GRADUATE CERTIFICATE PROGRAM PROPOSAL

Cover Sheet

Academic Department: Management Information Systems

Date: 1-28-2013

Department Chair: Rassule Hadidi

Office: D484

Phone: 217/206-7294
E-mail Address: rhad@evis.edu

The attached graduate certificate proposal has been approved by the department. I understand that students cannot be admitted to new graduate certificate programs until the program has received full governance approval and appears in catalog copy.

Rassule Hadidi, Chair

Signature

Printed Name, Title

Description of Proposed Graduate Certificate Program

Please use the following outline when preparing the certificate proposal, and attach the description to this form before forwarding for required governance approvals.

I. Title of the Proposed Graduate Certificate

II. Mode(s) of Delivery (i.e., on-campus/blended program only; online program only; both)

III. Recommended CIP Code

IV. Purpose of the Proposed Graduate Certificate

V. Target Market/Intended Audience

VI. Occupational/Student Demand

VII. Proposed Curriculum and Anticipated Schedule of Course Offerings for Certificate (please include proposed catalog copy for the certificate program, and note that the minimum number of credit hours is 12 and the maximum number is less than ½ the minimum number of credit hours required for a master’s degree)

VIII. Relation to Department’s Existing Degree Program

IX. Relation to Professional Accreditation or Professional Association Continuing Education Requirements (if applicable)

X. Certificate Admissions Requirements

XI. Resource Requirements (include staffing, equipment, etc.)

XII. Administrative Issues (i.e., who will provide advising for certificate students, who will track course completion for certificate?)

XIII. Anticipated First Semester/Year for Admitting Students to Certificate Program
Required Governance Approvals

Post-Baccalaureate Graduate Certificate programs require 18 semester hours or more for completion, and must receive the approval of the Academic Department, College Curriculum Committee, Graduate Council, and Campus Senate; be reported to the University of Illinois Board of Trustees; and be listed in the annual listing of the Illinois Board of Higher Education before they can appear in scheduled catalog copy and before a BANNER program code (CERT) can be assigned.

Campus-level Graduate Certificate programs require less than 18 semester hours for completion, and must receive the approval of the Academic Department, College Curriculum Committee, Graduate Council, and Campus Senate before they can appear in scheduled catalog copy and before a BANNER program code (NDEG) can be assigned.

UIS Governance Review Decisions

This is a proposal for a ☑ Post-Baccalaureate Graduate Certificate ☐ Campus-level Graduate Certificate.
It has been reviewed by the following governance bodies:

College Curriculum Committee ☑ Proposal Approved ☐ Proposal Denied

Patricia Byrnes
Printed Name of Chair

Patricia Byrnes
Signature of Chair

2/7/13 Date

Graduate Council ☐ Proposal Approved ☐ Proposal Denied

Printed Name of Chair

Signature of Chair

Date

Campus Senate ☐ Resolution Approved ☐ Resolution Denied

Printed Name of Chair or Designee

Signature of Chair or Designee

Date

For Administrative Use Only

For Post-Baccalaureate Certificates (18 or more semester hours)

Senate's Conference Approval Date: ________________ BOT Approval Date: ________________

Received IBHE acknowledgement for listing on ________________

For ALL Graduate Certificates

Semester/Year of first admission to new Certificate program: ________________

Notices of final approval sent to the following offices on ________________, by ________________:

☐ Academic Department Chair ☐ College Dean ☐ Assoc Vice Chancellor

☐ Registrar ☐ Asst to AVC (for catalog copy) ☐ Institutional Research Officer

UIS Graduate Certificate Proposal Form: April 2010 version
I. Title of the Proposed Graduate Certificate

Graduate Certificate in Business Intelligence

II. Modes of Delivery

On-Campus/Blended program

Online program

III. Recommended CIP Code

11.0802. Data Modeling/Warehousing and Database Administration

IV. Purpose of the Proposed Graduate Certificate

Business Intelligence (BI) is an industry term to refer to a broad category of applications, technologies, and processes for gathering, storing, accessing, and analyzing data to help business users analyze situations and make fact-based, informed decisions.

The origins of the BI term are developments in the area of decision support systems. BI applications help decision makers to analyze current and historical business data that is created daily business transactions or events occur or derived from external sources, such as economic conditions and demographic data, to study a particular function or business process. Information is used to evaluate business performance, understand trends, strengths, weaknesses, and analyze competitors and the market situation.

The purpose of the Certificate in Business Intelligence is to provide business and technology practitioners with the knowledge and skills necessary to collaborate in the design, development, and adoption of BI applications in organization. The motivation for this certificate comes from the growing demand for qualified BI professionals in the US as reported by major information technology research and advisory firms.

BI technology and applications give organizations the ability to integrate information from existing business processes and strategic initiatives and to explore in real-time how the business is performing and how the business and its customers react to these practices. Having the ability to integrate and analyze data from various sources as events happen, provide organizations the opportunity to take immediate improvement actions that will secure their growth and sustainability in the current competitive market (Stoddart, 2012).

Organizations require professionals that understand business information needs and have the specialized technical skills to effectively design the applications that will allow them to analyze data and deliver the information needed to facilitate fast response to process inefficiencies and to business threats and opportunities. A survey of CIOs representing more than $138 billion in corporate and public-sector IT spending, encompassing 1,527 enterprises across 48 countries and 30 industries indicate that corporations are focusing on business process improvement supported by BI applications (Gartner, 2009). Understanding information needs and developing BI
applications represent a hybrid set of skills not readily available. As reported by the McKinsey Global Institute by 2018 the US will face a shortage of 1.5 million professionals with business analytics skills to analyze data and make decisions (Watson, 2012). It is necessary then that academic institutions focus on training the current and future labor force and develop hybrid professionals with a mix of technical and business skills.

Academic institutions are acknowledging the importance of BI and have begun to offer elective courses, concentrations and even master’s degree in BI (Sincar, 2009; Watson, 2009). A Certificate in Business Intelligence is a necessary step for the Department of MIS to remain current and relevant to industry and market needs.

V. Target Market/Intended Audience

The target market/audience for the Certificate in Business Intelligence is information technology and business practitioners from both the public and private sectors. Additionally, we expect the certificate to attract graduates from the BBA, BA in Accountance, Economics, and BS in MIS as well as the MBA students.

VI. Occupational/Student Demand

Current needs in the BI job market include positions with the following titles (Herschel, 2009):

- Business Intelligence Analyst
- Business Intelligence Developer
- Business Intelligence Program Manager
- Business Intelligence Director
- Business Intelligence Consultant

Graduates of the Certificate in Business Intelligence are expected to fill these positions. Given the widespread need and usage of BI applications across organizations, any executive or business manager will benefit from the knowledge and skills developed as part of this certificate. These managers are responsible for decision-making and improvement actions in their organizations. They will be the primary users of BI applications and will necessarily participate in the development and adoption of BI applications and programs. Any graduate from the College of Business and Management may fall in this category. The fact that many business schools and universities are beginning to integrate BI electives, concentrations and master’s program (Sincar, 2009; Watson 2009, 2012) corroborate the need to prepare business graduates in BI.

According to the McKinsey Global Institute, a major information technology research and advisory firm, the US will face by 2018 a shortage of 1.5 million professionals with business analytics skills to analyze data and make decisions (Watson, 2012). There will be an ongoing need to have employees who have the knowledge and skills to use BI technology and applications to successfully gather, integrate, and analyze data from various sources and disseminate information that will allow fact-based decision making and business performance improvements.

Additionally, given that “more employers prefer online training to traditional classroom learning when it comes to college and university certificate programs for their workers” (Porter 2006), all courses within the certificate will be offered online.
and on-campus/blended. It is expected that online demand will be greater than on-campus/blended demand.

VII. Proposed Curriculum and Anticipated Schedule of Course Offerings for Certificate (please include proposed catalog copy for the certificate program, and note that the minimum number of credit hours is 12 and the maximum number is less than \( \frac{1}{2} \) the minimum number of credit hours required for a master’s degree)

The certificate may be taken as a stand-alone piece or may be incorporated into a student’s work on a Master of Science in Management Information Systems or the MBA, or the MA in Accountancy degree. The certificate will consist of the three courses listed below. These three courses currently exist in the Master of Science in Management Information Systems degree program.

MIS 513 – Management Information Systems (3 hours)

Provides a foundation for understanding and analyzing information in organizations. Fundamental concepts of systems and information are covered. Topics include computer-based information systems, user requirements, and analysis and specification of systems requirements, life cycle, and security. MBA students may replace MIS 513 with MIS 525.

MIS 523 – Managerial Decision Support Systems (3 hours)

Provides an overview of a variety of related decision support systems (DSS) topics. Gives participants a flexible definition of DSS technology and introduces some principles of DSS design and use. Equips students with fundamental concepts and techniques of expert systems. Special emphasis is placed on microcomputer-based decision support systems.

MIS 576 – Data Warehousing (3 hours)

Provides a comprehensive study of Data Warehousing, Business Intelligence, and Business Data Analysis. Data warehousing is a well-established technology within the IT industry. It provides an infrastructure to collect and integrate subject-oriented data for predefined strategic as well as tactical managerial decision making purposes such as planning, logistics, and marketing. The focus of this course is on business and technical aspects of Data Warehousing and Business Intelligence. It covers fundamental concepts and capabilities of Business Intelligence applications and the technologies that enable them and how these capabilities are developed to support decision-making and business performance improvement.

Certificate total – 9 hours.

VIII. Relation to Department’s Existing Degree Program

Two of the three courses that make up this certificate are required courses for the Master of Science in Management Information Systems degree and are offered on a regular basis. The third course, MS576 is an elective course recommended for the MSIS 2006 Model Curriculum for Graduate Degree Programs in Information Systems. MIS 525 is a required course for all MBA students.
IX. Relation to Professional Accreditation or Professional Association Continuing Education Requirements

N/A

X. Certificate Admissions Requirements

a. Eligibility

Possession of Bachelor’s degree. All required courses for the certificate needs to be completed with a minimum of a B grade (B- and lower grades are not acceptable).

b. Admissions process

Applicants would follow normal admission procedures.

XI. Resource Requirements (include staffing, equipment, etc.)

The implementation of the Business Intelligence certificate uses existing courses which will be taught by available faculty. These courses are offered on a regular basis and historically seats are open in these courses, particularly for on campus/blended sections. Depending on the success of the Certificate in Business Intelligence program, additional sections may need to be offered.

The College of Business and Management signed an agreement with a major Business Intelligence and Enterprise System software provider. As part of this agreement, the MIS Department has now access to Business Intelligence software that will be used in at two of the courses of the Certificate of Business Intelligence.

XII. Administrative Issues (i.e., who will provide advising for certificate students, who will track course completion for certificate?)

a. Advising

An advisor from the Management Information Systems department will be assigned.

b. Tracking

Files for each student will be kept in the Management Information Systems department central office.

XIII. Anticipated First Semester/Year for Admitting Students to Certificate Program

Fall 2013

XIV. References


Watson, H., R. Sharda, and D. Schrader (2012). Big Data and How to Teach it, Workshop, AMCIS 2012, Seattle, WA.


CBM Curriculum Change Form - Major, Minor, Concentration, Certificate

This cover sheet is designed to provide approvals, review, and a checklist for items that must be submitted and reviewed as part of a request for curriculum changes such as changing/adding/deleting a major, minor, concentration, certificate. A separate form must be submitted for each proposed change. For changes involving individual courses, use the CBM Course Change Form as well as the CBM Curriculum Change Form.

After the request is approved by the appropriate Department Chair and reviewed by other departments, this entire packet will be forwarded to the Chair of the College Curriculum and Assurance of Learning Committee (CCALC) for consideration. To be considered for the next CCALC meeting, this document must be provided to the Chair prior to publication of the agenda (5 working days before the meeting). Incomplete or late requests will not be considered by the CCALC.

Department/Program: Management Information Systems

To understand required levels of approvals, please review Levels of Governance to approve curriculum or changes in delivery mode. http://www.uis.edu/academicplanning/planning/index.html

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<td>UIS New Course Approval &amp; Course Change Form (if adding/changing courses)</td>
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Department Chair (Originating Dept. Chair of Request) 1-30-13
Date of Submission

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**Group 1 Signatures for REVIEW**

As a college it is important that all units be aware of proposed changes that could impact curriculum, faculty, deployment, financial resources, etc. All department chairs must be provided advance notice and documentation in support of program changes and changes related to college-wide requirements such as college core and foundation prior to such proposals being considered by CCALC. By signing below, department chairs acknowledge receipt of this advance notice.

Accountancy 1-30-13  Business Administration 1-30-13
Economics 1-30-13  Management 1-30-13
Management Information Systems 1-30-13

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**Group 2 Signatures for APPROVAL (after review)**

Approved by:

Curriculum Chair, Date 1-6-13  Dean, Date 2-12-2013

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cbm curriculum change form 3.29.12
College Curriculum and Assurance of Learning Committee
1. **Describe the request.**

   The MIS Department requests the approval to add a new Graduate Certificate Program in Business Intelligence. All the courses in the new program are part of other programs in the department. The program will require 9 credit hours for completion.

2. **Describe your rationale for the proposed action described above.**

   The Graduate Certificate Program in Business Intelligence has the potential to attract business professionals in the vicinity of UIS and other professionals nationwide. Also, the propose program has the potential to attract current UIS students (i.e., BBA, BA, BS, MA Accountancy, MS in MIS and MBA students) as an extension of their degree programs.

3. **What is the proposed mode of delivery (e.g., online, blended, on ground)?**

   The courses in the proposed Graduate Certificate Program are part of existing programs. These course are currently offered in online, blended, and on ground modes.

4. **Describe how this proposal enhances the CBM mission**

   The proposed Graduate Certificate Program will develop competences that are in high demand in the corporate world. The proposed program focuses on preparing professionals to be ready to participate in business process improvement initiatives supported by business intelligence technologies and applications. Surveys indicate that business process improvement is currently a top priority in the corporate and public sectors and that these sectors are investing in technology to support these initiatives. Professionals able to manage and participate in these initiatives will be in great demand in the short term.

5. **Describe the impact on other programs, college core, foundation requirements including any discussions with other departments where applicable.**

   The proposed Graduate Certificate Program in Business Intelligence includes courses that are currently part of other programs in the MIS Department. The impact on these programs will be a growing demand for registration. The courses are offered on a regular basis and historically seats are open, particularly for on ground and blended sections. The growing demand may eventually require additional sections to be offered.

6. **Resources required.**

   The implementation of the Graduate Certificate Program in Business Intelligence takes advantage of existing courses which will be taught by available faculty.

   The courses of the certificate will use the resources provided by the SAP University Alliance, for which the College of Business and Management recently signed an agreement. These resources include access to business intelligence software and teaching resources.
7. Expected frequency of course offerings. Provide a schedule to demonstrate how a student can complete the program in 2 years (fall and spring).

The courses included in the proposed Graduate Certificate Program in Business Intelligence are offered three times a year. Students will be able to complete the program in no more than one year, provided they take one course per semester.

8. For new or significantly changed* Graduate programs, provide Assurance of Learning Plan that includes:

a) Learning goals & objectives; b) How, where and when AOL data will be gathered; c) rubrics for assessment

The purpose of the Certificate in Business Intelligence is to provide information systems practitioners and other professionals with the competences required to gather, integrate, and analyze business data and deliver information to business users to support fact-based decision making, continuous business process improvement, and fast response to business threats and opportunities.

9. For new or significant change of undergraduate programs, describe how this change supports undergraduate program/major learning goals and objectives.

N/A

10. Explain how the curriculum change serves students and community needs (e.g., employment opportunities, access)

The proposed Graduate Certificate Program in Business Intelligence will develop in students a hybrid set of skills that include a mix of business and technical skills to prepare students to understand business information needs and to design business intelligence applications that will allow business user to effectively analyze data and deliver the information needed to response to business threats and opportunities. Surveys conducted the McKinsey Global Institute indicates that by 2018 the US will face a shortage of 1.5 million professionals with business analytics skills to analyze data and make decisions. The propose program will contribute to reduce the shortage of professionals with the required skill set.
Graduate Certificate in Business Intelligence (9 Hours)

This corticated is available both online and on campus

Contact Information
Phone: 217/206-6067
Email: mis@uis.edu
Website: mis.uis.edu

The Certificate in Business Intelligence provides business and technology practitioners and other professionals with the knowledge and skills necessary to collaborate in the design, development, and adoption of Business Intelligence applications in organization. Business Intelligence refers to a broad category of applications, technologies, and processes for gathering, storing, accessing, and analyzing internal and external data to help decision-makers analyze business situations and make fact-based, informed decisions that will trigger improvement actions.

Entrance and Course Requirements

Students must hold a baccalaureate degree form an accredited institution and meet campus requirement for admission to graduate study. Candidates for the certificate will be expected to complete course requirements with a grad of B 93.0) or better (a grade of B- or lower is not acceptable).

Required Courses

MiS 513 Management Information Systems* 3 Hrs.**
MiS 523 Managerial Decision Support Systems 3 Hrs.
MiS 576 Data Warehousing 3 Hrs.

* If MiS 513 has been taken as part of another MiS graduate certificate, the student must substitute another UIS Management Information Systems course, not included as a required course in another certificate, in its place.

**All MBA students may use MiS525 Information Technology Management as a substitute for MiS513 since the course content for MiS525 is the same as MiS513
Curriculum Change Mapping - Present versus Proposed Curriculum

Complete for Changes in Major, Minor, Concentration, Certificate

Map Curriculum changes from the existing curriculum to the proposed curriculum. In the left column, list all current course requirements. In the middle column list all courses/course requirements in the proposed curriculum. In the far right column indicate requested action for each current and proposed course. If a course from the existing curriculum will no longer be offered, note "course deleted".

OVERVIEW OF CURRICULUM CHANGES:

How many courses are uniquely required for the MIS major:

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SAMPLE Completed Spreadsheet

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