



*University of Detroit Mercy*

**Proposal for a Bachelor of Science in Health Information Management**

**College of Health Professions (CHP)  
College of Liberal Arts and Education (CLAE)**

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**Prepared by**

**Julia Stocker Schneider, PhD, RN, Associate Professor & Coordinator, HSM  
Program McAuley School of Nursing, CHP**

**Daniel Shoemaker, PhD, Professor & Chair, Computer Information Systems, CLAE**

**Rita Barrios, Assistant Professor, Computer Information Systems, CLAE**

**Revisions prepared by:**

**Christine M. Pacini, PhD, RN  
Dean & Professor, College of Health Professions and the  
McAuley School of Nursing  
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## A. Summary

The 2009 American Recovery and Reinvestment Act (ARRA) is a bill to create jobs, restore economic growth and to strengthen the American Middle class with the utilization of measures that modernize the nation's infrastructure, enhance America's energy independence, expand educational opportunities, preserve and improve affordable healthcare, provide tax relief and to protect those in greatest need. (OpenCongress, 2009) A need specifically targeted by the ARRA is the national adoption of the electronic health record (EHR) and the development of a framework to support interoperable health information technology. The Act goes on to include a measure to offer incentives to professionals and hospitals that use EHRs in a meaningful way and that invests in the training and support to enable the workforce to pursue careers in emerging areas such as health information technology. (Dept. of Health and Human Services, 2009; Dept. of Labor, 2009)

To support the national objectives outlined in the American Recovery and Reinvestment Act of 2009 and to ensure the introduction of new and innovated program offerings at University of Detroit Mercy (UDM), the College of Health Professions' (CHP) Health Services Administration and the College of Liberal Arts and Education's (CLAE) Computer Information Systems (CIS) put forth the following proposal of a new Baccalaureate program in Health Information Management (HIM).

As technology continues to advance in support of the health care related fields, there is an overwhelming need for the convergence of information technology related careers with the knowledge of the healthcare professions in an attempt to better deliver affordable, consistent and accurate healthcare. As such, the proposed HIM program will bring a realization of this convergence between the HSA and CIS programs to create an information technology program that is specifically focused on healthcare information systems that has been developed within the guidelines of American Health Information Management Association (AHIMA) to ensure a high degree of quality within the program. As will be demonstrated in the following pages, there is an overwhelming need for an information technologist who has a background in healthcare. The proposed program will aid in fulfilling that gap as well as advance the goals and objectives at the national level by supporting not only education but also the movement to a more robust healthcare system.

It is expected that the HIM program revenues will more than cover the direct expenses in year 1 and every year thereafter, except for year 2.

With UDM's long history of a demonstrated commitment to the preparation of individuals to support the healthcare related needs along with its nationally recognized Center for Cyber Security and Intelligence Studies, it is the next logical step for UDM to position itself as a 'best-in-class' academic institution with its innate ability to meet the emerging needs of the healthcare workforce both locally in Southeast Michigan as well as at the national levels.

## B. Description of the Program

The Bachelor of Science Degree in Health Information Management (HIM) prepares professionals who can be classified as experts in HIM and are qualified to be a functional leader within the healthcare organization with the focus of achieving the strategic objectives as they relate to the use of healthcare information. The baccalaureate degree is built upon the foundation of general education and prepares the student with in-depth knowledge and associated skills in health care data; information systems and technology; health services organization, delivery, and organizational management; health care statistics, research, and quality improvement, and applied health informatics.

Baccalaureate-prepared HIM graduates may function in a variety of roles across the health care continuum, with a common focus on preparing for the development, use and management of health information resources. Work settings may include hospitals, information system vendors, managed care organizations, physician practices, home care settings,, ambulatory care settings, government agencies, and skilled nursing facilities to name a few. Baccalaureate degree HIM graduates may hold positions such as data quality manager, project manager, analyst, compliance officer, privacy/security officer, standards manager, or reimbursement manager within the healthcare industry. (AHIMA, 2005) Consistent with the UDM Mission, the HIM program emphasizes service and skills to support the provision of quality health care to address current and future needs in the local community and beyond.

The curriculum for the Bachelor of Science Degree in Health Information Management was designed according to the standards put forth by the American Health Information Association (AHIMA) which serves as the accrediting body for such programs. Documents used to guide the development of the program can be found at the AHIMA website, [www.ahima.org/academics/](http://www.ahima.org/academics/), and include the *Curriculum Model: Baccalaureate Degree Education In Health Information Management, Framework for HIM Education; AHIMA Knowledge Clusters for Health Information Management: Baccalaureate Degree Program; and HIM Baccalaureate Degree Entry Level Competencies*. Mappings of UDM courses to the AHIMA knowledge clusters and Baccalaureate Entry Competencies can be found in Appendix A & B. The curriculum proposed within the pages that follow will encompass the completion of 126 credits, building on the 48 credit University core curriculum and include both interdisciplinary and core specialty professional content. An identified strength of the proposed program can be found in the fact that a considerable amount of content has been drawn from the existing Health Services Administration and Computer Information Systems curriculums as well as the addition of significant specialty health information management content to create a strong overall HIM curriculum. The quality of the curriculum is a direct result, in part, from the close collaboration of College of Health Professions and the College of Liberal Arts and Education in contributing necessary content to this important program.

Appendix D provides a matrix of the recommended course sequence for full and part-time students.

Appendix E provides a listing of the courses in the curriculum, including catalog number, title, description, and units of credit. New courses are designated with an \* and the associated new course syllabi can be found in Appendix F.

Initially, the course delivery methodology will be offered primarily via traditional daytime classes, though efforts will be made to add an online delivery component. As identified in a survey put forth to current university students about their interest in the HIM program, the majority of the current student respondents who favored the program indicated a preference for traditional daytime courses (42%), though nearly 32% of the favorable respondents indicated a preference for a mix of traditional on campus and on-line course delivery. Thus, efforts will be made to transition some of the course offerings to either a partially or completely on-line delivery methodology following the successful launch of the program.

The proposed program respects academic integrity and intellectual merit put forth at UDM through the adherence to all applicable student policies, procedures and honor codes.

The HIM program is unusual in that it demonstrates a strong collaboration between the College of Health Professions and the College of Liberal Arts and Education. This program would not be possible without the expertise available within both of these programs. Another unique feature of the HIM program is that we will be one of the few (if not the only) programs within the state of Michigan with access to an electronic health record (EHR) system for use in the educational setting. Due to a grant obtained by the McAuley School of Nursing, UDM students will have access to Cerner AES electronic health record system through 2011. It should be anticipated that funding will be sought after going forward beyond 2011 in order to maintain and support this valuable resources not only for the on-going efforts of the HIM program but for other health professions programs.

The proposed program put forth will be seen as a conduit to the augmentation of the existing programs as found in health professions as well as computer information systems. It also provides an additional area of specialization for students as well as serves as a viable career option during a time when employment challenges continue to persist for graduates of many of the traditional areas of specialization.

Once the program becomes accredited by the American Health Information Management Association (AHIMA), program graduates will be eligible to sit for the Registered Health Information Administrator (RHIA) certification exam. This certification will enhance the recognition of program graduates as health information management specialists, and will contribute to the enhanced marketability of the individual graduates as well as the overall program.

#### C. Mission

The mission of University of Detroit Mercy (UDM) is to provide excellent student-centered undergraduate and graduate education in an urban context following in the Jesuit and Mercy Traditions. The College of Health Professions' mission of the Jesuit and Mercy tradition is to "prepare professionals to lead individuals, families, and communities to optimal health and well being". The College of Liberal Arts and Education builds on the university's mission by preparing students in a changing world following the traditions to be "men and women for others".

The Bachelor of Science in Health Information Management (HIM) clearly demonstrates the mission of the University by preparing health information professionals who are ready to serve and meet health information needs which are necessary for the delivery of healthcare to patients and families who are in need of these services within the urban communities that continue to be served by UDM. The demonstrated educational offerings of a HIM program at UDM as outlined within this proposal will integrate intellectual, social, ethical, and spiritual development of the student while maintaining the objectives and goals of the University's clearly defined mission.

A Bachelor of Science in Health Information Management would also be consistent with the mission presented by of the College of Health Professions and the College of Liberal Arts and Education. The mission objective of fulfilling the intellectual, spiritual, and ethical development of the student, which ultimately leads to the service of others, can be realized by supporting the healthcare informational needs that ultimately ensures the quality and sustainability of the medical field. Additionally, this area of support of the vital health information enables the health professionals to promote the optimal levels of care and well-being of the individual, family, and ultimately the community.

#### D. Market and Need

As the following information put forth about the market and the demonstrated need of a HIM program, it is anticipated that there will be a significant growth in employment opportunities for those who have the educational credentials in the Health Information Management areas of study.

According to a study conducted by Hersh, in the US, the research presented thus far on the HIM workforce tend to either focus on HIM or Information Technology (IT), but lack a focus on the HIM formally trained graduate. (2008) In this study, Hersh presents a study conducted by Gartner Research where the organization that was assessed directed their attention to the IT staff of integrated delivery systems of varying sizes. After reviewing more than 85 organizations, the study concluded that there is an existence of one (1) IT staff per every fifty-six (56) non-IT staff members within the hospital setting. (2008) Given this metric, it can be concluded that a technology focused person is being held accountable for the quality and integrity of the medical records even though the IT staff may not be formally trained in the medical care fields and therefore are less knowledgeable in the HIM areas of accountability. Hersh also presents another study where HIM professionals were assessed which found that the primary workplace for HIM

professionals include the hospital (53.4%), the physical office (7.2%) and the consulting firm (4.2%). (2008)

As noted in the study presented by the Bureau of Labor Statistics (BLS) in 2008, the employment outlook for HIM professionals is expected to grow faster than average with job prospects considered to be ‘very good’. (2008) (Hersh, 2008) Additionally, the BLS study indicates that those who specialize in HIM will be in high demand with a projected increase of 18% in the employment availability through 2016 which is more than twice the growth rate of other occupations. (2008) (Hersh, 2008) The projection presented in the study identifies that there is an expectation of employment openings in hospitals as well as private practices. The BLS study also identifies that an expected drain-off of current personnel in this area of the medical informatics field will aid in the project employment offerings. The starting salaries of graduates in the HIM fields can range from \$45,000 to \$75,000. (2008)

Of specific concern is the lack of qualified health information management professionals, to support the national agenda towards complete adoption of the EHR. According to Hersh, et al. (2008), an additional 40,784 health IT professionals are needed nationally to move towards high levels of EHR adoption. Current needs for qualified health IT professionals were identified in a recent HIMSS survey (2009), where 64% of all respondents (n=352) perceived lack of training IT professionals in clinical informatics positions, and 56% cited a lack of implementation workers. Seventy-nine percent of respondents indicated a need to hire IT staff in the next 1-2 years, and identified clinical informatics and implementation workers as their highest need.

Projections data from the National Employment Matrix					
Occupational Title	SOC Code	Employment, 2006	Projected Employment 2016	Expected Change, 2006-16	
				Number	%
Medical Records and Health Information Techs	29-2071	170,000	200,000	30,000	18

Table 1 - BLS 2008-09 Projection of HIM Technicians

According to the long term projections by the State of Michigan’s Labor Market Information, Health Technologist and Technicians employment opportunities, which can include the HIM fields of study, between the years of 2006 and 2016, are estimated in the Detroit area at 34,355 while the projected employment opportunities are slated at 38,724. (State of Michigan, 2009) Additionally, this career scope has been identified as ‘growing’ at a growth percent of 12.7%. (State of Michigan, 2009) Further, the specific classification of Medical Records and Health Information Technicians is expected to grow to approximately 4,785 projected employment opportunities during this same time frame. (State of Michigan, 2009)

While the BLS study does not differentiate between the typical Medical Records professional, the IT professional and a true Healthcare Information Specialist most likely

due to a lack of categorization in the field, an assumption can be made that the HIM focused professional career can be projected to grow at the same steady rate over the next several years. Therefore, to introduce a HIM program at UDM is a positive direction that the University should undertake in order to help fill this demand.

To further support the need for a full baccalaureate degree in Health Information Management within the context of UDM’s current student population, a needs assessment survey was conducted between September 29, 2009 and October 23, 2009. In summary, 86 currently enrolled undergraduate students responded to the survey request. Of the 86 students, 64% were aware of the increase in job demand in the area of health informatics and health information management within the US healthcare industry. The overall finding was that of the respondents who were aware of the increase in job demand, these students were more likely to consider enrolling in a baccalaureate of science in Health Information Management at UDM if it were offered. Despite the limitations of the study, in that the majority of the respondents were already committed to a program of study at UDM, there was significant interest in the program. It can be assumed that the program would generate even more interest by incoming students when presented among the other program options. The summarized data can be found in Appendix I of this proposal.

E. Objectives, Learning Outcomes and Assessment

The following matrix identifies the knowledge clusters as identified by AHIMA (Appendix A) in context of the course offerings proposed by the Health Information Management program. Careful consideration has been given to ensure that UDM’s course offering maintain a high degree of correlation to the AHIMA standards.

HIM Program Objectives	Corresponding Course Numbers
1. Utilize health information management knowledge to assure the availability of accurate health information for care delivery and critical decision making.	HIM 3350 CIS 3820 CIS 4850 HIM 4900
2. Maintain health information consistently throughout the organization in a manner that supports organizational compliance with applicable regulations and standards.	HSA 3100 HIM 3800 CIS 4850
3. Manage & evaluate clinical data for quality management, performance improvement, utilization management, risk management, and trending of data regarding quality, safety, and effectiveness of healthcare.	HIM 3350 HIM 4200 HSA 4700 HIM 4900
4. Maintain health information management practice that supports health care organization and delivery in the evolving environment including current health care laws, regulations, and standards regarding health information initiatives at local and government levels including privacy and ethical standards of practice.	HSA 3100 HSA 3460 CIS 4850 HIM 3350 HIM 3800 HIM 4900

5. Implement and manage technology (including hardware and software) to support accurate data collection, storage, analysis information reporting, and interoperability of healthcare information systems.	HIM 1060 CIS 3050 HIM 3350 HIM 3800 CIS 3820
6. Apply knowledge of data design and architecture for appropriate storage, retrieval, data mining, and report generation to meet end-user requirements.	HIM 1060 CIS 3050 HIM 3350 CIS 3820 HIM 3870 HIM 4600 CIS 4850
7. Protect data integrity and security, including the development of audit trails and security policies to minimize risk; develop risk assessment plans and data recovery procedures.	CIS 3870 CIS 4850
8. Facilitate project management by applying appropriate system life-cycle concepts to the analysis, selection/design, implementation, evaluation, and maintenance of select health information systems.	CIS 3050 HIM 3350 CIS 3450 HIM 4600 HIM 4900
9. Synthesize knowledge of organization and resource management including human resource management, financial management including monitoring budgets and contracts, and developing strategic plans to address organization-wide information needs.	HSA 3000 HSA 3460 HSA 3750 HIM 4600 HIM 4900
10. Integrate management principles to the administration of health information services.	HSA 3750 HIM 4600 HIM 4900

Table 2 - HIM Objectives

The systematic evaluation plan for the program will include formative evaluation embedded in the requisite coursework. Summative evaluation will include measurement of student recruitment and retention, program costs, graduation rates, RHIA certification rates, employment rates, and graduate and alumni satisfaction rates. Program evaluation data will be utilized for continuous quality improvement of the program, and will drive program changes as needed.

#### F. Students

Given that the Health Information Management (HIM) program is a cross between the curriculum in the College of Health Professions (CHP) and the Computer Information Systems (CIS) program, the typical student that will be admitted to the baccalaureate HIM degree program would be identified similarly to those students as found currently in the Computer Information Systems program. These prospective students will however, demonstrate an interest in focusing their CIS training within the aspects of the healthcare

industry by way of the University's application process and advising team. The program also lends itself to students who are interested in working in the health care sector, but do not have an interest in hands-on clinical practice.

The typical student profile that is expected in the HIM program is consistent with the university's typical profile of the undergraduate student attending a four (4) year institution for the first time meaning that it is expected that most students will have successfully completed a secondary education program and is looking to move into higher education. Admission to the HIM program will follow the guidelines as set forth by the Health Services Administration program and have been summarized below:

### **Freshman**

First-time college students must have a minimum high school GPA of 2.50 and have completed two years of high school mathematics with a grade of C or higher. Scores on the College Entrance Examination Board (SAT) or the American College Test (ACT) will also be examined. High school graduates who are properly prepared to undertake the Health Information Management program should have a college preparatory program as outlined in the "Recommended High School Preparation" section of this catalog under "Admission to the University."

### **Transfer**

Transfer students must have minimum undergraduate GPA of 2.00 and must complete UDM placement tests in English composition and mathematics.

### **Conditional Admission**

Conditional admission may be granted to those students whose academic achievement falls below the standards required for full-admissions status. In such cases, the applicant may be required to fulfill course work and/or conditions before full-admissions status is granted.

### **Academic Standards**

Students in the Health Information Management program must attain a minimum grade of "C" or better in all HIM courses. In addition, students must maintain a cumulative 2.0 grade point average. The academic policies in the Student Handbook govern academic conduct, progression, withdrawal and dismissal.

The courses as outlined in this proposal have been developed to meet the AHIMA knowledge clusters which will prepare the student for future certification in the health informatics industry. The degree will include the standard University core courses as well as those major courses as identified in Appendix D which will accumulate to a total of 126 credit hours.

With the marketing information as presented above, it is anticipated that the HIM program will be an attractive offering of the University given that it is well known that this area of the healthcare and technology industries has demonstrated a growing

employment need over the next 10 years. Additionally, with the partnership between CHP and CIS, which both programs are identified as well known and respected, it can be anticipated that the HIM offering will gain acceptance and recognition in both the healthcare and technology industries.

The HIM program will attract a diverse group of students given the reputations of both the CHP and CIS programs which have relationships within both the healthcare industry as well as the technology industry in the Metro-Detroit area. It is anticipated that the student body will be representative of both of these industries where gender, age and racial demographics has seen recent expansion.

#### G. Faculty

Faculty for the HIM program will be drawn mainly from the current University's faculty in both the CHP and the CIS programs. The current UDM CHP and CIS faculty will deliver the core HIM program which includes the HSA and University core curriculum. At initial implementation, the proposed program budget identifies the utilization of adjunct faculty and one new full-time coordinator/faculty member who is RHIA certified. As the program is projected to grow, one additional faculty and several adjunct faculty are incrementally added (proportional to program growth) to support increased enrollment in other colleges as well (e.g., E&S, CLAE).

These additional members of the UDM faculty will bring a diverse aspect to the HIM program as their expertise in the area of HIM which as noted above is a cross between a traditional CIS education as well as Healthcare will be utilized to its fullest extent. The additional faculty members will deliver the HIM specific curriculum not currently offered by UDM. Additionally, these faculty members will also be empowered to aid in the education of the current CIS and CHP faculty in the area of HIM in order to expand the knowledge offerings, quality and consistency of the delivery of the HIM program.

Listed below are the faculty currently employed by UDM who will be involved in the implementation, sustainability and maintenance of the HIM program:

Rita Barrios – Assistant Professor: CIS Program

Lori Glenn, MSN, RN, Assistant Professor: MSON, CHP

Jeffery Ingalsbe – Assistant Professor: CIS Program

Mary O'Shaughnessy, MS, CCC-A, MHSA, DHC©, Assistant Professor, Chair, HSA Program: CHP

Todd Ray, MS, RN, Assistant Professor, HSA Program, CHP

Dan Shoemaker, PhD – Chair/Professor/Director Center for Cyber Security & Intelligence Analysis; CIS Program

Julia Stocker-Schneider PhD, RN – Associate Professor/HSM Coordinator: MSON, CHP

Faculty will be attracted to the HIM program as offered by UDM because of the novelty of the program in today's higher educational environment. Currently in Michigan, the HIM offerings are predominately given by University of Phoenix which is commonly

recognized as a non-accredited program. As far as known, Davenport University is the only academic institution in Southeast Michigan offering an accredited HIM program. Given that UDM has a rich and successful history in both Health Professions and CIS, with the expanded offerings into HIM coupled with the expected growth in employment in Healthcare Informatics, it can be projected that UDM will be able to draw on these facts to attract the most qualified faculty to augment the HIM program. Additionally, the prospective faculty member will be in a unique position to support the student's development and growth not only in the academic areas that HIM program will offer, but also within the ethical and multi-cultural submersion that sets UDM apart from most other universities.

To attract diverse faculty prospects, the HIM program will advertise open positions in a wide variety of professional journals as well as reach out to those with whom we have a relationship in both the healthcare as well as the information technology industries to aid in the identification of potential candidates. Reaching out to these areas will not only support the need to attract faculty but will also open doors to potential internships and work study opportunities for the HIM student.

#### H. Administration and Support

Administration and support of the HIM program will be accomplished via existing UDM resources which include current policies, procedures, and controls. As noted previously, the addition of one (1) full-time coordinator/faculty will oversee the adherence to University resources is maintained. In year one, information technology support will be maintained via the current Information Technology Support (ITS) services. Concurrent with program growth and the implementation of specific HIM course, 0.5 FTE of IT technical support staff has been accounted for starting in year 2. In addition, 0.5 FTE administrative assistant support is added in year 1 to support program implementation and ongoing student/faculty operational needs. Additionally, current utilization of Blackboard as well as other technological offerings is expected to remain at expected levels. The Learning Center as well as the Writing Center will be utilized as needed within accordance to UDM's current policies. Beyond the items noted in the proposal, no additional line items of support are envisioned at this time.

#### I. Library Resources

Students in the HIM program will have access to the UDM library resources including the online library along with the standard level of Blackboard support. Additional resources for print journals and reference books have been anticipated and identified in Appendix G of this proposal. Compliance with copyright requirements will continue to be highly regarded and adhered to when utilizing reserved reading materials.

#### J. Facilities

As noted previously, the proposed HIM educational offering put forth in this document will utilize the facilities contained within UDM's McNichols campus. As is commonly known, the CIS program is in the process of building 3 new computer labs in the Briggs building as a result of funding from The Department of Defense (DoD). As such, it is expected that lab facilities for the HIM program will utilize these labs as necessary as the labs will be highly specialized in their software offerings where utilization will be controlled via advanced authentication and authorization techniques where access will be given to only those students who are in the CIS and/or HIM programs. These labs will be maintained exclusively by CIS designated personnel.

Given that current UDM classroom utilization is at approximately 53%, it is expected that HIM course offerings will be accommodated via the current classroom specifications therefore there will not be a need for additional classroom space. In addition, office space development is not expected to be needed with the addition of the two (2) new faculty members.

#### K. External Support

At present time, there is much discussion concerning the costs of healthcare in the United States. A segment of these costs is attributed to the creation and maintenance of health information and its lack of standardization across the healthcare industry. As such, there is a National Government initiative to standardize the area of healthcare in an attempt to reduce the associated costs as well as to create a more private and secured electronic environment. Currently, in the Metro-Detroit area, there are very few highly qualified programs to build highly qualified professionals to fill this gap in the industry. To support this initiative UDMs partner community college, Washtenaw Community College (WCC) is developing a very similar Associates Degree program. Since the CIS Information Assurance program already has an articulation agreement with WCC, the same will be sought with the HIM program so that the 2 year WCC student can easily transfer to UDM's 4 year program. This agreement will support the expected growth rate to 30 full-time students in AY 2011 and AY 2012.

Within the academic sector, the College of Health Professions Advisory Board, which is composed of health care industry leaders in Southeast Michigan discussed the Bachelor of Science in HIM proposal at length during their October 5<sup>th</sup> board meeting, and offered their strong support to the proposal. The Board recognized the expanding need for a qualified health information technology workforce, given the goal of complete adoption of the electronic health record throughout the health care continuum. The group also recognized the need for individuals with the knowledge and competencies the HIM degree would provide, and cited difficulty in locating such qualified persons to help them meet their expanding health information management needs. Further, they recognized the CHP's previous history of offering a health services management degree, as well as UDM's commitment to addressing local healthcare workforce needs.

Within the information technology and healthcare industry sectors, the HIM program has been given a strong verbal support and this support will be further strengthened from

documented endorsement letters from these leaders. These organizations include Compuware Corporation, Covisint Corporation and Blue Care Network all of Southeast Michigan. All of these high profile, well respected organizations recognized the need for specialization in Healthcare Information Management and look forward to offering internships and possible permanent employment following successful completion of the HIM program.

All letters of support obtained to-date can be found in Appendix H of this proposal.

To support the best-in-class designation at a national level as is being sought by the HIM program, accreditation should be a primary objective of the HIM program. The accrediting body for the Health Information Management profession is the Commission for Accreditation for Health Informatics and Information Management Education (CAHIIM). The HIM baccalaureate program being put forth was designed to meet these accreditation standards as set forth by this body and it is highly recommended that accreditation be sought.

At this time no external funding has been specifically identified, but given the current focus on Health Information Technology nationally and through the American Recovery and Reinvestment Act of 2009, it is highly likely that there are suitable funds available to help provide support to the program if needed.

No resources will be reallocated from existing programs to support this program.

#### L. Operating Revenue and Costs

Appendix C [separate attachment] depicts detailed information related to:  
Revenue, expenses and assumptions,  
Enrollment projections,  
Adjunct faculty projections/requirements, and  
Sample faculty workload grid.

As the following summary data demonstrates, a positive Return on Investment (ROI) will be realized within academic year one (1) of the program's implementation with the anticipated 22 full-time student population. It can then be expected given the metrics stated above in the Market and Need section of this document that enrollment will continue to rise over the following three (3) years post implementation and then will stabilize at approximately 70 students. It should be noted that anticipated revenue is based on tuition received for the indicated academic year of initially 22 full-time students followed by 3 additional cohorts.

Category	AY2010-2011	AY2011-2012	AY2012-2013	AY2013-2014	AY2014-2015
Personnel	\$114,378	\$225,107	\$258,749	\$290,942	\$301,214
Supplies	\$20,400	\$13,400	\$13,400	\$13,400	\$13,400
Travel	\$7,000	\$7210	\$7,426	\$7,649	\$7,879
Contract Services	\$17,000	\$12,000	\$12,000	\$12,000	\$12,000
Other Expenses	\$26,911	\$52,454	\$56,677	\$60,832	\$63,182
Property	\$0	\$93,000	\$93,000	\$93,000	\$93,000
Expense Total	\$185,689	\$403,171	\$441,252	\$477,824	\$490,674
Net Tuition Revenue	\$321,930	\$368,730	\$553,095	\$737,460	\$737,460
<b>Net Revenue</b>	<b>\$136,241</b>	<b>(\$34,441)</b>	<b>\$111,843</b>	<b>\$259,636</b>	<b>\$246,786</b>

**Table 3 - Aggregate Operating Revenue and Costs - 4 Year Projections**

As can be seen, a baccalaureate degree in Healthcare Information Management will prove to be a revenue-generating venture for the University as well as giving the University visibility and credibility in the healthcare informatics industry.

A more detailed view of the operating revenue and costs can be found in Appendix C of this proposal to move forward with the implementation of the Healthcare Information Management baccalaureate degree. Assumptions in the budget as presented include a minimum 22 full time students at the onset of the program in AY 2010-2011 followed by 3 additional cohorts of 22 at full-time tuition. Tuition is calculated assuming a 50% institutional aid rate and an attrition rate of 2 students per cohort, per year, per term for freshmen and sophomores.

#### M. Approval Process

The approval of the HIM baccalaureate degree will begin concurrently with the curriculum committees of CLAE and the CHP, given that the program is collaboration between two Colleges within the University. Once approval is received from both college curriculum committees, it will be forwarded to the McNichols Faculty Assembly (MFA) Undergraduate Program Review Committee, then to the full MFA. Once approved by the MFA, the program will be forwarded to the Vice President for Academic Affairs, the Academic Leadership Team (ALT), the President, and finally to the Board of Trustees for approval.

#### N. Appendices

Appendix A: AHIMA Knowledge Clusters for Health Information Management: Baccalaureate Degree Program

Appendix B: HIM Baccalaureate Degree Entry Level Competencies

Appendix C: Operating Revenue and Costs; Three Year Projections

Appendix D: Course Sequence Matrix for Full/Part-time Students

Appendix E: Course Listings

Appendix F: Course Syllabi

Appendix G: Library Resources

Appendix H: Letters of Endorsement

Appendix I: Needs Assessment Survey of UDM Students

## Appendix A: AHIMA Knowledge Clusters for Health Information Management: Baccalaureate Degree Program

The following table outlines the AHIMA Knowledge Clusters along with the UDM course mappings.

A knowledge cluster is the basis of curriculum development and learning objectives as put forth by AHIMA which uses Bloom's Taxonomy to classify the learning outcome levels that are expected for each area of study. Under the Bloom's Taxonomy classification system, a ranking of 1-6 is assigned to each area where 1 equates to the initial level of Knowledge, 2 identifies the Comprehension stage, 3 identifies the ability to Apply knowledge, 4 identifies the ability to do critical Analysis, 5 the ability to Synthesize knowledge and completing at level 6 the ability to Evaluate the value of the material presented. The numbers identified in the following matrix enclosed in parenthesis identify this categorization of the expected level of expertise of the identified knowledge area.

Knowledge Cluster Content	
Biomedical Sciences	UDM Courses
<ul style="list-style-type: none"> <li>Anatomy (3)</li> </ul>	BIO 2540 - Principles Of Human Anatomy
<ul style="list-style-type: none"> <li>Physiology (3)</li> </ul>	BIO 2550 - Principles Of Human Physiology
<ul style="list-style-type: none"> <li>Medical Terminology (3)</li> </ul>	HIM 2050 Medical Terminology
<ul style="list-style-type: none"> <li>Pathophysiology</li> </ul>	BIO 4980 - Pathophysiology
<ul style="list-style-type: none"> <li>Pharmacotherapy (4)</li> </ul>	HIM 2800 Pharmacotherapy for HIM Professionals
I.A. Health Data Structure, Content, and Standards	
<ol style="list-style-type: none"> <li>Structure and use of health information (individual, comparative, aggregate) (5)</li> </ol>	CIS 3820 Database Design HIM 3350 Clinical Data & Health Information Needs
<ol style="list-style-type: none"> <li>Health information media (paper, electronic/computer-based; e-health-personal, web-based) (5)</li> </ol>	CIS 3820 Database Design HIM 3350 Clinical Data & Health Information Needs
<ol style="list-style-type: none"> <li>Type and content of health record (paper, electronic, computer-based, e-health-personal, web-based) (5)</li> </ol>	HIM 3820 Database Design HIM 3350 Clinical Data & Health Information Needs
<ol style="list-style-type: none"> <li>Data quality assessment and integrity (5)</li> </ol>	CIS 3870 Secured Database Programming
<ol style="list-style-type: none"> <li>Secondary data sources (registries and indexes;</li> </ol>	HIM 3350 Clinical Data & Health Information Needs

<b>Knowledge Cluster Content</b>	
databases-such as MEDPAR, NPDB, HCUP) (4)	
6. Healthcare data sets (such as OASIS, HEDIS, DEEDS, UHDDS, UACDS, NEDSS, NMMFS) (4)	HIM 3350 Clinical Data & Health Information Needs
7. Health information archival systems (5)	CIS 3870 Secured Database Programming
8. National Healthcare Information Infrastructure (NHII) (5)	HIM 3350 Clinical Data & Health Information Needs
9. Data collections tools (such as forms; computer input screens; other health record documentation tools) (5)	CIS 3870 Secured Database Programming
<b>I.B. Healthcare Information Requirements and Standards</b>	
1. Standards and regulations for documentation (such as JCAHO, CARF, COP, AAHC, AOA) (5)	CIS 3050 Software Requirements HIM 3800 Health Information Accreditation, Regulation, & Standards
2. Health information standards (such as HIPAA, ANSI, ASTM, LOINC, UMLS, MESH, Arden Syntax, HL-7) (5)	CIS 3050 Software Requirements HIM 3800 Health Information Accreditation, Regulation, & Standards
<b>I.C. Clinical Classification Systems</b>	
1. Healthcare taxonomies, clinical vocabularies, terminologies/nomenclatures (such as ICD-9-CM, ICD-10, CPT, SNOMED-CT, DSM-IV) (4)	HIM 3350 Clinical Data & Health Information Needs
2. Medicare Severity Diagnosis Related Groups (MS-DRGs) (4)	HIM 2700 Coding Systems
<b>I.D. Reimbursement Methodologies</b>	
1. Clinical data and reimbursement management (5)	HIM 3650 Health Reimbursement Systems Management
2. Compliance strategies and reporting (e.g. National Correct Coding Initiative) (4)	HIM 3650 Health Reimbursement Systems Management HIM 2700 Coding Systems
3. Chargemaster management (4)	HIM 3650 Health Reimbursement Systems Management

Knowledge Cluster Content	
4. Casemix management (4)	HIM 3650 Health Reimbursement Systems Management
5. Audit process (such as compliance and reimbursement) (5)	HIM 3650 Health Reimbursement Systems Management
6. Payment systems (such as PPS, DRGs, APCs, RBRVS, RUGs) (4)	HSA 3010 Overview of Health Care Systems HIM 3650 Health Reimbursement Systems Management
7. Commercial, managed care and federal insurance plans (4)	HSA 3010 Overview of Health Care Systems HIM 3650 Health Reimbursement Systems Management
<b>II.A. Healthcare Statistics, Biomedical Research and Quality Management- Healthcare Statistics and Research</b>	
1. Statistical analysis on healthcare data (5) 2. Descriptive statistics (such as means, standard deviations, frequencies, ranges, percentiles) (5)	STA 2250 Statistics
3. Inferential statistics (such as <i>t</i> -tests, ANOVAs, regression analysis, statistical process control, reliability, validity)(5)	STA 2250 Statistics
4. Vital statistics (5)	HIM 2600 Epidemiology & the Management of Vital Health Data
5. Epidemiology (4)	HIM 2600 Epidemiology & the Management of Vital Health Data
6. Data reporting and presentation techniques (5)	HSA 4700 Quantitative Methods for Health Services
7. Computerized statistical packages (5)	HIM 2600 Epidemiology & the Management of Vital Health Data
8. Research design/methods (such as quantitative, qualitative, evaluative, outcomes) (5)	HSA 4700 Quantitative Methods for Health Services
9. Knowledge-based research techniques (such as Medline, CMS, libraries, web sites) (5)	HSA 4700 Quantitative Methods for Health Services
10. National guidelines regarding human subjects' research (4)	HSA 4700 Quantitative Methods for Health Services
11. Institutional review board process (IRB) (5)	HSA 4700 Quantitative Methods for Health Services

12. Research protocol data management	HSA 4700 Quantitative Methods for Health Services
<b>II.B. Quality Management and Performance Improvement</b>	
1. Quality assessment and management tools (such as benchmarking, ORYX, SQC) (5)	HIM 4200 Quality Improvement & Outcomes Management
2. Utilization and resource management (4)	HIM 4200 Quality Improvement & Outcomes Management
3. Risk Management (4)	HIM 4200 Quality Improvement & Outcomes Management HSA 3100 Health Care Law & Regulations
4. Disease management process (such as case management, critical paths) (4)	HIM 4200 Quality Improvement & Outcomes Management
5. Outcomes measurement (such as patient, customer satisfaction, disease-specific) (5)	HIM 4200 Quality Improvement & Outcomes Management
<b>III.A. Health Services Organization and Delivery</b>	
1. Organization of healthcare systems (5)	HSA 3010 Overview of Health Care Systems
2. Components and operation of healthcare organizations including e-health delivery (5)	HSA 3010 Overview of Health Care Systems HSA 3750 Management of Health Services Organizations
3. Accreditation standards (such as JCAHO, AOA, NCQA, CARF, CHAP, URAC) (5)	HIM 3800 Health Information Accreditation, Regulation, & Standards
4. Regulatory and licensure requirements (such as COP, state health departments) (5)	HSA 3100 Health Care Law & Regulations HIM 3800 Health Information Accreditation, Regulation, & Standards
<b>III.B. Healthcare Privacy, Confidentiality, Legal and Ethical Issues</b>	
1. Legislative and legal system (4)	HSA 3100 Health Care Law & Regulations
2. Privacy, confidentiality, security principles, policies and procedures (5)	CIS 4850 Information Assurance
3. Health information laws, regulations, and standards (such as HIPAA, e-health, JCAHO, state laws) (5)	HSA 3100 Health Care Law & Regulations

4. Elements of compliance programs (5)	HSA 3100 Health Care Law & Regulations
5. Professional and practice related ethical issues (5)	ETH 3580 Health Care Ethics (core) CIS 4850 Information Assurance
<b>IV.A. Information Technology and Systems</b>	
1. Computer concepts (hardware components, systems architectures, operating systems and languages, and software packages and tools) (4)	HIM 1060 Healthcare Informatics (core)
2. Communications technologies (networks-LANS, WANS, VPNs; data interchange standards – NIST, HL-7) (4)	HIM 1060 Healthcare Informatics (core)
3. Internet technologies (Intranet, web-based systems, standards – SGML, XM-L) (4)	HIM 1060 Healthcare Informatics (core)
4. Date, information and file structures (data administration, data definitions, data dictionary, data modeling, data structures, data warehousing, database management systems) (5)	HIM 1060 Healthcare Informatics (core)
5. Data storage and retrieval (storage media, query tools/applications, data mining, report design, search engines) (5)	HIM 1060 Healthcare Informatics (core)
6. Date security (protection methods-physical, technical, managerial, risk assessment, audit and control program, contingency planning, data recovery, internet, web-based, and e-Health security) (5)	HIM 1060 Healthcare Informatics (core)
<b>IV.B. Applied Health Informatics</b>	
1. Leading development of health information resources and systems (4)	CIS 3450 Software Project Management HIM 4900 Health Information Management Internship

2. Brokering of information services (5)	CIS 3050 Software Requirements HIM 4900 Health Information Management Internship
3. Clinical, business and specialty systems applications (administrative, clinical decision support systems, electronic health record and computer-based health record systems, nursing, ancillary service systems, patient numbering systems at master and enterprise levels) (5)	HIM 3350 Clinical Data & Health Information Needs CIS 3050 Software Requirements HIM 4900 Health Information Management Internship
4. Systems development (planning, analysis and design, customization, selection/procurement, implementation, integration, support, testing and evaluation, auditing and monitoring) (5)	CIS 3050 Software Requirements HIM 3350 Clinical Data & Health Information Needs HIM 4900 Health Information Management Internship
5. Human factors and user interface design (4)	CIS 3050 Software Requirements HIM 3350 Clinical Data & Health Information Needs HIM 4900 Health Information Management Internship
6. Systems Life Cycle (systems analysis, design, implementation, evaluation, and maintenance) (5)	CIS 3050 Software Requirements HIM 3350 Clinical Data & Health Information Needs HIM 4900 Health Information Management Internship
<b>V.A. Organization and Management</b>	
1. Principles of management (5)	HSA 3750 Management of Health Services Organizations
2. Negotiation techniques (4)	HSA 3750 Management of Health Services Organizations
3. Communication and interpersonal skills (5)	CST 101 Fundamentals of Speech (core) HSA 3750 Management of Health Services Organizations
4. Team/consensus building (5)	HSA 3750 Management of Health Services Organizations
5. Professional development for self and staff (4)	HSA 3460 Human Resource Management in Health Care HSA 3750 Management of Health Services Organizations

6. Problem solving and decision making processes (5)	HSA 3750 Management of Health Services Organizations
<b>VI.A. Human Resources Management</b>	
1. Employment laws (4)	HSA 3460 Human Resource Management in Health Care
2. Principles of human resources management (recruitment, supervision, retention, counseling, disciplinary action) (5)	HSA 3460 Human Resource Management in Health Care
3. Workforce education and training (4)	HSA 3460 Human Resource Management in Health Care
4. Performance standards (5)	HSA 3460 Human Resource Management in Health Care
<b>VI.B. Financial and Resource Management</b>	
1. Healthcare finance (payer mix, bond rating, investment, capitalization) (3)	HSA 3010 Overview Of Health Care Systems HSA 4650 Health Services Financial Management
2. Accounting principles (4)	HSA 3000 Accounting for Health Care Professions
3. Budget process (capital and operating) (5)	HSA 4650 Health Services Financial Management
4. Cost/benefit analysis (5)	HSA 4650 Health Services Financial Management
<b>VI.C. Strategic Planning and Organizational Development</b>	
1. Strategic leadership, management and planning (4)	HIM 4600 Strategic Planning and Management of Health Information Systems
2. Organizational behavior (4)	HSA 3460 Human Resource Management in Health Care
3. Business building (entrepreneurialism – building your own business; entrepreneurialism – championing best practices; processes, services within your organization) (3)	HIM 4600 Strategic Planning and Management of Health Information Systems
4. Change management (4)	HSA 3750 Management of Health Services Organizations
5. Organizational assessment and benchmarking (4)	HIM 4200 Quality Improvement & Outcomes Management HIM 4600 Strategic Planning and Management of Health Information Systems

<b>VI.D. Project and Operations Management</b>	
1. Process reengineering and work redesign (4)	CIS 3050 Software Requirements
2. Project management (5)	CIS 3450 Software Project Management

**Table 4 - AHIMA Knowledge Cluster Content**

## Appendix B: HIM Baccalaureate Degree Entry Level Competencies

The following matrix identifies the AHIMA core competencies along with the UDM course offering that satisfies that competency.

<b>I. Domain: Health Data Management</b>	<b>UDM Course Mappings</b>
<b>A. Subdomain: Health Data Structure, Content and Standards</b>	
1. Manage health data (such as data elements, data sets, and databases).	HIM 3350 Clinical Data & Health Information Needs CIS 3820 Database Design
2. Ensure that documentation in the health record supports the diagnosis and reflects the patient’s progress, clinical finding, and discharge status.	HIM 3350 Clinical Data & Health Information Needs CIS 3820 Database Design
3. Maintain processes, policies, and procedures to ensure the accuracy of coded data.	HIM 2700 Coding Systems HIM 3650 Health Reimbursement Systems Management
4. Monitor use of clinical vocabularies and terminologies used in the organization’s health information systems.	HIM 3350 Clinical Data & Health Information Needs CIS 3820 Database Design
<b>B. Subdomain: Healthcare Information Requirements and Standards</b>	
1. Develop organization-wide health record documentation guidelines.	HIM 3800 Health Information, Accreditation,, Regulation, & Standards
2. Maintain organizational compliance with regulations and standards.	HIM 3800 Health Information, Accreditation, Regulation, & Standards CIS 4850 Information Assurance HSA 3100 Health Care Law & Regulations
3. Ensure organizational survey readiness for accreditation, licensing and/or certification processes.	CIS 3050 Software Requirements HIM 3800 Health Information, Accreditation,, Regulation, & Standards
<b>C. Subdomain: Clinical Classification Systems</b>	
1. Select electronic applications for clinical classification and coding.	HIM 3350 Clinical Data & Health Information Needs

2. Implement and manage applications and processes for clinical classification and coding.	HIM 2700 Coding Systems HIM 3350 Clinical Data & Health Information Needs HIM 3650 Health Reimbursement Systems Management
<b>D. Subdomain: Reimbursement Methodologies</b>	
1. Manage the use of clinical data required in prospective payment systems (PPS) in healthcare delivery.	HIM 2700 Coding Systems HIM 3650 Health Reimbursement Systems Management
2. Manage the use of clinical data required in other reimbursement systems in healthcare delivery.	HIM 3650 Health Reimbursement Systems Management
3. Participate in selection and development of applications and processes for chargemaster and claims management.	HIM 3650 Health Reimbursement Systems Management
4. Implement and manage processes for compliance and reporting such as the National Correct Coding initiative.	HIM 3650 Health Reimbursement Systems Management
<b>II. Domain: Health Statistics, Biomedical Research and Quality Management</b>	
<b>A. Subdomain: Healthcare Statistics and Research</b>	
1. Manage clinical indices/databases/registries.	CIS 3820 Database Design HIM 3350 Clinical Data & Health Information Needs HIM 2600 Epidemiology & the Management of Vital Health Data
2. Analyze and present data for quality management, utilization management, risk management, and other related studies.	HIM 4200 Quality Improvement & Outcomes Management HSA 4700 Quantitative Methods for Health Services
3. Utilize statistical software.	HIM 2600 Epidemiology & the Management of Vital Health Data
4. Ensure adherence to Institutional Review Board (IRB) processes and policies.	HSA 4700 Quantitative Methods for Health Services
<b>B. Subdomain: Quality Management and Performance Improvement</b>	
1. Organize and coordinate facility-wide quality management and performance improvement programs.	HIM 4200 Quality Improvement & Outcomes Management

2. Analyze clinical data to identify trends.	HIM 4200 Quality Improvement & Outcomes Management HSA 4700 Quantitative Methods for Health Services
3. Analyze and present data for healthcare decision-making (such as demonstrating quality, safety, and effectiveness of healthcare).	HIM 4200 Quality Improvement & Outcomes Management HSA 4700 Quantitative Methods for Health Services
<b>III. Domain: Health Services Organization and Delivery</b>	
<b>A. Subdomain: Healthcare Delivery Systems</b>	
1. Monitor the impact of national health information initiatives on the healthcare delivery system for application to information system policies and procedures.	HSA 3010 Overview of Health Care Systems HSA 3100 Health Care Law & Regulations HIM 3800 Health Information Accreditation, Regulation, & Standards
2. Interpret, communicate, and apply current laws, accreditation, licensure and certification standards related to health information initiatives at the national, state, local, and facility levels.	HSA 3100 Health Care Law & Regulations HIM 3800 Health Information Accreditation, Regulation, & Standards
3. Analyze and respond to the information needs of internal and external customers throughout the continuum of healthcare services.	HIM 3350 Clinical Data & Health Information Needs HIM 4200 Quality Improvement & Outcomes Management
4. Revise policies and procedures to comply with changing health information regulations.	HSA 3100 Health Care Law & Regulations HIM 3800 Health Information Accreditation, Regulation, & Standards
5. Translate and interpret health information for consumers and advocates.	HIM 4200 Quality Improvement & Outcomes Management HIM 2600 Epidemiology & the Management of Vital Health Data
<b>B. Subdomain: Healthcare Privacy, Confidentiality, Legal, and Ethical Issues</b>	
1. Coordinate the implementation of legal and regulatory requirements related to the health information infrastructure.	HSA 3100 Health Care Law & Regulations HIM 3800 Health Information Accreditation, Regulation, &

	Standards
2. Manage access and disclosure of personal health information.	CIS 3870 Secured Database Programming
3. Develop and implement organization-wide confidentiality policies and procedures.	HIM 3800 Health Information Accreditation,, Regulation, & Standards
4. Develop and implement privacy training programs.	HIM 3800 Health Information Accreditation,, Regulation, & Standards
5. Resolve privacy issues/problems.	HIM 3800 Health Information Accreditation,, Regulation, & Standards CIS 3870 Secured Database Programming CIS 4850 Information Assurance
6. Apply and promote ethical standards of practice.	ETH 3580 Health Care Ethics
<b>IV. Domain: Information Technology &amp; Systems</b>	
<b>A. Subdomain: Information and Communication Technologies</b>	
1. Implement and manage use of technology, including hardware and software, to ensure data collection, storage, analysis and reporting of information.	HIM 1060 Healthcare Informatics (core)
2. Contribute to the development of networks, including intranet and Internet applications to facilitate the electronic health record (EHR), personal health record (PHR), public health, and other administrative applications.	HIM 1060 Healthcare Informatics (core)HIM 3820 Database Design
3. Interpret the derivation and use of standards to achieve interoperability of healthcare information systems.	HIM 1060 Healthcare Informatics (core) CIS 3820 Database Design HIM 3800 Health Information Accreditation, Regulation, & Standards
<b>B. Subdomain: Data, Information, and File Structures</b>	
1. Apply knowledge of data base architecture and design (such as data dictionary, data modeling, data warehousing, and so on) to meet organizational needs.	HIM 1060 Healthcare Informatics (core) HIM 3050 Software Requirements CIS 3820 Database Design

<b>C. Subdomain: Data, Information, and File Structures</b>	
1. Apply appropriate electronic or imaging technology for data/record storage.	HIM 1060 Healthcare Informatics (core)
2. Apply knowledge of database querying and data mining techniques to facilitate information retrieval.	HIM 1060 Healthcare Informatics (core)
3. Implement and manage knowledge-based applications to meet end-user information requirements.	HIM 1060 Healthcare Informatics (core) HIM Clinical Data & Health Information Needs
4. Design and generate administrative reports using appropriate software.	HIM 1060 Healthcare Informatics (core)
<b>D. Subdomain: Data security</b>	
1. Enforce confidentiality and security measures to protect electronic health information.	CIS 4850 Information Assurance
2. Protect data integrity and validity using software or hardware technology.	CIS 4850 Information Assurance
3. Implement and monitor department and organizational data and information system security policies.	CIS 4850 Information Assurance
4. Recommend elements that must be included in the design of audit trail and data quality monitoring programs.	CIS 4850 Information Assurance
5. Recommend elements that should be included in the design and implementation of risk assessment, contingency planning, and data recovery procedures.	
<b>E. Subdomain: Healthcare Information Systems</b>	
1. Compare and contrast the various clinical, administrative, and specialty service applications used in healthcare organizations.	HIM 3350 Clinical Data and Health Information Needs CIS 3050 Software requirements HIM 4900 Health Information Management Internship
2. Apply appropriate systems life cycle concepts, including systems analysis, design, implementation, evaluation, and maintenance to the selection of healthcare information systems.	CIS 3050 Software Requirements HIM 3350 Clinical Data & Health Information Needs HIM 4900 Health Information Management Internship
3. Facilitate project management by integrating work efforts, as well as planning and executing project tasks and	CIS 3450 Software Project Management

activities.	
4. Formulate planning, design, selection, implementation, integration, testing, evaluation, and support for organization-wide information systems.	CIS 3450 Software Project Management HIM 4600 Strategic Planning and Management of Health Information Systems
5. Apply ergonomic and human factors in interface design.	CIS 3050 Software Requirements HIM 3350 Clinical Data & Health Information Needs HIM 4900 Health Information Management Internship
<b>V. Domain: Organization and Management</b>	
<b>A. Subdomain: Human Resource Management</b>	
1. Manage human resources to facilitate staff recruitment, retention, and supervision.	HSA 3460 Human Resource Management in Health Care
2. Ensure compliance with employment laws.	HSA 3460 Human Resource Management in Health Care
3. Develop and implement staff orientation and training programs.	HSA 3460 Human Resource Management in Health Care
4. Develop and implement continuing education programs.	HSA 3460 Human Resource Management in Health Care
5. Develop productivity standards for health information functions.	HSA 3460 Human Resource Management in Health Care
6. Monitor staffing levels and productivity, and provide feedback to staff regarding performance.	HSA 3460 Human Resource Management in Health Care
7. Benchmark staff performance data.	HSA 3460 Human Resource Management in Health Care
8. Develop, motivate, and support work teams.	HSA 3460 Human Resource Management in Health Care HSA 3750 Management of Healthcare Organizations
<b>B. Subdomain: Financial and Resource Management</b>	
1. Demonstrate knowledge of financial management and accounting principles.	HSA 3000 Accounting for Health Care Professions HSA 4650 Health Services Financial Management
2. Prepare and monitor budgets and contracts.	HSA 4650 Health Services Financial Management
3. Demonstrate and apply knowledge of cost-benefit analysis techniques to justify resource needs.	HSA 4650 Health Services Financial Management

4. Manage organization-wide coding and revenue cycle processes.	HIM 3650 Health Reimbursement Systems Management HSA 4650 Health Services Financial Management
<b>C. Subdomain: Strategic Planning and Organizational Development</b>	
1. Develop strategic and operational plans for facility-wide information systems.	HIM 4600 Strategic Planning and Management of Health Information Systems
2. Assess organization-wide information needs.	HIM 3800 Health Information Accreditation, Regulation, & Standards HIM 4600 Strategic Planning and Management of Health Information Systems
3. Facilitate retrieval, interpretation, and presentation of data/information appropriate to user needs.	HSA 3750 Management of Healthcare Organizations HIM 3350 Clinical Data & Information Needs
4. Demonstrate and apply principles of organization behavior to facilitate team building, negotiation, and change management.	HSA 3750 Management of Healthcare Organizations
<b>D. Subdomain: Project and Operations Management</b>	
1. Apply general principles of management in the administration of health information services.	HSA 3750 Management of Healthcare Organizations
2. Assign projects and tasks to appropriate staff.	HSA 3460 Human Resource Management in Health Care HSA 3750 Management of Healthcare Organizations
3. Implement process engineering and project management techniques to ensure efficient workflow and appropriate outcomes.	HSA 3750 Management of Healthcare Organizations HIM 4200 Quality Improvement and Outcomes Management

Table 5 - AHIMA Core Competency Levels

## **Appendix C: Operating Revenue and Costs**

Excel documents are provided in a separate attachment to this document and include:

Revenue, expenses and assumptions,

Enrollment projections,

Adjunct faculty projections/requirements, and

Sample faculty workload grid.

## **Appendix D: Course Sequence Matrix for Full/Part-Time Students**

\*\* Note: Standard University core courses are not listed here but can be found in the current catalogs however, in the cases where a requirement is needed to satisfy the core curriculum, it will be noted along with the objective it addresses. HIM courses that are new (not augmented for the HIM subject area) to the UDM curriculum for AY2010 are denoted by a '\*’.

Augmented CIS courses have a HIM counterpart as noted below with the courses that have a prefix of HIM as the title. These specific courses have been selected to support the AHIMA knowledge clusters and focus specifically on the healthcare industry. It was decided to take this path for the HIM program to prevent confusion amongst the students of CIS and HIM as to what course would be most appropriate for their specific area of study.

### Core Requirements

Objective 1: CST 1010 Fundamentals of Speech

Objective 2 CIS: HIM 1060 Healthcare Informatics

Objective 3.b Natural Science: BIO 2540 Principles of Human Anatomy

Objective 6: ETH 3580 Health Care Ethics

All other University core objectives should remain

### HIM (Health Information Management) Program Courses

BIO 2550 Principles of Human Physiology

BIO 4980 Pathophysiology

\* HIM 2050 Medical Terminology

\* HIM 2600 Epidemiology and the Management of Vital Health Data

\* HIM 2700 Coding Systems

\* HIM 2800 Pharmacotherapy for HIM Professionals

\* HIM 3350 Clinical Data and Health Information Needs

\* HIM 3650 Healthcare Reimbursement Management Systems

\* HIM 3800 Healthcare Accreditations, Regulations and Standards

\* HIM 4200 Quality Improvement and Outcome Management

\* HIM 4600 Strategic Planning and Management of Health Information Systems

\* HIM 4900 Health Information Management Internship

CIS 3050 HIM Software Requirements

CIS 3450 HIM Project Management

CIS 3820 HIM Database Design

CIS 3870 HIM Secure Database Programming

CIS 4850 HIM Information Assurance

HSA 3010 Overview of Healthcare Systems

HSA 3000 Accounting for Healthcare Professionals

HSA 3100 Healthcare Law and Regulation

HSA 3460 Human Resource Management in Healthcare

HSA 3750 Management of Healthcare Organizations  
HSA 4650 Health Services Financial Management  
HSA 4700 Quantitative Methods for Health Systems  
STA 2250 Statistics

<b>Year Number</b>	<b>Term Number</b>	<b>Course Number</b>
Freshman	I – 15 Credits	ENL 1310 Academic Writing MTH 1010 College Algebra PHL 1000 Introduction to Philosophy HIM 1060 Healthcare Informatics Obj. IIIb - BIO 2540 Prnc. of Human Anat.
	II – 15 Credits	CST 1010 Fundamentals of Speech RELS Objective 4b: any 1000 or 2000 level Religious Studies course HIM 2050 Medical Terminology BIO 2550 - Principles Of Human Physiology HIM 2700 Coding Systems
Sophomore	I – 18 Credits	HIS Objective V ETH 3580 Health Care Ethics STA 2250 Statistics HIM 2800 Pharmacotherapy for HIM Professionals HIM 2600 Epidemiology and the Mgmt of Vital Health Data HSA 3010 Overview of Heath Care Systems
	II – 15 Credits	Objective III Social Science Course Obj V Art/Dance/Music Course

		<p>BIO 4980 – Pathophysiology</p> <p>HIM 3350 Clinical Data &amp; Health Information Needs</p> <p>Objective V ENL</p>
Junior	I – 15 Credits	<p>Objective V Cultural/Foreign Lang. Course</p> <p>CIS 3050 HIM Software Requirements</p> <p>CIS 3450 HIM Project Management</p> <p>HIM 3650 Health Reimbursement Systems Management</p> <p>HSA 3750 Management of Health Services Organizations</p>
	II – 15 Credits	<p>Objective IV Phil or Religious Studies</p> <p>Objective VI Cntmpry Soco-Political Prb.</p> <p>CIS 3820 HIM Database Design</p> <p>HIM 3800 Health Information Accreditation, Regulation, &amp; Standards</p> <p>HSA 3460 Human Resource Management in Health Care</p>
Senior	I – 15 Credits	<p>CIS 3870 HIM Secured Database Prgmng</p> <p>CIS 4850 HIM Information Assurance</p> <p>HIM 4200 Quality Improvement &amp; Outcomes Management</p> <p>HSA 3000 Accounting for Health Care Professions</p> <p>HSA 3100 Health Care Law &amp; Regulation</p>
	II – 15 Credits	<p>HSA 4650 Health Services Financial Management</p>

		<p>HSA 4700 Quantitative Methods for Health Services</p> <p>HIM 4600 Strategic Planning and Management of Health Information Systems</p> <p>HIM 4900 Health Information Management Internship</p> <p>Objective 3 Social or Natural Science</p>
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Table 6 - Recommended Progression of Course Work

## Appendix E: Course Listings

The information presented in this appendix will identify the course number, name, catalog description as well as the units of credits for each course in the proposed HIM baccalaureate degree. Those courses denoted with an “\*” are new to the UDM catalog beginning in AY2010 to support the HIM program. All other courses as identified in Appendix D exist or are HIM branded CIS courses to develop a partnership to the HIM program in a clear and concise manner which will meet the AHIMA knowledge areas as identified in Appendix B.

### **BIO 2540 Principles of Human Anatomy – 3 cr**

- Meets objective 3.b Natural Science University Core Requirement

**Catalog Description:** An introductory course, systematically investigating the structure and organization of the human body, specifically designed for health professions. This course may not be used for credit toward a major in Biology.

### **BIO 2550 Principles of Human Physiology – 3 cr**

**Catalog Description:** The relationship of organ systems in the overall maintenance of normal human function as it pertains to health professions. The laboratory is designed to investigate the clinical aspects of human physiology. This course may not be used for credit toward a major in Biology.

### **BIO 4980 Pathophysiology – 3 cr**

**Catalog Description:** This is an introductory study of the alteration of physiologic mechanisms responsible for disease. Emphasis is placed on pathogenesis, focusing on morphologic and physiologic manifestations, as well as the rationale of specific disease therapies. The course is designed for pre-professional students.

### **CST 1010 Fundamentals of Speech – 3 cr**

- Meets objective 1 University Core Requirement

**Catalog Description:** Develops a fundamental understanding of the process of oral communication with an emphasis on receiver behavior. This course concentrates on basic oral communication competencies: idea phrasing, organization and support of ideas, audience analysis and adaptation, confidence, delivery skills, and speech preparation procedures.

### **ETH 3580 Health Care Ethics – 3 cr**

- Meets objective 6 University Core Requirement

**Catalog Description:** This course is an examination of moral issues in health care delivery, health care policy, and biomedical research. Discussion will focus on moral theories, principles and values and their application to such issues as professional-

patient relationships, euthanasia, abortion, human experimentation, and access to health care.

### **STA 2250 Statistics – 3 cr**

**Catalog Description:** This is an interdisciplinary first course which introduces students to the statistical methods available for the examination and analysis of data relevant to communication studies, economics, political science, psychology, sociology and areas of the health and human sciences.

### Health Information Management Courses

#### **HIM 1060 Healthcare Informatics – 3 cr**

- Meets Objective 2 CIS University Core Requirement
- HIM 1060 is a rebranding of CIS1060 Healthcare Informatics to ensure the naming convention is consistent with the HIM rubric.

**Catalog Description:** Students will receive instruction in the theory of information technology along with hands on application as it relates to health care management and the delivery of patient care. Focus will be on the skills necessary to use and secure computers for data management, budgeting, communications, presentations, data collection, analysis and decision-making.

#### **\* HIM 2050 Medical Terminology – 3 cr**

**Catalog Description:** This course provides students with a basic understanding of the meaning and appropriate use of medical and health care terminology. Concepts of medical and health terminology including spelling, pronunciation, common abbreviations, and word components including roots, prefixes, and suffixes will be covered. Terms specific to human body structure, health, illness, the provision of health care will be covered. An overview of terms for each major body system will be covered including those relating to structure, function, disorder, and diagnostic and treatment procedures.

#### **\* HIM 2600 Epidemiology and the Management of Vital Health Data – 3cr**

**Catalog Description:** This course will provide students with an introduction to the science of epidemiology. Foundational principles of the occurrence of communicable and non-communicable disease in populations will be conveyed. Strategies for describing ratios, proportions, and rates of disease will be addressed, as well as reporting methods for general health and population indices. Students will have the opportunity to use computerized statistical packages such as SPSS to calculate common vital health statistic and disease rates using basic epidemiological data. Factors associated with determining causal associations with disease will be introduced. Concepts related to chronic disease epidemiology and clinical disease epidemiology will be discussed. Students will be introduced to various clinical indices, databases, and registries used for the management and analysis of health population data.

**\* HIM 2700 Coding Systems – 3 cr**

**Catalog Description:** This course will provide students with an overview of clinical coding and classification systems including ICD-9, CPT, HCPCS, and ICD-10. Coding rules and guidelines for ICD-9 and CPT will be emphasized for major disorders and procedures. The use of coding systems for reimbursement, evaluation of health services use, resource planning, and other uses will be discussed. The use of such coding data to determine prospective pay reimbursement using Medicare Severity Diagnosis Related Groups (MS-DRGs) for inpatient settings will be explored, and Prospective Pay Systems (PPS) in other settings (e.g. RUGs, APCs, RBRVS, HHRGs, etc) will be touched on. Federal initiatives including the National Correct Coding Initiative and the importance of maintaining policies and processes to manage accurate coding and classification will be introduced.

**\* HIM 2800 Pharmacotherapy for HIM Professionals – 3 cr**

**Catalog Description:** This course focuses on preparing the health information management student with knowledge in pharmacology as it applies to health care databases and information systems. Major drug categories will be presented as they relate to the prevention, management and treatment of disease states. The course will assist the student in creating management plans and critical paths regarding the use of pharmaceutical agents, with respect to drug classes, therapeutic uses, general and adverse side effects, as well as drug interactions. Implications associated with the drugs related to quality assessment, risk management, disease management, and outcome measurement are incorporated. The goal of this course is to highlight the essential information, promote true comprehension, and integrate pharmacology and management of agents with health information system management.

**\* HIM 3350 Clinical Data and Health Information Needs – 3 cr**

**Catalog Description:** This course will provide Health Information Management (HIM) students with an overview of health information and data needs across the continuum of care. The structure and use of health information will be covered, as well as the workflow and data needs of system end users. Content and design of electronic health records (EHRs) and personal health records will be discussed including consideration of human factors and user interface. The use of secondary sources of data such as registries, indexes, and databases (e.g. MEDPAR, NDB, HCUP) and healthcare data sets (such as OASIS, HEDIS, DEEDS, UHDDS, UACDS, NEDSS, NMMFS) will be introduced. The need for a National Health Informatics Infrastructure (NHII) will be addressed. The purpose, limitations, and proposed solutions regarding clinical classification systems, terminologies, and nomenclatures (e.g. ICD-9, CPT, SNOMED-CT, DSM-IV, NANDA, NIC, NOC) will be considered. Systems development, selection, and the systems life cycle will be considered in light of clinical data and health information system needs.

**\* HIM 3650 Healthcare Reimbursement Management Systems – 3 cr**

**Catalog Description:** This course presents the fundamental concepts of the audit and control process for health information systems. It is rooted in several bodies of knowledge. The purpose of each of these BOKs is to establish the exact status of

some aspect of health IT functioning. You will learn how to create a systematic audit based control structure for health IT systems, establish systematic accounting and control procedures for this structure and build systematic control assurance capability into the health IT system function. This capability will require the definition of a control framework, the attendant control objectives and the auditing and reporting system for an organizational application in the health care environment. This applies to operational aspects ranging from process control to security. Guidance for fully carrying this out is specified in the form of expert standards for best practice

**\* HIM 3800 Healthcare Accreditations, Regulations and Standards – 3 cr**

**Catalog Description:** This course will introduce HIM students to the major regulations and standards that apply to the management of health information. Health information standards that are needed to achieve or enhance the functionality and interoperability of electronic health information (e.g. ANSI, ASTM, HL-7, LOINC, HIPAA, UMLS, MESH, Arden Syntax) will be discussed including the reason such standards are required. Regulation and related accreditation standards pertaining to privacy, confidentiality, and the secure maintenance of health records (including HIPAA) will be addressed. Regulation and licensure requirements that govern health organizations and the patient-specific health information they maintain will be introduced for various types of health settings (such as setting specific COP & State Health Dept. requirements). Further, applicable standards from accreditation bodies across the continuum of care will be highlighted. Current National health information initiatives and their potential impact on the health care system will be discussed.

**CIS 3050 HIM Software Requirements – 3 cr**

- HIM 3050 is an extension of the CIS 3050 course where by the HIM course focuses specifically on the healthcare industry, its unique objectives and industry specific development standards.

**Catalog Description:** This course presents principles that underlie the development of detailed requirements specification and design for a healthcare specific technical artifact or service. At the conclusion of this course, the student will demonstrate competence in the practice of requirements engineering in the healthcare environment as well as practical competence in: requirements elicitation and costing, requirements analysis, specification and management.

**CIS 3450 HIM Project Management – 3 cr**

- HIM 3450 is an extension of the CIS 3450 course where by the HIM course focuses specifically on the healthcare industry, its unique objectives and industry specific project management standards.

**Catalog Description:** This course presents a comprehensive overview of project management methods, models, organizational issues, software tools and standards for planning, scheduling, costing and control of healthcare related information systems

projects in compliance with the specifications of the PMI Body of Knowledge (PMBOK).

### **CIS 3820 HIM Database Design – 3 cr**

- HIM 3820 is an extension of the CIS 3820 course where by the HIM course focuses specifically on the healthcare industry, its unique objectives and industry specific standards related to database design and implementation best practices.
- This course has been designated by the United States National Security Agency (NSA) and Department of Homeland Security (DHS) for Certification

**Catalog Description:** Course emphasis is on logical and physical database design, conceptual data modeling and database implementation within the healthcare industry. The Standard Query Language (SQL) is given particular consideration. Emphasis is on understanding the technology with respect to commonly accepted methods and procedures for development of computerized information data repositories utilizing emerging database technologies.

### **CIS 3870 HIM Secure Database Programming – 3 cr**

- HIM 3870 is an extension of the CIS 3870 course where by the HIM course focuses specifically on the healthcare industry, its unique objectives and industry specific standards related to database security and the effective implementation of access control mechanisms.
- Prerequisite: HIM 3820 Database Design

**Catalog Description:** Unlike the database design course, HIM 3870 focuses on the implementation of secure access control mechanisms to ensure the protection of the data objects associated with a patient within the healthcare system. The course emphasis is on ensuring access control mechanisms are implemented according to the healthcare industry's best practices. The content includes implementation of Intrusion Detection Systems (IDS), secure processes, procedures and controls with the goal of securing the healthcare environment accordingly.

### **\* HIM 4200 Quality Improvement and Outcome Management**

**Catalog Description:** This course will provide students with an understanding of continuous quality improvement theory and methods. Basic principles of quality improvement, including customer focus, continuous improvement, and teamwork will be emphasized. The application of health information management techniques to identify quality improvement needs will be discussed. Additionally, the benefit of process transformation when implementing new information management technology will be addressed.. Students will learn about required quality assessment and benchmarking tools (such as ORYX and SQC). Sources of outcomes data (e.g. patient satisfaction, disease-specific outcomes) and methods to manage them will be explored. Risk management, utilization and resource management, and case and disease management processes will be examined. Organizational assessment using

benchmarking of key organizational indicators will be discussed. Students will be introduced to specific quality improvements approaches (such as Six Sigma & Lean).

**\* HIM 4600 Strategic Planning and Management of Health Information Systems – 3 cr**

**Catalog Description:** This course will provide Health Information Management (HIM) students with an overview of the strategic leadership, management, and planning. The course will emphasize strategic planning including organizational assessment and benchmarking with a specific emphasis on information system and technology needs. Business building and the implementation of processes that support quality service delivery and best practices will be stressed. The importance of a sound information strategy that relates to and supports overall organizational strategy will be highlighted.

**CIS 4850 HIM Information Assurance – 3 cr**

- HIM 4850 is an extension of the CIS 4850 course where by the HIM course focuses specifically on the healthcare industry, its unique objectives and industry specific standards related to information assurance.
- This course has been designated by the United States National Security Agency (NSA) and Department of Homeland Security (DHS) for Certification.

**Catalog Description:** This course takes the perspective that information assurance is a strategic function within the healthcare industry. Consequently the concepts, principles and application of all the sixteen areas of information assurance will be examined as they relate to healthcare. The student will be able to conduct a security risk analysis, balance resource requirements against identified weaknesses, formulate a coherent policy framework for healthcare information security using an accepted standard and deploy the appropriate set of security control objectives to meet the requirements of the defined policy framework.

**\* HIM 4900 Health Information Management Internship – 3 cr**

**Catalog Description:** Students will be placed with a qualified health information management (HIM) preceptor, and will gain hands-on experience working in an organization that employs health information management administrators. The student will have the opportunity to apply knowledge and skills gained throughout the program to participate in health information management in a “real-world” setting. The student will participate in a range of HIM activities as directed by the preceptor, and will also contribute to the completion of a HIM project for the organization. The student will spend 168 contact hours during the internship experience. Upon completion of the internship, the student should have a good sense of the information management needs at the organization where the student is placed and HIM roles available in the organization. The student should gain a clear sense of the HIM roles and responsibilities of the student’s preceptor.

Health Services Administration

**HSA 3010 Overview of Healthcare Systems – 3 cr**

**Catalog Description:** This course is an overview of the structure and function of the health care system. Basic knowledge of health organizations' roles and relationships of consumers and providers of health services, as well as the various types of health care facilities, will be studied. It includes an introduction to Internet access to health system resources and online course work.

**HSA 3000 Accounting for Healthcare Professionals – 3 cr**

**Catalog Description:** This course is designed to introduce students to the effective preparation and use of accounting information in health services organizations. Emphasis is placed on basic accounting concepts, preparation, interpretation and analysis of financial statements, and financial planning and control. Excel spreadsheets and the Internet will be utilized in the course.

**HSA 3100 Healthcare Law and Regulation – 3 cr**

**Catalog Description:** This course covers the legal relationships among health providers, regulatory agencies and society. Selected aspects of the legal system related to the delivery of health services are reviewed. The dynamics of governmental institutions at all levels and the regulatory process impacting health services are examined.

**HSA 3460 Human Resource Management in Healthcare – 3 cr**

**Catalog Description:** This course analyzes the role of human resource management in contemporary health services organizations. It examines the changing human resource needs, critically evaluates the organizational benefits of an effective work force, provides insight into the efficient merging of management objectives with human needs and wants, and discusses issues related to the recruitment, selection, motivation and retention of human resources. Excel spreadsheets and the Internet will be utilized in the course.

**HSA 3750 Management of Healthcare Organizations – 3 cr**

**Catalog Description:** A survey of concepts and methodologies basic to a variety of managerial disciplines that is directly applicable to the management of health service organizations. Emphasis is placed on the development of a decision-making approach to current issues in the management of health service organizations through the use of case studies. Effective oral and written communication skills, including use of word processing, are required.

**HSA 4650 Health Services Financial Management – 3 cr**

**Catalog Description:** Selected topics in both the financial and managerial aspects of financial management of health service organizations are studied with the intention of providing a survey of important concepts, issues, tools, and vocabulary that administrators need to effectively manage a health service organization. Included are topics such as health care reimbursement and sources of funds, institutional budgeting and accounting, department planning and control, capital needs, rate setting, interpreting financial statements, and cost containment. Excel spreadsheets and the Internet will be utilized in the course.

**HSA 4700 Quantitative Methods for Health Systems – 3 cr**

**Catalog Description:** This course provides students with a background in the research process and methods of quantitative analysis used in the planning and operational management of health services. It provides an introduction to the fundamentals of analyzing and interpreting data, statistical and quantitative tools for research and decision analysis. The research process is introduced with emphasis on application of research findings, evidence based managerial decision making, determination of client population needs, evaluation of outcomes, development of a research proposal and critical evaluation of research studies.

## Appendix F: New Course Syllabi

### HIM 2050 Medical Terminology

**University of Detroit Mercy  
College of Health Professions  
College of Liberal Arts and Education  
Health Information Management Program  
Term 2010**

<b>Course Title:</b>	HIM 2050: Medical Terminology
<b>Time &amp; Location:</b>	TBA
<b>Office Hours:</b>	Virtual, phone, and face to face office hours by appt.
<b>Course Credit:</b>	3 Credits
<b>Prerequisites:</b>	Working knowledge of Blackboard
<b>Faculty:</b>	Staff Office: College of Health Professions, Room Office Phone: 313-993- Email address:

**Course Description:** This course provides students with a basic understanding of the meaning and appropriate use of medical and health care terminology. Concepts of medical and health terminology including spelling, pronunciation, common abbreviations, and word components including roots, prefixes, and suffixes will be covered. Terms specific to human body structure, health, illness, the provision of health care will be covered. An overview of terms for each major body system will be covered including those relating to structure, function, disorder, and diagnostic and treatment procedures.

**Course Objectives:** Upon completion of this course, students will be able to:

1. Apply word components of medical and health care terminology including roots, prefixes, suffixes to build common medical and health terms.
2. Recall pronunciation and spelling conventions commonly used in medical and health care terminology.
3. Understand common abbreviations, as well as recent efforts to minimize abbreviation use related to patient safety initiatives.
4. Demonstrate appropriate use of terms to describe human body structure and location, health and normal functioning, and illness and disorder.
5. Apply proper use of terms to describe major body systems and related disorders, and diagnostic and treatment procedures.

**Required Text:**

Stanfield, P., Hui, Y. H., & Cross, N. (2008). *Essential medical terminology* (3rd ed.). Sudbury, MA: Jones & Bartlett Publishers.

Course Evaluation:

Class Participation	10%
Assignments (may include online and group assignments)	30%
Quizzes	20%
Midterm Examination	20%
Final Exam	20%

Grading Scale:	<b>100-95%</b>	<b>A</b>
	94-91%	A-
	90-88%	B+
	87-84%	B
	83-81%	B-
	80-78%	C+
	77-75%	C
	74-72%	C-
	71-69%	D+
	68-65%	D
	64-0%	F

**Assignments**

**Participation** **10%**  
Students are expected to **actively** participate in all aspects of the class, which may include online discussion or activities as well as classroom discussion and group activities.

**Assignments** **30%**  
Assignments will be given regularly throughout the semesters and may include completion of book progress check activities, CD-ROM activities such as flashcards and crossword puzzles, and other online or in-class group or individual assignments.

**Quizzes** **20%**  
Quizzes will be given at least biweekly either online or in class.

**Mid-term Exam** **20%**  
A mid-term exam will be given that will be comprehensive of all material covered during the first half of the course.

**Final Exam****20%**

A final exam will be given that will include all material covered during the second half of the course.

**ADA**

If you need course accommodations because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please make an appointment each term with Emily Gallegos, Director of University Academic Services/Disability Support Services at [gallegem@udmercy.edu](mailto:gallegem@udmercy.edu) or (313) 578-0310. University Academic Services is located on the third floor of the Library.

**HIM 2050 Course Schedule**

**The course topic schedule and project delivery dates will be determined based on number of weeks in the term however the midterm exam will be administered at the halfway point and the final exam on the last day of class.**

See <http://knowledge.udmercy.edu> for specific weekly course objectives, readings, and assignments.

**UDM ACADEMIC INTEGRITY POLICY**

As members of an academic community engaged in the pursuit of truth and with a special concern for values, students are expected to conform to high standards of honesty and integrity in their academic work. The fundamental assumption under which the University operates is that work submitted by a student is a product of his/her own efforts.

Among the most serious academic offenses is plagiarism, submitting the style of another author or source without acknowledgment or formal documentation. Plagiarism occurs when specific phrases or entire passages, whether a sentence, paragraph, or longer excerpt, are incorporated into one's own writing without quotation marks or documentation. One also plagiarizes by paraphrasing the work of another that is, retaining another writer's ideas and structure without documentation.

Students are advised to always set off another writer's exact words by quotation marks, with appropriate references. Students avoid plagiarism by concentrating on their own words and ideas and by fully crediting others' work and ideas when they find their way into the writing. Whenever in doubt, cite the source.

Students who purchase essays from other students or agencies or who copy from one another or from prohibited sources, commit the most serious type of academic dishonesty.

The consequences of plagiarism, or any act of academic dishonesty, may range from failure in a course to dismissal from the University.

Please refer to the Academic Conduct Policy and Code of Clinical Professional Standards in the Student Handbook.

### **CHP HONOR CODE**

Students in the College of Health Professions at the University of Detroit Mercy are expected to exhibit behaviors that epitomize academic, professional and personal integrity. They are committed to the traditions of the Sisters of Mercy and the Society of Jesus that emphasize values, respect for others, and academic excellence. Adherence to such high standards is necessary to ensure quality in education and clinical care in all College of Health Professions programs. A student's acceptance into a program of the College of Health Professions is conditional upon signing an affirmation of the Honor Code. To view the entire Honor Code copy and paste this link in your browser: <http://healthprofessions.udmercy.edu/policies/honor-code/index.htm>.

### **HIPAA Requirements**

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 mandates Federal privacy protection for individually identifiable health information. For course assignments that use patient data or clinical practicum, it is essential to use safeguards to de-identify and prevent the use or disclosure of protected health information. Please refer to your student handbook for more specific guidelines.

## **HIM 2600 Epidemiology and the Management of Vital Health Data**

**University of Detroit Mercy  
College of Health Professions  
College of Liberal Arts and Education  
Health Information Management Program  
Term 2010**

**Course Title:** HIM 2600 Epidemiology & the Management of Vital Health Data

**Time & Location:** TBA

**Office Hours:** Virtual, phone, and face to face office hours by appt.

**Course Credit:** 3 Credits

**Prerequisites:** Working knowledge of Blackboard

**Faculty:** Staff  
Office: College of Health Professions, Room  
Office Phone: 313-993-  
Email address:

**Course Description:** This course will provide students with an introduction to the science of epidemiology. Foundational principles of the occurrence of communicable and non-communicable disease in populations will be conveyed. Strategies for describing ratios, proportions, and rates of disease will be addressed, as well as reporting methods for general health and population indices. Students will have the opportunity to use computerized statistical packages such as SPSS to calculate common vital health statistic and disease rates using basic epidemiological data. Factors associated with determining causal associations with disease will be introduced. Concepts related to chronic disease epidemiology and clinical disease epidemiology will be discussed. Students will be introduced to various clinical indices, databases, and registries used for the management and analysis of health population data.

**Course Objectives:** Upon completion of this course, students will be able to:

1. Summarize basic principles of epidemiology including the classification and occurrence of communicable and non-communicable disease in populations.
2. Give examples of causal associations of disease.
3. Differentiate and relate concepts of chronic disease epidemiology and clinical disease epidemiology.
4. Discuss strategies for describing rates of disease and vital health statistics of populations.
5. Utilize statistical software (such as SPSS) to calculate common health statistic rates using basic epidemiological data.

6. Summarize the use and management of clinical databases, indices and registries for organizations.
7. Interpret vital statistics and epidemiological data to consumers and organizational stakeholders.

**Required Text:**

Merrill, R. (2009). *Introduction to epidemiology* (5th ed.). Sudbury, MA: Jones & Bartlett.

Supplemental readings to be posted on knowledge website.

Course Evaluation:

Class Participation	15%
Assignments (may include online and group assignments)	30%
Project	25%
Final Exam	30%

Grading Scale:	<b>100-95%</b>	<b>A</b>
	94-91%	A-
	90-88%	B+
	87-84%	B
	83-81%	B-
	80-78%	C+
	77-75%	C
	74-72%	C-
	71-69%	D+
	68-65%	D
	64-0%	F

**Assignments**

**Participation** **15%**

Students are expected to **actively** participate in all aspects of the class, which may include online discussion or activities as well as classroom discussion and group activities.

**Assignments** **30%**

Assignments will be given regularly throughout the semesters and may include completion of exercises or study questions, calculation of epidemiological rates using SPSS, and other online or in-class group or individual assignments.

**Project** **25%**

A project will be assigned which will involve obtaining data from a clinical database or registry, calculating epidemiological rates using SPSS, reporting and explaining findings

including a literature review that provides background on the disease(s) being evaluated, potential causes, relation of cause to the data being analyzed, and a benchmarking of incidence and prevalence to national rates. The paper should be in APA format and should include SPSS output with appropriate explanation in the text.

### **Final Exam**

**30%**

A comprehensive final exam will be given that will include all material covered during the course.

### **ADA**

If you need course accommodations because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please make an appointment each term with Emily Gallegos, Director of University Academic Services/Disability Support Services at [gallegem@udmercy.edu](mailto:gallegem@udmercy.edu) or (313) 578-0310. University Academic Services is located on the third floor of the Library on the McNichols campus.

## **HIM 2600 Course Schedule**

**The course topic schedule and project delivery dates will be determined based on number of weeks in the term however the midterm exam will be administered at the halfway point and the final exam on the last day of class.**

See <http://knowledge.udmercy.edu> for specific weekly course objectives, readings, and assignments.

### **UDM ACADEMIC INTEGRITY POLICY**

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### **HIPAA Requirements**

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 mandates Federal privacy protection for individually identifiable health information. For course assignments that use patient data or clinical practicum, it is essential to use safeguards to de-identify and prevent the use or disclosure of protected health information. Please refer to your student handbook for more specific guidelines.

## **HIM 2700 Coding Systems**

**University of Detroit Mercy  
College of Health Professions  
College of Liberal Arts and Education  
Health Information Management Program  
Term 2010**

<b>Course Title:</b>	HIM 2700 Coding Systems
<b>Time &amp; Location:</b>	TBA
<b>Office Hours:</b>	Virtual, phone, and face to face office hours by appt.
<b>Course Credit:</b>	3 Credits
<b>Prerequisites:</b>	HIM 2050: Medical Terminology
<b>Faculty:</b>	Staff Office: College of Health Professions, Room Office Phone: 313-993- Email address:

**Course Description:** This course will provide students with an overview of clinical coding and classification systems including ICD-9, CPT, HCPCS, and ICD-10. Coding rules and guidelines for ICD-9 and CPT will be emphasized for major disorders and procedures. The use of coding systems for reimbursement, evaluation of health services use, resource planning, and other uses will be discussed. The use of such coding data to determine prospective pay reimbursement using Medicare Severity Diagnosis Related Groups (MS-DRGs) for inpatient settings will be explored, and Prospective Pay Systems (PPS) in other settings (e.g. RUGs, APCs, RBRVS, HHRGs, etc) will be touched on. Federal initiatives including the National Correct Coding Initiative and the importance of maintaining policies and processes to manage accurate coding and classification will be introduced.

**Course Objectives:** Upon completion of this course, students will be able to:

1. Understand the structure and purpose of ICD-9 and CPT Codes.
2. Apply coding principles and guidelines to determine appropriate ICD-9 or CPT codes for major disorders and procedures.
3. Explain the use of coding systems in the use of major prospective pay systems (PPS) such as MS DRGs.
4. Describe approaches to implement and manage applications and processes for clinical classification and coding.
5. Recognize the importance of maintaining efficient and effective processes to ensure the accuracy of coded data.

## Required Texts:

Falen, T. J. (2009). *Learning to code with IDC-9-CM*. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.

Falen, T. J., Noblin, A., & Ziesmer, B. (2009). *Learning to code with CPT/HCPCS*. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.

## Course Evaluation:

Class Participation	10%
Assignments (may include online and group assignments)	30%
Quizzes	20%
Midterm Examination	20%
Final Exam	20%

Grading Scale:	<b>100-95%</b>	<b>A</b>
	94-91%	A-
	90-88%	B+
	87-84%	B
	83-81%	B-
	80-78%	C+
	77-75%	C
	74-72%	C-
	71-69%	D+
	68-65%	D
	64-0%	F

## Assignments

### **Participation** **10%**

Students are expected to **actively** participate in all aspects of the class, which may include online discussion or activities as well as classroom discussion and group activities.

### **Assignments** **30%**

Assignments will be given regularly throughout the semesters and may include completion of book progress check activities, CD-ROM activities such as flashcards and crossword puzzles, and other online or in-class group or individual assignments.

### **Quizzes** **20%**

Quizzes will be given at least biweekly either online or in class.

### **Mid-term Exam** **20%**

A mid-term exam will be given that will be comprehensive of all material covered during the first half of the course.

### **Final Exam**

**20%**

A final exam will be given that will include all material covered during the second half of the course.

### **ADA**

If you need course accommodations because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please make an appointment each term with Emily Gallegos, Director of University Academic Services/Disability Support Services at [gallegem@udmercy.edu](mailto:gallegem@udmercy.edu) or (313) 578-0310. University Academic Services is located on the third floor of the Library on the McNichols Campus.

## **HIM 2700 Course Schedule**

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### **HIPAA Requirements**

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 mandates Federal privacy protection for individually identifiable health information. For course assignments that use patient data or clinical practicum, it is essential to use safeguards to de-identify and prevent the use or disclosure of protected health information. Please refer to your student handbook for more specific guidelines.

## **HIM 2800 Pharmacotherapy for HIM Professionals**

**University of Detroit Mercy  
College of Health Professions  
College of Liberal Arts and Education  
Health Information Management Program  
Term 2010**

**Course #:** HIM 2800

**Course Title:** **Pharmacology for Health Information Management Professionals**

**Credits:** 3 credits

**Pre-requisites:** Admission to the program

**Faculty:** **Lori A. Glenn RN MS CNM  
McAuley School of Nursing  
CHP 419  
313-993-1693  
glennla@udmercy.edu**

### **Course Description**

This course focuses on preparing the health information management student with knowledge in pharmacology as it applies to health care databases and information systems. Major drug categories will be presented as they relate to the prevention, management and treatment of disease states. The course will assist the student in creating management plans and critical paths regarding the use of pharmaceutical agents, with respect to drug classes, therapeutic uses, general and adverse side effects, as well as drug interactions. Implications associated with the drugs related to quality assessment, risk management, disease management, and outcome measurement are incorporated. The goal of this course is to highlight the essential information, promote true comprehension, and integrate pharmacology and management of agents with health information system management.

### **Course Objectives**

By the end of this course the student will be able to:

1. Assess the pharmacokinetic and pharmacodynamics of current drugs of choice for specified pathologic conditions, symptoms and risk behaviors.
2. Determine alternate pharmacotherapeutics for specified pathologic conditions, symptoms and risk behaviors..

3. Compare and contrast the dose, frequency, onset and mechanism of action, side effects, adverse reactions, and potential interactions for major medication categories / groups / classes.
4. Apply the health information management process to understanding and administering medication in regards to specified pathologic conditions, maintenance of client health, and quality of life.
5. Integrate an understanding of factors that influence uses of medications in various clinical settings.
6. Relate significant medication errors, drug interactions, adverse effects, and drug toxicity to methods identifying quality and safety measures for prevention and management of these events.
7. Utilize appropriate technologies to obtain evidence based data and information related to the most current use of the drugs, and the conditions they treat.

### Required Texts

TBA

### Teaching Learning Strategies

The basis of course work will be lecture and audiovisual materials, discussion boards, reading assignments. Teaching methods will include problem-based learning scenarios.

### Evaluation Methods

Weekly quizzes will assist the learner in directing study, and count toward the final grade. A cumulative midterm and final exam with short answer, multiple choice and matching questions will be use for evaluation. Students will work in small groups, submitting a project utilizing pharmacology knowledge to establish a quality and safety data base or interactive program.

### KNOWLEDGE Information

Students are expected to read all announcements, course information, assignments and documents posted on knowledge. This can be accessed by the website:

**[knowledge.udmercy.edu](http://knowledge.udmercy.edu)**

You need to check knowledge at least weekly for updates, announcements and any changes or corrections to assignments. You will be responsible for information posted on the website.

### Evaluation

Method	% of Final grade
Weekly quizzes	20%
Project	20%
Midterm Examination	30%
Final Examination	30%

### **COURSE POLICIES:**

1. Assignments are due as scheduled. If a student is unable to complete an assignment by the scheduled due date, it is the student's responsibility to notify

the instructor and negotiate other arrangements **before the due date**. Failure to do this may result in a deduction of the final assignment grade. All assignments must be completed or an Incomplete will be issued as the course grade.

2. The policies related to Academic Integrity as described in the University of Detroit Mercy Catalogue regarding academic and professional performance must be adhered to at all times. Failure to do so may result in probation and/or dismissal.

<b>Grading Scale:</b>	100-95%	A
	94-91%	A-
	90-88%	B+
	87-84%	B
	83-81%	B-
	80-78%	C+
	77-75%	C
	74-72%	C-
	71-69%	D+
	68-65%	D
	64-0%	F

### **STUDENTS WITH DISABILITIES/ADA**

If you need course accommodations because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please make an appointment each term with Emily Gallegos, Director of University Academic Services/Disability Support Services at [gallegem@udmercy.edu](mailto:gallegem@udmercy.edu) or (313) 578-0310. University Academic Services is located on the third floor of the Library on the McNichols Campus.

### **UDM ACADEMIC INTEGRITY POLICY**

As members of an academic community engaged in the pursuit of truth and with a special concern for values, students are expected to conform to high standards of honesty and integrity in their academic work. The fundamental assumption under which the University operates is that work submitted by a student is a product of his/her own efforts.

Among the most serious academic offenses is plagiarism, submitting the style of another author or source without acknowledgment or formal documentation. Plagiarism occurs when specific phrases or entire passages, whether a sentence, paragraph, or longer excerpt, are incorporated into one's own writing without quotation marks or documentation. One also plagiarizes by paraphrasing the work of another that is, retaining another writer's ideas and structure without documentation.

Students are advised to always set off another writer's exact words by quotation marks, with appropriate references. Students avoid plagiarism by concentrating on their own words and ideas and by fully crediting others' work and ideas when they find their way into the writing. Whenever in doubt, cite the source.

Students who purchase essays from other students or agencies or who copy from one another or from prohibited sources, commit the most serious type of academic dishonesty. The consequences of plagiarism, or any act of academic dishonesty, may range from failure in a course to dismissal from the University. Please refer to the Academic Conduct Policy and Code of Clinical Professional Standards in the Student Handbook.

#### Course Schedule

**The course topic schedule and project delivery dates will be determined based on number of weeks in the term however the midterm exam will be administered at the halfway point and the final exam on the last day of class.**

## **HIM 3350 Clinical Data and Health Information Needs**

**University of Detroit Mercy  
College of Health Professions  
College of Liberal Arts and Education  
Health Information Management Program  
Term 2010**

**Course Title:** HIM 3350 Clinical Data & Health Information Needs

**Time & Location:** TBA

**Office Hours:** Virtual, phone, and face to face office hours by appt.

**Course Credit:** 3 Credits

**Prerequisites:** Working knowledge of Blackboard

**Faculty:** Staff  
Office: College of Health Professions, Room  
Office Phone: 313-993-  
Email address:

**Course Description:** This course will provide Health Information Management (HIM) students with an overview of health information and data needs across the continuum of care. The structure and use of health information will be covered, as well as the workflow and data needs of system end users. Content and design of electronic health records (EHRs) and personal health records will be discussed including consideration of human factors and user interface. The use of secondary sources of data such as registries, indexes, and databases (e.g. MEDPAR, NDB, HCUP) and healthcare data sets (such as OASIS, HEDIS, DEEDS, UHDDS, UACDS, NEDSS, NMMFS) will be introduced. The need for a National Health Informatics Infrastructure (NHII) will be addressed. The purpose, limitations, and proposed solutions regarding clinical classification systems, terminologies, and nomenclatures (e.g. ICD-9, CPT, SNOMED-CT, DSM-IV, NANDA, NIC, NOC) will be considered. Systems development, selection, and the systems life cycle will be considered in light of clinical data and health information system needs.

**Course Objectives:** Upon completion of this course, students will be able to:

1. Articulate health data needs (including data elements, data sets, databases) of internal and external customers including clinical, administrative, and specialty applications across the organization.
2. Plan for management of electronic health records in a manner that supports clinical care across the health care continuum and reflect patient's diagnoses, clinical findings, patient progress and disposition.

3. Incorporate elements of human factors, user interface, and understanding of clinician workflow to plan for selection, use, and management of health information technology to support health data needs.
4. Examine various clinical classifications, terminologies and coding systems and discuss the purposes they serve in the collection, storage, and retrieval of such data for clinical and administrative purposes (including use in prospective pay).
5. Compare the contents of various secondary data sources such as registries, indexes, and databases (e.g. MEDPAR, NDB, HCUP) and healthcare data sets (such as OASIS, HEDIS, DEEDS, UHDDS, UACDS, NEDSS, NMMFS) and describe the uses, organizational requirements, and limitations of such data.
6. Understand and apply the systems life cycle to the selection of healthcare information systems including systems analysis, design, implementation, evaluation, and maintenance.
7. Facilitate the retrieval, interpretation, and presentation of data, information, and knowledge appropriate to user needs.

**Required Text:**

Wagner, K. A., Lee, F. W., & Glaser, J. P. (2009). *Health care information systems: A practical approach for health care management* (2nd ed.). San Francisco: Jossey-Bass.

Supplemental readings to be posted on knowledge website.

Course Evaluation:

Class Participation	10%
Assignments (may include online and group assignments)	30%
Presentation	15%
Paper	25%
Final Exam	20%

Grading Scale:	<b>100-95%</b>	<b>A</b>
	94-91%	A-
	90-88%	B+
	87-84%	B
	83-81%	B-
	80-78%	C+
	77-75%	C
	74-72%	C-
	71-69%	D+
	68-65%	D
	64-0%	F

**Assignments**

**Participation** **10%**

Students are expected to **actively** participate in all aspects of the class, which may include online discussion or activities as well as classroom discussion and group activities.

**Assignments** **30%**

Assignments will be given regularly throughout the semesters and may include completion of questions, case studies, and other online or in-class group or individual assignments.

**Presentation** **15%**

Students will select a clinical classification, terminologies, coding system, or secondary data source (e.g. registries, indexes, and databases, or healthcare data sets) to present to the class including an overview of the purpose, elements, and data structure of the system.

**Paper** **25%**

Students will write a 5-8 page paper describing what they think are important elements to consider in electronic health system, including the data the system will provide and to whom, how the system will impact the primary end-users (clinicians), and what value the system will bring to the organization.

**Final Exam** **20%**

A comprehensive final exam will be given that will include all material covered during the semester.

**ADA**

If you need course accommodations because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please make an appointment each term with Emily Gallegos, Director of University Academic Services/Disability Support Services at [gallegem@udmercy.edu](mailto:gallegem@udmercy.edu) or (313) 578-0310. University Academic Services is located on the third floor of the Library on the McNichols Campus.

**HIM 3350 Course Schedule**

**The course topic schedule and project delivery dates will be determined based on number of weeks in the term however the midterm exam will be administered at the halfway point and the final exam on the last day of class.**

See <http://knowledge.udmercy.edu> for specific weekly course objectives, readings, and assignments.

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### **HIPAA Requirements**

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 mandates Federal privacy protection for individually identifiable health information. For course assignments that use patient data or clinical practicum, it is essential to use safeguards to de-identify and prevent the use or disclosure of protected health information. Please refer to your student handbook for more specific guidelines.

## **HIM 3650 Health Reimbursement Systems Management**

# **HIM 3650 – Health Information Management Systems Health Reimbursement Systems Management**

College of Liberal Arts and Education  
College of Health Professions  
University of Detroit Mercy  
Fall 20xx

## **Course Description**

This course presents the fundamental concepts of the audit and control process for health information systems. It is rooted in several bodies of knowledge. The purpose of each of these BOKs is to establish the exact status of some aspect of health IT functioning.

You will learn how to create a systematic audit based control structure for health IT systems, establish systematic accounting and control procedures for this structure and build systematic control assurance capability into the health IT system function.

This capability will require the definition of a control framework, the attendant control objectives and the auditing and reporting system for an organizational application in the health care environment. This applies to operational aspects ranging from process control to security. Guidance for fully carrying this out is specified in the form of expert standards for best practice

## **Instruction Methods**

This course is lecture based. There is no “hands-on” computer usage required beyond word-processed preparation of technical reports. Content is conveyed through a PowerPoint show. In addition, students will be prompted to add comments to discussion topics posted by the instructor on the website.

Students will prepare a formally documented internal audit scheme for a model case. This scheme will be based on a standard specification. Work on this project will take place both inside the class under instructor supervision and outside of class. Work will be done in teams. To reinforce the team concept, participants will receive a group

grade. Active participation and teamwork is required from all members. A group member who fails to live up to this requirement will be subject to dismissal, after due process, and will receive a failing grade. The project will address a particular area of control assurance for health systems.

Students may choose to do an internal control framework, or perform a risk assessment on an existing framework. This will be inspected in session five and a review report will be submitted for grade. Students will make a formal presentation of their assigned process during the final session. In addition, there will be two tests and a cumulative final examination.

### **Method of Evaluation**

Evaluation of course deliverables will be based on:

- 1.) *Conformity with the principles of best practice presented in lecture*
- 2.) *Complete and correct detailing/application of the specifications of the selected model*
- 3.) *A complete, correct and unambiguous presentation of the project findings*

<b>Summary of Evaluation Scheme</b>
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<u><b>What</b></u>	<u><b>When</b></u>	<u><b>Content</b></u>	<u><b>Weight</b></u>
Audit Plan	End of Semester	Tailored Audit Plan	30
Inspection Report	End of Session Five	Outcome of Walkthrough	5
First Exam	Session Six	COBIT	15
Second Exam	Session Thirteen	Audit and Control	15
Final Presentation	Session Fourteen	Audit Plan	5
Final	Last Class Day	Cumulative	30

<b>Course Information</b>
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### **Prerequisites**

This course is presumed to support the purposes of health information system management. As such, the assumption is that students will have in-depth knowledge of health care milieus. All of the content necessary to understand and apply course concepts will be provided within the activities of this course.

## Web Page

This course is fully supported from <http://knowledge.udmercy.edu>. All course material is on this site. Therefore, all students registered in this course are required to enroll. All communication either between students or with the instructor originates from this site. The announcement board that you will see upon entry will provide all necessary updates.

## Texts and Assigned Readings

### Required Readings

I would like you to download and read:

- ❑ COBIT, Management Guidelines (4th ed.), [http://www.isaca.org/ct\\_dwnld.htm](http://www.isaca.org/ct_dwnld.htm)
- ❑ COBIT, Control Objectives, (4th ed.), [http://www.isaca.org/ct\\_dwnld.htm](http://www.isaca.org/ct_dwnld.htm)

### Supplementary Readings

If you wish, you may obtain the following source documents. The best mechanism for doing this is through the link to ISACA provided under the “*External Links*” button on the website.

- ❑ GASSP, Generally Accepted System Security Principles, International Information Security Forum, June 1999
- ❑ General Accounting Office, GAO Internal Control Standard, 1999
- ❑ ISACA, “Due Professional Care”, IS Auditing Guideline, 1999
- ❑ ISACA, “Audit Sampling”, IS Auditing Guideline, 1999
- ❑ ISACA, “Use of Risk Assessment”, IS Auditing Guideline, 2000
- ❑ ISACA, “Control Risk Self Assessment”, IS Auditing Guideline, 2003
- ❑ ISACA, “Intrusion Detection”, IS Auditing Guideline, 2003
- ❑ ISACA, “SDLC Reviews”, IS Auditing Guideline, 2003
- ❑ IT Governance Institute, IT Control Objectives for Enterprise Governance, ISACA, 1999
- ❑ IT Governance Institute, IT Strategy Committee, ISACA, 2003
- ❑ IT Governance Institute, CobiT Mapping, ISACA, 2004

- ❑ IT Governance Institute, IT Control Objectives for Sarbanes-Oxley, ISACA, 2004
- ❑ Price Waterhouse Coopers, Information Security Breaches 2003, Department of Trade and Industry (DTI), U.K., 2004
- ❑ Swanson, Marianne, *Security Self Assessment Guide for Information Technology Systems*, National Institute of Standards and Technology NIST 800-26, November 2001

### **Attendance/Lateness Policy**

All assignments are due on the date specified. There will be no extensions. Students are expected to arrive on time and attend all classes. You will not be directly penalized if you violate these assumptions, however it will be the student's responsibility to acquire all handouts and notes from missed sessions. Active participation in all group activities is required. A group member who fails to live up to this requirement will be subject to dismissal, after due process, and will receive a failing grade for that project assignment. Although class participation is not directly rewarded it will have considerable weight in determining which side of the line a student falls on if their grade is close (*e.g., a lot of class participation will turn a high B+ into a low A-*).

## **Available Support Service**

### **Library/computer resources**

Because it is fully supported by links off of a website, this course is not library intensive. Requisite material can be accessed or downloaded from hyperlink locations provided by the instructor at the course site. Students wishing additional hardcopy material can obtain this from the McNichols library. The computer labs on both campuses are available to students during open hours.

### **Suggestions for Further Reading**

None of these articles are required but if you want to get the maximum out of this course you should be familiar with each of these.

1. 7799 Standards Can Enhance Your Organization's Information Security Program  
Business/Technology Editors, InfoWorld, 10, 2001

2. Ashton, Gerry, Cleaning up your Security Act for Inspection, Computer Weekly Jan 18, 2001
3. Dorofee A.J., JA Walker, RC Williams, Risk Management in Practice, Crosstalk, Volume 10 #4, April 1997
4. Dover, Sanford, "A Standard Response," CIO, June 1993
5. *Evaluating Information Technology Investments*, Office of Management and Budget, at [www.itmweb.com](http://www.itmweb.com), 1999
6. Favell, Andrew, *Don't Leave it to Luck*, Computer Weekly, Oct 11, 2001
7. Goodwin, William UK's security code of practice becomes worldwide standard Computer Weekly, Jan 25, 2001
8. Hayes W, D Zubrow, *Moving On Up: Data and Experience Doing CMM Based Software Process Improvement*, Proceedings Seventh Software Engineering Process Group Conference, Boston MA, 1995
9. Humphrey, Watts, and Sweet, W., *Method for Assessing the Software Engineering Capability of Contractors*, CMU/SEI-87-TR-023, Software Engineering Institute, 1987 (*a war horse but still the best reflection of underlying thinking*)
10. ISO 9000-3 *Guidelines for the Application of ISO 9001 to the Development Supply and Maintenance of Software*, 1991
11. International Organization For Standards, *ISO/IEC 12207*, Geneva Switzerland, 1995
12. International Organization For Standards, *ISO 9000*, Geneva Switzerland, 1994
13. Lewis, Mark, *Be a standard bearer. (British Standard 7799 initiative helpful in outlining security measures for companies to take)*, Computer Weekly April 22, 1999
14. McClure, Stuart, SECURITY WATCH: Mass manipulation isn't reserved just for presidential elections: IT world be warned, InfoWorld, Nov 20, 2000
15. McGibbon, Thomas, *A Business Case for Software Process Improvement Revised*, DoD Data Analysis Center for Software (DACs), 1999
16. Raines, Paul S., *Slaying Cerberus*, Softwremag.com, June 2001
17. Robinson, James, *The Auditing Process Made Simple*,

18. Simons, Mike, *NHS takes unpopular BS 7799*, Computer Weekly, Jan 18, 2001
19. Software Engineering Institute, web site at [www.sei.cmu.edu](http://www.sei.cmu.edu). 1998

### **Policy on Tentativeness of Schedule**

This schedule embraces a large amount of material. As such, the general lecture topics will be addressed as scheduled. Assignments are due when required. Any changes or exceptional circumstances will be announced in advance on the website. Each student is required to check the website on the day class is scheduled to see if there have been any exceptions posted

## **HIM 3800 Healthcare Accreditations, Regulations and Standards**

University of Detroit Mercy  
College of Health Professions  
College of Liberal Arts and Education  
Health Information Management Program  
Term 2010

**Course Title:** HIM 3800 Health Information Accreditation, Regulation, & Standards

**Time & Location:** TBA

**Office Hours:** Virtual, phone, and face to face office hours by appt.

**Course Credit:** 3 Credits

**Prerequisites:** HIM 3350: Clinical Data & Health Information Needs  
Working knowledge of Blackboard

**Faculty:** Staff  
Office: College of Health Professions, Room  
Office Phone: 313-993-  
Email address:

**Course Description:** This course will introduce HIM students to the major regulations and standards that apply to the management of health information. Health information standards that are needed to achieve or enhance the functionality and interoperability of electronic health information (e.g. ANSI, ASTM, HL-7, LOINC, HIPAA, UMLS, MESH, Arden Syntax) will be discussed including the reason such standards are required. Regulation and related accreditation standards pertaining to privacy, confidentiality, and the secure maintenance of health records (including HIPAA) will be addressed. Regulation and licensure requirements that govern health organizations and the patient-specific health information they maintain will be introduced for various types of health settings (such as setting specific COP & State Health Dept. requirements). Further, applicable standards from accreditation bodies across the continuum of care will be highlighted. Current National health information initiatives and their potential impact on the health care system will be discussed.

**Course Objectives:** Upon completion of this course, students will be able to:

1. Interpret applicable laws, regulations, and standards that pertain to health information initiatives.
2. Describe and plan for necessary actions to achieve compliance with interoperability of health information systems and to meet the requirements of the health information infrastructure.

3. Examine policy elements required to maintain compliance with health information privacy laws and standards.
4. Determine the impact of current national health information initiatives on the health care delivery system.
5. Integrate major elements required for the development of organization-wide health information guidelines that will comply with current accreditation, licensing, and certification standards.

**Required Text:**

Wagner, K. A., Lee, F. W., & Glaser, J. P. (2009). *Health care information systems: A practical approach for health care management* (2nd ed.). San Francisco: Jossey-Bass.

Required readings will be posted on <http://knowledge.udmercy.edu/>

Course Evaluation:

Class Participation	10%
Assignments (may include online and group assignments)	30%
Quizzes	20%
Midterm Examination	20%
Final Exam	20%

Grading Scale:	<b>100-95%</b>	<b>A</b>
	94-91%	A-
	90-88%	B+
	87-84%	B
	83-81%	B-
	80-78%	C+
	77-75%	C
	74-72%	C-
	71-69%	D+
	68-65%	D
	64-0%	F

**Assignments**

**Participation** **10%**

Students are expected to **actively** participate in all aspects of the class, which may include online discussion or activities as well as classroom discussion and group activities.

**Assignments** **30%**

Assignments will be given regularly throughout the semesters and may include completion questions, discussion, activities, other online or in-class group or individual assignments.

**Presentation** **15%**  
Students will prepare a brief presentation for their peers on a standard of their choice.

**Exam** **20%**  
An exam will be given that will major material covered during the course.

**Paper** **25%**  
Students will write a 5-8 page paper regarding how they would put policies in place in an organization to ensure that all major regulation and standards are met. The paper must be in APA format.

### **ADA**

If you need course accommodations because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please make an appointment each term with Emily Gallegos, Director of University Academic Services/Disability Support Services at [gallegem@udmercy.edu](mailto:gallegem@udmercy.edu) or (313) 578-0310. University Academic Services is located on the third floor of the Library on the McNichols Campus.

## **HIM 3800 Course Schedule**

**The course topic schedule and project delivery dates will be determined based on number of weeks in the term however the midterm exam will be administered at the halfway point and the final exam on the last day of class.**

See <http://knowledge.udmercy.edu> for specific weekly course objectives, readings, and assignments.

### **UDM ACADEMIC INTEGRITY POLICY**

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### **HIPAA Requirements**

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 mandates Federal privacy protection for individually identifiable health information. For course assignments that use patient data or clinical practicum, it is essential to use safeguards to de-identify and prevent the use or disclosure of protected health information. Please refer to your student handbook for more specific guidelines.

## **HIM 4200 Quality Improvement and Outcome Management**

University of Detroit Mercy  
College of Health Professions  
College of Liberal Arts and Education  
Health Information Management Program  
Term 2010

**Course Title:** HIM 4200 Quality Improvement & Outcomes Management

**Time & Location:** TBA

**Office Hours:** Virtual, phone, and face to face office hours by appt.

**Course Credit:** 3 Credits

**Prerequisites:** Working knowledge of Blackboard

**Faculty:** Staff  
Office: College of Health Professions, Room  
Office Phone: 313-993-  
Email address:

**Course Description:** This course will provide students with an understanding of continuous quality improvement theory and methods. Basic principles of quality improvement, including customer focus, continuous improvement, and teamwork will be emphasized. The application of health information management techniques to identify quality improvement needs will be discussed. Additionally, the benefit of process transformation when implementing new information management technology will be addressed.. Students will learn about required quality assessment and benchmarking tools (such as ORYX and SQC). Sources of outcomes data (e.g. patient satisfaction, disease-specific outcomes) and methods to manage them will be explored. Risk management, utilization and resource management, and case and disease management processes will be examined. Organizational assessment using benchmarking of key organizational indicators will be discussed. Students will be introduced to specific quality improvements approaches (such as Six Sigma & Lean).

**Course Objectives:** Upon completion of this course, students will be able to:

1. Understand and apply continuous quality improvement(CQI) theory and methods to the health care setting.
2. Analyze and respond to information needs of internal and external stakeholders, and interpret health information and trends to stakeholders as needed.
3. Analyze data to identify trends, and present data to organizational stakeholders for decision making related to quality management, utilization management, risk management, safety, and care effectiveness.

4. Integrate process engineering and process management techniques into health information management implementation plans to ensure efficient workflow and the achievement of desired outcomes.
5. Distinguish outcomes management strategies including risk management, utilization and resource management, case management, disease management, and benchmarking.
6. Facilitate organizational continuous quality improvement efforts and collaborate with interdisciplinary teams to meet quality objectives.
7. Distinguish major features of current quality approaches such as Six Sigma and Lean, and identify their similarities with CQI
8. Plan benchmarking of key organizational indicators.

**Required Text:**

Kelly, D. L. (2007). *Applying quality management in healthcare: A systems approach* (2nd ed.). Chicago: Health Administration Press.

Supplemental readings to be posted on knowledge website.

Course Evaluation:

Class Participation	15%
Assignments (may include online and group assignments)	30%
Quality Improvement Paper	30%
Exam	25%

Grading Scale:	<b>100-95%</b>	<b>A</b>
	94-91%	A-
	90-88%	B+
	87-84%	B
	83-81%	B-
	80-78%	C+
	77-75%	C
	74-72%	C-
	71-69%	D+
	68-65%	D
	64-0%	F

**Assignments**

**Participation** **15%**  
 Students are expected to **actively** participate in all aspects of the class, which may include online discussion or activities as well as classroom discussion and group activities.

**Assignments** **30%**

Assignments will be given regularly throughout the semesters and may include completion of questions, case studies, and other online or in-class group or individual assignments.

**Exam** **25%**

An exam will be given that will cover the major material taught in the course.

**Quality Improvement Paper** **30%.**

Students will write a 5-8 page quality improvement paper on an improvement area of their choice that must include health information management. The model for improvement should be followed, and cause-effect diagrams, and process maps should be included.

**ADA**

If you need course accommodations because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please make an appointment each term with Emily Gallegos, Director of University Academic Services/Disability Support Services at [gallegem@udmercy.edu](mailto:gallegem@udmercy.edu) or (313) 578-0310. University Academic Services is located on the third floor of the Library on the McNichols Campus.

**HIM 4200 Course Schedule**

**The course topic schedule and project delivery dates will be determined based on number of weeks in the term however the midterm exam will be administered at the halfway point and the final exam on the last day of class.**

See <http://knowledge.udmercy.edu> for specific weekly course objectives, readings, and assignments.

**UDM ACADEMIC INTEGRITY POLICY**

As members of an academic community engaged in the pursuit of truth and with a special concern for values, students are expected to conform to high standards of honesty and integrity in their academic work. The fundamental assumption under which the University operates is that work submitted by a student is a product of his/her own efforts.

Among the most serious academic offenses is plagiarism, submitting the style of another author or source without acknowledgment or formal documentation. Plagiarism occurs when specific phrases or entire passages, whether a sentence, paragraph, or longer excerpt, are incorporated into one's own writing without quotation marks or documentation. One also plagiarizes by paraphrasing the work of another that is, retaining another writer's ideas and structure without documentation.

Students are advised to always set off another writer's exact words by quotation marks, with appropriate references. Students avoid plagiarism by concentrating on their own words and ideas and by fully crediting others' work and ideas when they find their way into the writing. Whenever in doubt, cite the source.

Students who purchase essays from other students or agencies or who copy from one another or from prohibited sources, commit the most serious type of academic dishonesty.

The consequences of plagiarism, or any act of academic dishonesty, may range from failure in a course to dismissal from the University.

Please refer to the Academic Conduct Policy and Code of Clinical Professional Standards in the Student Handbook.

### **CHP HONOR CODE**

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### **HIPAA Requirements**

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 mandates Federal privacy protection for individually identifiable health information. For course assignments that use patient data or clinical practicum, it is essential to use safeguards to de-identify and prevent the use or disclosure of protected health information. Please refer to your student handbook for more specific guidelines.

## **HIM 4600 Strategic Planning and Management of Health Information Systems**

University of Detroit Mercy  
College of Health Professions  
College of Liberal Arts and Education  
Health Information Management Program  
Term 2010

**Course Title:** HIM 4600 Strategic Planning and Management of Health Information Systems

**Time & Location:** TBA

**Office Hours:** Virtual, phone, and face to face office hours by appt.

**Course Credit:** 3 Credits

**Prerequisites:** Working knowledge of Blackboard

**Faculty:** Staff  
Office: College of Health Professions, Room  
Office Phone: 313-993-  
Email address:

**Course Description:** This course will provide Health Information Management (HIM) students with an overview of the strategic leadership, management, and planning. The course will emphasize strategic planning including organizational assessment and benchmarking with a specific emphasis on information system and technology needs. Business building and the implementation of processes that support quality service delivery and best practices will be stressed. The importance of a sound information strategy that relates to and supports overall organizational strategy will be highlighted.

**Course Objectives:** Upon completion of this course, students will be able to:

1. Articulate the strategic planning process approach including strategies that promote effective formulation and implementation of organizational strategy.
2. Propose steps necessary to adequately assess for organization-wide information needs.
3. Apply strategic planning processes to address strategic and operational plans for organization-wide information systems needs.
4. Utilize strategic planning in the implementation of health information technology through all phases of the systems life cycle.

**Required Text:**

Brown, G. D., Stone, T. T., & Patrick, T. B. (Eds.). (2005). *Strategic management of information systems in healthcare*. Chicago: Health Administration Press.

Supplemental readings to be posted on knowledge website.

Course Evaluation:

Class Participation	10%
Assignments (may include online and group assignments)	30%
Exam	20%
Group Presentation	15%
Group Strategic Plan Paper	25%

Grading Scale:	<b>100-95%</b>	<b>A</b>
	94-91%	A-
	90-88%	B+
	87-84%	B
	83-81%	B-
	80-78%	C+
	77-75%	C
	74-72%	C-
	71-69%	D+
	68-65%	D
	64-0%	F

### **Assignments**

**Participation** **10%**

Students are expected to **actively** participate in all aspects of the class, which may include online discussion or activities as well as classroom discussion and group activities.

**Assignments** **30%**

Assignments will be given regularly throughout the semesters including questions, case studies and other online or in-class group or individual assignments.

**Exam** **20%**

A final exam will be given that will include all material covered during the second half of the course.

**Information Strategic Plan Presentation** **15%**

Students will be assigned to groups to present an informatics strategic plan for a case study.

**Information Strategic Plan Paper** **25%**

Students will work in groups to develop an informatics strategic plan for a case study.

**ADA**

If you need course accommodations because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please make an appointment each term with Emily Gallegos, Director of University Academic Services/Disability Support Services at [gallegem@udmercy.edu](mailto:gallegem@udmercy.edu) or (313) 578-0310. University Academic Services is located on the third floor of the Library on the McNichols Campus.

### **HIM 4600 Course Schedule**

**The course topic schedule and project delivery dates will be determined based on number of weeks in the term however the midterm exam will be administered at the halfway point and the final exam on the last day of class.**

See <http://knowledge.udmercy.edu> for specific weekly course objectives, readings, and assignments.

### **UDM ACADEMIC INTEGRITY POLICY**

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### **CHP HONOR CODE**

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<http://healthprofessions.udmercy.edu/policies/honor-code/index.htm>.

### **HIPAA Requirements**

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 mandates Federal privacy protection for individually identifiable health information. For course assignments that use patient data or clinical practicum, it is essential to use safeguards to de-identify and prevent the use or disclosure of protected health information. Please refer to your student handbook for more specific guidelines.

## **HIM 4900 Health Information Management Internship**

University of Detroit Mercy  
College of Health Professions  
College of Liberal Arts and Education  
Health Information Management Program  
Term 2010

**Course Title:** HIM 4900 Health Information Management Internship

**Time & Location:** TBA

**Office Hours:** Virtual, phone, and face to face office hours by appt.

**Course Credit:** 3 Credits

**Prerequisites:** Senior Standing

**Faculty:** Staff  
Office: College of Health Professions, Room  
Office Phone: 313-993-  
Email address:

**Course Description:** Students will be placed with a qualified health information management (HIM) preceptor, and will gain hands-on experience working in an organization that employs health information management administrators. The student will have the opportunity to apply knowledge and skills gained throughout the program to participate in health information management in a “real-world” setting. The student will participate in a range of HIM activities as directed by the preceptor, and will also contribute to the completion of a HIM project for the organization. The student will spend 168 contact hours during the internship experience. Upon completion of the internship, the student should have a good sense of the information management needs at the organization where the student is placed and HIM roles available in the organization. The student should gain a clear sense of the HIM roles and responsibilities of the student’s preceptor.

**Course Objectives:** Upon completion of this course, students will be able to:

1. Describe elements of Health Information Management as you see them in the organization where you are placed.
2. Compare clinical, administrative, and specialty health information applications, including their differences and similarities and how they are utilized and managed by the organization.
3. Describe where the organization is in the system lifecycle for various components.

4. Examine the role of your preceptor and describe how he/she impacts information management for the organization
5. Observe and recognize human factor, interface, and end-user (clinician) workflow successes and limitations.
6. Apply project management skills in the completion of a project that you negotiate with your preceptor.
7. Reflect on application of health information practices, and identify best practices in the areas that you experience.

**Required Text:**

None

Supplemental readings may be posted on knowledge website.

**Attendance:**

Students must attend and report to assigned facilities according to the agreed upon schedule. If absence or lateness occurs, students must notify the facility preceptor before the scheduled starting time. Students will be required to make up absences incurred during this internship, if necessary to attain objectives determined for the experience. The student is also responsible for informing the faculty member of any major changes to his/her Internship schedule.

**Faculty Site Visit:**

The student is responsible for informing the faculty member when the student and preceptor will be available for a site visit during the first 3 weeks of the semester. The student will be responsible for negotiating with the preceptor for a health information management project that they can complete during the course of the semester.

**Seminars**

There will be two seminars during the semester the students are required to attend. There may also be online participation on blackboard. Students will present their projects and an evaluation of their organization and preceptor role at the final seminar.

**Course Evaluation:**

Seminars/Faculty advisor sessions and Online participation	10%
On-site Internship/Activity Log and preceptor evaluation	30%
Health Information Site Evaluation	30%
Project Report	20%
Presentation	10%

Grading Scale:	<b>100-95%</b>	<b>A</b>
	94-91%	A-
	90-88%	B+
	87-84%	B
	83-81%	B-

80-78%	C+
77-75%	C
74-72%	C-
71-69%	D+
68-65%	D
64-0%	F

## **Assignments**

### **On-site Internship/Activity Log 30%**

Students will maintain a log of activities related to the clinical experience. This log should include date, time spent and a brief statement of the activity and a reflection statement that will be reviewed by the faculty coordinator. The reflection should link the internship activities/experiences to the student's learning objectives. For example, the internship log may include 1) the main focus of the observation or activity, 2) discoveries made (care/case management tools used, how outcome measures are monitored / selected, etc.) 3) partnerships built, and 4) how the activity/experience did or did not meet the objectives identified for the internship. The log should demonstrate how and when the 168 required contact hours were spent.

### **Health Information Site Evaluation 30%**

Students will conduct a comprehensive evaluation of how the organization where they are placed manages health information. Strengths, limitations, and recommendations should be included in the report. The report should be 8-10 pages in APA format.

### **Project Report 20%**

Students will provide a 5 page report outlining the health information management project they worked on. The goals of the project should be identified, tasks completed, and project outcome should be identified.

### **Presentation 10%**

Students will provide an overview of the Health Information site evaluation and project report to the other students. The presentation should use powerpoint, and should not exceed 15 minutes.

### **ADA**

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### **HIPAA Requirements**

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 mandates Federal privacy protection for individually identifiable health information. For course assignments that use patient data or clinical practicum, it is essential to use safeguards to de-identify and prevent the use or disclosure of protected health information. Please refer to your student handbook for more specific guidelines.

## CIS 3050 HIM Software Requirements

# CIS 3050 – Health Information Management Systems Software Requirements

College of Liberal Arts and Education  
College of Health Professions  
University of Detroit Mercy  
Fall 20xx

Instructor		Phone	
Office Location		E-mail	
Office Hours			

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### **Text:**

#### Required

Software Requirements, (Pro-Best Practices) 2/e

Karl E. Wiegers

Microsoft Press, March 2003

ISBN: 0735618798

### **Description:**

Catalog:

This course presents principles that underlie the development of detailed requirements specification and design for a technical artifact or service within the healthcare industry. At the conclusion of this course, the student will demonstrate competence in the practice of requirements engineering as well as practical competence in: requirements elicitation and costing, requirements analysis which includes information privacy and security components, specification and management. This course has been designated by the National Security Agency and Department of Homeland Security for certification.

**Goals:** To develop and understand the software specification development process as demonstrated in the healthcare industry. Project work will encompass the full spectrum of developing the requirements specification based on the IEEE standards including but not limited to 12207 and its principles.

Requirements:

- This course will consist of lectures, mandatory reading assignments as well as project work
- Midterm and Final Exam will be administered via blackboard

- Usage of various software including but not limited to MS Office 2007, MS Project, MS Visio, CA ERwin Data Modeler and SQL Server 2008 (any version) is required for all submitted project work. All software is available for use in the student and/or IA labs.
- Handwritten work will not be accepted – NO EXCEPTIONS
- Usage of Blackboard is MANDATORY
  - All email will originate from Blackboard
  - Copy of Syllabus is available via Blackboard (print a copy if you need hard copy)
  - All assignments will be distributed and submitted via the BLACKBOARD ASSIGNMENT functionality unless prior arrangements have been made with the instructor. Any assignment submitted via the drop box feature will be marked as late
  - Grade book functionality will be used for all grading. Paper copies of assignments will not be returned
- Usage of your UDM STUDENT EMAIL ACCOUNT is MANDATORY

### Resources:

- Most projects will require the use of the internet.
- There are open labs in C&F, Engineering, Student Union and the Library for you to use. The IA lab is a closed lab. Please email me to schedule the lab.
- You can use your home pc/laptops but the required software **MUST** be used

### Evaluation:

All assignments and exams will be given a point value. **The weighted percentage of the overall available points will be used to determine the final grade based on the scale below.** All grades will be posted via Blackboard with the appropriate weighting applied. Grading methods **WILL NOT** be debated with the student. If there is a question about **YOUR** grade, please make an appointment during office hours.

#### Exams:

Midterm 10%	(100pts)
Final Exam 10%	(100pts)
Projects 80% **	<u>(25pts each * 4 = 100pts)</u>
Total 100%	(300 pts)

\*\* Projects contribute to 80% of your grade – you cannot pass this class without them \*\*

#### Grading Conversion (in Percentage)

93 or Higher	A
90 – 92	A-

88 – 89	B+
83 – 87	B
80 – 82	B-
78 – 79	C+
73 – 77	C
70 – 72	C-
60 – 69	D
59 <=	F

Availability of Support Services: Additional support services may be provided thru the library resources, the learning center as well as the computer center. Please ask if you need additional support.

### Course Polices:

1. Students are responsible to know everything covered in every class meeting (including assignments, announcements, corrections and additions). **Lectures and discussions will cover material not full presented in the text or handouts.**
2. Class participation grades (if awarded) are based on the preparation, contributions in the discussions as well as for efforts in applying technology and readings to the exercise and/or projects.
3. The group project (if assigned) must be completed to pass this course. Delivery of the project should be in an electronic form and professionally formatted.
4. Each group member (if assigned) earns the same grade as the group project unless it is proven that a group member does not equally participate.
5. **Late assignments will be reduced by 20% per class period. Assignments more than 1 (one) class period late will be given zero points.**
6. The topics listed on the syllabus are only an estimate of the material that is anticipated to be covered during the semester. Some topics may be deleted while others are may be added at the discretion of the professor.
7. **Academic Integrity: Note that ALL university polices regarding academic integrity are strictly enforced as summarized in your student handbook as well as in the course catalog.**
8. Attendance/Lateness Procedure: Attendance will be taken into consideration during the course. Students are responsible for all material and exercises covered during the class period. It is not the professor's responsibility to re-address material that is missed by a student. If assistance is needed to review missed material, please schedule an appointment during office hours.
9. **Laptops, Cell Phones, PDA's, Bluetooth devices and Pagers of any sort should be TURNED OFF or set to silent mode. Phone calls, text messaging, chatting via an**

**IM client during class at any time will impact the students grade. If you feel you must participate in outside conversations, please step outside of the class room.**

**10. Usage of outside reading materials, (including homework from other courses), as well as the viewing other media such as videos and/or movies will not be tolerated. The student will be asked to leave the classroom in such cases.**

### **Tentativeness of Schedule:**

The topics listed in the syllabus are only an estimation of the material that may be covered during the semester. Some topics may be deleted while others are added. This will be done at the discretion of the professor and will not be debated with the students.

### **General Instructions for Projects:**

4 projects will be assigned as the class progresses. They are worth 25 points each and account for 80% of your overall weighted grade.

All projects are a collaboration effort with the student's assigned group. The professor will determine the groups. Any request to move to another group will be honored at the decision of the professor if there is ample evidence to believe that the student is having concerns that cannot be resolved.

The final project will be a completed Software Requirements Specification based on the prior 3 projects based on determining the project high-level timeline, the functional requirements and the nonfunctional requirements. Project teams will have to submit along with the final project team evaluations as well as a "lessons learned" reflection.

Due dates: All projects are due as noted in the attached schedule. All projects must be submitted via BLACKBOARD ASSIGNMENT TAB to receive credit.

**The course topic schedule and project delivery dates will be determined based on number of weeks in the term however the midterm exam will be administered at the halfway point and the final exam on the last day of class.**

## **CIS 3450 – Health Information Systems Software Project Management**

College of Liberal Arts and Education  
College of Health Professions  
University of Detroit Mercy  
Fall 20xx

Instructor		Phone	
Office Location		E-mail	
Office Hours			

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### **Text:**

#### Required

Practical Project Initiation: A Handbook with Tools (Best Practices)

Karl E. Wiegers

Microsoft Press, March 2007

ISBN: 0735625212

### **Description:**

Catalog:

This course presents a comprehensive overview of project management methods, models, organizational issues, software tools and standards for planning, scheduling, costing and control of software and information systems related projects in compliance with the specifications of the PMI Body of Knowledge (PMBOK). The specific objectives of this course will be geared to the unique environment of the healthcare industry. This course has been designated by the National Security Agency and Department of Homeland Security for certification.

Goals: The goals of this course are to give the student experience in managing a software development project within the healthcare industry. Students will experience the creation of the project plan, dependencies, constraints and the project timeline all in an effort to deliver the healthcare related software project on time and under budget. Topics will include:

- Developing the project plan and delegation of responsibilities
- Effectively charter a project
- Define meaningful criteria for project success and product releases

- Negotiate achievable commitments for project teams and stakeholders
- Identify and document potential barriers to success--and manage project risks
- Apply the Wideband Delphi method for more accurate estimation
- Measure project performance and avoid common metrics traps
- Systematically apply lessons learned to future projects

#### Requirements:

- This course will consist of lectures, mandatory reading assignments as well as project work
- Midterm and Final Exam will be administered via blackboard
- Usage of various software including but not limited to MS Office 2007, MS Project, MS Visio, CA ERwin Data Modeler and SQL Server 2008 (any version) is required for all submitted project work. All software is available for use in the student and/or IA labs.
- Handwritten work will not be accepted – NO EXCEPTIONS
- Usage of Blackboard is MANDATORY
  - All email will originate from Blackboard
  - Copy of Syllabus is available via Blackboard (print a copy if you need hard copy)
  - All assignments will be distributed and submitted via the BLACKBOARD ASSIGNMENT functionality unless prior arrangements have been made with the instructor. Any assignment submitted via the drop box feature will be marked as late
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- Usage of your UDM STUDENT EMAIL ACCOUNT is MANDATORY

#### Resources:

- Most projects will require the use of the internet.
- There are open labs in C&F, Engineering, Student Union and the Library for you to use. The IA lab is a closed lab. Please email me to schedule the lab.
- You can use your home pc/laptops but the required software **MUST** be used

#### Evaluation:

All assignments and exams will be given a point value. **The weighted percentage of the overall available points will be used to determine the final grade based on the scale below.** All grades will be posted via Blackboard with the appropriate weighting applied.

Grading methods WILL NOT be debated with the student. If there is a question about YOUR grade, please make an appointment during office hours.

Exams:

Midterm 10%	(100pts)
Final Exam 10%	(100pts)
Projects 80% **	<u>(25pts each * 4 = 100pts)</u>
Total 100%	(300 pts)

\*\* Projects contribute to 80% of your grade – you cannot pass this class without them \*\*

Grading Conversion (in Percentage)

93 or Higher	A
90 – 92	A-
88 – 89	B+
83 – 87	B
80 – 82	B-
78 – 79	C+
73 – 77	C
70 – 72	C-
60 – 69	D
59 <=	F

Availability of Support Services: Additional support services may be provided thru the library resources, the learning center as well as the computer center. Please ask if you need additional support.

### Course Polices:

1. Students are responsible to know everything covered in every class meeting (including assignments, announcements, corrections and additions). **Lectures and discussions will cover material not full presented in the text or handouts.**
2. Class participation grades (if awarded) are based on the preparation, contributions in the discussions as well as for efforts in applying technology and readings to the exercise and/or projects.
3. The group project (if assigned) must be completed to pass this course. Delivery of the project should be in an electronic form and professionally formatted.
4. Each group member (if assigned) earns the same grade as the group project unless it is proven that a group member does not equally participate.
5. **Late assignments will be reduced by 20% per class period. Assignments more than 1 (one) class period late will be given zero points.**
6. The topics listed on the syllabus are only an estimate of the material that is anticipated to be covered during the semester. Some topics may be deleted while others are may be added at the discretion of the professor.

7. **Academic Integrity: Note that ALL university polices regarding academic integrity are strictly enforced as summarized in your student handbook as well as in the course catalog.**
8. Attendance/Lateness Procedure: Attendance will be taken into consideration during the course. Students are responsible for all material and exercises covered during the class period. It is not the professor's responsibility to re-address material that is missed by a student. If assistance is needed to review missed material, please schedule an appointment during office hours.
9. **Laptops, Cell Phones, PDA's, Bluetooth devices and Pagers of any sort should be TURNED OFF or set to silent mode. Phone calls, text messaging, chatting via an IM client during class at any time will impact the students grade. If you feel you must participate in outside conversations, please step outside of the class room.**
10. **Usage of outside reading materials, (including homework from other courses), as well as the viewing other media such as videos and/or movies will not be tolerated. The student will be asked to leave the classroom in such cases.**

### **Tentativeness of Schedule:**

The topics listed in the syllabus are only an estimation of the material that may be covered during the semester. Some topics may be deleted while others are added. This will be done at the discretion of the professor and will not be debated with the students.

### **General Instructions for Projects:**

4 projects will be assigned as the class progresses. They are worth 25 points each and account for 80% of your overall weighted grade.

All projects are a collaboration effort with the student's assigned group. The professor will determine the groups. Any request to move to another group will be honored at the decision of the professor if there is ample evidence to believe that the student is having concerns that cannot be resolved.

The final project will be a completed Software Project Plan based on the prior 3 projects which focuses on the development of project work break down structure to meet the defined project deadlines. Project teams will have to submit along with the final project team evaluations as well as a "lessons learned" reflection.

Due dates: All projects are due as noted in the attached schedule. All projects must be submitted via BLACKBOARD ASSIGNMENT TAB to receive credit.

**The course topic schedule and project delivery dates will be determined based on number of weeks in the term however the midterm exam will be administered at the halfway point and the final exam on the last day of class.**

## **CIS3820 - Health Information Management Database Design**

College of Liberal Arts and Education  
College of Health Professions  
University of Detroit Mercy  
Fall 20xx

Instructor		Phone	
Office Location		E-mail	
Office Hours		Room	

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### **Text:**

#### **Required**

Database Systems:

A Practical Approach to Design, Implementation and Management 5/e

Connolly & Begg

Publisher: Addison Wesley

Copyright: 2010

ISBN: 0321523068

### **Description:**

Catalog:

To prepare the student to develop a healthcare related relational database using standard relational database technologies such as SQL; to better understand the management of databases for clinical care applications, computerized physician order entry system (CPOE), data warehousing and data marts. This course has been designated by the United States National Security Agency and Department of Homeland Security for certification.

### **Goals:**

To gain knowledge of the concepts behind current methods of creating, modifying and building the relational model as it relate to healthcare.

Topics covered include End User Analysis, Defining data elements, SQL Language to perform data retrieval, Relational Modeling and normalization, Distributed Databases and Data quality. SQL Server 2008 will be used to develop database objects.

## Requirements:

- This course will consist of lectures, mandatory reading assignments as well as project work
- Midterm and Final Exam will be administered via blackboard
- Usage of various software including but not limited to MS Office 2007, CA ERwin Data Modeler and SQL Server 2008 (any version) is required for all submitted project work. All software is available for use in the student and/or IA labs.
- Handwritten work will not be accepted – NO EXCEPTIONS
- Usage of Blackboard is MANDATORY
  - All email will originate from Blackboard
  - Copy of Syllabus is available via Blackboard (print a copy if you need hard copy)
  - All assignments will be distributed and submitted via the BLACKBOARD ASSIGNMENT functionality unless prior arrangements have been made with the instructor. Any assignment submitted via the drop box feature will be marked as late
  - Grade book functionality will be used for all grading. Paper copies of assignments will not be returned
- Usage of your UDM STUDENT EMAIL ACCOUNT is MANDATORY

## Resources:

- Most projects will require the use of the internet.
- There are open labs in C&F, Engineering, Student Union and the Library for you to use. The IA lab is a closed lab. Please email me to schedule the lab.
- You can use your home pc/laptops but the required software **MUST** be used

## Evaluation:

All assignments and exams will be given a point value. **The weighted percentage of the overall available points will be used to determine the final grade based on the scale below.** All grades will be posted via Blackboard with the appropriate weighting applied. Grading methods **WILL NOT** be debated with the student. If there is a question about YOUR grade, please make an appointment during office hours.

## Exams:

Midterm 10%	(100pts)
Final Exam 10%	(100pts)
Assignments 80% **	<u>(25pts each * 4 = 100pts)</u>

Total 100% (300 pts)

**\*\* Assignments contribute to 80% of your grade – you cannot pass this class without them \*\***

Grading Conversion (in Percentage)

93 or Higher	A
90 – 92	A-
88 – 89	B+
83 – 87	B
80 – 82	B-
78 – 79	C+
73 – 77	C
70 – 72	C-
60 – 69	D
59 <=	F

Availability of Support Services: Additional support services may be provided thru the library resources, the learning center as well as the computer center. Please ask if you need additional support.

**Course Polices:**

1. Students are responsible to know everything covered in every class meeting (including assignments, announcements, corrections and additions). **Lectures and discussions will cover material not full presented in the text or handouts.**
2. Class participation grades (if awarded) are based on the preparation, contributions in the discussions as well as for efforts in applying technology and readings to the exercise and/or projects.
3. The group project (if assigned) must be completed to pass this course. Delivery of the project should be in an electronic form and professionally formatted.
4. Each group member (if assigned) earns the same grade as the group project unless it is proven that a group member does not equally participate.
5. **Late assignments will be reduced by 20% per class period. Assignments more than 1 (one) class period late will be given zero points.**
6. The topics listed on the syllabus are only an estimate of the material that is anticipated to be covered during the semester. Some topics may be deleted while others are may be added at the discretion of the professor.
7. **Academic Integrity: Note that ALL university polices regarding academic integrity are strictly enforced as summarized in your student handbook as well as in the course catalog.**

8. Attendance/Lateness Procedure: Attendance will be taken into consideration during the course. Students are responsible for all material and exercises covered during the class period. It is not the professor's responsibility to re-address material that is missed by a student. If assistance is needed to review missed material, please schedule an appointment during office hours.
9. **Laptops, Cell Phones, PDA's, Bluetooth devices and Pagers of any sort should be TURNED OFF or set to silent mode. Phone calls, text messaging, chatting via an IM client during class at any time will impact the students grade. If you feel you must participate in outside conversations, please step outside of the class room.**
10. **Usage of outside reading materials, (including homework from other courses), as well as the viewing other media such as videos and/or movies will not be tolerated. The student will be asked to leave the classroom in such cases.**

**Tentativeness of Schedule:**

The topics listed in the syllabus are only an estimation of the material that may be covered during the semester. Some topics may be deleted while others are added. This will be done at the discretion of the professor and will not be debated with the students.

**General Instructions for Assignments:**

4 Assignments will be assigned as the class progresses. They are worth 25 points each and account for 80% of your overall weighted grade.

Due dates: All assignments are due as noted in the attached schedule. All assignments must be submitted via BLACKBOARD ASSIGNMENT TAB to receive credit.

**The course topic schedule and project delivery dates will be determined based on number of weeks in the term however the midterm exam will be administered at the halfway point and the final exam on the last day of class.**

## **CIS 3870 – Health Information Systems Secure Database Programming**

College of Liberal Arts and Education  
College of Health Professions  
University of Detroit Mercy  
Fall 20xx

Instructor		Phone	
Office Location		E-mail	
Office Hours			

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### **Text:**

#### **Required**

Database Systems:

A Practical Approach to Design, Implementation and Management 5/e

Connolly & Begg

Publisher: Addison Wesley

Copyright: 2010

ISBN: 0321523068

### **Description:**

Catalog:

Implementation of secure access control in the health care database environment: Course emphasis is on ensuring access control in a high performance health care database environment. Content emphasizes includes intrusion detection mechanisms and access control methods.

### **Goals:**

To gain hands on experience in order to understanding of the concepts behind current methods of database access controls within the healthcare environment. SQL Server 2008 will be the database product of choice for this course.

Requirements:

- This course will consist of lectures, mandatory reading assignments as well as project work
- Midterm and Final Exam will be administered via blackboard

- Usage of various software including but not limited to MS Office 2007, CA ERwin Data Modeler and SQL Server 2008 (any version) is required for all submitted project work. All software is available for use in the student and/or IA labs.
- Handwritten work will not be accepted – NO EXCEPTIONS
- Usage of Blackboard is MANDATORY
  - All email will originate from Blackboard
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  - All assignments will be distributed and submitted via the BLACKBOARD ASSIGNMENT functionality unless prior arrangements have been made with the instructor. Any assignment submitted via the drop box feature will be marked as late
  - Grade book functionality will be used for all grading. Paper copies of assignments will not be returned
- Usage of your UDM STUDENT EMAIL ACCOUNT is MANDATORY

### Resources:

- Most projects will require the use of the internet.
- There are open labs in C&F, Engineering, Student Union and the Library for you to use. The IA lab is a closed lab. Please email me to schedule the lab.
- You can use your home pc/laptops but the required software **MUST** be used

### Evaluation:

All assignments and exams will be given a point value. **The weighted percentage of the overall available points will be used to determine the final grade based on the scale below.** All grades will be posted via Blackboard with the appropriate weighting applied. Grading methods **WILL NOT** be debated with the student. If there is a question about **YOUR** grade, please make an appointment during office hours.

Exams:

Midterm 10%	(100pts)
Final Exam 10%	(100pts)
Assignments 80% **	<u>(25pts each * 4 = 100pts)</u>
Total 100%	(300 pts)

\*\* Assignments contribute to 80% of your grade – you cannot pass this class without them \*\*

Grading Conversion (in Percentage)

93 or Higher	A
90 – 92	A-
88 – 89	B+
83 – 87	B
80 – 82	B-
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73 – 77	C
70 – 72	C-
60 – 69	D
59 <=	F

Availability of Support Services: Additional support services may be provided thru the library resources, the learning center as well as the computer center. Please ask if you need additional support.

### Course Polices:

1. Students are responsible to know everything covered in every class meeting (including assignments, announcements, corrections and additions). **Lectures and discussions will cover material not full presented in the text or handouts.**
2. Class participation grades (if awarded) are based on the preparation, contributions in the discussions as well as for efforts in applying technology and readings to the exercise and/or projects.
3. The group project (if assigned) must be completed to pass this course. Delivery of the project should be in an electronic form and professionally formatted.
4. Each group member (if assigned) earns the same grade as the group project unless it is proven that a group member does not equally participate.
5. **Late assignments will be reduced by 20% per class period. Assignments more than 1 (one) class period late will be given zero points.**
6. The topics listed on the syllabus are only an estimate of the material that is anticipated to be covered during the semester. Some topics may be deleted while others are may be added at the discretion of the professor.
7. **Academic Integrity: Note that ALL university polices regarding academic integrity are strictly enforced as summarized in your student handbook as well as in the course catalog.**
8. Attendance/Lateness Procedure: Attendance will be taken into consideration during the course. Students are responsible for all material and exercises covered during the class period. It is not the professor's responsibility to re-address material that is missed by a student. If assistance is needed to review missed material, please schedule an appointment during office hours.

9. **Laptops, Cell Phones, PDA's, Bluetooth devices and Pagers of any sort should be TURNED OFF or set to silent mode. Phone calls, text messaging, chatting via an IM client during class at any time will impact the students grade. If you feel you must participate in outside conversations, please step outside of the class room.**
10. **Usage of outside reading materials, (including homework from other courses), as well as the viewing other media such as videos and/or movies will not be tolerated. The student will be asked to leave the classroom in such cases.**

### **Tentativeness of Schedule:**

The topics listed in the syllabus are only an estimation of the material that may be covered during the semester. Some topics may be deleted while others are added. This will be done at the discretion of the professor and will not be debated with the students.

### **General Instructions for Assignments:**

4 Assignments will be assigned as the class progresses. They are worth 25 points each and account for 80% of your overall weighted grade.

Due dates: All assignments are due as noted in the attached schedule. All assignments must be submitted via BLACKBOARD ASSIGNMENT TAB to receive credit.

**The course topic schedule and project delivery dates will be determined based on number of weeks in the term however the midterm exam will be administered at the halfway point and the final exam on the last day of class.**

## CIS 4850 Health Information Management Information Assurance

College of Liberal Arts and Education  
College of Health Professions  
University of Detroit Mercy  
Fall 20xx

### Course Information

#### Prerequisites

There are no prerequisites for this course. This course offers an overview of the principles and concepts that underlie the information assurance lifecycle as it relates to the healthcare industry. It will present all of the processes currently understood as being part of that lifecycle in practical depth.

#### Web Page

This course is fully supported from <http://knowledge.udmercy.edu>. All course material is on this site. Therefore, all students registered in this course are required to enroll. All communication either between students or with the instructor originates from this site. The announcement board that you will see upon entry will provide all necessary updates.

### Texts and Assigned Readings

#### Required Readings

Schou, Corey and Dan Shoemaker, **Information Assurance for the Enterprise**, McGraw-Hill, 2006

#### Supplementary Readings

If you wish you may obtain the following Standards. The best mechanism for doing this is through the link to ISACA provided under the “*External Links*” button on the website or directly through ISO and/or BSI.

- ❑ FIPS PUB 199 Standards for Security Categorization of Federal Information and Information Systems, NCSA March 2006 (posted)

- ❑ FIPS PUB 200 Minimum Security Requirements for Federal Information and Information Systems, NCSA March 2006 (posted)
- ❑ NIST 800-53A Guide for Assessing the Security Controls in Federal Information Systems, NCSA 2006 (posted)
- ❑ ISACA, COBIT Open Standard (version 4), 2006
- ❑ ISO/EIA 17799, 2000 and BS 7799:2 2002 (posted)
- ❑ ISO/EIA 15408, Parts 1, 2 and 3 1999 (posted)
- ❑ GASSP, Generally Accepted System Security Principles, International Information Security Forum, June 1999 (posted)
- ❑ Swanson, Marianne, *Security Self Assessment Guide for Information Technology Systems*, National Institute of Standards and Technology NIST 800-26, November 2001

## Course Description

This course presents the fundamental concepts of the information assurance lifecycle for the healthcare industry at a mastery level of understanding. It is rooted in several bodies of knowledge. The purpose of each of these is to establish the exact status of and assure some aspect of organizational functioning related to information protection. You will learn what each of these are and how they relate. This course has been designated by the United States National Security Agency and Department of Homeland Security for certification.

### **Instruction Methods**

Course delivery is primarily lecture based. Content is conveyed through a PowerPoint show. Students will tailor a formally documented defense in depth strategy that will address one of the relevant Chapters. It will be based on a threat and vulnerability assessment and it will embody all of the relevant cost and resource considerations. Work on this project will take place both inside the class under instructor supervision and outside of class. There will also be a midterm

examination and a cumulative final examination.

### **Method of Evaluation**

Evaluation of course deliverables will be based on:

- 4.) *Conformity with the principles of best practice presented in lecture*
- 5.) *Correct detailing/application of the requirements of the selected case*
- 6.) *A complete, correct and unambiguous presentation of the project findings*

### **Summary of Evaluation Scheme**

<b><u>What</u></b>	<b><u>When</u> <u>Weight</u></b>	<b><u>Content</u></b>	
Midterm Exam	Session Eight	IA Lifecycle	20
Security Plan	End of Semester	Tailored defense in depth Plan	30
Final	Last Class Day	Cumulative	30

### **Attendance/Lateness Policy**

All assignments are due on the date specified. There will be no extensions. Students are expected to arrive on time and attend all classes. You will not be directly penalized if you violate these assumptions, however it will be the student's responsibility to acquire all handouts and notes from missed sessions. Active participation in all group activities is required. A group member who fails to live up to this requirement will be subject to dismissal, after due process, and will receive a failing grade for that project assignment. Although class participation is not directly rewarded it will have considerable weight in determining which side of the line a student falls on if their grade is close (*e.g., a lot of class participation will turn a high B+ into a low A-*).

### **Available Support Service**

#### **Library/computer resources**

Because it is fully supported by a website, this course is not library intensive. Requisite material can be accessed or downloaded from hyperlink locations provided by the instructor at the course site. Students wishing additional

hardcopy material can obtain this from the McNichols library. The computer labs on both campuses are available to students during open hours.

### **Suggestions for Further Reading**

None of these articles are required but if you want to get the maximum out of this course you should be familiar with each of these.

1. 7799 Standards Can Enhance Your Organization's Information Security Program Business/Technology Editors, InfoWorld, 10, 2001
2. Ananova.com, "UK e-business at risk from hackers, reveals report"
3. Ashton, Gerry, Cleaning up your Security Act for Inspection, Computer Weekly Jan 18, 2001
4. Barkley, John, Comparing Simple Role Based Access Control Models and Access Control Lists, Second ACM Workshop on Role-Based Access Control, ACM, 1997
5. Bell, D. E. and L. J. LaPadula, Secure Computer Systems: Mathematical Foundations, MITRE Corporation, Bedford, Ma 1973
6. Bell, D. E. and LaPadula, L. J., Secure Computer Systems: Unified Exposition and MULTICS Interpretation, Revision 1, US Air Force ESD-TR-75-306, MITRE Corporation MTR-2997, Bedford MA, March 1976.
7. Biba, K. J., Integrity Considerations for Secure Computer Systems, ESD-TR-372, ESD/AFSC, Hanscom AFB, Bedford MA., April 1977.
8. Clark, David D.; Wilson, David R. A Comparison of Commercial and Military Computer Security Policies, IEEE Symposium on Security and Privacy, Proceedings, 1987
9. Cross, Stephen E, Cyber Security, Testimony before the Senate Armed Services Committee, Subcommittee on Emerging Threats and Capabilities, March 1, 2000
10. Cross, Stephen E., Cyber Threats and the U S Economy, Testimony before the Joint Economic Committee, U S Congress, February 23, 2000
11. Dealing With External Cybersecurity Incidents, CERT/CC, 2001

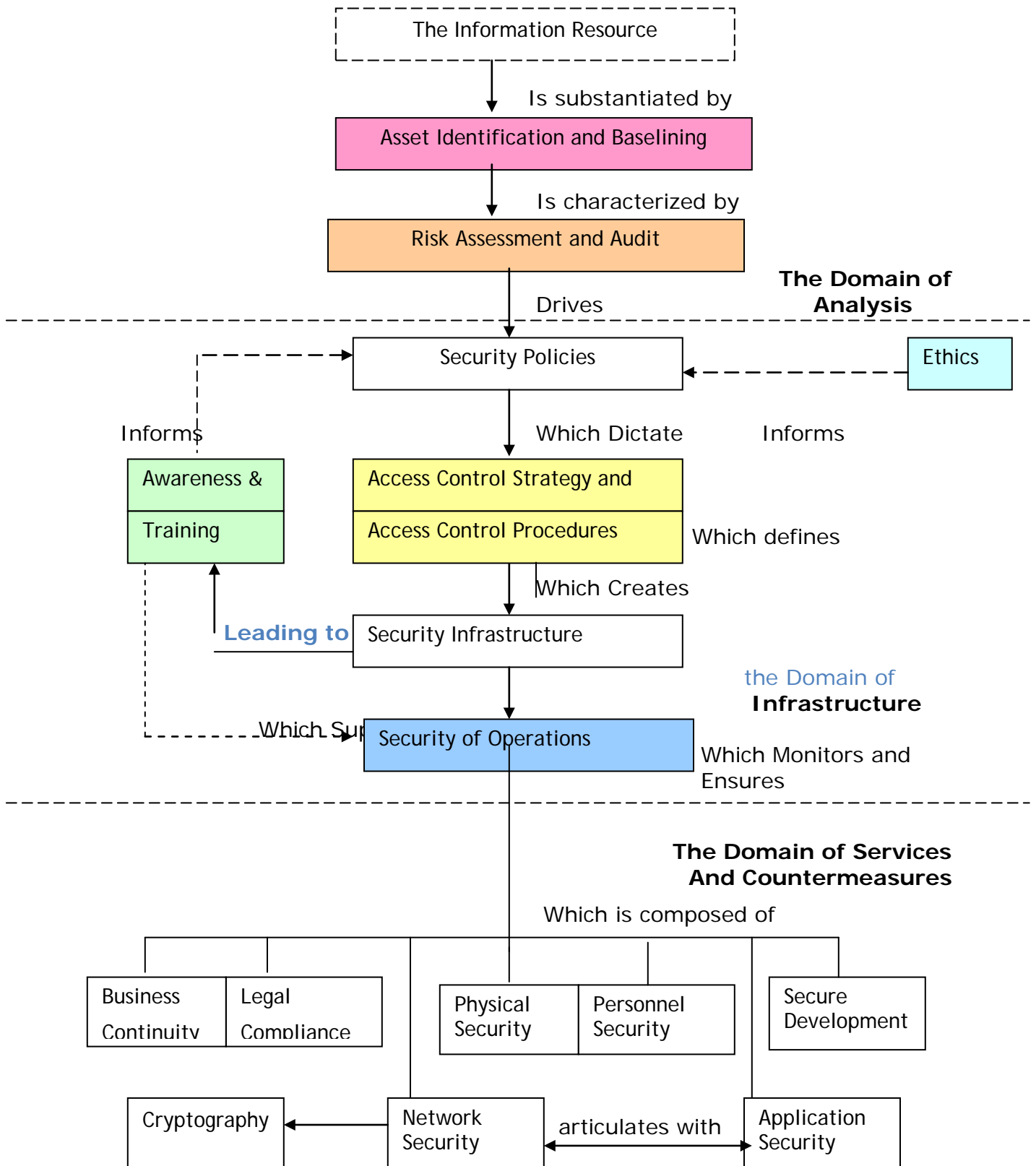
12. Dorofee A.J., JA Walker, RC Williams, Risk Management in Practice, Crosstalk, Volume 10 #4, April 1997
13. Dover, Sanford, "A Standard Response," CIO, June 1993
14. Evaluating Information Technology Investments, Office of Management and Budget, at [www.itmweb.com](http://www.itmweb.com), 1999
15. Favell, Andrew, Don't Leave it to Luck, Computer Weekly, Oct 11, 2001
16. Giuru, Luigi, Role Templates for Content-based Access Control, 2nd ACM Workshop on Role-Based Access, Fairfax, VA 1997
17. Goodwin, William UK's security code of practice becomes worldwide standard Computer Weekly, Jan 25, 2001
18. Killcrece, Georgia, Klaus-Peter Kossakowski, Robin Ruefle and Mark Zajicek, State of the Practice of Computer Security Incident Response Teams, Technical Report, CMU/SEI-2003-TR-001, ESC-TR-2003-001
19. Lawrence, L. G., The Role of Roles, Computers and Security, Vol12, No1,1993
20. Lewis, Mark, Be a standard bearer.(British Standard 7799 initiative helpful in outlining security measures for companies to take), Computer Weekly April 22, 1999
21. McClure, Stuart, SECURITY WATCH: Mass manipulation isn't reserved just for presidential elections: IT world be warned, InfoWorld, Nov 20, 2000
22. Raines, Paul S., Slaying Cerberus, Softwaremag.com, June 2001
23. Robinson, James, The Auditing Process Made Simple,
24. Rogers, Larry, Cybersleuthing: Means, Motive, and Opportunity, InfoSec Outlook, Volume 3 | Number 3| Summer 2000
25. Role-Based Access Control, National Institute of Standards and Technology, 2000,
26. Sandhu, Ravi, A Lattice Interpretation of the Chinese Wall Policy, Proceedings of the 15th NIST-NCSC National Computer Security Conference, Baltimore, MD 1992

27. Schneider, Fred B., Enforceable Security Policies, ACM Transactions on Information and System Security, Vol3, No1, Feb, 2000
28. Simons, Mike, NHS takes unpopular BS 7799, Computer Weekly, Jan 18, 2001
29. Software Engineering Institute, web site at [www.sei.cmu.edu](http://www.sei.cmu.edu). 1998
30. Welch, I and R.J. Stroud, Re-engineering security as a crosscutting concern - experience with a third party application. The Computer Journal, 46(5):578-589, September 2003
31. Winslett, M, N. Ching and V. Jones and I. Slepchin, Using Digital Credentials on the World-Wide Web, Journal of Computer Security, 1997
32. Zimmerman, Scott C., Secure Infrastructure Design, Carnegie-Mellon University, CERT/CC, 2002

### **Policy on Tentativeness of Schedule**

This schedule embraces a large amount of material. As such, the general lecture topics will be addressed as scheduled. Assignments are due when required. Any changes or exceptional circumstances will be announced in advance on the website. Each student is required to check the website on the day class is scheduled to see if there have been any exceptions posted

## The Healthcare Information Assurance Lifecycle



## Appendix G: Library Resources

The following two tables represent a collection of library resources to enable the UDM student ample resources in order to complete the HIM program with a high degree of proficiency.

### Books

TITLE	Author	Publisher	DATE	ISBN	Owned	Price	Notes
Adaptive health management information systems	Tan, Joseph K. H & Fay Cobb Payton	Jones & Bartlet Pub	2010	978-0-76-375691-8	No	89.95	
An introductory resource guide for implementing the Health Insurance Portability and Accountability Act (HIPAA) Security Rule [electronic resource] / Matthew Scholl ... [et al.].	Scholl, Matthew, et	NIST	2008		Yes		Available thru GPO access
Basic statistics for health information management technology	Carol E. Osborn, ed.	Jones & Bartlet Pub	2008	978-0-76-375034-3			
Beyond return on investment : expanding the value of healthcare information technology	Arlotto, Pam	Healthcare Information and Management Systems Society	2007	978-0-97-779032-6	Yes		
Biomedical informatics : computer applications in health care and biomedicine, 3rd ed.	Shortliffe, Edward H.	Springer	2006	978-0-38-728986-1	No	89.95	
Clinical information systems : a framework for reaching the vision	Ida M. Androwich, ed.	American Nurses Pub	2003	155810206x	Yes		
Clinical infrastructure : understanding its component parts...	Macaulay, Tyson	CRC Press	2009	978-1-42006835-1	No	79.95	

Clinical knowledge management opportunities and challenges	Rajeev K. Bali, ed.			1-59140-591-2	Yes		NetLibrary
Clinical research methodology and evidence-based medicine : the basics	Babu, Ajit. N.	Ashan Ltd.	2008	978-1-90-574090-1	Yes		
Computational technology for effective health care : immediate strategic directions	Stead, William and Herbert S. Lin, eds.	National academies press	2009	978-0-30-913050-9	Yes		electronic at IOM website
Computers in small bytes : a workbook for healthcare professionals	Joos, Irene Makar	Jones & Bartlet Pub	2000	763710415	Yes		
Connecting medical informatics and bio-informatics	Engelbrecht, R., ed.	IOS Press	2005	978-1-58-603549-5	Yes		eBrary
Consumer health informatics informing consumers	Deborah Lewis, et al	Springer	2005	978-0-38-723991-0	Yes		NetLibrary
Consumer informatics : applications and strategies in cyber health care /	Nelson, Rosemary	Springer	2004	387404147	Yes		
Creating knowledge based healthcare organizations	Wickramasinghe	Idea Group Publishing	2005	1-59140-459-2	Yes		NetLibrary
Current principles & practices of telemedicine and e-Health	Latifi, Rifat	National academies press	2008	978-1-58-603806-9	No	161.00	
Data modeling and database design	Umanath, Narayan	Thomson Course Technology	2007	978-1-42-390083-2	Yes		
Dental Informatics	Schleyer, Titus	W.B.Saunders	2002	0011-8532	Yes		
Design and implementation of health information systems	Lippeveld, Theo, ed	World Health Org	2000			70.00	

Dictionary of health information technology and security	David Edward Marcinko, ed.	Springer	2007	978-0-82-614995-4	Yes		
Digital communication in medical practice	Finn, Nancy	Springer	2009	978-1-84-882354-9	no	79.99	
E-business in healthcare: from eprocurement to supply chain management	Hubner, Ursula	Springer	2008	978-8-18-462887-4	no	69.95	
eHealth solutions for healthcare disparities	edited by Michael Sibbons, Michael Christopher	Springer	2008	9780387728148	Yes		
E-health systems diffusion and use : the innovation and user and the USE IT model	Spil, Ton A. M. and Schuring, Roel	Idea Group Publishing	2005	1-59140-425-8	Yes	550.84	NetLibrary
E-health: current situation and examples of implemented and beneficial e-health applications	Iakovidis, I.	IOS Press	2004	9781586034481	Yes		eBrary
Electronic health records : understanding and using computerized medical records	Gartee, Richard	Pierson, Prentice Hall	2007	978-0-13-196079-4	No	86.00	
Encyclopedia of healthcare management	Michael Stahl, ed.	Sage Publications	2004	761926747	Yes		
Essential medical terminology	Peggy Stanfield, ed.	Jones & Bartlet Pub.	2005	978-0-76-374913-2	Yes		
Essentials of health information management : principles & practice	Green, Michelle	Thompson/Delmar Learning	2005	978-0-76-684502-2	No	65.95	
Ethical challenges in the management of health information	Laurinda B. Harman, ed.	Aspen Publishers	2001	0-8342-1229-3	Yes		
Ethical, legal and social issues in medical informatics	Duquenoey, Penny	Medical information science reference	2008	978-1-59-904780-5	no	195.00	

Ethics and information technology : a case based approach to a health care system in transition	Anderson, James and Kenneth Goodman	Springer	2002	978-0-51-100165-9	Yes		NetLibrary
Evaluating the science and ethics of research on humans : a guide for IRB members	Mazur, Dennis J.	Johns Hopkins University Press	2007	978-0-80-188502-0	Yes		
Evidence on the costs and benefits of health information technology	Hagen, Stuart	Congressional Budget Office	2008		Yes		Available thru GPO access
From grid to healthgrid	Solomonides, T	IOS Press	2005	978-1-58-603510-5	Yes		eBrary
From patient data to medical knowledge	Taylor, Paul	Blackwell	2006	0727917757	No	83.95	
Fundamentals of law for health informatics and information management	Brodnik, Melanie	AHIMA	2009	978-1-58-426173-5	No	101.00	
Fundamentals of statistics in health administration	Broyles, Robert	Jones and Bartlett	2006	978-0-76-374556-1	Yes		
Global health informatics education	Hovenga, E.J.S	IOS Press	2004	978-1-58-603454-2	Yes		eBrary
Guide to HIPAA security and the law	Wu, Stephen	ABA Section of Science and Technology Law	2007	978-1-59-031748-8	No	79.95	
Handbook of informatics for nurses & health care professionals / Toni Hebda, Patricia Czar.	Hebda, Toni and Patricia Czar	Pierson, Prentiss Hall	2009	978-0-13-504394-3	No	49.95	We have 2005 & 2001 edition this; get this one.
Handbook of research on distributed medical informatics and eHealth	Lazakidou, Athina A	Medical information science reference	2008	978-1-60-5660028	no	325.00	also available thru NetLibrary
HCPCS 2009 : Medicare's national level II codes	AMA	AMA	2009	978-1-603590965-5	n	94.95	

Health care finance : basic tools for nonfinancial managers	Baker, Judith	Jones & Bartlett Pub	2006	0-763726605	Yes		
Health care informatics : a skills-based resource	Felkey, Bill	APhA	2005	978-1-58-212060-7	No	48.00	
Health care informatics : a interdisciplinary approach	Sheila Englehardt	Mosby	2002	323012574	Yes		
Health care information systems : a practical approach for health care management	Wagner, Karen, Francis Wickham Lee, et al	Jossey-Bass	2009	978-0-47038780-1	n	80.00	
Health care USA : understanding its organization and delivery	Sultz, Harry & Kristina Young	Jones & Barlett	2009	978-0-76374974-3	Yes		
Health data in the information age : use, disclosure, and privacy	Lorh, Kathleen, et al	National academies press	1994	978-0-30-904995-5	Yes		eBrary
Health informatics	Alshawi, Sarmad	Emerald Group Publishing	2003	0957-6053	Yes		eBrary
Health informatics research methods : principles and practice / Elizabeth Layman	Layman, Elizabeth and Valerie Watzlaf	AHIMA	2009	1584261811	No	85.89	get this
Health information : management of a strategic resource	Abdelhak, Mervat	Saunders/Elsevier	2007	978-1-41-603002-7	No	82.95	
Health information management : principles and organization for health information services	Shurka, Margaret	Jossey-Bass	2003	787959774	No	60.00	
Health information management concepts, principles and practice	LaTour, Kathleen, Shirley Eichenwald	AHIMA	2006	978-1-58-426142-1			
Health information management manual	Davidson, G.P.	Aspen	2003	834221071	No		

Health information management technology : an applied approach; 2nd ed.	Johns, Merida	AHIMA	2007	9781584261612	No	95.95	
Health information technology	Davis, Nadina & Melisa La cour	Saunders	2007	978-1416023166	No	56.80	
Health literacy, eHealth and communication: putting the consumer first	Hernandez, Lyla, et al	National academies press	2009	978-0-30-912642-7	Yes		electronic at IOM website
Health management information systems, 2nd ed.	Tan, Joseph K. H.	Apsen	2001	834217775	Yes		
Health sciences literature review made easy	Garland, Judith	Jones & Barlett	2004	978-0-76-372673-7	Yes		
Healthcare informatics	Hanson, C. William	McGraw-Hill	2006		Yes		Available in eBook, NetLibrary
Healthcare Information Systems	Beaver, Kevin	Healthcare information systems	2003	978-0-84-931498-8	n	124.95	
Healthcare information systems : challenges of the new millennium	Armoni, Adi	Idea Group Publishing	2000	1878289624	Yes		
Healthcare knowledge management: issues, advances and successes	Bali, Rajeev K and Ashish N. Dwivedi	Springer	2006	978-0-41-599444-6	No	150.00	
HIPAA for health care professionals	Krager, Dan and Carole Krager	Delmar Publishers	2008	978-1-41-8080053-2	No	37.95	
History of telemedicine: evolution, context and transformation	Bashshur, Rashid, et al	Mary Ann Liebert	2009	978-1-93-485411-2	no	195.00	
How to evaluate electronic health record [EHR] systems	Trites, Patricia et al	AHIMA	2008	978-1-58-426172-8	n	129.95	

Human resources in healthcare : managing for success	Fried, Bruce J., ed	Assoc of Univ Programs in Health Admin	2008	978-1-56-793299-7	Yes		
Implementing an electronic health record system	Walker, James M., et al	Springer	2005	978-1-85-233826-8	no	106.00	
Implementing an electronic medical record system: successes failures, lessons	Tim Scott, ed.	Radcliffe	2007	978-1-85-775750-7	Yes		
Informatics for healthcare professionals	Young, Kathleen	F. A. Davis, Co	2000	803606192	Yes		
Informatics for the clinical laboratory a practical guide /	Daniel F. Cowan, ed.	Springer	2005	978-0-38-795362-5	No	74.95	
Information management for health professions / Merida L.	Johns, Merida	Delmar Publishers	1997	827359497	Yes		
Information management for health professions / Merida L.	Slovensky, Donna	Medical group management solutions	2006	9781568292380	Yes		
Information retrieval : a health and biomedical perspective	William Hersh, ed.	Springer	2009	978-0-38-778702-2	n	63.98	
Information retrieval in biomedicin : natural language processing for knowledge integration	Prince, Violaine and Mathieu Roche	Medical information science reference	2009	978-1-60-566274-9	n	225.00	
Information systems for healthcare management	Austin, Charles	Health Administration Press	2003	1567932029	Yes		
Information technology for the health professions	Burke, Lillian and Barbara Weill	Pierson, Prentice Hall	2008	978-0-13-159933-8	no	48.60	We have 2000 edition this; get this one.
Intelligent paradigms for assistive and preventive healthcare	Ajita Ichalkaranje, Nikhil Ichalkaranje, Lakhmi, C Hain	Springer	2006	978-3-54-031762-3	No	119.00	

Introduction to clinical informatics	DeGoulet, Patrice, Fieschi, Marius	Springer	1999	387946411	No		
Java for bioinformatics and biomedical applications	Harshawardhan, Bal	Springer	2007	978-0-38-737235-8	Yes		
Knowledge media in healthcare opportunities		Idea Group Publishing	2003				NetLibrary
Learning healthcare system	Olsen, LeighAnn	National academies press	2007	978-0-30-910300-8	Yes		eBrary
Learning to code with ICD-9-CM for health information management and health services administration /	Falen, Thomas; Aaron Liberman	Wolters Kluwer Health/Lippincott Williams & Wilkins	2007	978-0-78-179322-3	N		
Legal health record	Servais, Carol	AHIMA	2009	978-1-58-426182-7	No	59.95	get this
Legal Medicine	S. Sandy Sanbar, ed.	Mosby	2007	978-0-32-303753-2	Yes		
Making information technology work : maximizing the benefits for health care organizations	Roger Kropf , Guy Scalzi	Health Forum, c2007	2007	978-1-55-648349-3	Yes		
Management of health information	Mattingly, Rozell	Delmar Publishers	1997				
Managing healthcare information systems with web-enabled technologies	Eder, Lauren	Idea Group Publishing	2000	1878289659	Yes		
Managing information in healthcare : concepts and cases	John Abbott, ed.	Health Administration Press	2000	1567931316	Yes		

Managing technological change: Organizational aspects of health informatics / 2nd ed	Lorenzi, Nancy & Riley, Robert	Springer	2004	978-0-38-798548-0	No	99.00	
Medical and care compunetics 3	Bos, L, et al	IOS Press	2006	978-1-42-949231-7	Yes		eBrary
Medical and care compunetics 4	Bos, L, et al	IOS Press	2007	978-1-58-603620-1	Yes		eBrary
Medical informatics : computer applications in health care and	Shortliffe, Edward H.	Springer	2001	387984720	Yes		
Medical information on the internet a guide for professionals	Kiely, Robert	Computer network resources	2003	443072159	Yes		
Medical law and ethics	Fremgen, Bonnie F.	Pearson/Prentice Hall	2006	131177087	Yes		
Medical quality management : theory and practice	Varkey, Prathibha	Jones & Bartlet Pub	2010	978-0-76376034-2	No	72.95	
Medical records and the law / 4th ed	William H. Roach, Jr.	Jones & Bartlet Pub	2006	9780763734459	No	99.95	
Mobile health solutions for biomedical applications	Olla, Philip	Medical information science reference	2009	978-1-60-566332-6	no	225.00	
PACS and Imaging informatics	H.K. Huang	Wiley-Liss	2010	978-0-47-037372-9	No	179.00	
Paper kills : transforming health and healthcare with information technology	Merritt, David	CHT Press	2007	978-1-93-396602-1	No	19.95	
Paperless hospotal : healthcare in a digital age	Colie, Russell C.	Chicago Health Admin Press	2002	1-56739-162-6	Yes		NetLibrary

Patient safety: achieving a new standard for care	Aspden, Philip., et al	National academies press	2004	0-309-09077-6	Yes		
Prentice Hall's question and answer review of health information management	Susan Pritchard Bailey, Michelle A. Green, Jennifer A. Gehen.	Pierson, Prentice Hall		130982571	No	41.00	
Project management for healthcare informatics	Houston, Susan	Springer	2007	978-0-38-773682-2	No	69.95	
Public health informatics and information	O'Carroll, Patrick, Yasnoff, Ward	Springer	2002	0-387-95474-0	Yes		eBrary
Security architecture design process for health information exchanges [HIE]	Scholl, Matthew, et	NIST	2009		Yes		Available thru GPO access
Strategic information management in hospitals	Haux, Reinhold	Springer	2004	978-0387403564	No	99.00	
Strategic management of information systems in healthcare	Gordon Brown, ed.	Health Administration Press	2005	9781567932423	Yes		
Strategies for healthcare information systems /	Stegwee, Robert	Idea Group Publishing	2001	1878289896	Yes		
Studying a study, testing a test, 5th ed.	Riegelman, Richard	Lippincott Williams & Wilkins	2005	781745764	Yes		
Telecommunications for nurses	Myrna Armstrong, ed.	Springer	2004	9780826198433	Yes		
Telemedicine & e-health law	Szabo, David S. and Stephen W. Bernstein	MCLE	2007		No		

Telemedicine : survey and analysis of federal and state laws	Mayo, Thomas Wm and Tara E. Kepler	American Health Lawyers Assoc	2007	978-1-42-243927-2	No		
The computer-based patient record : an essential technology for health care / 2nd ed.	National academy press	National academies press	1997		Yes		electronic at IOM website
The diffusion and value of healthcare technology	Bower, Anthony G.	Rand Corp	2005	9780833037602	Yes		
The handbook of information and computer ethics	Kenneth Himma, ed.	Wiley Interscience	2008	9780471799597	Yes		
The Internet and health care: theory, research and practice	Murero, Monica	Lawrence Erlbaum Assoc	2006	978-0-80-585814-3	No	110.00	
The law of healthcare administration							
The medicalization of cyberspace	Miah, Andy; Rich, Emma	Routledge Press	2008	978-0-41-539364-5	No		
Today's health information management : an integrated approach	McWay, Dana	Thompson/Delmar Learning	2008	978-1-41-800143-8	n	78.95	
Transformation of healthcare with information technologies	Duplaga, Mariusz	IOS Press	2004		Yes		eBrary
Transforming health care management : integrating technology strategies /	Ivan J Barrick	Jones & Bartlet Pub	2009	978-0-76-374450-2	Yes		
Understanding medical information	Jordan, Theresa	McGraw-Hill	2002	838592724	Yes		
Visible human project : Informatic bodies and posthuman medicine	Waldby, Cathy	Routledge Press	2000	978-0-41-517406-0	Yes		eBrary

## Journals

TITLE	PUBLISHER	ISSN	NOTES	Price
AMIA...Annual Symposium Proceedings AMIA		1559-4076	PubMed Central	
BCM Medical informatics and decision making	BioMed Central	1472-6947	AcademicOne File	
BMC bioinformatics	BioMed Central	1471-2105	AcademicOne File	
Cancer informatics	Libertas Academica Ltd	1176-9351	DOAJ : Directory of Open Access Journals	
Computerized medical imaging and graphics	Elsevier Science	0895-6111	ScienceDirect	
Computers, informatics, nursing : CIN		1538-2931	HZ shows print received; e verison also?	
E-Service journal	Indiana University Press	1528-8226	AcademicOne File	
Family Practice Management	AAPF	1069-5648		\$80.00
Health Affairs	Project Hope	0278-2715	Health Business FullTEXT Elite	
Health care and informatics review online	Enigma Publishing Ltd.	1176-4201	DOAJ : Directory of Open Access Journals	
Health care collector	Aspen Publishers, Inc.	1060-0442	AcademicOne File	
Health care financing review	Centers for Medicare and Medicaid Services	0195-8631	AcademicOne File	

Health care management review	Lippincott, Williams, & Wilkings	1550-5030	AcademicOne File
Health care manager	Lippincott, Williams, & Wilkings	1550-512x	AcademicOne File
Health data management	Faulkner & Gray, Inc.	1079-9869	Business Source Premier
Health informatics journal	Sage Publications	1741-2811	Health Reference Center Academic
Health management technology	Nelson Publishing	1074-4770	Business Source Premier
Healthcare executive	American College of Healthcare Executives	0883-5381	Business Source Premier
Healthcare financial management	HFMA - Healthcare Financial Management Assoc	0735-0732	AcademicOne File
Healthcare informatics	McGraw Hill Companies	1050-9135	AcademicOne File
Healthcare risk management	American Health Consultants	1945-1415	AcademicOne File
Healthcare strategic management	HCPPro	0742-1478	AcademicOne File
Hospitals and Health Networks	Health Forum	1068-8838	Health Business FullTEXT Elite
International journal of healthcare information systems and informatics	Idea Group Publishing	1555-3396	AcademicOne File
International journal of medical informatics	Elsevier Science	1386-5056	ScienceDirect
International journal on semantic web and information systems	Idea Group Publishing	1552-6291	AcademicOne File

Internet journal of healthcare administration	Internet Scientific Publications	1531-2933	AcademicOne File	
Issues in informing science and information technology	Informing Science Institute	1547-5867	AcademicOne File	
Joint Commission journal on quality and patient safety / Joint Commission Resources	Joint Commission on Accreditation of Healthcare Organizations	1553-7250	Print subscription	
Journal of biomedical informatics	Elsevier Science	1532-0480	ScienceDirect	
Journal of healthcare Information management	Healthcare Information Management Systems Society	1099-811X	not received	\$104.00
Journal of healthcare management	American College of Healthcare Executives	1096-9012	Health Business FullTEXT Elite	
Journal of the American Medical Informatics Assoc: JAMIA	Hanley & Belfus Inc	1067-5027	PubMed Central	
Medical decision making	Sage Publications	0272-989X	AcademicOne File	
Methods of information in medicine	Schattauer		not received	\$763.00
Modern healthcare	Crain Communications	0160-7480	AcademicOne File	
Online journal of nursing informatics	OJNI Corp	1089-9758	DOAJ : Directory of Open Access Journals	
Telemedicine and eHealth			AcademicOne File	
The informatics review	Informatics Review		FreeFull Text	

Table 7 - Library Resources - Journals

## Appendix H: Letters of Endorsement



College of Health Professions

November 10, 2009

CLAE & CHP Curriculum Committees  
MFA Undergraduate Program Review Committee  
McNichols Faculty Assembly  
Academic Leadership Team  
UDM President  
UDM Board of Trustees  
University of Detroit Mercy  
4001 W. McNichols Rd.  
Detroit, MI 48221-3038

Dear UDM New Program Review Stakeholders:

It is with pleasure that the College of Health Professions (CHP) Advisory Board offers its support to the proposal for a new Bachelor of Science Degree Program in Health Information Management (HIM). The proposed program, the role, and the benefit of UDM starting such a program to address health information management workforce needs in the local community were discussed at the October 5<sup>th</sup> meeting of the Advisory Board.

CHP Advisory Board Members spoke in support of the program, given the recent unprecedented investment via American Recovery and Reinvestment Act (ARRA) of 2009 in national adoption of the electronic health record (EHR) and the development of a framework to support interoperable health information technology. The ARRA Act includes a measure to offer incentives to professionals and hospitals that use EHRs in a meaningful way, and the potential for training and support that help workers pursue careers in emerging areas such as health information technology. CHP Board Members also recalled the history of the College of Health Professions in offering such a program in the past, and commented on the appropriateness of restarting such a program in this time of need for health information management professionals.

Several board members spoke of a recent survey conducted by the Health Information and Management Systems Society (HIMSS, 2009) where health information technology (IT) professionals (n=352) indicated a strong need for trained health IT professionals, including clinical informatics positions (64% of respondents), and implementation workers (56% of respondents). CHP Advisory Board Members echoed the need in these areas within their organizations and in the local community.

CHP Advisory Board Members were particularly interested in the availability of workers with the knowledge base and competencies that would be achieved by the program. Several members spoke to the benefit and need for workers who understood healthcare and the healthcare setting, as well as data management and information technology (IT). The elements of the curriculum as outlined by the American Health Information Management Association (AHIMA), and the plan to pursue accreditation of the program by this body were supported. In addition to the balance of health care and IT content in the program, inclusion of teaching on process redesign and quality improvement were emphasized.

[www.udmercy.edu](http://www.udmercy.edu)

4001 W. McNichols Road  
Detroit, MI 48221-3038  
312-993-1208

Specific comments were forwarded from CHP Advisory Board members as follows:

Recent workforce studies have shown that there will be a shortage of HIM professionals over the next decade, so it is imperative that the Metro Detroit area increase the number of graduates with the leadership skills necessary to ensure that health care organizations can successfully transition to the use of technology in managing patient health records. In addition, the national adoption of the ICD-10 coding system in 2013, as well as the increased need for professionals to continue to successfully manage health data for reimbursement, quality improvement and research purposes in the era of electronic health records will create more job opportunities for people with these skills. Given these emerging trends in the healthcare marketplace, Botsford Hospital supports the development of a Bachelor of Science Degree Program in Health Information Management (HIM) at the University of Detroit Mercy. -*Peggy L. Chapo, MS, RHIA, Director, Health Information Services for Dr. Paul LaCasse, Executive Vice President and COO, Botsford Hospital*

Trinity Health leads community hospitals in its investments in health IT. In addition to electronic health records, the majority of our facilities also use computerized physician order entry, advance drug alerts, and evidence-based order set. While our health IT workforce has doubled over the last six years, it's becoming more challenging to fill these positions. Workforce constraints are the single largest impediment to further and faster growth of Trinity Health's health IT. The demand for a well-trained health informatics workforce is growing quickly and we are supportive of a variety of efforts to address this shortage. -*Paul Browne, Sr. Vice President and Chief Information Officer for Michael Slabowski, FACMPE, FACHE, President, Health Networks, Trinity Health*

As a member of the CHP Advisory Board, and a credentialed health information professional, I strongly support the development of a Health Information Management program. There is an explosion of opportunity in health care today associated with the need for health information expertise in technology, analytics, research, individual health information. The implementation of ICD-10, the need for better care coordination across the spectrum, the emergence of EMR technology, and many other factors are creating a demand for credentialed individuals who understand and respect health information, its uses and its limitations, and can systematically share that information in the many forums where it's needed. -*Cathy M. Longo, RHIA, Director, Planning and Performance Reporting, HCVPA, Blue Cross Blue Shield of Michigan*

In closing, the CHP Advisory Board offers strong support to the development and implementation of a Bachelor of Science in Health Information Management degree program at the University of Detroit Mercy.

Sincerely,



Patricia L. Thomas PhD, RN  
Interim Dean, College of Health Professions  
McAuley School of Nursing

## **Appendix I – Needs Assessment Survey Data**

### **Needs Assessment Survey Results for Bachelor of Science in Health Information Management Program at University of Detroit Mercy**

**Methodology:** A convenience sample of current UDM students was obtained between 9/29/09 – 10/23/09 via faculty posting flashlight survey link either on course blackboard sites or via e-mail.

**Respondents:** 86 currently enrolled UDM undergraduate students responded. Of those who responded, the students were either enrolled or considering enrolling in the following programs:

- Nursing – 63 students (73%)
- Health Professions – 6 students (7%)
- Liberal Arts or Education - 6 students (7%)
- Computer and Information Systems – 5 students (6%)
- Other – 3 students (3%)
- Engineering & Science – 2 students (2%)
- Business Administration – 1 student (1%)

#### **Knowledge of increased job demand in the area of health informatics and health information management as the US moves towards use of the Electronic Health Record (EHR) in all hospitals and health care settings.**

- 55 respondents aware (64%)
- 31 respondents unaware (36%)

In general, the respondents who were aware of the increased job demand in the area of health informatics and health information management were more likely to consider enrolling in a Bachelor of Science in Health Information Management at UDM if one were offered.

#### **Interest in Pursuing a career in Health Information Management, which would involve managing electronic health information systems:**

- Extremely interested – 11 respondents (13%)
- Fairly interested – 21 respondents (24%)
- A little interested – 36 respondents (42%)
- Not at all interested – 18 respondents (21%)

#### **If the University of Detroit Mercy were likely to offer a Bachelor of Science Degree in Health Information Management, how likely would you be to enroll in the program?**

- Extremely likely – 4 respondents (5%)
- Fairly likely – 28 respondents (33%)
- Fairly unlikely – 51 respondents (59%)

- Extremely unlikely – 2 respondents (2%)

**Programs students enrolled in or considering enrolling in of those most likely to enroll in the program:**

- Extremely likely
  - 3 nursing students (5% of all nursing respondents)
  - 1 computer and information systems student (20% of all CIS respondents)
- Fairly likely
  - 17 nursing students (27% of all nursing respondents)
  - 5 health professions students (83% of all health professions respondents)
  - 2 computer and information systems students (40% of all CIS respondents)
  - 2 other students (67% of other respondents)

**Of respondents who indicated they were extremely likely or fairly likely to enroll in a Bachelor of Science in Health Information Management Program at UDM, the preferred method of taking classes was as follows:**

- 12 respondents (55%) indicated a preference for classes offered on campus during the daytime
- 7 respondents (32%) indicated a preference for a mix of classes offered on campus and online
- 3 respondents (14%) preferred classes offered on campus during the evening

## References

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## APPENDIX C - 4

# SAMPLE Workload - Fulltime Faculty & Program Coordinator:

**SAMPLE workload assignments for budget projection purposes ONLY**

Before Year 1      1.5 HIM 1060 Develop

		<b>Coordinator</b>		
Year 1 Fall		4.5 Admin 1.5 HIM 2050 Develop 1.5 HIM 2600 Develop 1.5 HIM 2700 Develop	<i>HIM 1060--Assume CHP faculty</i>	
Total TLCS		9.0		
Year 1 Winter		3.0 Admin 3.0 HIM 2700 Teach 1.5 HIM 2800 Develop 1.5 HIM 3350 Develop	<i>HIM 2050--Assume CHP faculty</i>	
Start cohort 1		9.0		
Total TLCS		9.0		
			<b>Faculty #1</b>	
Year 2 Fall		3.0 Admin 1.5 HIM 3050 Develop 1.5 HIM 3450 Develop 1.5 HIM 3650 Develop 1.5 HIM 3820 Develop	3.0 HIM 2600 Teach-cohort 1 3.0 HIM 2800 Teach-cohort 1 3.0 HIM 1060? Teach-cohort 2	
Start cohort 2		9.0	9.0	
Total TLCS		9.0	9.0	
Year 2 Winter		3.0 Admin 1.5 HIM 4900 Develop 1.5 HIM 3800 Develop 1.5 HIM 4600 Develop 1.5 HIM 4200 Develop	3.0 HIM 3350 Teach-cohort 1 3.0 HIM 2700 Teach-cohort 2	
Total TLCS		9.0	6.0	
				<b>CIS Adjunct Faculty</b>
Year 3 Fall		3.0 Admin 3.0 HIM 2600 Teach-cohort 2 1.5 HIM 4850 Develop 1.5 HIM 3870 Develop	3.0 HIM 3650 Teach - cohort 1	3.0 HIM 3050 Teach - cohort 1 3.0 HIM 3450 Teach - cohort 1
Start cohort 3		9.0	<i>HIM 1060 -CIS Faculty</i> 3.0 <i>HIM 2800 - CHP Faculty</i>	
Total TLCS		9.0		
Year 3 Winter		3.0 Admin 3.0 HIM 3350 Teach-cohort 2 3.0 HIM 2700 Teach-cohort 3	3.0 HIM 3800 Teach-cohort 1	3.0 HIM 3820 Teach-cohort 1
Total TLCS		9.0	<i>HIM 2050--CHP faculty</i> 3.0	
Year 4 Fall		3.0 Admin 3.0 HIM 3650 Teach - cohort 2 3.0 HIM 2600 Teach-cohort 3	3.0 HIM 4200 Teach-cohort 1 <i>HIM 1060 -CIS Faculty</i> <i>HIM 2800 - CHP Faculty</i>	3.0 HIM 3870 Teach-cohort 1 3.0 HIM 4850 Teach-cohort 1 3.0 HIM 3050 Teach - cohort 2 3.0 HIM 3450 Teach - cohort 2
Start cohort 4		9.0	3.0	
Total TLCS		9.0	3.0	
Year 4 Winter		3.0 Admin 3.0 HIM 3350 Teach-cohort 3 3.0 HIM 3800 Teach-cohort 2	3.0 HIM 4600 Teach-cohort 1 3.0 HIM 4900 Teach-cohort 1 3.0 HIM 2700 Teach-cohort 4	3.0 HIM 3820 Teach-cohort 2
Total TLCS		9.0	9.0 <i>HIM 2050--CHP faculty</i>	
Year 5 Fall		3.0 Admin 3.0 HIM 3650 Teach - cohort 3 3.0 HIM 2600 Teach-cohort 4	3.0 HIM 4200 Teach-cohort 2 <i>HIM 1060 -CIS Faculty</i> <i>HIM 2800 - CHP Faculty</i>	3.0 HIM 3050 Teach - cohort 3 3.0 HIM 3450 Teach - cohort 3 3.0 HIM 3870 Teach-cohort 2 3.0 HIM 4850 Teach-cohort 2
Total TLCS		9.0	3.0	
Year 5 Winter		3.0 Admin 3.0 HIM 3350 Teach-cohort 4 3.0 HIM 3800 Teach-cohort 3	3.0 HIM 4600 Teach-cohort 2 3.0 HIM 4900 Teach-cohort 2 3.0 HIM 2700 Teach-cohort 5 <i>HIM 2050--CHP faculty</i>	3.0 HIM 3820 Teach-cohort 3
Total TLCS		9.0	9.0	