiki material is available under a Creative Commons Share Alike License. It covers classical (e.g., IT operations) and contemporary (e.g., managing the cloud) topics in the procurement and implementation of IT systems. As of February 2022, it has over 4,800 topics. The CIO-Wiki covers all learning outcomes for IT7723. In reviewing its prior use in our IT curriculum, accuracy and scope are at least 85%.
    - <https://www.educause.edu/> The EDUCAUSE is the website and public repository for the largest IT community of practice devoted to IT in support of higher education. The site curates crowd-sourced and crowd-peer-reviewed materials across the full range of topics covering ITSPG for higher education under a Creative Commons Attribution-Share Alike Public License. An additional advantage for using EDUCAUSE.edu for an academic course is that our students have direct experience of all issues discussed, as they are enrolled in our university. KSU is a member of EDUCAUSE, which means that faculty can be authenticated for early access (prior to official publication date), but once the publication date has been reached, the material is available on the public website. EDUCAUSE.edu covers all learning outcomes for IT7723. In reviewing its prior use in our IT curriculum, accuracy and scope are at least 90%.
    - <https://www.wikipedia.org/> The Wikipedia website has a wide range of mostly acceptable articles and sub-portals covering ITSPG available under a Creative Commons Attribution-Share Alike Unported License. A distinct advantage is that technical language and IT jargon is reduced. Examples of clear communication with lay personnel is exceedingly important to success in ITSPG. Wikipedia is most useful for learning outcomes bridging IT7723 to business, commerce, and everyday life. In reviewing its prior use in our IT curriculum, accuracy and scope for Wikipedia are at least 70% and average around 85% Past group projects in this and similar MSIT classes have corrected and/or enhanced Wikipedia articles covering IT issues.
    - Varied government websites including, e.g., NIST.gov, usability.gov, dau.edu, data.gov, code.gov, and <https://gta.georgia.gov/> have a wide range of public-domain materials covering the procurement and implementation of IT systems. A distinct advantage for many of our MSIT students is that they work for a branch of the Federal or State of Georgia Government or an organization that does business with the Federal Government or State of Georgia. For example, the U.S. Department of Defense operates the Defense Acquisition University and their website ([www.dau.edu](http://www.dau.edu)) has many OER for IT7723; the State of Georgia uses the public-domain procurement process at http://pur.doas.ga.gov/gpm/MyWebHelp/GPM\_Main\_File.htm. Material from government websites covers all learning outcomes for IT7723. In reviewing its prior use in our IT curriculum, accuracy and scope are at least 90%.
    - IT industry websites contain many reports, guides, tutorials, white papers, etc. that are pertinent and valuable to ITSPG within a wide range of organizations. Terms, conditions, and licenses vary widely and if allowed, pertinent materials from industry sites (e.g., aws.com and ibm.com) are linked to in the course materials. In reviewing its prior use in our IT curriculum, accuracy and scope are at least 80%.
  + *Update existing instructor pedagogical workflow overviews (ReadMe files) in the course to reflect revised OER material in ITSPG*. The actions in this step involve reviewing and updating what are called ReadMe files that we use to define coherent modules from the multiple-sourced OER material, and then set an integrated path through the modules. Since the course has a new number, course numbering will also be updated. The desired goal is to provide a workflow within and between each of the course modules like that provided by sequenced chapters and sections within a textbook. The IT7723 within-module workflow is Read, Think, Learn, Write, Use, and Re-Use. The course employs ReadMe files as a pedagogical device to support IT7723 students in reading and thinking about the OER materials from multiple sources and then learning about ITSPG from them in an integrated fashion; the ReadMe files guide students to learn and integrate the OER material into a coherent, internalized body of knowledge for that module. Since each ReadMe file begins with a recap of what was learned in prior modules and how that relates to the current module, the sequence of ReadMe files provides a rational workflow through the course. 15 working hours are estimated for this task.
  + *Update existing assignments--exercises, labs, discussions, and projects--in the course to reflect contemporaneous best-practices in ITSPG*. The actions in this step involve reviewing and updating the activities and deliverables that IT7723 students will do to consolidate and demonstrate their learning. As mentioned in the step above, the IT7723 within-module workflow is Read, Think, Learn, Write, Use, and Re-Use. The ReadMe file is used to facilitate the first three: reading, thinking, and learning from multiple OER threads. To complete the writing, using, and re-using of what IT7723 students learn from the OER materials, IT7723 has defined exercises, labs, discussions for assignments lasting one or two weeks and projects for assignments lasting four to eight weeks. These assignments will be reviewed and updated appropriately within the ALG website and our Learning Management System to incorporate contemporary best practices and frameworks in ITSPG (e.g., Digital Transformation, IT for sustainability and resilience, quick innovation and ITSPG, ITSPG and organizational approaches for empathy, diversity, equity, and inclusion). Since the course has a new number, course numbering will also be updated. 15 working hours are estimated for this task.
  + *Embed foundational IT skills and capabilities and meaningfully link IT7723 to other MSIT courses*. IT7723 is an elective course in the KSU MSIT and serves to provide our alumni with skill in working as and with the executives of an organization on ITSPG. Most forecasts of required ITSPG focus areas put effective information security regularly in the top five most important. The final step in this improvement project is to take actions to meaningfully link IT7723 to other MSIT courses and provide meaningful practice of foundational IT skills, such as information security. For the latter, we plan to adapt parts of one or two existing MSIT course modules to the specifics of ITSPG for IT7723 students to have additional practice; currently, we are favoring one module/exercise on information security and another module on user accessibility and experience. In that manner, IT7723 students will have practice incorporating these foundational aspects within ITSPG. For the meaningful links to other MSIT classes, we are planning to provide case studies, innovation brainstorms, strategy- and policy-development projects, and short literature-review reports tied to each of the four MSIT concentration areas (Data Analytics and Intelligent Technology, IT Security, Health IT, and Enterprise IT Management) that are directly relevant to ITSPG. 10 working hours are estimated for this task.

**IT 7993 IT Capstone – Dr. Lei Li – Estimated hours: 50 hours**

IT 7993 is one of the two program options in the MSIT program. In this class, the students will work in teams on term-long projects researching and developing IT solutions addressing business or organizational needs. In addition to being able to apply the technical knowledge learned from the program, the students also can practice soft skills such as communication, team collaboration, and project management. In this project, Dr. Lei Li plans to review and update the existing content and add more content in areas of System Development Life Cycle (SDLC) and project management. The SDLC topic is added more as a refresher or reference as it is covered in a required course in the MSIT program. The existing content touches on project management, but the content needs to be strengthened as the project management skill is very important for students’ success in this course. The detailed revision plan is listed as follows.

* Revision applies to all learning modules. Estimated working hours: 25 hours
* Make the course material ADA compliant.
* Review existing learning material and fix outdated web links and resources.
* Create a teaching note for each learning module to provide a guide for the instructor on course delivery.
* *Create learning modules on system development life cycle and project management*. The development will draw and integrate information from web resources such as follows. Estimated time working on this task: 15 hours.
  + Overview of system development life cycle (SDLC): system planning, system analysis, system design, implementation and deployment, system testing and integration, system maintenance. <https://www.smartsheet.com/system-development-life-cycle-guide> and <https://textexpander.com/blog/7-stages-of-the-system-development-life-cycle/>
  + Components of system development life cycle (SDLC): Analysis/feasibility, planning/requirements, design, system development, testing, deployment, maintenance, and evaluation: <https://stackify.com/what-is-sdlc/>
  + Introduction of different SDLC models, such as rapid application development, test-driven development, Agile model, Scrum, Kaizen model, etc. <https://airbrake.io/blog/sdlc/what-is-system-development-life-cycle>
  + Project management. <https://www.projectmanagement.com/> This site contains a vast amount of information on knowledge areas, topics, processes, and tools in the project management domain.

# Timeline

*Provide a project timeline aligned with the action plan above. Include major milestones and deadlines, keeping in mind your selected Final Semester.*

**Timeline for team coordination – Responsible personal: Dr. Lei Li**

1. 3/31/2022 – work with instructor designer, Garima Banerjee, to host a workshop on ALG accessibility requirements.
2. 5/13/2022 – submit a project progress report.
3. 8/1/2022 - a) submit the project progress report; b) develop a survey for collecting students’ feedback on OER material.
4. 12/15/2022 –a) administrate the student survey for IT 5413 and IT 5423; b) work with all developers to ensure all developed course material meet the ALG and department standard
5. 5/5/2022 – administrate the student survey for IT 5443, IT 7723 and IT 7993.
6. 5/15/2023 – submit the project final report.

**Timeline for IT 5413 - Responsible personnel: Dr. Seyedamin Pouriyeh**

1. *3/31/2022.*

* Complete accessibility training hosted by instructional designer
* Review the content of OER material in existing IT 5413 modules and check for accessibility issues. Research the free web resources for each module.

1. *5/16/2022*.

* The updates to each module include learning material, PowerPoints slides, test banks, assignments, new study guides, and teaching notes.
* Design a web-based application project and break it down to 6 smaller projects
* Make the OER material in those learning modules comply with the accessibility requirements set by ALG.

1. *8/1/2022*.

* Complete the revision of all labs and modules.
* Make the OER material in learning modules comply with the accessibility requirements set by ALG.
* Work with the student to complete the student review of the OER material.

1. *12/15/2022*.

* Complete IT 5413 course offering with update OER material.
* Collect students’ feedback on updated OER material.
* Host the OER material in a publicly available website and create a course package that can be imported into D2L.

**Timeline for IT 5423 - Responsible personnel: Dr. Ming Yang and Dr. Maria Valero**

1. *3/31/2022. a). Complete accessibility training hosted by instructional designer, Garima Banerjee. b). Review the content of OER material in existing IT 5423 modules and check for accessibility issues.*
2. *5/15/2022*. a). Complete the proposed revisions of course module. The updates to each module include learning material, PowerPoints slides, test banks, case studies, assignments, new study guides, and teaching notes. b) Make sure the course materials are state-of-the-art; fix any issues that may exist in the course materials. c). Make the OER material in those learning modules comply with the accessibility requirements set by ALG.
3. *8/1/2022*. a). Complete the proposed revisions of all labs and modules. b) Thoroughly test all lab instructions and make sure they can be easily followed and have no bug. c). Make the OER material in learning modules comply with the accessibility requirements set by ALG. d) Work with the student to complete the student review of the OER material.
4. *12/15/2022*. a). Complete IT 5423 course offering with update OER material. b). Collect students’ feedback on updated OER material; c). Host the OER material in a publicly available website and create a course package that can be imported into D2L.

**Timeline for IT 5443 - Responsible personnel: Dr. Zhigang Li.**

1. *5/1/2022*. a). Conduct an instructional analysis with the existing course content, topics, and structure, b). Identify the changes needed for the revision of the course and the redesign the structure of the course as necessary, c). Prepare a detailed task list for the update/re-development.
2. *9/30/2022*. Complete the update and re-development of the existing course materials using HTML5 format for accessibility compliance.
3. *12/2/2022*. Complete the development of accessibility compliant OER material for new content topics.
4. *5/5/2023*. a). Complete IT5443 course offering with the updated OER material. b). Collect students’ feedback on updated OER material; c). Host the OER material in a publicly available website and create a course package that can be imported into D2L.

**Timeline for IT 7723 - Responsible personnel: Dr. Rich Halstead-Nussloch**

1. *3/31/2022*. a). Complete accessibility training hosted by instructional designer, Garima Banerjee. b). Review the content of OER material in existing IT7723 modules and check for accessibility issues and course renumbering. The existing and additional OER material will be updated and comply with accessibility standards set by ALG.
2. *9/30/2022*. a) Complete the update, development, and implementation of accessibility compliant OER material and ReadMe files for all IT7723 learning modules. b) Embed OER materials for foundational IT skills, e.g., ITSPG for security and resilience, in appropriate IT7723 learning modules.
3. *12/2/2022*. a) Complete the update, development, and implementation of accessibility compliant OER IT7723 assignments (exercises, labs, discussions, and projects), b) meaningfully link IT7723 to other MSIT elective courses and concentrations and c) Work with (student) reviewer.
4. *5/5/2023*. a). Complete IT7723 course offering with update OER material. b). Collect students’ feedback on updated OER material; c). Host the OER material in a publicly available website and create a course package that can be imported into D2L.

**Timeline for IT 7993 - Responsible personnel: Dr. Lei Li**

1. *3/31/2022*. a). Complete accessibility training hosted by instructional designer, Garima Banerjee. b). Review the content of OER material in existing IT 7993 modules and check for accessibility issues.
2. *8/1/2022*. a) Complete the update, development, and implementation of accessibility compliant OER material for all IT 7993 learning modules.
3. *12/15/2022*. a) complete the development of new learning modules on system development life cycle and project management. b) work with student reviewer on the revised OER material.
4. *5/5/2023*. a). Complete IT 7993 course offering with update OER material. b). Collect students’ feedback on updated OER material; c). Host the OER material in a publicly available website and create a course package that can be imported into D2L.

# Budget

*Please enter your project’s budget below. Include personnel and projected expenses, keeping in mind that this grant funds the estimated time in your Action Plan. The maximum amounts for the award are as follows:*

* *$2,000 maximum per team member for salary, course release, travel, etc.*
* *Additional project expenses allowed, but must be adequately justified in this section*
* *$10,000 maximum total award per grant*

The budget of this proposal is listed as follows.

* Dr. Lei Li, project lead and developer of IT 7993, $1900 for travel and equipment.
* Dr. Ming Yang, co-developer and instructor of record for IT 5423, $950 for summer salary.
* Dr. Maria Valero, co-developer for IT 5423, $950 for summer salary.
* Dr. Zhigang Li, developer and instructor of record for IT 5423, $1900 for summer salary.
* Dr. Seyedamin Pouriyeh, developer and instructor of record for IT 5413, $1900 for summer salary.
* Dr. Richard Halstead-Nussloch, developer for IT 7723 and instructor of record for IT 7723, $1900 for summer salary.
* Garima Banerjee, instructional designer, $300 for equipment or travel.
* Suma Veeravenkatappa, student reviewer, $200.

**Total $10,000**

# Creative Commons Terms

*I understand that any new materials or revisions created with Affordable Learning Georgia funding will, by default, be made available to the public under a Creative Commons Attribution License (CC-BY), with exceptions for modifications of pre-existing resources with a more restrictive license.*

# Accessibility Terms

*I understand that any new materials or revisions created with Affordable Learning Georgia funding must be developed in compliance with the specific accessibility standards defined in the Request for Proposals.*

# Letter of Support

*The Department Chair from the corresponding project, or the Department Chair’s direct report such as the Dean or Provost, must provide a signed Letter of Support for the project. This letter should acknowledge the following:*

* *The department will provide support for fund disbursement in correspondence with the Grants/Business Office.*
* *The department approves of the work on the proposal by the applicant(s).*
* *The department acknowledges the sustainability of these affordable resources after the grant work is complete.*

*In the case of multi-institutional affiliations, all participants’ institutions must provide a letter of support.*

*Please provide the name and title of the department chair (or other administrator) who provided you with the Letter of Support.*

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| Sumanth Yenduri, Dean and Professor, College of Computing and Software Engineering |

# Grants or Business Office Acknowledgment Form

*Institutional Grants/Business Offices will be responsible for fund disbursement, often in correspondence with the Department Chair, including expense and travel reimbursement. All applicants will need to provide a signed Acknowledgement Form, the template for which is linked on the RFP page, stating that the Grants/Business Office knows about the applicant’s intent to apply for an Affordable Materials Grant. Either the Department Chair or the Project Lead can work with the Grants/Business Office to get this signed form.*

*In the case of multi-institutional affiliations, all participants’ institutions must provide this form.*

*Please provide the name and title of the grants or business office representative who provided you with the acknowledgement form.*

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| Kimberly Hunt, Grants and Contract Manager. |