REQUEST TO COLLEGE CURRICULUM COMMITTEE FOR CURRICULAR IMPROVEMENTS

DEPARTMENT: CHHS & HCoB & CFA
PROPOSED EFFECTIVE SEMESTER: Fall 2012

Academic Program
☐ New degree*
☐ New major*
☐ New curriculum*
☐ New concentration*
☐ New certificate
☐ New minor
☐ Revised major
☐ Revised minor
☐ Admission requirements
☐ Graduation requirements
☐ Deletion Transfer
☐ Other (explain**)

Substantive Course Changes
☐ New course
☐ Pre or Co-requisites
☐ Deletion (required by others)
☐ Course #, different level
☐ Credit hours
☐ Enrollment restriction
☐ Course-level restriction
☐ Prefix Title and description

Misc. Course Changes
☐ Title
☐ Description (attach current & proposed)
☐ Deletion (not required by others)
☐ Course #, same level
☐ Variable credit
☐ Credit/no credit
☐ Cross-listing
☐ COGE reapproval
☐ Other (explain**)

Title of degree, curriculum, major, minor, concentration, or certificate: Academic minor in Health Informatics and Information Management (HiIM)

Existing course prefix and #: Proposed course prefix and #: Credit hours: 122

Existing course title:

Proposed course title:

Existing course prerequisite & co-requisite(s): Admission ...

Proposed course prerequisite(s)
If there are multiple prerequisites, connect with “and” or “or”. To remove prerequisites, enter “none.”

Proposed course co-requisite(s)
If there are multiple corequisites, they are always joined by “and.”

Proposed course prerequisite(s) that can also be taken concurrently:

Is there a minimum grade for the prerequisites or corequisites?
The default grades are D for undergraduates and C for graduates.

Major/minor or classification restrictions: List the Banner 4 character codes and whether they should be included or excluded.

For 5000 level prerequisites & corequisites: Do these apply to: (circle one) undergraduates graduates both

Specifications for University Schedule of Classes:
a. Course title (maximum of 30 spaces):
b. Multi-topic course: ☐ No ☐ Yes
c. Repeatable for credit: ☐ No ☐ Yes
d. Mandatory credit/no credit: ☐ No ☐ Yes
e. Type of class and contact hours per week (check type and indicate hours as appropriate)
1. ☐ Lecture 3. ☐ Lecture/lab/discussion 3 cr.hr. 5. ☐ Independent study
2. ☐ Lab or discussion 4. ☐ Seminar or ☐ studio 6. ☐ Supervision or practicum

CIP Code (Registrar’s use only):

Interim HiIM Curriculum Co-Directors: Bernard Han Sharie Falan
Chair/Director

Date 9/20/2011

Chair, College Curriculum Committee

Dean Date: Graduate Dean:

Curriculum Manager: Return to dean ☐ Date Forward to:

Chair, COGE/ PEB / FS President

FOR PROPOSALS REQUIRING GSC/USC REVIEW:

* ☐ Approve ☐ Disapprove Chair, GSC/USC

* ☐ Approve ☐ Disapprove Provost

Revised May 2007. All previous forms are obsolete and should not be used.
1. Explain briefly and clearly the proposed improvement.

The Health Informatics and Information Management (HiIM) Minor curriculum will provide undergraduate students at WMU, regardless of college or department, an opportunity to take defined courses to complete an academic minor. This new minor curriculum will provide students with additional skill sets that will give them an edge when seeking for a position in the job market upon graduation. With the Health Informatics and Information Management minor, graduates will be able to make substantial contributions towards improving the use of technologies and information management in the communities where they will work.

2. Rationale. Give your reason(s) for the proposed improvement. (If your proposal includes prerequisites, justify those, too.)

The HiIM Minor is interdisciplinary by nature. It gives students extra knowledge/skills in health care and information management and its processes, which are highly demanded by the industry since health care and management has become one of the critical issues faced by the United States and the whole world. As highlighted in Item 6 below, the health care industry and job market is multi-faceted. The unmet needs in health care will require undergraduates with a variety of academic trainings. The HiIM Minor will be a value-added dimension in education. The presented HiIM minor requires 16 credit hours, which can be easily completed by students at WMU.

3. Effect on other colleges, departments or programs. If consultation with others is required, attach evidence of consultation and support. If objections have been raised, document the resolution. Demonstrate that the program you propose is not a duplication of an existing one.

The HiIM Minor curriculum is developed based on the integration of faculty resources currently available at WMU. As pointed out in the HiIM Minor Document (see attached), there is no direct effect on other colleges or departments because the HiIM Minor will be offered to WMU students only if extra seats remain after demands from other and HiIM majors have been met. Sufficient communication has been made with all relevant departments and academic units, and necessary letters of support has been provided by the department chairs/program directors. In fact, when extra seats are available, the HiIM Minor will allow students to tap into existing teaching resources to gain complimentary knowledge and skills in health care informatics and information management.

4. Effect on your department’s programs. Show how the proposed change fits with other departmental offerings.

Since the HiIM minor will be offered to students when extra seats are available, there will be no direct effect on the delivery of other academic programs that are currently offered.

5. Effects on enrolled students: Are program conflicts avoided? Will your proposal make it easier or harder for students to meet graduation requirements? Can students complete the program in a reasonable time? Show that you have considered scheduling needs and demands on students’ time. If a required course will be offered during summer only, provide a rationale.

Due to the planned program capacity for the HiIM Major, there is a cap on the enrollment size for the HiIM Major. The HiIM minor is provided as a new option for students to receive value-added education, when it is identified complimentary to a student’s major at WMU. This new minor will be beneficial for WMU students when its course load fits well to students’ schedule. Since selection of this new minor is optional and will be a decision to be made by the student, it shall not affect students to meet graduation requirements.

6. Student or external market demand. What is your anticipated student audience? What evidence of student or market demand or need exists? What is the estimated enrollment? What other factors make your proposal beneficial to students?

HiIM curriculum is developed to meet the emerging market demands in health care and related industries. Many job positions are to be filled with expectation of a variety of academic backgrounds strengthened by health information technologies. According to the Bureau of Labor Statistics, between 2008 and 2018 service-providing industries are expected to add “14.6 million job, or 96 percent” growth in total employment. They report during this period that approximately 4.0 million jobs are projected to be added to the healthcare and social assistance industries. This represents a 96% increase in total employment. While professional, scientific, and technical service related jobs are expected to demand about 2.6 million jobs. The HiIM curriculum prepares students for roles in both of these top two industries. (see Chart 1).
**Technology Job Opportunities** - The information sector has the second highest projected job growth rate. Publishing, the Internet, and telecommunications should see real output climb to $1.6 trillion by 2014. A fifth of this will be Internet-related. With real growth in the information services sector targeted to be "an aggressive 8.5 average annual percent," this part of the economy can anticipate a jobs boom. If you’re technologically-inclined, your career prospects are bright." (Croix, 2011)

**Network Systems and Data Communications Analysts** - "If designing, configuring, testing, and evaluating computer networks sounds interesting, you should work in communications, one of the fastest growing U.S. employment sectors. You can get into the field with a two-year degree, although a Bachelor's of Science in Computer Science or a similar field will take you farther. You can expect a graduate degree to be necessary for the top positions. Certifications offer an additional way for systems and data communications analysts to demonstrate their skills. Median earnings in systems and data analysis run at $60,000 per year, but the industry is more and more frequently offering temporary or contract employment. Many workers also choose self-employment." (Croix, 2011)

**Healthcare Administrator** - "Healthcare careers in management and administration, assures a variety of jobs in demand. The position requires a master's degree, along with strong business skills and healthcare experience. The main expectations of a healthcare administrator centers are on reducing costs and increase efficiency in the healthcare environment, with most employment occurring in large hospital networks. Expect an average starting salary upwards of $80,000 annually, but keen competition for high-level jobs." (Willis, 2010)

References:


7. Effects on resources. Explain how your proposal would affect department and University resources, including faculty, equipment, space, technology, and library holdings. Tell how you will staff additions to the program. If more advising will be needed, how will you provide for it? How often will course(s) be offered? What will be the initial one-time costs and the ongoing base-funding costs for the proposed program? (Attach additional pages, as necessary.)

The HiiM Major curriculum is developed with a target capacity based on the existing available resources at WMU. The HiiM minor will be offered for students when extra seats are available. Therefore, the offering of HiiM Minor shall not affect department and the university resources.
8. General education criteria. For a general education course, indicate how this course will meet the criteria for the area or proficiency. (See the General Education Policy for descriptions of each area and proficiency and the criteria. Attach additional pages as necessary. Attach a syllabus if (a) proposing a new course, (b) requesting certification for baccalaureate-level writing, or (c) requesting reapproval of an existing course.)

N/A

9. List the learning outcomes for the proposed course or the revised or proposed major, minor, or concentration. These are the outcomes that the department will use for future assessments of the course or program.

Students will:
Demonstrate the knowledge in information management and its processes
Analyze systems and recommend process for improvement related to health information and systems
Demonstrate ethical and legal issues surrounding information and technology systems
Demonstrate knowledge of emerging trends in healthcare and information technology
Analyze scenarios and provide recommendations towards implementation strategies for emerging information systems

Program outcome measures yearly:
- The HiM program will demonstrate responsiveness to community needs.
- The curriculum syllabi and course content must ensure adequate coverage of the AHIMA Curriculum Competencies and Knowledge Clusters while avoiding unnecessary redundancy. Each course syllabus must be assessed against the required knowledge clusters, and demonstrate progression of learning to achieve the stated entry-level curriculum competencies.
- Demonstrate increased enrollment by 10% from the start of the program to the following year through email targeting, advising, and university promotion of this program.
- Graduates will demonstrate entry-level competency
- Enrollments, graduates, attrition (%)
- Student and employer satisfaction (survey)
- Faculty development and certifications
- Graduate placement (%)
- Number continuing education (%)
- Certification outcomes (at time that program becomes accredited (%)
- National and program mean score comparisons (mean)
- Analysis and action plans to correspond with domain and subdomain testing that do not achieve threshold

10. Describe how this curriculum change is a response to assessment outcomes that are part of a departmental or college assessment plan or informal assessment activities.

The WMU is working diligently to promote an interdisciplinary approach to education, and this curriculum is designed toward that end.

11. (Undergraduate proposals only) Describe, in detail, how this curriculum change affects transfer articulation for Michigan community colleges. For course changes, include detail on necessary changes to transfer articulation from Michigan community college courses. For new majors or minors, describe transfer guidelines to be developed with Michigan community colleges. For revisions to majors or minors, describe necessary revisions to Michigan community college guidelines. Department chairs should seek assistance from college advising directors or from the admissions office in completing this section.

N/A
Health Informatics and Information Management
(HiiM Minor)

A New University-Wide Undergraduate Minor

Designed and Developed by:

The Faculty of
Haworth College of Business (HCoB)
College of Health and Human Services (CHHS)

Prepared by:

Interim HiiM Co-Directors

Dr. Bernard Han & Dr. Sharie Falan
Center for Health Information Technology Advancement
Western Michigan University

September 19, 2011
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Objectives: This HiiM curriculum will be taken by WMU students to complete either as an academic major or an academic minor. Since health care is multi-faceted, there are demands for more cross-disciplinary professionals to join the health care industry. The HiiM minor is developed to provide WMU students with more complimentary education in health care to improve their future placement and to meet the rising needs in health care and related industries.

Operations: Due to the capacity constrained by the existing resources, a controlled access policy will be implemented by the hosting colleges for HiiM course enrollments. That is, for any HiiM core courses offered, seats will first be reserved for students with a HiiM major status. If extra seats available, then after certain date, they will be made available to students with a HiiM minor status, then to any pre-HiiM students. However, this controlled access policy can be relaxed or removed if, in the future, extra resources are granted to support the delivery of HiiM courses.

In brief, the HiiM Minor curriculum has included two necessary and basic pre-HiiM courses along with two required and two elective in HiiM Cores. Altogether, a HiiM minor will be required to take 16 credit hours of coursework, which can be easily incorporated into a student’s undergraduate study without delaying his/her graduation from WMU within four academic years.

The details about the framework of HiiM Minor Curriculum follow.

II. HiiM Curriculum (Minor) Framework.
The coursework required for a HiiM minor is composed of three components: 1) the required pre-HiiM Courses, 2) the required HiiM Core Courses, and 3) the elective HiiM Core Courses. In total, a HiiM minor will be required to take 16 credit hours of coursework. The details of each component follow.

A. Pre-HiiM Core Courses – (2 courses – 4 Credits).
The following two courses must be completed by an applicant for a HiiM minor, and each course shall be completed with a grade C or above. [Note: the number of hours is indicated within parentheses following the course title].

- MDSC 2010 – Medical Terminology (1)
- OT2000 - Human Functional Anatomy (3)

B. Required HiiM Core Courses – (2 courses – 6 Credits).
The following two courses must be completed by each HiiM minor.

- NUR2350/HSV2350/BUS2700\(^1\) (cross-listed) – Health Info Systems and Management (3). Select one of the following:
  - NUR2350 – Special Topics in Nursing (3)
  - HSV2350 – Special Topics in Interdisciplinary Health Services (3)
  - BUS2700\(^2\) – Business-driven Information Technology (customized contents) (3)
- NUR3330 - Informatics for Health Professionals (3)

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\(^1\) Both NUR2350 and HSV2350 are special topics courses, which will be cross-listed with a designated section of BUS2700 for HiiM majors. All these courses, if offered, will be delivered based on the master syllabus presented in the proposed HiiM Curriculum. In addition, Haworth College of Business (HCoB) and College of Health and Human Services (CHHS) will rotate the offering of these courses.

\(^2\) BUS2700 is offered with multiple sections at HCoB. A designated section will be offered with controlled access
C. Elective HiiM Core Courses (2 courses – 6 or 7 Credits)

Each HiiM minor must take a minimum of six (6) hours of courses other than the two required ones and the HiiM Capstone Project from HiiM Cores. That is, each HiiM minor will elect two courses from the following list:

- Health Care Ethics – Select one of the following:
  - NUR3220 - Healthcare Ethics (3)
  - PHIL2010 - Introduction to Ethics (4)
  - PHIL3340 - Biomedical Ethics (4)
- CIS3600 - Systems Analysis and Design (customized contents) (3)
- CIS3660 - Information Assurance and Compliance (customized contents) (3)
- CIS4600 - Business Database Applications (customized contents) (3)
- HSV4800 - Health Services Practice Management (3)

III. Program Capacity and Resources Requirements

A. Program Capacity: The HiiM minor is offered to students with interests in acquiring knowledge and skills in HiiM. However, all available resources for the HiiM curriculum/program will be first reserved for the HiiM major. If extra seats are available after seats are provided for the HiiM major, then they will be provided for the HiiM minor. While there is no guarantee for HiiM minor to access all courses offered for the HiiM major, it will be the best from the viewpoint of HiiM Program administration. With no additional resource requests, all students of a HiiM minor will be advised to make best efforts in seeking seats available to complete the coursework required for the minor.

B. Resource Requirements: Existing resources at WMU shall be sufficient for administering the HiiM major, whereas HiiM minor will be supported when seats are available. Therefore, there is no concern about the resource requirements for the HiiM minor.

IV. Course Descriptions for HiiM Minor

A. Pre-HiiM Courses

MDSC 2010 - Medical Terminology
The language of medicine-through an understanding of the Greek and Latin derivations and construction of medical terms, the student learns the vocabulary of the health-related professions.

Credits: 1 hour

OT 2000 - Human Functional Anatomy
This course involves a detailed study of the human neuro-musculo-skeletal anatomy of the head, neck, upper limbs, back, and lower limbs. Students will apply anatomical principles to analyze common physical activities which will include analyzing individual functional performance.

Prerequisites & Corequisites: Lab not needed for HiiM Major/Minor.

Credits: 3 hours
B. Required HiiM Core Courses [Note: A asterisk (*) is attached to a course if it requires a curriculum change form]

BUS2700\(^3\)/HSV2350/NUR2350 - Health Information Systems and Management
This course will describe an overview of Health Information Systems and methods of electronic health information management. The student gain an understanding of the structure of the health care system as well as legal and ethical issues involved with the use of health information systems. This overview of health care will attempt to familiarize the student with a delivery system that is in constant turmoil and change. The student will research the concept of the consumer’s view of their perceived entitlement towards health care and the impact on the nation’s economy and health status.

Pre-requisite(s): No programming knowledge is assumed for this course.
Credits: 3 hours

NUR 3330 - Informatics for Health Professionals
This course is designed to familiarize the undergraduate health professional student with the present and potential impact of health care informatics on nursing and other allied health disciplines. It will also address how informatics tools and systems can assist in providing solutions to health care provider education and practice. An emphasis is placed upon the provider’s role as a leader and advocate for change in this rapidly emerging field.

Prerequisites & Corequisites: Prerequisites: Minimum of 45 credit hours completed with a grade of “C” or better in all courses; and evidence of computer literacy.
Credits: 3 hours

C. Elective HiiM Core Courses [Note: A asterisk (*) is attached to a course if it requires a curriculum change form]

NUR 3220 - Health Care Ethics
This course is a didactic course that introduces students to principles and issues underlying and surrounding health care ethics. Content includes basic ethical theories, values, moral development, moral reasoning, and day-to-day ethical concerns. These concerns include, but are not limited to, genetics, end-of-life care and decision-making, moral reasoning, moral principles, research ethics, the interface between law and ethics, patient decision-making, rights, duties and obligations of the professional nurse and other health workers, professional codes and standards, and allocation of scarce resources. The course offers the learner an opportunity to develop, implement, and evaluate a variety of approaches to ethical concerns of the 21st century.

Prerequisites & Corequisites: Prerequisite: Minimum of 45 credit hours completed with a minimum grade of “C” in all courses.
Credits: 3 hours

PHIL 2010 - Introduction to Ethics
An introduction to the philosophic study of morality. Deals with questions such as: What is the good life? Why should I be moral? What is the meaning of right and wrong?

\(^3\) One or more designated sections of BUS2700 Business-driven Information Technology, which is customized and cross-listed with HSV2350 and NUR2350.
PHIL 3340 - Biomedical Ethics
In this course, the ethical principles (respect for autonomy, non maleficence, beneficence justice) and other ethical concerns (e.g. privacy, confidentiality, compassion, relationships among patients and professionals) are studied and applied to contemporary problems in medicine and biomedical research. These problems include genetic testing and therapy; organ transplantation; decision-making regarding treatment and care at the end of life; research involving human subjects; and treatment issues in the AIDS epidemic. Case study methods are used.

CIS 3600* - Systems Analysis and Design
This course focuses on the methodologies that employ multi-phased process for developing information systems to be deployed in an organization. The course introduces various methods, techniques, and tools to determine and meet the information requirements by building proper information models that can be further implemented. This course is not merely a technical or computer course. It is a business course with strong focus on business applications. The course will cover roles, responsibilities, and mindset of the business analyst as well as the project manager rather than those of the programmer.

Prerequisites & Corequisites: Prerequisite: BUS 2700 or COM 2000 OR NUR3330.

CIS 3660* - Information Assurance and Compliance
This course examines information security and its managerial and legal requirements. The content focuses on information security fundamentals and technologies, security policy, risk assessment, network defense strategy and design, and information compliance. This course helps students understand and learn the information security architecture and management requirements for business process integration (BPI), disaster recovery, business continuity, incident response, and security management. Case projects are used throughout the course.

Prerequisites & Corequisites: Prerequisite: BUS 2700 or COM 2000.

CIS 4600* - Business Database Applications
This course focuses on the design and development of business database applications. Content includes data modeling, data dictionary, normalization theory, logical and physical database design, database inquiry using query languages, database implementation using modern database management systems and networking technologies, and data maintenance and administration skills. Students are required to construct and develop a business database using current technology and graphic user interface design packages. Students taking this course are required to have a laptop computer meeting the minimum specifications defined by the Haworth College of Business.

Prerequisites & Corequisites: Prerequisite: CIS 3600

HSV 4800* - Health Services Practice Management
This course introduces the student to the health care delivery system from an administrative and management perspective. The student will learn about different delivery models and how these relate to the management process.

Restrictions: Restricted to majors in Interdisciplinary Health Services with Junior status.
V. Letters of Support and Letters of Interests (Letters located in the HiiM Major proposal)

A. List of Letters of Support (Internal)

1. College of Arts and Sciences
   - Dr. John Spitsbergen, Department of Biological Sciences
   - Dr. William Kern, Department of Economics
   - Dr. Steve Ziebarth, Department of Mathematics
   - Dr. Marc Alspector-Kelly, Department of Philosophy
   - Dr. Magdalena Niewiadomska-Bugaj, Department of Statistics

2. College of Health and Human Services
   - Dr. Earlie Washington, Dean, College of Health and Human Services
   - Dr. Doris J. Ravotas, Director, Program of Interdisciplinary Health Services Courses
   - Dr. Linda Zoeller, Director, Bronson School of Nursing
   - Dr. Joseph Pellerito, Chair of Department of Occupation Therapy

3. Haworth College of Business
   - Dr. Satish Deshpande, Assoc. Dean, Haworth College of Business
   - Dr. Donald Gribbin, Chair, Department of Accountancy (forthcoming)
   - Dr. J. Mike Tarn, Chair, Department of Business Information Systems
   - Dr. Judy Swisher, Chair, Department of Finance & Commercial Laws
   - Dr. Robert Landeros, Chair, Department of Management

4. Extended University Programs, Western Michigan University
   - Dr. Dawn M. Gaymer, Associate Provost, EUP

B. Letter of Interests (External)
   - Mr. Charlie Olszewski, Career Education, Lake Michigan College
   - Mr. Jarrad Grandy, Director of Career Readiness, Kent Intermediate School District