

How Well Does a Biomedical Informatics Curriculum Map to Health Information Management Knowledge Clusters? Analysis of a Program

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The disciplines of health information management (HIM) and biomedical informatics (BMI) have many historical differences from the content of their educational programs to the level offered (i.e., graduate vs. undergraduate). As the adoption of the electronic health record (EHR) grows, however, the two fields share increasingly similar interests, competencies, and educational programs. In our effort to establish an HIM track in our BMI graduate program, leading to Registered Health Information Administrator (RHIA) certification, we had to compare our BMI curriculum with the American Health Information Management Association (AHIMA) knowledge clusters. We present the results of our analysis, which provide insights into the similarities and differences between such curricula. These results show that existing BMI courses met several of the knowledge clusters, which means that only a few additional courses need to be developed.

A program accredited to allow students to obtain RHIA certification must offer courses that address five domains. Each of these domains has *knowledge clusters* and *competencies* within those domains. These were reviewed against 22 existing courses in the medical informatics track of the Oregon Health & Science University (OHSU) BMI master's degree

program.

Course syllabi were initially reviewed by the program director (JDV) against the domains and knowledge clusters. Seven existing courses in the medical informatics track were found to address the competencies and knowledge clusters. These were then verified by course directors. The table summarizes the competencies by domains and the competency statements under each domain that were covered by existing courses.

To address the competencies not covered, four new courses will need to be developed:

- Health Information Structure, Content and Standards, Legal Issues
- Statistics, Research, Quality Management
- Managing Health Information Systems
- Managing the Internal Operations

Our analysis demonstrates substantial overlap between a BMI graduate curriculum and the AHIMA knowledge clusters. Our next steps will be to further develop the curriculum and seek accreditation from Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

Table - AHIMA knowledge clusters and content areas covered in the OHSU BMI curriculum.

I.A Health Data Structure, Content, and Standards	7/9
I.B Healthcare Information Requirements and Standards:	2/2
I.C Clinical Classification Systems	1/2
I.D. Reimbursement Methodologies	4/7
II.A Healthcare Statistics, Biomedical Research and Quality Management	7/12
II.B Quality Management and Performance Improvement	5/5
III. A Health Services Organization and Delivery	2/4
III.B Healthcare Privacy, Confidentiality, Legal and Ethical Issues	5/5
IV.A Information Technology and Systems	4/6
IV.B Applied Health Informatics	4/6
V.A Organization and Management	6/6
VI.A. Human Resource Management	4/4
VI.B. Financial and Resource Management	0/4
VI.C Strategic Planning and Organizational Development	5/5
VI.D. Project and Operations Management	2/2