

Application Number	M60
Applicant	Dr. Guangzhi Zheng
Position	Associate Professor of IT
Institution	Kennesaw State University
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Team Members	Dr. Chi Zhang, chizhang@kennesaw.edu
Type	Revision of pre-existing OER

Course Number / Title	IT 6713 Business Intelligence
Final Semester	Spring 2020
Grant Amount	\$4,800
Works Being Revised	Business Intelligence, https://oer.galileo.usg.edu/compsci-collections/5/

<p>Description</p>	<p>We had an ALG round 2 grant on business intelligence (BI) course (Round 2 #119) in fall 2015 https://oer.galileo.usg.edu/compsci-collections/5/.</p> <p>Now that four years had passed, the industry of business intelligence had gone through some significant changes, with the new trend and tools summarized as the “Modern BI”. According to Ian Bertram, managing vice president at Gartner, a global research and advisory firm for providing insights, advice, and tools for leaders in IT and other industries across the world: “Organizations must transition to easy-to-use, fast and agile modern BI platforms to create business value from deeper insights into diverse data sources.” https://www.datameer.com/blog/7-requirements-evolved-bi/.</p> <p>We believe it is essential to update the original content with the new trend and the new tools to have the curriculum stay current and better serve our IT students. The course is now a required course in our new data management an analytics certificate, and is expected to attract over 50 master students every year.</p> <p>Our curriculum enhancement development plan is as follows:</p> <ol style="list-style-type: none"> 1. Add modern BI and analytics concepts and practices to all 9 modules in the course IT 6713 “Business Intelligence”. All lecture notes and study guides will be updated to reflect this trend. 2. We are planning to use a new software platform called Microsoft Power BI (https://powerbi.microsoft.com/en-us/), one of the major modern BI/analytics and visualization software, for student labs and projects. Power BI is one of the main modern BI tools on the market now. We will develop four new labs with the accompanying learning materials to cover this new software. The student project will also be updated to use the new software. The four new labs are planned to cover: <ul style="list-style-type: none"> • Data model • Data preparation • Data analysis • Data visualization and dashboard building 3. We will also develop a specific project focusing on healthcare data and applications, using the Power BI software. Healthcare represents one of the fastest growing business segments for Business Intelligence We will prepare the business case and data set from credible open data sources. For example: <ul style="list-style-type: none"> • Health Analytics Data https://app.himssanalytics.org/data/index.aspx • HealthData.gov https://www.healthdata.gov/ • Data.gov/health https://www.data.gov/health/ • Hospital Compare datasets https://data.medicare.gov/data/hospital-compare • A collection of public datasets including healthcare https://github.com/awesomedata/awesome-public-datasets#healthcare <p>This project can be flexibly used in multiple courses including this course “Business Intelligence, a healthcare IT course “Introduction to Health IT”, or a special topics course “Applied Data Analytics”.</p>
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	<p>4. Create a website for disseminating the course materials. We have created websites for all our ALG courses for the past 2 years (see http://zheng.kennesaw.edu/teaching/alg.cshtml). For this curriculum update, we will also create a website for easy access for the interested faculty across the state.</p>
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Timeline	<p>Spring 2019 - detailed course analysis and planning for changes</p> <p>Summer 2019 - course development (update); web site development</p> <p>Fall 2019 - implement the new and updated materials to the actual course and get student feedback</p> <p>Spring 2020 - seek to offer a special topic healthcare analytics course and implement the new healthcare focused project; data analysis; project conclusion</p>
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Budget	Dr. Guangzhi Zheng as the main content developer and instructor is requesting \$2000 as summer 2019 compensation. Dr. Chi Zhang as the main healthcare data analytics project developer and instructor is requesting \$2000 as professional development and travel cost. We are also requesting \$800 for the project development expense including potential spending on data set purchase.
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