Affordable Materials Grants, Round 20:

Continuous Improvement Grants

(Fall 2021-Fall 2022)

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 20 RFP Page](https://www.affordablelearninggeorgia.org/about/rfp_r20).
* The italic text provided below is meant for clarifications and can be deleted.

The Round 20 Kickoff will include an asynchronous training module, required for all team members to complete, followed by the synchronous Kickoff Meeting on December 10, 2021 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.*

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

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| --- | --- | --- |
| Team member | Name | Email address |
| Team member 1 | Lei Li | Lli13@kennesaw.edu |
| Team member 2 | Rebecca Rutherfoord | brutherf@kennesaw.edu |
| Team member 3 | Zhigang Li | zli8@kennesaw.edu |
| Team member 4 | Shirley Tian | xtian2@kennesaw.edu |
| Team member 5 | Linh Le | lle13@kennesaw.edu |

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

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| --- |
| Darin Morrow, dmorro21@kennesaw.edu  Garima Banerjee, instructional designer, gbanerje@kennesaw.edu  Eno-obong Inyang, MSIT student, einyang5@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 5433: Database: Design and Applications  IT 7103: Practical Data Analytics  IT 7923: Advanced Web Technologies  IT 4423: Unix/Linux |
| Final Semester of Project | * *Fall 2022* |
| 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 5433: Database: Design and Applications  Last developed in round 12 (M35):  <http://ksuweb.kennesaw.edu/~lli13/IT5433.html>  IT 7103: Practical Data Analytics  Last Developed in round 13 (#422): <https://sites.google.com/view/it6773>  Note: this course number has been changed from IT 6773 to IT 7103 in 2021-2022 catalog.  IT 7923: Advanced Web Technologies  New development, previous OER isn’t available  IT 4423: Unix/Linux  New development, previous OER isn’t available |

# Project Goals

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

IT is a dynamic field. Existing technologies are updated frequently and new innovations emerge at a fast pace. Therefore, it is essential for the IT department to maintain a cutting-edge 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. We are also committed to make any new courses textbook free from the beginning.

As part of our department ALG strategic plan, we propose to revise the OER material used in two IT courses in this project: IT 5433 and IT 7103 which were developed in round 12 and round 13 respectively. While our faculty have been making incremental changes to those courses over the years, it is time for a systematic revision. In addition, we propose to update the OER material for two other courses: IT 4423 and IT 7923. While those two courses did not go through previous ALG grants, OER material have already been adopted. The overall objectives of the project are listed as follows. The specific plan about each individual course is illustrated in the action plan section.

* Review the existing OER materials for correctness and accessibility issues.
* Replace outdated OER materials with updated 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 specific 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 5433 Databases: Design and Applications**

**Estimated working hours: 50 hours**. **Dr. Shirley Tian and Dr. Becky Rutherford are responsible for 70% and 30% of the development respectively.**

In 5433, students begin by studying the fundamentals and components of databases, including data structures and relationships. Students apply that knowledge to access databases using Structured Query Language (SQL) queries using DBMS products such as Oracle and MS SQL Server. Students then pay particular attention to database design follows, including the database life cycle, the normalization process, and a survey of common data structure patterns. Students also study physical design issues, such as the translation of logical designs into physical DMBS implementations, including indexing and cluster server deployment. Students will work with classmates to discuss security issues, followed by techniques for implementing and deploying databases in network-connected configurations. The study concludes with presentations of data warehouses, data marts and the use of databases in business intelligence applications in a cloud environment.

This course was lastly updated in ALG Round 12 (M35). A major part of this course was providing a practical foundation of database systems with an emphasis on relational database design, implementation, and management. Topics include normalization, ERD, logical and physical design, SQL query, database applications, usage of XML in database, and data warehouse. We plan to cover NoSQL databases along with relational, hierarchical, network, object-oriented, object-relational, dimensional databases. IT 5433 is a required foundation course for many students who don’t have a database background when entering the MSIT program. It is important to keep IT 5433 materials up to date based on advances in the IT field. We will cover databases in cloud environment and security ramifications in the revision. The detailed revision plan is listed as follows.

**Revision Plan**

* Revision applies to all learning modules. Estimated working hours: 25 hours
* Make the course material ADA compliant.
* Create new or revise existing PowerPoints slides, assignments, and test banks to 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.
* Review existing learning material and fix outdated web links and resources.
* Define the primary components of relational, hierarchical, network, object-oriented, object-relational, dimensional, and NoSQL databases, along with the fundamental differences between them. Estimated working hours: 10 hours
* Add NoSQL databases to module 1
* Create a new lab assignment for [Amazon DynamoDB](https://aws.amazon.com/free/database/?trk=ps_a134p000007CdCPAA0&trkCampaign=acq_paid_search&sc_channel=PS&sc_campaign=acquisition_US&sc_publisher=Google&sc_category=Database&sc_country=US&sc_geo=NAMER&sc_outcome=acq&sc_detail=nosql%20database&sc_content=nosql_p&sc_matchtype=p&sc_segment=549827768067&sc_medium=ACQ-P|PS-GO|Non-Brand|Desktop|SU|Database|DynamoDB|US|EN|Text&s_kwcid=AL!4422!3!549827768067!p!!g!!nosql%20database&ef_id=CjwKCAjwzt6LBhBeEiwAbPGOgYjoMCD_S5ZV1rBslf1Acn_UEP7UeU6dcQ2uMX1o9g86vrB0JOW6nhoCyQ0QAvD_BwE:G:s&s_kwcid=AL!4422!3!549827768067!p!!g!!nosql%20database) and practice NoSQL database service in cloud environment. (Amazon AWS provides free service for DynamoDB)
* Revise labs. Estimated working hours: 15 hours
* Create normalized database designs for those intended to support business transaction processing.
* Use SQL statements to define, maintain and retrieve data from DBMS products. Add contents about views and differences between tables and views.
* Revise lab assignment on creating database, tables, and views.
* Create star schema designs for databases intended to support historical reporting and analytics (i.e., business intelligence applications).
* Create data models, including the ability to recognize and use common data structure patterns.
* Translate logical database designs into physical implementations, including specifications for network-connecting the database, indexing, deployment on a cluster server, and accessing the database using various programming languages.
* Design data warehouse and data mart schemas for use in business intelligence applications.

**Action Plan for IT7923 Advanced Web Technologies**

**Faculty Developer - Dr. Zhigang Li. Estimated working hours: 50 hours.**

This course covers advanced web concepts and technologies such as web business models and strategies, web architectures, cloud-based services, scalability, load balancing, web security, application development lifecycles, and DevOps. Students will complete a major web development project following the proper lifecycle processes by selecting and using the appropriate architecture and technology stack. Students will also complete a research concept paper on future trends and development of web technologies.

This course has not been transformed under an ALG grant. However, OER materials have been adopted in the course by faculty’s own efforts. The existing course centers around the Web2.0 concepts and its related business strategies and solutions. It needs a significant redevelopment to introduce the most current web concepts, technologies, and architectures that align with the demands of the IT job market. As part of this proposal, our goal is to completely redevelop the course using both self-developed and OER materials available on the Internet. A detailed development and revision plan is listed as follows.

* *Overhaul of the course structure and instructional strategies*. Estimated working hours: 5 hours. The actions in this step involve the overhaul of the course structure, realignment of course level and module level learning objectives, assessments, and learning activities, as well as the instructional strategies of the course.
* *Review and collection of existing OER materials that align with the course learning objectives*. Estimated working hours: 10 hours. There are many great resources available on the Internet that are related to the various topics of the course. The actions in this step involve the review, selection, and curation of a library of high-quality resources that can be used either as instructional materials or reference materials in the course. Criteria for the selection and inclusion of these materials include but are not limited to the alignment with the course and/or module learning objectives, the overall quality of the material, the content format (i.e., text or video), and accessibility compliance. A total of 10 working hours are estimated for this task. The list below provides an example of some of the major sources of OER materials related to the course's topics. Please note that the list is not exhaustive.
  + *DevOps.com*. It is one of the most comprehensive resources for DevOps education and community building. It curates a large amount of blog articles, white papers, reports, and webinars related to cloud computing, continuous delivery, and continuous testing.
  + *AWS Documentation*. As one of the leading cloud service platforms, AWS provides documentation, tutorials, and toolkits for all its services and products. Some of the tutorials and documentation are in good alignment with the course objectives and can be used either as instructional materials or reference materials. The following list is an **example** of the topics that are available on AWS documentation website that are closely related to the course:
    - [*Deploy a Node*.js Web App](https://aws.amazon.com/getting-started/projects/deploy-nodejs-web-app/)
    - [*Set Up a Jenkins Build Server*](https://aws.amazon.com/getting-started/projects/setup-jenkins-build-server/)
    - [*Deploy Docker Containers*](https://aws.amazon.com/getting-started/projects/setup-jenkins-build-server/)
    - [*Setup a Continuous Deployment Pipeline*](https://aws.amazon.com/getting-started/tutorials/continuous-deployment-pipeline/)
  + *Microsoft Azure Documentation.* Similar to AWS, as another leading cloud service platform, Microsoft Azure provides a library of documentation related to DevOps, cloud service and configurations, as well as tutorials and toolkits. These resources can be leveraged when they align with the course objectives.
* *Development of course learning content*. Estimated working hours: 35 hours. Despite the above-mentioned resources available on the Internet, a large amount of learning content still has to be developed for the course. These may include learning content on the subject, step-by-step tutorials, lecture videos, study guides, and instructions for learning activities and assessment items. The content that is to be developed covers all topics of the course. The exact length and format of these content vary based on the specific topics and the available resources collected from the previous step. Universal design for learning guidelines will be followed for the development of the learning content to ensure that the course meets the diverse needs of the students, and all accessibility requirements are satisfied.

**Action Plan for IT 7103 Practical Data Analytics**

**Faculty developer – Dr. Linh Le. Estimated working hours: 50 hours**

In this course, students will learn concepts and practical skills that are necessary to perform an end-to-end data analytics project. Topics include understanding business problems, collecting business data, exploring the data, preparing the data for data analytics, selecting, and training a model, fine-tuning a model, presenting the solution, launching, monitoring, and maintaining the system.

More specifically, students are introduced to common practices and techniques for each phase in a data analytical project as follows. In the preliminary analysis phase, students are introduced to obtaining summary statistics and visualization of the data. In the preprocessing data phase, techniques including standardization of numeric features, encoding categorical features, imputation of missing values, and train-test split of data, are introduced. For modeling, the regression task and the classification task are reviewed. Students will work with models including Linear Regression, Ridge Regression, LASSO, ElasticNet, Logistic Regression, SoftMax Regression, Support Vector Machine, Decision Tree, and ensemble tree models. For model evaluation, students will learn about cross-validation and metrics such as accuracy, precision, recall, F1-score, ROC curve, PR curve, Mean Squared Error, and R-squared. Students’ performances are evaluated with lab assignments throughout the semester, a mid-term exam and a final exam, and a team project.

This course was developed with OER material in ALG Round 13 grant (#422). Because data analytics is a fast-moving area with new techniques constantly being introduced, the course needs to be updated to keep up with the current state-of-the-art. In short, revisions will focus on improving the quality of existing OER materials and introducing new topics. The detailed plan is as follows.

* Revision applies to all learning modules. Estimated working hours: 25 hours
* Make the course material ADA compliant.
* Revise all study guides, lecture notes, slides, and lab examples. Illustrations, examples, and labs that are presented with outdated concepts and software will be updated. Datasets that are used in examples will also be updated to more practical applications.
* Fix outdated web links and resources.
* Addition of new topics. Estimated working hours: 15 hours
* Data visualization is currently overlooked in the course. Data visualization will be split into a separate module with more detailed discussions and examples.
* There are two state-of-the-art modeling techniques that are currently not introduced in this course which are Neural Network *(Jain, A. K., Mao, J., & Mohiuddin, K. M. (1996). Artificial neural networks: A tutorial. Computer, 29(3), 31-44.)*, and Gaussian Process *(Rasmussen, C. E. (2003, February). Gaussian processes in machine learning. In Summer school on machine learning (pp. 63-71). Springer, Berlin, Heidelberg.)*. Both are powerful models that can be applied in both regression and classification. New OER materials for the two topics will be developed, including study guides, lecture notes, slides, and lab examples.
* Revision of current lab assignments and creation of new ones. Estimated working hours: 10 hours
* Perform data preprocessing and data cleaning. Generate summary statistics and visualize data
* Apply linear regression models, also include Ridge Regression, LASSO, and ElasticNets on regression tasks
* Apply Logistic regression and Softmax regression on classification tasks
* Apply Support Vector Machine on regression and classification
* Apply Tree and ensemble tree models on regression and classification
* Apply Neural Network on regression and classification
* Apply Gaussian Process on regression and classification

**Action Plan for IT 4423: Linux/Unix Administration**

**Estimated working hours: 50 hours. Faculty developer – Darin Morrow.**

This course introduces Linux/Unix operating systems and administration of key operating systems tasks and capabilities. Topics include system administration, file systems and access permissions, regular expression, common tools and utilities, and network service configurations. Lessons are enhanced using hands-on exercises.

A major part of course is to cover the basic installation and administration of a Linux operating system that are leveraged daily in the IT Linux environment. After the initially development, Linux, and Ubuntu on have deprecated certain administration commands and the course needs to be update the course material and software version/hands-on labs that support the students’ effective learning. The course outcomes/learning objectives will benefit from the latest free training material at the Linux Foundation, free Linux reference manuals at GNU, and free Linux software from Ubuntu

* The Linux Foundation (LF), [Linux Foundation - Decentralized innovation, built with trust](https://www.linuxfoundation.org/), is a non-profit technology consortium founded in 2000 as a merger between Open-Source Development Labs and the Free Standards Group to standardize Linux, support its growth, and promote its commercial adoption. The Linux Foundation has expanded its support programs through events, training and certification, and open-source projects.
* GNU which has an extensive collection of free software which can be used as an operating system or can be used in parts with other operating systems. <https://www.gnu.org/>
* Ubuntu is a Linux distribution based on Debian and composed mostly of free and open-source software that our students can easily download and use, <https://releases.ubuntu.com/>

*Update and Revision to all learning modules*. Estimated time working on this task: 50 hours.

* Based on the latest free training available from the Linux Foundation, <https://training.linuxfoundation.org/training/introduction-to-linux/>, we will empower us update our learning materials for learning outcomes
  + Describe concepts and structure of the Linux/Unix operating system.
  + Use common commands and utilities for general file system operations.
  + Perform system administration tasks to manage files, software, storage, users, and services.
* Free reference manuals from GNU which has an extensive collection of free software which can be used as an operating system or can be used in parts with other operating systems. For example, the course material will be updated for the learning objectives below from this respected organizations bash shell reference manual <https://www.gnu.org/software/bash/manual/bash.pdf> and its command line tools summary, so we are ensuring the materials are current
  + - Write shell scripts for common shell environment.
    - Perform system administration tasks to manage files, software, storage, users, and services.
* With the above materials and others like
  + Create new or revise existing PowerPoints slides, assignments, and test banks to 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 student to study for the course material.
  + Create a teaching note for each learning module to provide a guide for instructor on course delivery.
  + Review existing learn material and fix outdated web links and resources.
* *Update the Ubuntu Linux software version for the course*.
  1. *Currently the course and content are built assuming an older version of Ubuntu Linux* [*http://mirror.pnl.gov/releases/trusty/*](http://mirror.pnl.gov/releases/trusty/)that is end of life from a support perspective.
  2. Plan is to define a newer version of Linux that fits our virtual machine environment as we are six versions behind, and many commands are deprecated. We will test and select an appropriate version <https://releases.ubuntu.com/> as well as leverage Ubuntu’s documentation, <https://help.ubuntu.com/community> ,to support the following learning objectives:
     + Use common commands and utilities for general file system operations.
     + Write shell scripts for common shell environment.
     + Perform system administration tasks to manage files, software, storage, users, and services.

# 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. 1/31/2022 – work with instructor designer, Garima Banerjee, to host a workshop on ALG accessibility requirements.
2. 5/13/2022 – a) submit a project progress report; b) develop a survey for collecting students’ feedback on OER material
3. 8/1/2022 – a) submit the project progress report; b) work with all developers to ensure all developed course material meet the ALG and department standard
4. 12/5/2022 – a) administrate the student survey.
5. 12/16/2022 – submit the project final report.

**Timeline for IT 5433 - Responsible personnel: Drs. Becky Rutherfoord and Shirley Tian**

1. *1/31/2022. a). Complete accessibility training hosted by instructional designer, Garima Banerjee. b). Review the content of OER material in existing IT 5433 modules and check for accessibility issues. c). Research the free web resources for NoSQL database.*
2. *2/28/2022*. a). Complete the revision of NoSQL module. The updates to each module include learning material, PowerPoints slides, test banks, case studies, assignments, new study guides, and teaching notes. b). Make the OER material in those learning modules comply with the accessibility requirements set by ALG.
3. *8/1/2022*. a). Complete the revision of all labs and modules. b). Make the OER material in learning modules comply with the accessibility requirements set by ALG. c) Work with the student to complete the student review of the OER material.
4. *12/12/2022*. a). Complete IT 5433 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 7103 - Responsible personnel: Dr. Linh Le.**

1. *1/31/2022*. a). Complete accessibility training hosted by Sarah Cooper. b). Review the content of OER material in existing IT 7103 modules and check for accessibility issues.
2. *3/15/2022*. a) Complete the OER material development for two new modules on data visualization and new data modeling technology.
3. *8/1/2022*. a) Complete the revision of existing modules. b). Make the OER material in learning modules comply with the accessibility requirements set by ALG. c) Work with the student to complete the student review of the OER material.
4. *12/12/2022*. a). Complete IT 7103 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 7923 - Responsible personnel: Dr. Zhigang Li.**

1. 1/31/2022. Complete the overhaul of the course structure and instructional strategies. High level instructional design is completed.
2. 3/31/2022. Complete the review and collection of available resources and materials that are related and can be used for the course.
3. 8/1/2022. a). Complete the redevelopment of the course content. These include learning content on the subject, step-by-step tutorials, lecture videos, study guides, and instructions for learning activities and assessment items. b) Work with the student to complete the student review of OER material.
4. 12/12/2022. a). Complete course offerings with developed OER material. b). Collect students’ feedback on the course; c). Publish the updated OER material in a public website and create a course package that can be imported into D2L.

**Timeline for IT 4423 - Responsible personnel: Mr. Darin Marrow.**

1. *1/31/2022. a). Complete accessibility training hosted by instructional designer, Garima Banerjee. b). Review the content of OER material in existing IT 4423 modules and check for accessibility issues.*
2. *2/28/2022*. a). Complete the development of new modules include learning material, PowerPoints slides, test banks, case studies, assignments, new study guides, and teaching notes. b). Make the OER material in those learning modules comply with the accessibility requirements set by ALG.
3. *8/1/2022*. a). Complete the revision of all labs and modules. b). Make the OER material in learning modules comply with the accessibility requirements set by ALG. c) Work with the student to complete the student review of the OER material.
4. *12/12/2022*. a). Complete IT 4423 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 quality control, $800 for summer salary.
* Dr. Shirley Tian, developer for IT 5433 and instructor of record for IT 5433, $1500 for summer salary.
* Dr. Rebecca Rutherfoord, co-developer for IT 5433, $1000 for summer salary.
* Dr. Zhigang Li, developer and instructor of record for IT 7923, $2000 for summer salary.
* Dr. Linh Le, developer and instructor of record for IT 7103, $2000 for summer salary.
* Mr. Darin Marrow, developer and instructor of record for IT 4423, $2000 for summer salary.
* Garima Banerjee, instructional designer, $500 for equipment or travel.
* Eno-obong Inyang, student reviewer, $200.

# 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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| Dr. Rebecca Rutherfoord, Chair of the Department of Information Technology |

# 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. |