In the table(s) below, provide information about similar programs based on CIP codes. Institutions may list other programs that are similar but may be classified in a different CIP code. A search for similar programs by CIP can be conducted at https://dataportal.cpe.ky.gov/KYAcademicProgInventory.aspx. Please contact the Program Approval and Review Coordinator, Leslie Harper, for assistance in determining a CIP code.
Copy the table below as needed to address all similar programs.
Note: Although this information is required by CPE for degree programs, certificate programs should also complete this table so that they can better consider how competition will effect enrollment projections.

Similar Program 1:	
Institution:	University of Louisville, Speed School of Engineering
Program Name:	Data Science (DS) Certificate
Comparison of Objectives/Focus/Curriculum to Similar Programs: *Explain the differences in curriculum, focus, and/or objectives. If the proposed program curriculum does not differ substantially from existing programs, then describe potential collaborations with other institutions.*	The DS certificate aims to Expand students' knowledge in important data science areas like data mining, artificial intelligence, big data, and more. The certificate produces essential credentials to help advance a student's career as a data scientist. The proposed ADM certificate focuses on training students with an increased ability to utilize analytics in decision-making for a variety of organizations. Unique Industrial Engineering courses such as Operations Research and Simulation make this distinctive training possible. Additionally, the core course in the proposed ADM certificate IE 662 "Predictive Analytics for Decision Making I" has content that can be found in several courses in the DS certificate**. However, we purposely designed IE 662 to cover a broad range of topics (with focus on application, and less theory) to allow our students to be able to identify the appropriate methods and employ them to aid 'decision making.'** With this course, students would get the most important concepts of predictive analytics and decision making within a single course. In summary, the proposed certificate focuses on training student's ability to utilize analytics tools to assist decision making through systematic courses with the Industrial

	Engineering domain.
Comparison of Student Populations*: Describe how your target student population is different from those at other institutions and explain how your program reaches this new population (e.g. the proposed program is completely online while other programs are face-to-face or hybrid).*	The intended audience for this certificate program is our current students in the Department of Industrial Engineering, as well as working professionals (e.g., project manager, operations manager) who use data-driven approaches to enable decision making at various levels in their organization. Our program will be offered to both in-residence students as well as online. The student population for the existing DS certificate either currently holds or will hold positions such as data scientist and data analyst.
Access to Existing Programs: *Explain how/why existing programs cannot reach your target population and/or provide evidence that existing programs do not have the capacity to meet current student demand (e.g. the number of students on enrollment waiting list).*	The students in our program will also acquire skills in operations research, decision support system, and simulation. The target audience is different than those students who are only interested in data science, which is the focus of the DS certificate.
Feedback from Other Institutions: *Summarize the feedback from colleagues at institutions with similar programs.*	N/A
<u>Similar Program 2:</u>	
Institution:	University of Louisville, College of Business
Program Name:	Managerial Analytics (MA) Certificate
Comparison of Objectives/Focus/Curriculum to Similar Programs: *Explain the differences in curriculum, focus, and/or objectives. If the proposed program curriculum does not differ substantially from existing programs, then <u>describe potential collaborations with other institutions.</u>*	The MA certificate aims to increase students' functional knowledge in data analytics as it applies to business management. These include areas such as finance and forecasting, price optimization, customer acquisition, computer information systems, web page analysis, operations management, inventory planning, and more. The certificate also focuses on students' ability to communicate analysis and results through data visualization and data storytelling. The proposed ADM certificate focuses on training students with an increased ability to utilize analytics in <u>decision-making</u> for a variety of organizations. Industrial Engineering courses

	such as Operations Research and Simulation set us apart from the MA certificate. Additionally, the core course in the proposed ADM certificate IE 662 "Predictive Analytics for Decision Making I" has content that can be found in several courses in the DS certificate**. However, we purposely designed IE 662 to cover a broad range of topics (with focus on application, and less theory) to allow our students to be able to identify the appropriate methods and employ them to aid 'decision making.'** With this course, students would get the most important concepts of predictive analytics and decision making within a single course. In summary, the proposed certificate focuses on training student's ability to utilize analytics tools to assist decision making through systematic courses with the Industrial Engineering domain.
Comparison of Student Populations*: Describe how your target student population is different from those at other institutions and explain how your program reaches this new population (e.g. the proposed program is completely online while other programs are face-to-face or hybrid).*	The intended audience for this certificate program is our current students in the Department of Industrial Engineering, as well as working professionals (e.g., quality manager, industrial engineer, production engineer) who use engineering-based data-driven approaches in their organizations' operational and business decisions. We expect all students to possess technical backgrounds to succeed in engineering courses. The student population for the MA certificate are those in various business functions in an organization.
Access to Existing Programs: *Explain how/why existing programs cannot reach your target population and/or provide evidence that existing programs do not have the capacity to meet current student demand (e.g. the number of students on enrollment waiting list).*	The students in our program will also acquire skills in operations research, decision support system, and simulation. T]he target audience is different than those students who are only interested in business analytics, the focus of the MA certificate.
Feedback from Other Institutions: *Summarize the feedback from colleagues at institutions with similar programs.*	N/A