

**Program Planning Summary**  
**for the**  
**Master of Science in Informatics**  
**Offered by the**  
**College of Arts and Sciences**  
**of the**  
**University of South Carolina Upstate**

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Thomas Moore, Chancellor  
University of South Carolina Upstate

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Harris Pastides, President  
University of South Carolina

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**Program Planning Summary**  
**Master of Science in Informatics**  
**University of South Carolina Upstate**

**Program Designation**

Institution:	University of South Carolina Upstate
Academic Unit:	Department of Informatics, College of Arts and Sciences
Name of program:	Master of Science in Informatics
Date of Implementation:	Fall 2013
CIP Code:	52.1206
Identification:	New program
Number of Credit Hours:	30

The Master of Science in Informatics will be a new degree program requiring a minimum of thirty (30) credit hours beyond the bachelor's degree including six (6) hours of thesis preparation and consisting of a choice between two (2) areas of emphasis: *information resource management* and *health information management*. USC Upstate currently offers an undergraduate degree in information management with focus areas in health information management, business, and communication. The proposed graduate program represents an excellent continuation for graduates of the undergraduate program, but is open to qualified graduates of other baccalaureate programs and universities.

**Program Justification**

As an academic discipline, *informatics* involves the study of information and application of information technology to the processing, management, and utilization of information. The past twenty five (25) years have seen all aspects of business become increasingly dependent on information technology (IT). IT and information management has become the lifeblood of companies and organizations and affect almost every job. Many employees today are *information workers* (even if their job title does not officially reflect the role) whose daily job duties require the usage of an array of information and communication technologies as well as information management and processing practices, procedures, and methodologies. The design, procurement, implementation, maintenance, and evolution of information-based resources is collectively known as *information resource management*. According to a recent survey of forty (40) diverse regional companies conducted by the Consortium for Enterprise System Management, a South Carolina-based organization of industry and academic partners spanning North Carolina, South Carolina, and Georgia, 400-500 new hires will be made in the information resource management field over the next five (5) years with 120 in the health information management and technology field. Extrapolating these results to the entire Southeast means tens of thousands of IT jobs will be available to our graduates over the next five (5) years.

Nationally, the healthcare sector is responsible for 16% of the gross domestic product of the United States. Not surprisingly, in South Carolina, The Bureau of Labor Statistics lists the healthcare industry as the largest employer in the Upstate region being

responsible for over 37,000 jobs in the nine (9) Upstate counties. The health industry's move to electronic medical records together with market and government focus on efficiency and cost reduction make expertise in the management of information resources critical. Nationally, according to the U.S. Bureau of Labor Statistics, jobs in the medical records and health information technology fields are expected to grow by 20% through 2018 with a 16% growth in managerial jobs typically requiring advanced degrees. This equates to more than 45,000 *new* jobs (totaling over 328,000) over the next eight (8) years just in the health IT field. With median incomes ranging from \$62,170 to \$104,120 (\$80,240 being the average), these jobs represent excellent career paths for our graduates.

About the information technology field, the U.S. Bureau of Labor Statistics states "a master's degree is the standard credential, although a bachelor's degree is adequate for some entry-level positions." According to the national accreditation body, the Commission on Accreditation for Health Informatics and Information Management (CAHIIM), there are only about fifty (50) accredited baccalaureate programs in the United States, one of which is the program at USC Upstate. There are only twelve (12) health IT graduate programs in the country and only five (5) of these are accredited. The South Carolina Commission on Higher Education reports only thirty three (33) graduates at the master's and doctoral level were produced in 2008-2009 from public schools in South Carolina in the general fields of information science and information technology. At USC Upstate, our academic advisory board members and industry partners, representing health IT and non-health IT companies, report having to recruit post-baccalaureate graduates from other parts of the country because of the lack of locally-produced graduates. Clearly, South Carolina needs to produce more post-baccalaureate graduates in the field.

USC Upstate is already producing highly qualified graduates with information management and IT skills at the baccalaureate level through the B.A. program in information management and systems and the accredited B.A. in health information management. However, the job market is demanding advanced degrees in this area. The proposed *information resource management* emphasis will produce graduates able to work in any industry. The *health information management* emphasis will produce graduates with skills specifically applicable to the healthcare industry.

### **Anticipated Program Demand and Productivity**

The proposed graduate program will primarily attract graduates of undergraduate programs at USC Upstate, especially our B.A. in information management and systems and our accredited B.A. in health information management. However, graduates from other USC Upstate baccalaureate programs, such as business administration, nursing, computer science, and engineering technology management, will be qualified to enter the proposed graduate program. We have received inquiries from many working professionals in the region who have reached a glass ceiling in their employment and require advanced degrees to move their careers forward. Within a short period of time we expect a sustained enrollment of 20-30 students in the proposed program.

### **Program Duplication**

The University of South Carolina's Darla Moore School of Business offers a concentration in information systems within their international MBA program and an emphasis in management information systems (MIS) as part of the doctoral program in business administration. The proposed programs do not intersect with either of these programs which serve to cover functional areas to round out the business administration major.

The School of Library and Information Science (SLIS) at the University of South Carolina offers a master's degree and a doctoral degree in library and information science. These programs prepare professionals for positions in libraries, information centers, and media centers and do not overlap with the proposed program.

As part of the management degree, Clemson University offers a few courses that may have topic-level overlap with the proposed program. The program at Clemson is an optional concentration within the business program whereas our courses are core courses leading to the advanced degree tailored for students with a different background.

The Department of Health Services and Policy Management in the School of Public Health at the University of South Carolina offers a graduate degree in health administration has topic-level overlap with courses in the proposed program. However, this program only tangentially includes information resources for health services whereas our program is focused on information technology.

#### **Relationship to Other Programs at USC Upstate**

No other program on campus, or in the entire Southeast, encompasses the blend of computer technology, information management, business, communication, sociology, and informatics as does our existing undergraduate information management and systems program or the proposed graduate program. The proposed graduate program will be one of few in the country, but many more such programs will be created in the future.

#### **Relationship to Programs at Other Institutions**

USC Upstate's Department of Informatics has articulation agreements with Greenville Technical College, Midlands Technical College, Florence-Darlington Technical College, and Spartanburg Community College enabling students to begin their academic career at a two-year institution and continue on to obtain the bachelor's degree at USC Upstate. The proposed program would extend this academic career path to the graduate level providing South Carolina high school students an academic progression in information technology and information management to the six-year level.

#### **Total New Costs Associated with the Proposed Program**

The hire of one (1) terminally-degreed, full-time, tenure-track faculty member in the health information management area is already planned. Because of the resources available at the undergraduate level, there is no need for additional computer or laboratory resources to support the proposed program.