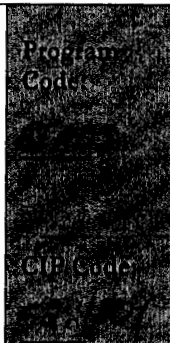


PROGRAM PROPOSAL FORM

- Preliminary Approval** – Check here when using this form for preliminary approval of a program proposal, and respond to the items in general terms.
- Final Approval** – Check here when completing this form after the Vice President for Instruction has given preliminary approval to a program proposal. For final approval, complete information must be provided for each item.

<p>Program Name:</p> <p>Division and Department:</p> <p>Type of Award:</p> <p>Effective Term/Year:</p> <p>Initiator:</p>	<p>Applied Data Science Certificate</p> <p>Business and Computer Technologies (BMG/CIS)</p> <p><input type="checkbox"/> AA <input type="checkbox"/> AS <input type="checkbox"/> AAS <input checked="" type="checkbox"/> Cert. <input type="checkbox"/> Adv. Cert. <input type="checkbox"/> Post-Assoc. Cert. <input type="checkbox"/> Cert. of Comp.</p> <p>Fall 2015</p> <p>Cheryl Byrne (BMG), Mike Galea (CIS)</p>		
<p>Program Features Program's purpose and its goals. Criteria for entry into the program, along with projected enrollment figures. Connection to other WCC programs, as well as accrediting agencies or professional organizations. Special features of the program.</p>	<p>The purpose of this program is to provide foundational skills in analytics of structured data.</p> <p>In addition to the standard college-level reading and writing requirements, the student is expected to have some basic business skills and basic knowledge of Microsoft Office. Our conservative estimate is that 15 students will be enrolled by the end of year 1 and 30 by the end of year 2. An effective marketing program, however, will increase this estimate.</p> <p>While there is no direct connection to other WCC programs, this will be an attractive program for business and computer science students.</p>		
<p>Need Need for the program with evidence to support the stated need.</p>	<p>"Big Data refers to the immense amount of data collected and analyzed from every imaginable device in our modern culture, and has fueled one of the most hyper-growth niches of employment in a century" (http://bigdatajobsindex.com/). In fact, according to Jack Phillips, CEO of the International Institute for Analytics, "There's no question that the number one requirement [for] enterprises that are serious about gaining a competitive advantage using data and analytics is going to be the talent to run that program" (http://www.computerworld.com/article/2492676/big-data/big-data-big-jobs-.html).</p> <p>That means that as big data continues to gather momentum, there are career opportunities at all levels for professionals with the right qualifications. According to a report published in 2014 by McKinsey & Co., the U.S. could face a shortage by 2018 of 140,000 to 190,000 people with "deep analytical talent" and of 1.5 million people capable of analyzing data in ways that enable business decisions.</p>		
<p>Program Outcomes/Assessment State the knowledge to be gained, skills to be learned, and attitudes to be developed by students in the program. Include assessment methods that will be used to determine the effectiveness of the program.</p>	<p><u>Outcomes</u></p> <ol style="list-style-type: none"> 1. Identify basic data science methodologies. 2. Apply basic analytics techniques to transform data into information. 3. Construct basic database queries. 	<p><u>Assessment method</u></p> <ol style="list-style-type: none"> 1. BMG285 departmental exam. 	

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Curriculum List the courses in the program as they should appear in the catalog. List minimum credits required. Include any notes that should appear below the course list.	Advanced Applied Data Analytics Certificate (17 cr) BMG 265 Business Statistics 3 cr BMG 275 Business and Supply Chain Analytics 4 cr CIS 282 Relational Database Concepts and Application 3 cr CIS 110 Introduction to Computer Information Systems 3 cr CIS285/BMG285 Applied Data Analytics 4 cr		
Budget Specify program costs in the following areas, per academic year:		START-UP COSTS	ONGOING COSTS
	Faculty	\$.	\$.
	Training/Travel	.	.
	Materials/Resources		
	Facilities/Equipment	.	.
	Other	.	.
	TOTALS:	\$.	\$.
Program Description for Catalog and Web site	The Applied Data Science certificate is intended for students who want to pursue a career in data analytics (“big data”) or enhance their current business skills. Students learn how to capture, manipulate, and analyze structured data – the massive volume of numeric values that can be easily stored and sorted. They learn how to transform data into information to enable faster and more intelligent decision-making.		
Program Information	Accreditation/Licensure - None Advisors – Cheryl Byrne/Mike Galea Advisory Committee - Admission requirements - Articulation agreements – Continuing eligibility requirements – Minimum grade of “C” in major/area courses.		

Assessment plan:

Program outcomes to be assessed	Assessment tool	When assessment will take place	Courses/other populations	Number students to be assessed
Identify basic data science methodologies.	CIS/BMG285 departmental exam	Fall 2018	All students in CIS/BMG285	All students in CIS/BMG285
Apply basic analytics techniques to transform data into information.	CIS/BMG285 departmental exam	Fall 2018	All students in CIS/BMG285	All students in CIS/BMG285
Construct basic database queries.	CIS/BMG285 departmental exam	Fall 2018	All students in CIS/BMG285	All students in CIS/BMG285

Recommended Course Sequences

First Semester

Class	Title	Credits
		4
BMG 265	Business Statistics	3
CIS 110	Introduction to Computer Information Systems	

Total

Second Semester

Class	Title	Credits
BMG 275	Business & Supply Chain Analytics	3
CIS 282	Relational Database Concepts and Application	4

Total

Third Semester

Class	Title	Credits
BMG285	Applied Data Analytics	4

Total

Fourth Semester

Class	Title	Credits
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Total

Total Credits Required

17

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Scoring and analysis plan:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally-developed rubric, external evaluation, other). Attach the rubric.

Exam - answer key, and .case studies

2. Indicate the standard of success to be used for this assessment.

70% of students will score 70% or higher.

3. Indicate who will score and analyze the data.

Departmental Faculty

REVIEWER	PRINT NAME	SIGNATURE	DATE
Department Chair/Area Director	CALFETTE M. YOUNG	<i>[Signature]</i>	2/19/15
Dean	Kimberly Huerens	<i>[Signature]</i>	2/19/15
Vice President for Instruction <input type="checkbox"/> Approved for Development <input type="checkbox"/> Final Approval	William Abernethy	<i>[Signature]</i>	2/20/15
President	Rose Bellanca	<i>[Signature]</i>	2/23/15
Board Approval			3/04/15