PROGRAM ABSTRACT - Form A

Proposed Degree Title: M.S. in Health Information Management
College of Business Administration
Proposed Implementation Date: Spring 2016

1. Description: Briefly describe the essential features of the curriculum that will be developed.

- If the new degree is currently offered as an option in an existing degree program, give a rationale for the conversion.
- If the new degree program is not commonly offered as a bachelor’s or master’s degree, provide a compelling academic rationale explaining how the proposed subject area constitutes a coherent, integrated degree major that has potential value to students.

The proposed degree, a Master’s of Science in Health Information Management, is a two year (five-semester), 30-unit graduate program offered by the College of Business Administration. The program is comprised of two stackable certificates, the existing 12-unit certificate in Healthcare Information Technology (HIT), and a new 18-unit graduate certificate in Healthcare Information Management (HIM).

Developed and taught by faculty and industry experts, the existing 12-unit HIT certificate program provides participants with a broad introduction and overview of healthcare structure and process, as well as impactful healthcare technologies. This is followed by discussions in the management of HIT, healthcare data analytics, process re-engineering, and management of change. The goal is to shape the vision of the future of healthcare and provide the knowledge needed to encourage healthcare evolution. The program prepares students to become agents of change, innovators, leaders, and entrepreneurs in healthcare.

The 18-unit HIM certificate will take an in-depth approach to preparing students as a domain specialist in data analytics and mobile health -- two areas that are changing the landscape of the healthcare industry and provide promising career opportunities for students. The data analytics part of the program will address the needs of the “big data” era and will focus on “transforming and mining” data for healthcare innovation and process improvement. Mobile health will focus on developing mobile applications and solutions that not only augment the current health information system, but also facilitate new, more effective and efficient ways to provide healthcare. In addition, the HIM certificate will have a “residency” requirement, where all participants will complete a project for a health organization during the summer session. A faculty member and an industry mentor will supervise the project. The project deliverables will include a report and a presentation that meet the CSU’s master’s degree project requirement.

To be admitted to the 12-unit HIT certificate for credit, the candidate must have a bachelor’s degree in any discipline or senior standing with relevant background knowledge or experience. To matriculate to the HIM certificate, the candidate must have successfully completed the first certificate with a GPA of B or higher.

The master’s degree can be awarded only if a candidate has successfully completed both certificates and meet the minimum GPA and the residency requirement.
2. **Mission**: How will this program benefit the college, university, region and/or state? How is it aligned with the College and University Mission and Vision?

A goal of the MS program is to establish CSUSM and the College of Business Administration as an important educational resource for the needs of HIT/HIM professionals in the region and state. The curriculum is designed to provide graduates who will be able to make significant contributions to the region’s intellectual, social and economic development.

In addition, the master’s program is closely aligned with the university’s Mission of offering “rigorous undergraduate and graduate programs distinguished by exemplary teaching, innovative curricula, and the application of new technologies,” as well as its Vision of delivering “a growing array of specialized programs responsive to state and regional needs.” The program embodies the College of Business Administration’s commitment to providing “rigorous and relevant educational programs that reflect a balance of theoretical and applied learning” and to making “a significant contribution to the region’s intellectual, social and economic development.”

3. **Demand**: What evidence is there of adequate student demand for this program?

Preliminary evidence of adequate student demand for the proposed program should include:

(i) A list of other CSU campuses currently offering the proposed degree major program (see the CSU Mentor website at http://www2.assist.org/browseAreas.do),
(ii) A list of neighboring institutions, public or private, currently offering the proposed degree major program,
(iii) Information indicating substantial regional demand for individuals who have earned this degree (contact the Career Center for assistance), and
(iv) Information indicating adequate student interest in the proposed program (e.g., numbers of minors, existing programs at feeder community colleges, or results of student surveys).

Graduate degree program proposals must also include the number of declared undergraduate majors and the degree production over the preceding three years for the corresponding baccalaureate program.

(i) **List of CSUs currently offering HIM programs**
San Diego State University offers a Professional Science Master’s program in Bioinformatics and Medical Informatics, which is geared toward students with backgrounds in science and engineering. Cal State Fullerton Extended Education and the Cal State Long Beach College of Continuing and Professional Education each offer a non-credit certificate in Healthcare Information Technology.

(ii) **List of neighboring institutions offering HIM programs**
The University of San Diego’s Hahn School of Nursing and Health Sciences offers a Certificate in Health Care Informatics through the Division of Professional and Continuing Education, and a Master’s of Science in Health Care Informatics. UC San Diego Extension offers an HIT certificate, and the UCSD School of Medicine offers a Master’s and Ph.D. in Biomedical Informatics. National University offers a Graduate Certificate in Clinical Informatics and a Master’s degree in Health Informatics.

(iii) **Indications of substantial regional demand for graduates who have earned this degree**
Healthcare information management is a rapidly expanding field. The Office of the National Coordinator for Health Information Technology anticipates a shortage of about 50,000 qualified HIT
workers between 2010 and 2015.\(^1\) Bureau of Labor Statistics projections anticipate the number of jobs for health information technicians and health information managers to increase by more than 20 percent through 2018\(^2\), although a recent report on the health informatics industry from Jobs for the Future suggests that the BLS category includes only about 60 percent of jobs involved in the total health information management sector. Within this more broadly conceived sector—which encompasses health information supervisors and managers, auditors and compliance review staff, and clinical documentation and improvement specialists—job postings increased 36 percent between 2007 and 2011, a far higher rate than for healthcare occupations as a whole, and that trend that is expected to continue in the coming years.\(^3\)

Ongoing needs in the healthcare industry, including implementation of aspects of the Health Information Technology for Economic and Clinical Health (HITECH) of 2009, as well as the increasing need for healthcare data analytics and expertise in mobile and web programming, will drive new staffing needs regionally and nationally in the coming decade.\(^4\) In addition, the upskilling of traditional medical records and coding positions and the growth of higher-skilled health information analysts and management positions are creating career advancement opportunities for entry- and mid-level workers. Appropriate training, education, and credentialing programs are essential for creating these career advancement pathways.\(^5\)

A 2012 survey by the College of Health Information Management Executives (CHIME) reports that 59 percent of healthcare providers say staffing challenges will negatively impact their chances to receive incentives from the government’s three-stage program for Electronic Health Record implementation and adoption, known as “meaningful use”—which will switch to penalties in 2015.\(^6\) Similarly, a March 2013 Health Research Institute study found 75 percent of health providers and 71 percent of insurers report that they plan to hire new employees to support their IT priorities.\(^7\)

San Diego County has clear potential to become an important hub in the healthcare information management field, according to a 2011 report from the San Diego Workforce Partnership:

[San Diego] is a leader in healthcare delivery, with 33 hospitals including representation from the military and veterans affairs, and extensive experience in managed care; ranked third in the United States in terms of concentration of life science companies; a center for over 50 research institutions; and home to an exceptionally capable technology community already leading the way in the convergence of wireless communications, commercial software solutions, and medical devices. San Diego is also the fourth largest county in the state in Information Technology employment and home to wireless giant Qualcomm.\(^8\)

As the SDWP report notes, the sustainable growth of the local HIT industry will largely depend on the availability of well-trained personnel, and the creation of education and developing programs to

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\(^1\) Office of the National Coordinator for Health Information Technology, U.S. Department of Health and Human Services <http://www.healthit.gov>


\(^4\) Health Research Institute, “Solving the talent equation for health IT” March 2013


\(^7\) Health Research Institute, “Solving the talent equation for health IT” March 2013

support that need is a key recommendation of the study. Current local talent needs and job opportunities in this field fall into four functional categories: digitization, integration, analytics, and business support. Job titles in these categories include health information management specialists, health information privacy and security specialists, exchange system implementation and operations managers, and data mining specialists, nearly all of which require a specialist level of education.9

Of the more than 50 local healthcare organizations surveyed in the SD Workforce study, 62 percent report they currently use HIT systems, and another 12 percent expect to have HIT systems online within the next year. Regional healthcare employers report that HIT occupations most in demand are likely to be information workflow and management specialists, health IT support specialists, and technical support staff, with additional demand likely for analysts, project managers, and clinical workflow specialists.10

Of the estimated 3,955 IT firms in San Diego County, 448 are involved in the development, deployment, sale, installation, or maintenance of HIT systems in the county. Another 195 firms are considering entering the HIT market in the near term. Local HIT-focused technology firms estimate growth in technical, administrative, and business development positions in the near term.11

All employers in the study agreed that there is an acute local need for trained workers who can bridge the gap between the IT and healthcare worlds and navigate both comfortably, making the creation of educational programs that can provide this training and development an integral part of the growth of HIT in San Diego County.

(iv) Information indicating adequate student interest in the proposed program (e.g., numbers of minors, existing programs at feeder community colleges, or results of student surveys).

Student interest in and demand for the HIT certificate has been strong. In Fall 2012, 31 students were admitted to the program, 21 of whom joined the inaugural cohort. In Fall 2013, 36 students were admitted and 22 enrolled in the program. Feedback from HIT certificate students indicates a clear interest pursuing further studies through the second certificate and resulting master’s. In addition, many prospective students have indicated that they would be more interested in pursuing studies leading to a master’s degree than a stand-alone certificate.

4. Resources: Give preliminary estimates of the following resources needed to implement the program:

- Additional faculty positions;
- Additional resources required for program administration (e.g., release time for a Chair or Director);
- Additional staff support;
- Additional space requirements; and
- Additional specialized equipment and materials other than those expected to be provided by the Library and Instructional and Information Technology Services (IIITS).

No additional faculty positions will be required for this program. We have existing faculty expertise to support the program, and the teaching load will be spread across faculty from the College of Business Administration, the School of Nursing, and the department of Computer Science. In addition, the program has a very resourceful and supportive Advisory Board comprised of leaders in the HIT field. Several board members with professional expertise are available as speakers to augment our existing faculty expertise.

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No additional staff support positions will be required for the program. Release time for the Program Director will be funded through Extended Learning on a self-support basis.

No additional space will be required for this program. Classroom space should be available when class sessions are held on Saturdays and some Fridays.

No additional specialized equipment or materials are expected to be needed for the program. Several advisory board members have assisted the HIT certificate program in partnering with local healthcare providers for the use of live training modules of hospital electronic medical records systems. Therefore, the current computing infrastructure is sufficient to support the program. If needs for additional supplies and equipment occur, they will be paid for by the program through Extended Learning.

Library costs should be minimal. Free online resources are available with the infusion of funds from the federal Health Information Technology for Economic and Clinical Health (HITECH) Act. Webinars and online resources are available from sources such as the Center for Disease Control, the National eHealth Collaborative, the Health Information Management Systems Society (HIMSS) and the Office of the National Coordinator for Health Information Technology which publishes policies for health care information technology standards.

5. Relation to Existing Programs: Describe the potential effect on existing programs (e.g., enrollment changes, opportunities for collaboration, resources).

Overall, we expect this proposed program to have an impact on several existing programs. For example, courses in the HIM certificate could serve as a new MBA “specialty.” The availability of an additional MBA specialty will help attract more students to the MBA program. Additionally, this program will provide courses that can be taken as electives by students in related fields to enhance learning opportunities. For example, courses in “mobile application development” will afford computer science students opportunities for realistic software development, and courses in “data analytics” should prove attractive to students in mathematics.

This program is being developed in collaboration with the School of Nursing, which is proposing a program in Nursing Informatics. These two new programs will be able to share faculty resources, courses, and industry connections. The existence of each of the programs will enhance the value of the other.

The program’s courses in areas such as mobile medicine, data analytics, process improvement and others will provide valuable resources in support of the CSU Center for Palliative Care.

Long term goals, which will build on the program, include establishing a center for health information technology and management to serve both the university and the local health care industry.

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**REVIEW PROCESS**

1. ___________________________ 2. ___________________________

Originator (Please Print and Sign) Date Program/Department Director/Chair* Date
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5. **Relation to Existing Programs**: Describe the potential effect on existing programs (e.g., enrollment changes, opportunities for collaboration, resources).

Overall, we expect this proposed program to have an impact on several existing programs. For example, the HIM certificate will be designed to also serve as one of the MBA “specialties.” The availability of an additional MBA specialty will help attract more students to the MBA program. Additionally, this program will provide courses that can be taken as electives by students in related fields to enhance learning opportunities. For example, courses in “mobile application development” will afford computer science students opportunities for realistic software development, and courses in “data analytics” should prove attractive to students in mathematics.

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### REVIEW PROCESS

1. **Originator** (Please Print and Sign)  
   **Date**  
   9/12/13

2. **Program/Department Director/Chair**  
   **Date**  
   9/12/13

3. **College Curriculum/Planning Committee**  
   **Date**  
   9/13/13

4. **College Dean (or Designee)**  
   **Date**  
   9/12/13

5. **Date received in Academic Programs**  
   9/23/13

* Signature indicates support that the proposed program move forward for consideration for placement on the UAMP.*