Creating a curriculum for a Masters of Science program in Medical Informatics that develops biomedical computing skills.

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Medical informatics is concerned with the development, dissemination, and evaluation of information technology in the fields of health care and biomedical research. The Oregon Health Sciences University's Biomedical Information and Communication Center (BICC) and School of Medicine are collaborating to win Oregon State Board of Higher Education approval for a degree granting program in Medical Informatics, that would be scheduled to begin in September 1996. The BICC is a recognized leader in Medical Informatics research, and is one of the largest recipients of funding from the National Institutes of Health's, National Library of Medicine (NLM), who currently fund many projects at OHSU, including a post-doctoral training program in Medical Informatics.

Implementation of the proposed degree program would be carried out by the BICC's Division of Health Informatics, which consists of nine faculty members: six M.D's, two Ph.D's, and one M.D./Ph.D. The goal of the masters degree program is to educate future developers and managers of health care and biomedical information systems. In a spirt of cross-cultural education, individuals from a variety of backgrounds would partake in six areas of course work: medical informatics, biomedical computing, computer science, decision science, and research methods. Although we envision a large set of core courses, the curricula will be individualized so that those students with a previous background in one area (e.g. health care, or computer science) can receive a strong technical grounding in all areas.

There is a growing need for skilled professionals who understand information technology, current biomedical research issues (e.g. genetics in medicine), and the health care environment, as the two former are having a profound and far-reaching effect on the later. We present an outline of a curriculum that we believe can grow the skill-set necessary to fill this need, and to provide students tools to assess and employ future developments and directions in medicine and health care. This outline is presented with annotations indicating the levels and types of educational resources we have so far discovered to aid in teaching, and with an emphasis on the areas relating to biomedical research and computing. It is presented for the purpose of receiving feed-back on our planning, and suggestions on our direction and implementation.