



Recommendations for

Future Educational Programs in Health and Human Services

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DEDICATION

The IHHS Task Force in Education Futures dedicates this work to the memory of **Dr. Vida Huber**, former CISAT Associate Dean and Director of the Institute for Innovations in Health and Human Services (IHHS) at James Madison University. The committee members of this task force acknowledge Dr. Huber's vast contributions to this effort. Dr. Huber provided a visionary stance on James Madison University's role in developing future health care professionals. Her personal commitment to students, faculty, community, and all individuals was firm and without bias. Dr. Huber advocated for strategic, collaborative and innovative approaches to "helping others" recognizing that the best efforts result from the synergy of many talented individuals working cooperatively.

INTRODUCTION

The Educational Futures in IHHS Task Force held its initial meeting on March 29, 2005 led by Dr. Benson and Dr. Huber. A presentation explaining the background of this initiative, the anticipated process, the scope of the task, the reporting procedures and the timeline were reviewed. Appointed committee members were apprised of the Task Force's responsibilities that included:

- Design a strategy for task accomplishment with specific assignment of responsibilities, timetable, etc.
- Survey and analysis of current societal and educational trends as they relate to workforce needs for the future arena of health and human services
- Secure and review existing materials, projections, and recommendations focused in health and human services
- Analysis of the competencies and skills sets needed to meet future needs
- Identification of new roles or educational foci needed to adequately respond to the skills sets and competencies identified
- Development of recommendations based on analysis of needs and the strengths and resources of JMU
- Provision of rationale and data to support recommendations made

The recommended timelines for task completion were delineated as follows:

- An outline of the plan of action and strategies for task completion, and resources needed for task completion (April 2005)
- Preliminary report listing programs to be considered (September 2005)
- Interim Report of Findings and Recommendations (December 2005)
- Final Report (March 2006)

THE STRATEGIC PLAN

The committee recognized the critical importance of collecting information from relevant and reliable sources. The strategic plan endeavored to secure existing materials, projections and recommendations from numerous sources. Information from the JMU community as well as regional, state, national and international groups, organizations, and institutions focused in the arena of health and human services were planned. An outline of activities with timeframes of completion is provided.

JMU/Internal Information and Data Collection

Departmental Level Open Forums	April 2005–September 2005
Presentation at the IHHS Retreat	May 18, 2005
Presentation at Departmental Meetings (opening academic year 05-06)	August 2005
University Level Open Forums (2 sessions)	September 6–9, 2005
General Input Survey	April 28, 2005
Survey of Future Programs	September 9, 2005

External Information and Data Collection

IHHS Executive Advisory Council Meeting	April 21, 2005, October 2005
CISAT Executive Advisory Council Meeting	April 29, 2005
Informal Discussions with Task Member's Professional Contacts	April 2005 to present
Targeted Focus Groups (Region, State)	Summer–Fall 2005
Assessment of Potential Partnerships	November 2005–February 2006

Data Analysis and Reporting Procedures

General Input Survey Analysis	Summer 2005
Survey of Future Programs Analysis	September 10–30, 2005
Status Report II: Preliminary Programs List	October 2005
Status Report III: Interim Report of Findings and Recommendations	December 2005
Status Report IV: Final Report	March 31, 2006

IIHHS EDUCATIONAL FUTURES TASK FORCE ASSUMPTIONS AND TRENDS

In accordance with the strategic plan, an extensive review of relevant materials was conducted. Based on findings from the review of literature as well as the surveys administered, the interviews completed, and the focus groups conducted, the IIHHS Educational Futures Task Force identified these guiding Assumptions and Trends. These assumptions and trends represent the foundational basis for future programs to be considered and subsequently, recommended by the committee.

Demographics of the consumer are changing

- More non-English speakers
- An older population (i.e., the most rapidly increasing age group being greater than 85 years).
- People living longer with chronic health conditions
- More diverse group of health care “consumers” with complex economic, cultural, religious, and physical circumstances.
- More individuals identified with severe disabilities integrating into the schools, work-force and care systems
- Consumers are more informed and demand greater voice and choice in type and quality of services

American Health Insurance coverage is changing

- Increasing healthcare expenditures will necessitate the rationing of services with the possible transition to catastrophic-only coverage
- Government and third-party payers will reimburse health and human services providers based on outcomes achieved
- Higher co-pays and increased “out of pocket” expenditures
- Need for healthcare navigators to coordinate kinds of care and payment
- Increase in the number of health care “boutiques” where health care services and aesthetic quasi-healthcare services are offered

Technology as a healthcare driver

- Technology is extending life-expectancy
- Electronic patient records will become mandatory
- Experts needed to address the interface of health care and technology systems
- Evidence based practice will become routine and required
- Customized healthcare services will be offered based on genomics

Pace of change in health and human services fields will demand flexibility among workers

- Genomics will offer much more data to inform and direct individual healthcare
- Pharmacology, biomedical engineering, spatial epidemiology, etc. will all offer increasingly complex ways of approaching health care.
- Collaboration across disciplines for efficient, cost-effective problem solving, teaming and care planning

Health care students will be different

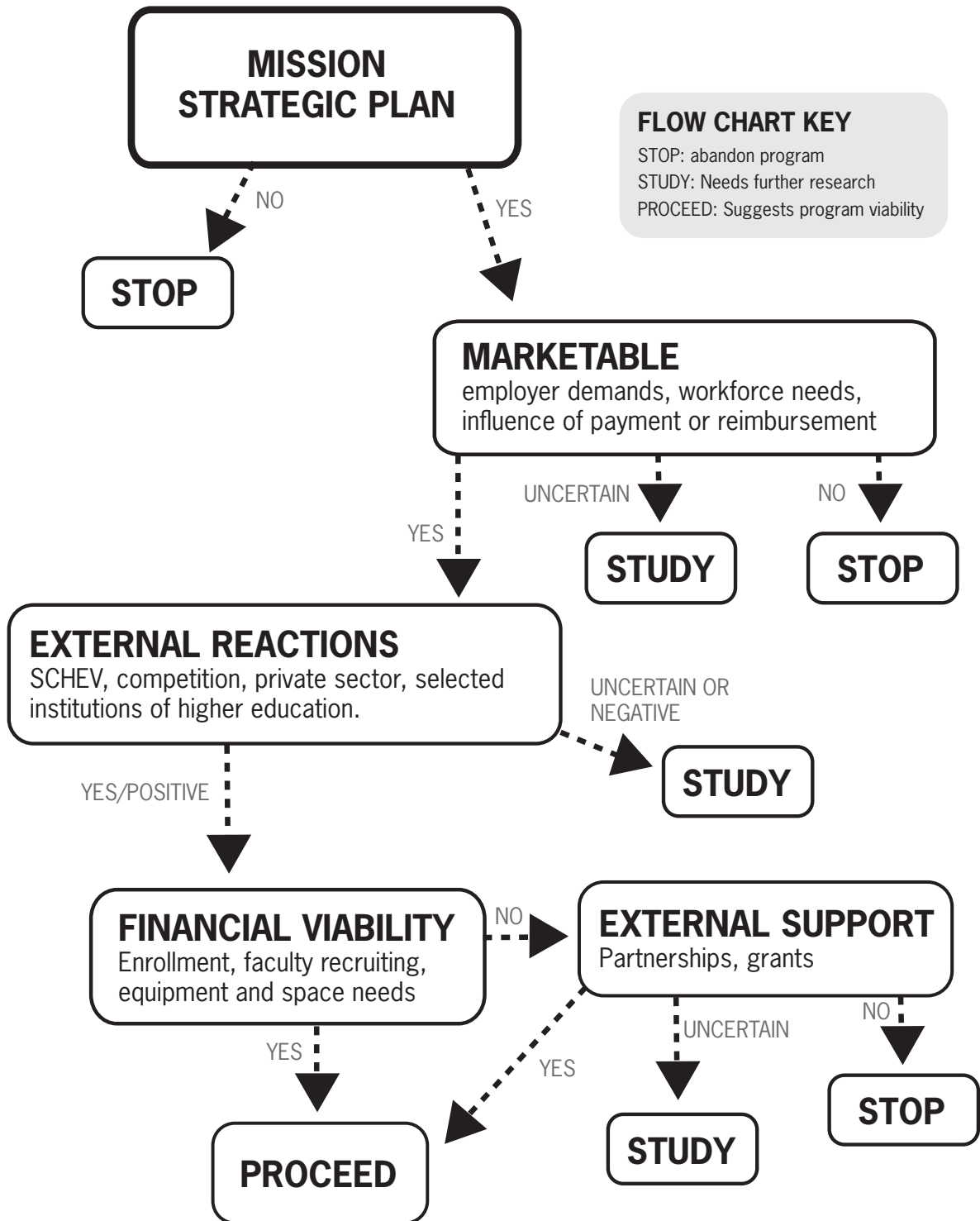
- Career changers
- Non-traditional students
- Increasing numbers of undergraduates
- Varied educational delivery models will be required to attract future students (on-line, weekend workshops, evening hours, etc.)
- More professional diversity among the workforce (i.e. different kinds of therapists, clinicians at different levels)

Broad level preparation will be required of health care workers given the projected critical shortages in HHS workers

- Health care will be offered in more settings
- Healthcare will need to be integrated among a more disparate group of “providers” (i.e. private weight management, school counselors, traditional doctors, nurses, physician assistants, therapists, etc.)
- Health care providers must possess effective verbal and written communication skills
- Technological advances and the growing acuity of care will require HHS providers to be competent critical thinkers, care providers, care coordinators, managers and policy makers
- Health care providers must understand the financial aspects of their “business”
- Crisis intervention in cases of terrorisms, natural disasters, etc. will mandate further training of the healthcare workforce
- Integrated complementary or alternative approaches to healthcare, traditionally considered more Eastern approaches, for both preventative and “sick” care will experience increasing popularity (e.g., Homeopathy, Osteopathy, Herbal, etc.).

**NEW PROGRAMS
DECISION FLOWCHART**

In addition to the IHHS Educational Futures Task Force's Assumptions and Trends document, a new program decision flowchart was constructed. The New Programs Decision Flowchart reflects the salient components identified by the Task Force to evaluate potential programs. This flowchart is provided below.



RECOMMENDED PROGRAMS MATRIX

The Recommended Programs Matrix presents the programs that are currently advised for future consideration. The Recommended Programs Matrix on pages 9 and 10 is displayed in a matrix format indicating the identified programs and the most probable level of study (i.e., “degree”) associated with each program. Certain programs have multiple “degrees” marked and this reflects the various target groups that are anticipated for the specified area of study. The programs are reported in thematic groupings where applicable. The matrix does not represent a prioritized or rank-ordering of recommendations. In addition to this matrix, a detailed program review report is provided for each recommended program of study.

RECOMMENDED PROGRAMS MATRIX

PROGRAM	DOCTORATE	MASTERS	BS/BA	MINOR	CERTIFICATE	CURRICULUM EMBEDDED
INFORMATICS						
Health Informatics		X		X		
Bioinformatics				X		X
HEALTH ADVOCACY						
Care Coordination					X	X
a. Clinical					X	X
b. Financial					X	X
Health Policy Analyst		X				
GENETICS/GENOMICS						
Genetic Counseling		X			(Post MA)	
Genomics				X	X	X
OTHER						
Nursing (DNP)	X					
Cognitive-Neuroscience		X	X			
Global Health Ecology		X		X	X	X
Health Administration		X				
Counseling (Crisis Response)	X					
Biomedical Engineering				X		
Interdisciplinary Health and Human Services Studies			X	X	X	X



RECOMMENDED PROGRAM MATRIX
CURRICULUM EMBEDDED PROGRAMS

PROGRAM	DOCTORATE	MASTERS	BACHELORS	MINOR	CERTIFICATE	CURRICULUM EMBEDDED
EMBEDDED						
Aging/Gerontology				X	X	X
Disability Studies				X	X	X

PROGRAMS REVIEWED BUT NOT RECOMMENDED

The committee investigated numerous programs that were not recommended as future educational initiatives at this time. These programs were removed from the final recommendation matrix for a variety of reasons. These reasons included, but were not limited to, cost and resource allocations related to space and equipment requirements, faculty recruiting, student recruiting, and/or criteria for accreditation purposes. Additional factors included viable and adequate programming already within the Commonwealth of Virginia or regionally as well as compatibility with the mission, values, or current programs at James Madison University. Some examples of programs reviewed but not advised were:

- Epidemiology
- Physical Therapy
- Pharmacy
- Gastronomic Sciences
- Social Work (Master's)
- Dental Hygienist
- Orthotics and Prosthetics

For a detailed review of the literature reviewed (e.g., seminal reports, health and human services trending reports, labor projections, publications, etc.) as well as the internal and external surveys data and analyses, the reader is referred to the IHHS Educational Futures Task Force Blackboard. A paper copy of this information has been compiled into a multi-volume set and is housed in the Institute for Innovations in Health and Human Services.

Program Name
Health Informatics

Degree
Master's, Minor

General Program Description

The Master's Degree in Health Informatics will include 30 to 36 credits in health care administration and informatics issues. An emphasis will be placed on developing an advanced understanding of how information technology and systems will enhance healthcare delivery. Topics will include database and telecommunication management, electronic medical records development, analysis and design of healthcare information systems, HIPAA and information security standards, clinical and consumer informatics issues, and the assessment of quality healthcare delivery.

The goals of this program are to:

- Empower health service professionals through the development of advanced skills and knowledge in the interpretation and management of information systems and computer technology in healthcare
- Equip healthcare professionals with an understanding of the technical, social and management issues involved in health informatics and how health informatics can be used to improve healthcare services and reduce the cost of providing healthcare, including the establishment of digital health records that are interoperable, and the assurance that the privacy and security of those records is kept
- Provide healthcare professionals with the ability to analyze, design and develop consumer health information resources that present consumers with quality clinical information and outcomes

Labor Forecasts

According to the Bureau of Labor Statistics, healthcare and social assistance employment trends, including private hospitals, nursing and residential care facilities, and individual and family services, are expected to grow by 32.4 percent and add 4.4 million new jobs over the next ten years. Employment growth will be driven by increasing demand for healthcare and social assistance because of an aging population and longer life expectancies.

Employment in professional, scientific, and technical services will grow by 27.8 percent and add 1.9 million new jobs by 2012. Employment in computer systems design and related services will grow by 54.6 percent and add more than one-third of all new jobs in professional, scientific, and technical services. Employment growth will be driven by the increasing reliance of businesses on information technology and the continuing importance of maintaining system and network security. Management, scientific, and technical consulting services also will grow very rapidly, by 55.4 percent, spurred by the increased use of new technology and computer software and the growing complexity of business.

Feedback from Internal and External Sources

Interviews were performed with two external experts from the field of Health Informatics. Their recommendations identified the following key issue for a health informatics program.

- ability to talk the language of health care,
- provide leadership and strategic vision for health information technology and systems
- understand and be able to interact with medical record structure languages, such as SNOMED,
- ability to create and modify database models and access and retrieve data using structured query languages,
- ability to design basic hardware and software network infrastructures for healthcare settings and applications,
- understand how to interview end-users, perform requirements gathering and develop application prototypes,
- understand the implementation processes and be able to train end-users on application specific software,
- understand healthcare work flow, language, and technology based applications,
- determine decision support components for healthcare applications,
- understand project management and how to manage large projects
- interpret security issues as they apply to the clinicians, and
- design processes that integrate HIPAA and other standards into organizational settings
- Compare and evaluate the available consumer information technologies
- Evaluate the quality of the health information delivered and develop strategies for ensuring information quality.
- Examine the impact of technology-based information on consumer healthcare decision-making

Virginia or regional programs already in place

University of Virginia offers a M.S. in Health Evaluation Sciences with an Informatics in Medicine & Health track. The program emphasizes Biostatistics, Epidemiology, and Health Evaluation Sciences.

George Mason University offers a PhD in Computational Science and Informatics and an MS in Bioinformatics. Both programs require advanced study in the biological sciences and mathematics as a prerequisite. Both programs include extensive course work in biology and life sciences.

Neither of these programs emphasizes the issues of the Health Informatics program proposed.

Accreditation Bodies in Health Informatics

At this time there are no graduate accreditation bodies for Health Informatics. But there are recommended curriculum guidelines sponsored by the American Medical Informatics Association and the American Health Information Management Association.

Sources that indicate a need for this course of study

On May 6, HHS Secretary Tommy G. Thompson announced the appointment of David J. Brailer, M.D., Ph.D., to serve as National Health Information Technology Coordinator. This is a new position at HHS, created by President Bush is to coordinate the nation's health information technology efforts.

“Health information technology promises huge benefits, and we need to move quickly across many fronts to capture these benefits,” Secretary Thompson said. “I asked the leaders of the health IT community to join me...to see how we can press down on the accelerator and bring about the benefits of health IT even faster. The benefits are enormous, but the task is also enormously complex. We need more than a business-as-usual approach.”

Then on September 13, 2005, Health and Human Services (HHS) Secretary Mike Leavitt announced the membership for the American Health Information Community (the Community). The Community is being formed to help advance efforts to reach the call for most Americans to have electronic health records within ten years.

The Community is a federally-chartered commission and will provide input and recommendations to HHS on how to make health records digital and interoperable, and assure that the privacy and security of those records are protected, in a smooth, market-led way.

Positives and Negatives

Compatibility with JMU Mission/Strategic Plan—The Master of Health Informatics is compatible with James Madison University's mission and Strategic Plan to select innovative and new academic graduate programs for development and implementation.

Enrollment Trends—There is a growing need for healthcare professions that also have expertise and detailed understanding of informatics issues. A recent search of Biohealthmatics.com jobs database listed 294 health informatics positions available.

Competitive Advantage—A positive aspect of this proposal is its timeliness. The direction from the Department of Health and Human Services is to soon require a national electronic patient record. Our physical proximity to federal government agencies places us at an advantage. In addition, healthcare organizations are also recognizing the need for clinical information systems and high technology consulting firms are redirecting resources to meet these needs.

Resource Issues and Internal Partnerships—James Madison University is uniquely qualified to assemble an interdisciplinary Health Informatics faculty team from the departments of Integrated Science and Technology (CISAT), Nursing (CISAT), Health Sciences (CISAT), and Computer Information Systems (COB).



Program Name

Bioinformatics

Proposed “Degree”

Minor (as a concentration in the biotechnology program).

The subject area is certainly amenable to graduate degrees.

General Program Description

Bioinformatics is the recording, annotation, storage, analysis, and searching/retrieval of nucleic acid sequence (genes and RNAs), protein sequence and structural information. This includes databases of the sequences and structural information as well methods to access, search, visualize and retrieve the information. Bioinformatics concern the creation and maintenance of databases of biological information whereby researchers can both access existing information and submit new entries.

Functional genomics, biomolecular structure, proteome analysis, cell metabolism, biodiversity, downstream processing in chemical engineering, drug and vaccine design are some of the areas in which Bioinformatics is an integral component. Foundational skills include biology, computer science, math, statistics, database construction and management.

Roughly, bioinformatics describes *any use of computers to handle biological information*. In practice, the definition used by most people is narrower; bioinformatics to them is a synonym for “computational molecular biology”—*the use of computers to characterize the molecular components of living things*.

Labor Forecasts

As the biotech sector continues to grow, more and more professionals are needed who can bridge the gap between biological research and software development. The problem is that very few training programs in bioinformatics exist. Also, not many scientists are competent in both arenas and few managers know how to recognize and hire for both skills. Inspired by the newly mapped human genome and exciting fledgling research into proteomics (studying the life-creating proteins encoded by genes), companies and labs are racing into the potentially lucrative field of biotech without realizing that they lack the essential ingredient for any tech-related endeavor: human beings to do it. There is such a great demand for expertise in the field of bioinformatics demonstrates not only that biotech is a potential gold mine of cash and information, but also that the traditional boundaries between scientific disciplines are breaking down. It's no longer enough to be simply an engineer. These days, it's crucial to have other areas of scientific expertise.

<http://www.sfgate.com/cgi-bin/article.cgi?file=/gate/archive/2001/06/28/bioinformatics.DTL>

Virginia or Regional Programs already in Place

Va. Tech has a bioinformatics institute and offers undergraduate and graduate degrees in conjunction with several departments.

VCU/MCV has a combined BS and MS program.

George Mason has a PhD program.

Are you aware of any courses at JMU that are addressing this program in any way?

There is limited related programming within biology, ISAT, and computer science that would fit into this program.

Additional Resources

<http://www.geocities.com/bioinformaticsweb/employment.html>

<http://www.biohealthmatics.com/careers/biocareer.aspx>

<http://www.colorbasepair.com/>



Program Name
Care Coordination

Proposed “Degree”
Certificate Program,
Curriculum Embedded

General Program Description

Care Coordination is a model of care delivery that is broader than case management in that it addresses needs holistically and is designed to work in partnership with groups such as elders and their families on multiple levels to assure the desired outcomes of provider services. While Care Coordination will include traditional case management, it is primarily a proactive, preventive model that helps clients map, negotiate, and understand the complex health and social service systems that individuals typically face. Students will be trained to act in the role of care coordinator.

Each care coordinator will be prepared to provide or coordinate any of the following services:

- Assistance accessing and coordinating outpatient and inpatient services
- Assistance obtaining insurance needed to access services
- Assistance connecting with community and health related resources
- Education to improve health literacy of clients and their informal caregivers
- Assistance filing claims, interpreting benefits, and reviewing medical bills for accuracy
- Advocacy with service providers on behalf of clients, including accompanying them to appointments, if indicated
- Guidance on diet, exercise, and other healthy lifestyle behaviors
- Coordination of mental health, addiction, and other behavioral health services
- Coordination of respite care services
- Feedback on client health status to primary care providers
- Communication about health issues with clients’ family members

Courses will be interdisciplinary utilizing existing courses whenever possible.

Feedback from internal and external sources

This program is supported conceptually through internal and external surveys and through discussions with health administrators regionally.

Virginia or Regional Programs Already in Place

UVA has a Clinical Nurse Leader Program but its focus is on coordination of care and management of care at a unit based or facility based level rather than over the entire continuum of care.

Positives and Negatives

Compatible with JMU Mission/Strategic Plan

JMU provides total education to students—one that has a broad range of the liberal arts as its foundation and encompasses an extensive variety of professional and pre-professional programs, augmented by a multitude of learning experiences outside the classroom. This program of study would incorporate both in class and field experience interdisciplinary learning that would emphasize community partnerships across the entire health care continuum.

Enrollment trends: growing numbers of students interested in nursing and other health majors at JMU.

Labor forecast

America is aging rapidly. By the year 2030, the number of citizens over age 65 will double to 70 million with the greatest percentage increase in those over age 85. The literature attributes this “gerontological explosion” to advances in science and medicine, improvements in healthy living, and aging of the baby boom generation. While older Americans are healthier and living longer, approximately 75% of those over 65 still suffer from at least one chronic illness (Gamm, Hutchinson, Dabney & Dorsey, 2003). They are dealing with a health care system that is increasingly complex, confusing, and difficult to navigate, and one that is currently unprepared to meet the needs of the approaching wave of older Americans.

In a report to the nation, the Alliance for Aging Research (2002) warned that the numbers of health professionals with some formal training in caring for the elderly are woefully inadequate, even by today’s standards. According to this report, the widening geriatrics gap applies to every field of health care and will overwhelm our health system, increase premature death and disability and increase the costs of health care unless steps are taken now to ensure that geriatrics and health promotion for older people is fully integrated into the education of the next generation of health professionals.

Competitive Advantage/Resource issues/Collaboration

Collaboration (internal/external/partnerships) JMU through the IHHS is ideally positioned to develop and evaluate innovative models to improve healthcare effectiveness for rural elders while providing students with unique opportunities to participate in interdisciplinary learning experiences in a rural environment. Faculty expertise in issues of rural health, aging, and geriatric care crosses several disciplines including nursing, social work, and health sciences. Our location in the Shenandoah Valley is in proximity to rural and underserved areas in the Commonwealth’s northwestern quadrant, and our well-established partnerships with healthcare providers and human service agencies in these areas have allowed us to gain valuable insights into the needs of the older rural population.

Program Name
Health Policy Analyst

Proposed “Degree”
Master’s

General Program Description

A health policy analyst is someone who can read, understand, and synthesize a variety of legal and regulatory documents in order to inform decision makers about factors that influence the shaping of policy. Communication skills, especially writing, are vital to policy analysts as they must “translate” technical and legal documents into actions. Other important skills include the ability to do legal research, to understand the laws and regulations governing lobbying and legislation, and a solid understanding of the current state of healthcare and human services delivery. The abilities to use, analyze, and apply statistics and statistical methods is also important, as is an understanding of the science of economics.

The study of health policy prepares graduates to work for non-profit agencies, government agencies, insurance companies, hospitals, lobbyists, legal counsel, and as consultants. The ability to understand the process of policy making, coupled with the ability to measure the impact of policy will prepare the graduate for a stimulating and challenging career.

Sources to indicate a need for this course of study

- Jane Woods, Secretary of Health & Human Services for Virginia, stated in IHHS EAC meeting April 21, 2005, that she would like students who understand public policy and can educate health care practitioners on participating in the policy making process. She also expressed a desire for medical students with writing skills to serve as policy interns at the State Department of Health & Human Services.
- Dr. Gregory Frazer stated in an interview with Dr. O’Donoghue that he saw a need in the healthcare field for master’s level policy analysts to help practitioners understand and influence the complex world of health policy.
- Joe Damico, of the JMU Board of Visitors, stated in an interview by Dr. Erwin that there will be an increasing need for people who understand health policy and can lobby on behalf of corporations to health insurers and government sponsors of health care services.
- The need for workers who understand the economics of healthcare as well as the mechanics of policy making was expressed at the open forum with College of Business faculty on April 22, 2005.
- Healthy People 2010 has identified access to healthcare as a leading health indicator. Improving access can only be accomplished through the work of many people and agencies, crafting health policies that reflect the realities of America’s healthcare needs.
- Dr. David Cockley recently began the development of a Health Policy Center at JMU. In his preparatory documentation, he identified six current JMU faculty members who are qualified to teach health policy. He also identified a number of external experts in health policy who have relationships with JMU and have expressed support for the Center’s establishment. Please see the white paper describing the Center that follows this document.

Labor Forecast

Health Policy Analyst is not a recognized profession for purposes of Labor statistics. However, it has been noted that almost all health related occupations will experience faster than average job growth, making it obvious that policy analysts will experience corollary job growth.

Programs in the state that offer this or a similar program:

The teaching of health policy occurs in various academic programs including public health, political science, health administration, and law. Currently in Virginia the following programs that include health policy exist:

- George Mason University, Master's of Policy and Administration (M.P.A.), concentration in Health Policy
- Virginia Commonwealth University offers a Ph.D. in Health Services Organization and Research. VCU also has two master's level options for the study of health administration.
- The University of Virginia has a Master's degree in Public Health (M.P.H.) with a concentration in Health Policy, Law and Ethics.

Are you aware of any courses at JMU that are addressing this program in any way?

The Social Work program offers course work in policy, as does the Health Services Administration program. The Nursing program, Physician Assistant Program, Occupational Therapy Program, and Clinical Psychology Programs all teach health policy to their students, although not necessarily as a discrete class. The Political Science department has a faculty member with a research interest in health policy, and offers course work occasionally. The College of Business has faculty members who teach in the existing non-profit studies minor.

Currently there is no "accrediting body" for Health Policy Analyst programs. There are related fields of study (e.g., health administration) that are accredited by the Accrediting Commission for Education for Health Services Administration (ACEHSA).

James Madison University
Health Policy Center Proposal
White Paper

September 26, 2005
David E. Cockley Dr.PH

Rationale

James Madison University has an opportunity to create a Health Policy Center that would work in conjunction with interdisciplinary personnel at JMU, Shenandoah Valley communities and other interested persons across the Commonwealth to monitor, analyze, and evaluate health policy that impacts rural, disadvantaged and elderly populations. Such an initiative would heighten university and regional attention to the many current ways that health care facilities and personnel are impacted by both state and federal policy actions. The initial Center foci would also assist the rural communities of the central Shenandoah Valley and support the many community groups responding to federal and state health policies. JMU's breadth in public policy personnel and the number of established and nascent programs in both undergraduate and graduate health and human service concentrations give it exceptional expertise and applicability for instituting such a center.

The drive for such a Center comes from several areas. There are a number of current JMU faculty members who concentrate both curricular and research attention on aspects of public policy dealing with health or human services. Second a number of current academic programs are focusing attention to train their students, both undergraduate and graduate, on issues of health policy. These include nursing, social work, clinical psychology and health sciences curricula, a social work minor in Gerontology, and health administration and nursing concentrations in care of the elderly. Third there are a number of graduate and undergraduate emphases at JMU focused on rural geriatrics including Master's programs for Nurse Practitioners, Physician Assistants, and Occupational Therapy. In addition there is an increasing array of practicing professionals in health and human services fields who seek additional expertise in locating, analyzing and tracking public policies in the modern world. A Health Policy Center with such a focus would add both curricular and research support to these broader arenas.

These drivers open a window of opportunity for JMU to establish a Center that could combine these distinct policy interests into a functional entity that could bring strength to all. Such a Center could be established as part of the Institute for Innovation in Health and Human Services and could have specific external and internal foci. The Center would be an analytical center to monitor, develop and evaluate current state and federal health policies that impact rural, disadvantaged and elderly populations as well as provide policy training for JMU students and health care providers in this region. External grant money would be necessary to fully establish and sustain such a center. However, once created, the Center could become operational in phases.

Proposed JMU Health Policy Center

Mission

The JMU Health Policy Center mission would be to focus on the tracking, development and analysis of relevant local, regional and federal public health policies that impact and influence regional health care organizations and their communities in order to provide experiential learning and research opportunities for students and faculty. Particular emphasis will be made to address policies that impact rural communities, disadvantaged populations, and the geriatric and immigrant populations that are prominent in the western Virginia region.

Background

Health Care issues dominate both federal and state legislative action and provide an important linkage between the academic training of students and development of societal actions. One important area where JMU can add significantly to the regional and national discussion is through a focused initiative on select health policy research and analysis.

JMU has current expertise in several areas relevant to health policy outreach. These include several faculty who devote much of their curricular and non-curricular efforts to health policy research and development, a number of nascent graduate health professional programs (nursing, occupational therapy, physician assistant, and clinical psychology), and a critical mass of affiliate professionals with strong expertise in health policy analysis.

There already exists a core of JMU CISAT faculty and programs with a concentration on both rural health care delivery and the health care of elders. Within the Department of Health Sciences there are now Master's degree programs in Physician Assistant, Occupational Therapy and Nutrition / Dietetics. All of these curricula have a major role in services to elders. JMU's Department of Nursing has begun a Master's of Nursing degree with a focus on geriatric care. The Department of Social Work offers a Bachelor's degree in Social Work and a minor degree in Gerontology. The graduate program in Psychology provides Master's and Doctoral degrees in Clinical Psychology.

In addition the environmental setting of JMU in the central Shenandoah Valley highlights several health policy issues implicit to this region. The Shenandoah Valley is becoming a core retirement destination in the mid-Atlantic region. A blossoming industrial base of retirement communities, varied long-term care facilities and continuing care retirement communities proliferate in the immediate surroundings. A large immigrant community and mostly rural environs in the central Shenandoah Valley (on the edge of Appalachia) add additional concern for health policy professionals. A broad rural region, including many locales with the typical problems of underserved rural America, also surrounds the JMU community.

Policy Center Framework

The development of a Health Policy Center at JMU would allow external research and program development while contributing to JMU's overall educational and service mission. A distinct Policy Center could address current and impending policy issues in a



timely and professional manner. It could accumulate federal, state, and private grants for evaluation and development of health policy issues dealing with rural, disadvantaged and elderly health care. JMU's proximity to both Richmond and Washington, DC allow for separation when needed but nearness when appropriate. The JMU Health Policy Center could be structurally housed within the Institute of Innovation in Health and Human Services, which already supports multiple interdisciplinary programs for students across the university.

The Center would have two complimentary targets: 1) to provide resources in state and federal policy analysis to augment the regional picture of policy study in rural, disadvantaged and geriatric care; and 2) to expand JMU's curricular base in health policy (including the continuing education market as well as supplements to the existing undergraduate and graduate programs in HHS).

Health Policy Analysis Resource

This proposal would create a Health Policy Center that would track, analyze, develop and instruct on federal and state health policy initiatives, especially those related to rural and disadvantaged populations, geriatric residents and the communities where they reside.

- Seek external federal and state grant support for policy analysis relevant to the Center's mission
- Seek funds from private foundations for evaluation of proposed or existing policies relevant to the target populations.

A resource for Policy Analysis could entail on-going expertise in Policy Problem-Solving and Forecasting, Monitoring of Policy Implementation, Synthesis and Evaluation of Policy, and Recommendation for Policy Development and Modifications of Policy (see Figure 1).

- **Problem-Solving and Forecasting:** Research into community and population needs for policy and development of alternative policy options. Also the study of future consequences of policy options.
- **Monitoring:** Monitoring of policy implementation. How policies are carried out and the operation of policies for communities and institutions.
- **Synthesis and Evaluation:** The analysis of policy impacts on communities and populations and the value of policies on meeting community needs and the legislative intent.
- **Recommendations for Policy Modification:** Collection and analysis of information determining what policies need to be modified for future success.

James Madison Faculty

A number of current university faculty are involved in teaching or research of rural health, health and human service policy, elder care, and related community services.

- **BJ Bryson PhD**, Social Work. Provides leadership to the Aging, Family and Intergenerational Studies Program. Her areas of interest and research include policy as it relates to the social service system, people living with HIV/AIDS; women's welfare



reform experiences; diversity and multicultural inclusiveness; spirituality; teaching; and domestic violence.

- **David E. Cockley Dr.PH**, Health Sciences, Health Services Administration. Coordinates and teaches an annual Interdisciplinary Rural Health Care course. Also is the primary instructor for Long-Term Care Administration, Health Ethics and Health Law, and a Health Policy & Politics course. Dr. Cockley's research interests include rural health care, access to health care services, quality of long-term care delivery, and underserved populations.
- **Melody Eaton PhD**, Nursing. Dr. Eaton coordinates the Community Care Collaboration, and comes with extensive home health care experience in a variety of Nursing and Healthcare Management positions. She also has experience in critical care, acute medicine and surgery, cardiac catheterization, and community clinical nursing. Her professional interests include nursing leadership and Healthcare Policy.
- **Anthony Eksterowicz PhD**, Political Science. He has also taught Research Methods, Interest Groups and Public Policy special seminars entitled Reform and the Political Process, First Ladies, and the Politics of Pain Care Management. Teaches a periodic Special Topics course in Health Policy focused on current policy issues.
- **Karen Ford DSW**, Social Work. Teaches social policy. Her research interests are in internationalizing social work education, policy education, service learning and social work and social welfare history.
- **Judith Rocchicelli PhD**, Nursing. Current research interests include Fatigue, End of Life, Quality of Life issues, Gerontology, Moral/Ethical Distress in Nursing Equity and Disparity in Access to Care.

Outside Resources

In addition, there is an informal cohort of health policy experts outside of JMU, but resident in the region who have expressed interest in contributing time and expertise to such an enterprise. Such health policy specialists could be drawn upon in a number of ways to augment the efforts of the Center. These outside resources include:

- **Ruth Hanft, PhD.**, former faculty in Health Policy at George Washington University. Adjunct faculty with JMU-IIHHS.
- **J. King Seegar, MD**, pediatrician and Medical Director of Pendleton Community Care, a primary care model in underserved rural West Virginia.
- **Henry G. Taylor, MD, MPH**, former Commissioner for Public Health in West Virginia and Director of Public Health Education Program for the WV Higher Education Policy Commission.

Initial Policy Research Areas

Some specific policy research areas that the JMU Health Policy Center might initially undertake include:

- The community-based and facility-based models of elder care in rural areas
- Evaluation of the "Home Hospital" model for chronic care



- Analysis and Evaluation of various Community-Based Health Insurance Offerings
- Measures of Quality in Long-Term Care facilities
- Community Health Needs Assessments of Rural (Geriatric) Communities in Virginia
- Community Health Needs Assessments of Migrant and Immigrant Populations in Rural Virginia
- Policies to enhance a Geriatrics Care Career Matrix
- Financial Impact of Certificate of Public Need regulation on nursing home facilities
- Evaluation of Community Care Model of Caregiving

Health Policy Curriculum Enhancement

There is also current importance to the enhancement of health policy understanding, including education of JMU HHS students, continuing education of practicing health service professionals, and support for public health practice. The Center could be a resource to stimulate, support, develop and/or implement a series of curriculum-based programs as well as a series of Continuing Education modules for current health and human services professionals who want additional knowledge and skills for policy tracking and review. The Center could assist public and private health organizations with in-service training of personnel including development of career ladders, policy responsive staff, and health care executives.

Some initial options to explore include but are not limited to the following:

- Health Policy certificate program for current health care workers whose occupations require greater attention to tracking and understanding current and impending health policy. A possible format for this Continuing Education offering would be a one night a week offering over a 4–5 week period.
- A Health Policy minor or concentration within existing majors for traditional JMU undergraduate students. Such an offering might be developed in conjunction with the Department of Political Science.
- Module-based supplements for HHS courses in support of existing JMU curricula. Could assist with the development of courses with a health policy framework that focuses on Health Administration, Nursing, and Social Work.

Competing Regional Policy Initiatives

Several regional academic sites have health policy programs in place that need to be noted. Virginia Polytechnic and State University's Rural Health Policy Program is the main competitor for this proposed health policy center. Virginia Tech's program is a research and data collection center for material concerning rural health issues. The mainly regional focus of the proposed JMU initiative and development of connections with central Shenandoah Valley health care providers and facilities would contribute to a unique flavor for JMU's Health Policy Center.

The other academic center in the region with substantive interest in health policy is the University of Virginia. UVA runs a Division of Public Health Policy and Practice which is

focused on teaching, research and community interventions in public health practice. While there is likely substantial common ground with the proposed JMU Health Policy Center, the focused attention on rural health policy and rural / underserved communities is distinct.

The academic linkage of JMU's policy center combined with collaborative disciplines of Nursing, Health Sciences, Social Work, and Clinical Psychology is also distinctive. JMU's proposed program attempts to structure a common health policy curriculum across the varied health professional training programs offered. This academic connection is not present in the other regional programs.

Center Implementation

The JMU Health Policy Center would be phased in over at least a year and likely longer depending on resources allocated. An initial phase would allow organizing of the Center and coordinating of existing efforts both academically and in policy research. Subsequent solidification of the Center would require external financing, likely in the form of grants, to structurally sustain the Center.

Phase One

Phase one involves the naming and formalization of the Center, appointing a Center Director and identifying, coordinating and packaging/marketing what already exists within the University in the health policy arena.

An Interdisciplinary Committee (Contact Team) that includes both existing faculty and programs wanting to participate could work collaboratively with external consultants to structure the Center and focus collaborative policy research across programs and departments. These should include several of the faculty noted above and include representatives from departments such as Health Sciences, Nursing, Social Work, Psychology, Political Science, Business, Sociology/Anthropology, ISAT, and others.

A part-time Director of the Center (10 % release time) should be designated, likely from existing JMU faculty. A part-time administrative support person with accompanying phone and office space either coordinated with other IHHS programs or hired separately would allow the initial functioning of the Center and base for grant-writing.

The Center could initially run continuing education workshops for area health and human services professionals seeking extra training in policy tracking or analysis. Focus might include the effective use of technology such as GIS systems and data visualization in analyzing the impact of policy and program planning. A continuing education workshop on Pain Management Policy is already in the planning phase. The Center could also provide modest administrative support for department-based policy research.

Resource needs for this initial phase could primarily be met through the reallocation of existing resources. Defining the health policy initiative as a Center would provide both visibility and a distinct mechanism to solicit the external funding necessary for moving into phase two.

Phase Two

A more complete JMU Health Policy Center would be identifiable by having a specific location, likely within the structure of IHHS, separate budget allocations and on-going health policy research activities. The Center would perform on-going research and grant initiatives to sustain the Center.

The Director would be still part-time but allocated at least 25% time—or more depending on finances. The administrative assistant position would be upgraded to a full-time position.

Academically the Center would create more specific concentrations and offerings in health policy across multiple curriculums—either through shared courses or health policy modules within existing courses.

Initial Financing

The Health Policy Center would need to seek funding from a variety of resources, including state, federal, and private foundation sources. On-going research activities by the Center would likely rely on grant funding. JMU departments, and a tuition or fee base would indirectly support on-going education components.

The initial Center financing would support a part-time Center Director, contracted consultant policy researchers, and administrative support staff. Policy analysts from existent JMU faculty or consultant experts would be used to maximize policy analysis.

As grants are obtained to assess community needs or evaluate specific policies, faculty and consultants will be used to “staff” the policy analyses. Obviously linked faculty will be the primary grant determinants for the Center. However additional policy initiatives will be undertaken by the Center.

Conclusion

James Madison University has the resources and interest to create a Health Policy Center that could work in conjunction with interdisciplinary personnel at JMU, the Shenandoah Valley communities and other interested persons across the Commonwealth. Such an initiative would heighten university, local and regional attention to the many current ways that health care facilities and personnel are impacted by both state and federal policy actions. Initial foci would be on rural communities, disadvantaged and elderly populations and the health policies that impact them.

Current faculty support exists to initiate the Center. The Health Policy Center would have a dual focus of policy research and analysis as well as curriculum enhancement for university and community personnel.

Program Name
Genetic Counseling

Proposed “Degree”
Master’s, Post-Master’s
Certificate

General Program Description

Genetic counselors are health professionals with specialized graduate degrees and experience in the areas of medical genetics and counseling. Most enter the field from a variety of disciplines, including biology, genetics, nursing, psychology, public health and social work.

Genetic counselors work as members of a health care team, providing information and support to families who have members with birth defects or genetic disorders and to families who may be at risk for a variety of inherited conditions. They identify families at risk, investigate the problem present in the family, interpret information about the disorder, analyze inheritance patterns and risks of recurrence and review available options with the family. Working knowledge of human genetics, psychology background and interpersonal skills are required.

Genetic counselors also provide supportive counseling to families, serve as patient advocates and refer individuals and families to community or state support services. They serve as educators and resource people for other health care professionals and for the general public. Some counselors also work in administrative capacities. Many engage in research activities related to the field of medical genetics and genetic counseling.

Labor Forecasts

According to the National Society of Genetic Counselors, the profession is rapidly expanding and diversifying. Heightened public awareness of genetic testing, coupled with scientific advances in adult disorders and reproductive technologies, has increased the demand for genetic counselors. This demand is expected to continue.

Virginia or Regional Places Already in Place: MS program at MCV/VCU

Accreditation

The American Board of Genetic Counseling (<http://www.abgc.net>)

The accreditation standards are prescribed, including detailed administration roles and credentials to fulfill these roles. Financial performance will be critical prior to considering a Master’s program.

Additional Resources

National Society of Genetic Counselor (www.nsgc.org)

Program Name

Genomics

Proposed “Degree”Minor, Certificate,
Curriculum Embedded**General Program Description**

Genomics is not a stand-alone subject at this point. It is imbedded in other disciplines, such as bioinformatics and biomedical engineering. It is also a sub-topic in standard biology programs. Genomics encompasses genome sequencing, functional genomics, comparative genomics, and bioinformatics. Genomics can be considered one direction taken by a “medical scientist”, which is a much broader term encompassing more sub-disciplines.

Genomics is currently an area of specialization within biology however, in the future it may be included as a concentration in the biotechnology degree program. It could also provide special expertise for students in other health-related programs.

There are many skills needed to perform genomics. Useful skills include computer programming, bench laboratory skills, engineering expertise, and chemical synthesis. The more you know the better off you’ll be in a rapidly changing work environment. But more than just technical skills, you will need to have some other abilities such as an ability to communicate in written and oral formats. It is important to know how to work well as a member of a team where the common objective takes priority over individual ones. Finally, appreciate challenges which require new ways of looking at problems and new types of collaborations with a diverse range of people. The field of genomics was officially launched in 1995 when the first completed genome was published. Since genomics is a new field, no one can predict where it will go in the future, though it does look as if the future will be filled with new discoveries that affect everyone.

“Genomics in Healthcare”—Other Findings

1. It may be part of an MS in Health Informatics—nearly always associated with medical schools
2. A single “Genomics Certificate” program exists at Stanford University, except for some online programs in rather vague place.
3. There are graduate programs in genomics; all are in medical schools and are parts of other programs. All are R1 institutions.

Examples of BS programs that include genomics emphases

- UC Davis: BS in BME; math, engineering, physics, biology, materials, computer science, etc.
- UW Madison: incorporated into the Genetics program
- U. Illinois Chicago: Incorporated into the Bioinformatics program
- UC, Santa Cruz: Bioinformatics program in the Engineering school
- Princeton: Institute for Integrative Genomics includes undergraduates
- Univ. of the Sciences, Philadelphia: <http://www.usip.edu/majors/bioinformatics.shtml>

Virginia or Regional Program Already in Place

In Va., VCU has an undergraduate degree in bioinformatics that includes genomics. There is currently no stand-alone degree for genomics in the state.



Positive and Negatives

At James Madison University, there is a new course in Genomics and Proteomics in biology that will become a standard offering. In addition, a number of other genetics-related courses include genomics as sub-topics. There is also an ISAT course that has some genomics components.

An emphasis in genomics (for example, a minor) would require coordination between departments and several new courses. It somewhat overlaps with biotechnology, which could be expanded to include a genomics emphasis

Additional Information

Genomics and Prevention: A Vision for the Future by Gilbert S. Omenn, MD, PhD
Medscape Public Health & Prevention. 2005; 3(1): ©2005 Medscape

Synopsis

- Cites The Institute of Medicine report “Who Will Keep the Public Healthy? Educating Public Health Professionals for the 21st Century”
- Next 2 decades should be a golden age for the public health sciences
- Stresses the idea that genomic information alone will have limited impact without pairing this information with environmental cues from nutrition, metabolism, lifestyle behaviors, pharmaceuticals and nutraceuticals, and chemical, physical, and infectious exposures
- Fields of environmental health, epidemiology, pathobiology, biostatistics, and health services will all contribute
- Research needed on eco-genetics, chronic diseases, unhealthy behaviors, and nutrition
- Focus areas: host-pathogen interactions, risk factors for chronic diseases, drug and vaccine development
- Public health and preventive medicine need to include genetics in training and continuing medical education in all fields
- Need a comprehensive public health view keeping in mind social, cultural, and environmental justice considerations
- States will be important in public policy development; policy aims should include protection of consumers considering genetic testing, monitoring implications of genetics for health, social, environmental, and agricultural goals, assurance that genetic advances will be tapped not only to treat medical conditions but also to prevent disease and improve health before people become ill; avoid the notion of genetic exceptionalism



Program Name
Doctor of Nursing
Practice (DNP)

Propose Degree
Doctorate

General Program Description

In October 2004, the American Association of Colleges of Nursing (AACN) endorsed a “Position Statement on the Practice Doctorate in Nursing” and voted to move the current level of preparation necessary for advanced nursing practice from the master’s degree to the doctorate level by 2015. A draft of essential competencies, *The Essentials of the Doctor of Nursing Practice*, has been developed and the AACN is soliciting input into this document from member schools.

Recent reports from the Institute of Medicine describe the challenge of health care and represent a mandate for change in the educational program for the health professions. Nurses are constantly working with individuals who have a high level of preparation in their respective fields—physicians, pharmacists, and other health providers. The DNP will provide educational preparation analogous to other health professions; and it provides a clinical option for advanced preparation in nursing practice that is more comparable.

Labor Forecast

The DNP will help to address the current shortage of advanced practice nurses. In Virginia only 10% of nurses held a Masters/Doctoral degree in 1996 (Virginia Bureau of Health Professions), despite the rising acuity of care and the growing need for advanced practice specialization. The DNP will not alter the current scope of practice for advanced practice nurses. Advanced practitioners and programs that will move to the DNP level include nurse practitioners, nurse midwives, nurse anesthetists, clinical nurse specialists, community health specialists, and nurse administration masters programs. The DNP focuses on providing leadership for evidence based practice and is distinct from the PhD, which is research intensive. Graduates likely will seek practice leadership roles in a variety of settings—management of quality initiatives, executives in health-care organizations, directors of clinical programs, and faculty positions responsible for clinical program delivery and clinical teaching.

The DNP also will help to address a growing nursing educator shortage nationwide. A 2004 survey by AACN showed a national nurse faculty vacancy rate of 8.1% which translates into approximately 2.9 faculty vacancies per school. Most vacancies were faculty positions requiring a doctoral degree. Unfilled faculty positions, resignations, projected rising retirements, and the shortage of students being prepared at the doctoral level pose a significant threat to the nursing education workforce over the next five years.

Feedback from Internal/External Sources

Information obtained from attending professional meetings of the AACN, participating in meetings to develop the DNP Essentials, and reading current AACN publications provide convincing evidence of buy-in to the decision to move advanced practice education to the DNP by 2015. The JMU nursing faculty held a strategic planning retreat in January 2006 and developing the DNP at JMU emerged as a priority initiative for the future.

Virginia or Regional Programs Already in Place

No DNP programs currently are offered in Virginia but informal and formal planning is underway by some schools who are members of the Virginia Association of Colleges

of Nursing (VACN). The JMU nursing department head will obtain updated information regarding this trend at the March 2006 VACN meeting.

Accrediting Bodies

Practice doctorates with the degree title DNP will be eligible for accreditation by the Commission for Collegiate Nursing Education (CCNE). CCNE collaborates with specialty accrediting bodies and respects the specialty standards and competencies of these organizations. For example, CCNE requires nurse practitioner programs to utilize the National Organization of Nurse Practitioner Faculty (NONPF) competencies in their programs. In addition to the position statement noted above, information that further describes the DNP is available on the AACN website, <http://www.aacn.nche.edu/>.

Positives and Negatives

Compatibility with JMU Mission/Strategic Plan

The DNP is compatible with JMU's mission and Strategic Plan to select innovative and new academic graduate programs for development and implementation. It also is consistent with JMU's emphasis on practice in doctoral education.

Enrollment Trends

Academic programs will determine the focus of the DNP programs, as is currently the case for all graduate nursing programs. Currently JMU's program prepares adult and gerontological nurse practitioners. The DNP would incorporate those specialty tracks, as well as any additional new tracks—such as Clinical Nurse Specialist or Family Nurse Practitioner—that the department might develop in the future. Thus, enrollment would reflect conversion of MSN students to DNP students. During the next few years JMU likely would offer a “completion” option that would allow masters students to opt for the DNP. By 2015, certification and licensure will require the DNP. Enrollment at JMU also should grow as the market demand for advanced practice nurses and nurse educators grows.

Competitive Advantage

A positive aspect of this proposal is its timing and timeliness in helping JMU's programs to move forward with trends in the nursing profession. The Essentials of Doctor of Nursing Practice Education has strong buy-in from AACN member schools across the country and development of DNP programs will gain momentum during the next decade. It is to JMU's advantage to incorporate the DNP early in the development of its master's of science in nursing (MSN) program, which will graduate its first students Spring 2006. Further program development, including any new specialty tracks, can be tailored to the DNP standards and competencies. Thus, the momentum to develop new graduate programs can be leveraged effectively toward the DNP.

Resource Issues

Several challenges exist related to resources. The nursing department is simultaneously seeking faculty, operating, and space resources to expand its BSN program and



to continue to increase enrollment in its new RN-BSN and MSN programs. Additional resources and faculty energy will be needed to add the DNP component of graduate education. Fortunately, faculty vision, energy, and enthusiasm are equal to the task if resources can be provided.

Collaboration, Internal/External Partnerships

Current master's prepared nurse practitioner faculty will need encouragement, support, and assistance to obtain the DNP. JMU will work with other institutions in the VACN to seek mechanisms to prepare faculty with the DNP while simultaneously developing DNP programs. The nursing department also will explore ways to collaborate with other doctoral programs at JMU to teach core program content.

Program Name
Cognitive Neuroscience

Proposed “Degree”
Master’s, Bachelor’s

General Program Description

Cognitive-Neuroscience as a degree program was reviewed early in the IHHS Task Force’s discussions. During the time from Task Force inception to present, another committee has been working on the Neuroscience Program. The Task Force refers the reader to the more specific documents generated through the Neuroscience program committee as it has been presented to administration. Based on the information gathered, the IHHS Task Force supports the recommendation of a focused program of study in Neuroscience.

Program
Global Health Ecology

Proposed “Degree”
Master’s, Minor, Certificate,
Curriculum Embedded

“The concept of personal health ecologies (PHEs) refers to the complex network of resources and activities that people create around themselves to deal with health related issues...In short, PHEs reflect the complex web of nongenetic determinants—including housing, education, environment, politics, and economics, among others—that impact both individual and community health outcomes.”

From *“Ecologies, outreach and the evolution of medical libraries”*, Bern Shen, presented at the Symposium on Community based health information outreach, National Library of Medicine, December 2004.

“Worldwide the greatest effects on the health of individuals and populations results from environmental degradation and social injustice, operating in consort...Consequences (of these phenomena) include increased poverty, overcrowding, famine, weather extremes, species loss, acute and chronic medial illnesses, war and human rights abuses in an increasingly unstable global situation that portends Malthusian chaos and disaster.”

From *“Causes and health consequences of environmental degradation and social injustice”*, Martin Donohoe, Center for Ethics in Healthcare, 2002.

General Program Description

This program is designed for students who have direct or related experience in the area of health care as well as experience or a desire to get experience in international programs or a holistic approach to health care around the globe. This program will be a distance education program emphasizing the use of both synchronous and asynchronous communication technology. The richness of enrollee’s experiences will depend in part on the diversity of learners enrolled around the globe. Several global partners will be identified representing various world views. These partners will identify potential students and host periodic on-site classes. The bulk of the work could take place online, with periodic face-to-face classes rotating through various global sites, culminating with an intensive face-to-face period of collaboration. The students will have the opportunity to provide input about the curriculum to respond to individual research interests and/or program development (subject to approval of the program coordinators). They will help make the assignments, identify the readings, and design the assessments. One mandatory element will be an international exchange of one month to one year, depending on the specific setting. Fluency in English is a requirement for participation, although coursework could be done in other languages as conditions warrant.

This program is designed with adult students in mind, and its success will depend in part on the experiences they bring. This program is also designed to provide continuing education and professional development for individuals from a wide variety of health and human service areas. Ideally each cohort of students will have clinical, administrative, and various other kinds of professional experiences. Students enrolled in this program will study humans as inhabitants of the planet, not as dominators of it. They will come to see people as one species among thousands on earth, all of whom are interdependent. Health will be studied holistically, beginning with the human body and extending out to the entire globe.

Topics of study will include sociology, human health across the life span, cultural anthropology, system dynamics, environmental science, art, religion, and world politics and policy. Students who complete the program will emerge with a degree that is commonly recognized (master’s degree in global health ecology) but unique in its scope.

Graduates will be qualified to work as leaders in health promotion and planning, health administration, urban planning, health education, epidemiology, and many other health related fields.

Potential Course of study

Module 1

The human body

Basic anatomy and physiology
(embryology through gerontology)

The state of genomic research

Body burden

(how is the environment in which we live expressed in our bodies)

Diseases through history

Module 2

Family and community dynamics

Varying definitions of “family” around the globe

Role of the family in the community

(neighborhoods, programs, policies reflecting family status)

Communities as organisms

(collective history, culture, art of a community)

Religious and cultural diversity as expressed in health behaviors

Module 3

Health as reflected in nations

Approaches to health policy

Economics of public health

Environmental health reflected in communities

Living in poverty (micronutrient malnutrition, etc)

Module 4

The health of the planet

Assessing environmental health

Sociology of Pandemics

Biodiversity

Affecting change



Sources to indicate a need for this course of study

- This program is directly responsive to JMU's strategic emphasis on diversity and graduate programs of distinction.
- Demographic makeup of the US including language—2000 census found that 18% of Americans spoke a language other than English at home. (only 47% of adults who speak Spanish at home report speaking English “very well”; 12.25 report not speaking English at all.)
- Healthy People 2010 has recognized disparities in healthcare among populations and made eliminating them one goal. This program would prepare healthcare clinicians and policy makers who would understand the complexities of providing healthcare to populations with divergent healthcare beliefs and practices. This program also addresses environmental quality as it relates to individual health, a recognized health indicator according to Healthy People 2010.
- The program directly addresses some of the core competencies identified in the Institute of *Medicine's Health Professions Education: A Bridge to Quality*. Core competencies are:
 - Provide patient-centered care
 - Work in interdisciplinary teams
 - Employ evidence based practice
 - Apply quality improvement
 - Utilize informatics

Labor Forecasts

Graduates of the program would be prepared to work in leadership positions in health education, community/public health, health administration, clinical practice, health policy, etc.

Courses at JMU that are addressing this program

There may be courses in the health sciences, psychology, religious studies, anthropology, foreign languages, sociology, social work, and ISAT that are related. JMU's service learning program and international programs also offer experiences similar to those proposed by this program.

Collaboration Potential

JMU already enjoys a wealth of international relationships that allow for exchange programs and studies abroad. CISAT International is the organization in the college that promotes international and interdisciplinary collaboration, scholarship, and cultural exchange. The university also has an active International Programs office. The International Beliefs and Values Institute also exists at JMU to examine the linkages between the beliefs of individuals and groups and how those beliefs influence policy and life. Through the various International organizations at JMU, relationships with specific universities and research centers have been established.



Program Name
Health Administration

Proposed “Degree”
Master’s

General Program Description

Medical and health services managers must be familiar with management principles and practices. A master’s degree in health services administration is one standard credential for most generalist positions in this field. Course work includes topics such as hospital organization and management, marketing, accounting and budgeting, human resources administration, strategic planning, health economics, and health information systems. Some programs allow students to specialize in one type of facility—hospitals, nursing care facilities, mental health facilities, or medical groups.

In 2003, 67 schools had accredited programs leading to the master’s degree in health services administration, according to the Commission on Accreditation of Healthcare Management Education. Some graduate programs seek students with undergraduate degrees in business or health administration; however, many graduate programs prefer students with a liberal arts or health profession background. Candidates with previous work experience in healthcare also may have an advantage. Competition for entry to these programs is keen, and applicants need above-average grades to gain admission. Graduate programs usually last between 2 and 3 years. They may include up to 1 year of supervised administrative experience.

Medical and health services managers often are responsible for millions of dollars’ worth of facilities and equipment and hundreds of employees. To make effective decisions, they need to be open to different opinions and good at analyzing contradictory information. Motivating others to implement their decisions requires strong leadership abilities. Tact, diplomacy, flexibility, and communication skills are essential because medical and health services managers spend most of their time interacting with others.

Labor Forecast

New graduates with master’s degrees in health services administration may start as department managers or as staff employees. The level of the starting position varies with the experience of the applicant and the size of the organization. Hospitals and other health facilities offer postgraduate residencies and fellowships, which usually are staff positions. Graduates from master’s degree programs also take jobs in large group medical practices, clinics, mental health facilities, nursing care corporations, and consulting firms. Employment of medical and health services managers is expected to grow faster than the average for all occupations through 2012, as the health services industry continues to expand and diversify. Opportunities will be especially good in offices of physicians and other health practitioners, home healthcare services, and outpatient care centers. Applicants with work experience in the healthcare field and strong business and management skills should have the best opportunities. Medical and health services managers have training or experience in both health and management. Other occupations requiring knowledge of both fields are insurance underwriters and social and community service managers. Medical and health services managers will need to deal with the pressures of cost containment and financial accountability, as well as with the increased focus on preventive care. They also will become more involved in trying to improve the health of their communities. Managers with specialized experience in a particular field, such as reimbursement, should have good opportunities.



Salary

Median annual earnings of medical and health services managers were \$61,370 in 2002. The middle 50 percent earned between \$47,910 and \$80,150. The lowest 10 percent earned less than \$37,460, and the highest 10 percent earned more than \$109,080. Median annual earnings in the industries employing the largest numbers of medical and health services managers in 2002 were as follows:

General medical and surgical hospitals	\$65,950
Home health care services	56,320
Outpatient care centers	55,650
Offices of physicians	55,600
Nursing care facilities	55,320

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2004-05 Edition, Medical and Health Services, on the Internet at <http://www.bls.gov/oco/ocos014.htm> (visited October 18, 2005).

Virginia or Regional Programs

George Washington University

Virginia Commonwealth University

University of Virginia (MS in Health Evaluation Sciences approved in 1997)

Accreditation

ACEHSA (www.acehsa.org)

Positives and Negatives

Feedback from internal and external sources is split. Internal feedback is less optimistic regarding the MHA degree. Concerns include resources to support the new degree, potential negative reactions from other state schools, and negative effects on the undergraduate program if a graduate degree is instituted. Feedback from external sources (numerous interviews at the national, state and local levels) present a positive and encouraging sentiment to the MHA degree at JMU. Based on the feedback from community groups, including the local hospital and several extended care facilities, this program would be supported conceptually. This fact suggests opportunities for unique partnerships within this degree of study. It is also likely that the MHA could be a component of the Not-For-Profit degree program currently under investigation.

Program Name
Doctor of Counseling

Proposed Degree
Doctorate (Ph.D.)

General Program Description

The mission of the Doctorate in Counseling Program would be to train master practitioners, supervisors, trainers, administrators, scholars and leaders in the counseling field. Students will specialize in emergency services/crisis intervention, rural services, or leadership/program administration. Doctorate-level counselors work as direct service providers, administrators, counselor educators, consultants, researchers, and program evaluators. Graduates of the program would be qualified to work in such settings as agencies, schools, hospitals, crisis centers, community mental health agencies, emergency and outreach services, employee assistance programs, private practices, and institutions of higher education. Our goal is to create dynamic innovators who will serve as catalysts in the counseling profession.

Labor Forecast

Overall employment of counselors is expected to grow faster than the average for all occupations through 2012, and job opportunities should be very good because there are usually more job openings than graduates of counseling programs. In addition, numerous job openings will occur as many counselors retire or leave the profession.

Employment of educational, vocational, and school counselors is expected to grow as fast as the average for all occupations as a result of: increasing student enrollments, particularly in secondary and postsecondary schools; State legislation requiring counselors in elementary schools; and an expansion in the responsibilities of counselors. For example, counselors are becoming more involved in crisis and preventive counseling, helping students deal with issues ranging from drug and alcohol abuse to death and suicide. Although schools and governments realize the value of counselors in achieving academic success in their students, budget constraints at every school level will dampen job growth of school counselors. However, Federal grants and subsidies may fill in the gaps and allow the current ongoing reduction in student-to-counselor ratios to continue.

Demand for vocational or career counselors should grow as the notion of staying in one job over a lifetime continues to be rejected and replaced by the concept of managing one's own career and taking responsibility for it. In addition, changes in welfare laws that require beneficiaries to work will continue to create demand for counselors by State and local governments. Other opportunities for employment counselors will arise in private job-training centers that provide training and other services to laid-off workers, as well as to those seeking a new or second career or wanting to upgrade their skills.

Demand is expected to be strong for substance abuse and behavioral, mental health, and marriage and family therapists and for rehabilitation counselors, for a variety of reasons. For one, California and a few other States have recently passed laws requiring substance abuse treatment instead of jail for people caught possessing a drug. This shift will require more substance abuse counselors in those States. Second, the increasing availability of funds to build statewide networks to improve services for children and adolescents with serious emotional disturbances and for their family members should increase employment opportunities for counselors. Under managed care systems, insurance companies are increasingly providing for reimbursement of counselors as a less costly alternative to psychiatrists and psychologists. Also, legislation is pending that may provide counseling services to Medicare recipients.

The number of people who will need rehabilitation counseling is expected to grow as the population continues to age and as advances in medical technology continue to save lives that only a few years ago would have been lost. In addition, legislation requiring equal employment rights for people with disabilities will spur demand for counselors, who not only will help these people make a transition into the workforce, but also will help companies comply with the law.

Employment of mental health counselors and marriage and family therapists will grow as the Nation becomes more comfortable seeking professional help for a variety of health and personal and family problems. Employers also are increasingly offering employee assistance programs that provide mental health and alcohol and drug abuse services. More people are expected to use these services as society focuses on ways of developing mental well-being, such as controlling stress associated with job and family responsibilities.

Feedback from Internal/External Sources

In October 2005, a survey assessing the need and interest in the proposed program was distributed to counselors in Virginia. A total of 461 counselors responded to the questionnaire and overwhelmingly endorsed the program. For example, 99% of the respondents agreed or strongly agreed that the specialization of emergency preparedness would address an important need. In addition, 96% agreed or strongly agreed that the specialization of services in rural settings would address an important need. Finally, 96% endorsed the importance of a proposed specialization in administration of counseling services.

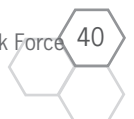
Concerning the proposed format of the training program, 92% agreed that a combination of distance learning and face-to-face training would be important and 95% endorsed the option of participating on a part-time basis.

Virginia or Regional Programs Already in Place

In the United States, 198 institutions, including James Madison University, offer programs in counselor education that are accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). However, only 50 institutions in the United States offer accredited doctoral programs in counselor education. Programs in Virginia offering doctorates in Counseling Psychology or Counselor education include the following:

Liberty University	Ph. D. Professional Counseling
Regent University	Ph. D. Counselor Education
College of William & Mary	Ph. D. Counselor Education
University of Virginia	Ed. D. Counselor Education
Virginia Tech	Ph. D. Counselor Education

Although these programs offer a similar degree, the proposed JMU program would offer such unique concentrations as Emergency Services/Crisis Intervention and Rural Counseling Services. The format of our training would be designed for experienced, seasoned practitioners in the counseling field. We are targeting practicing counselors



who wish to continue their work while pursuing a doctorate. Therefore, our training would be designed to accommodate other professional commitments. We would take full advantage of cutting-edge technologies to offer distance-learning experiences, including online “collaboratories,” in which faculty and students could work together on teaching, research and service projects. Each student would become skilled in using technology as a tool in counseling, education, supervision, administration, research, and consultation.

Accrediting Bodies

Council for Accreditation of Counseling and Related Educational Programs, American Counseling Association, 5999 Stevenson Ave., 4th floor, Alexandria, VA 22304. Internet: <http://www.counseling.org/cacrep>

Positives and Negatives

Compatibility with JMU Mission/Strategic Plan

The Ph. D. in Counseling Psychology is compatible with JMU’s mission and Strategic Plan to select innovative and new academic graduate programs for development and implementation. It also is consistent with JMU’s emphasis on practice in doctoral education.

Enrollment Trends

Currently, JMU’s Community Counseling Program provides the course work necessary to become licensed professional counselors in community mental health centers, community agencies, psychiatric facilities, and private practice. The School Counseling Program prepares students to be counselors in elementary, middle, or secondary school settings. Each year, the total number of applications is between 90 and 100 for the 20 open slots.

At the present time, there is a shortage of counselor educators, supervisors and administrators needed to train, supervise and administer master’s-level counselors in schools, community agencies, mental health centers, college campuses, psychiatric hospitals, couple and family counseling services, and substance abuse programs throughout the country.

In recent years, the most innovative services in the field have been those offering counseling in the home, emergency room, disaster assistance center, terrorism site, free clinic, and other nontraditional settings. Outreach services, in-home counseling, family preservation programs, crisis intervention, hotlines, and emergency services are only a few examples of these efforts to connect rapidly with citizens at risk. The recognition that Americans now face a greater risk of terrorism has provided an impetus for developing emergency preparedness plans that include counseling for survivors. However, in spite of these trends, no counselor education program in the country offers a specialization in emergency services and crisis intervention.

Furthermore, rural communities have been identified as underserved populations in the provision of counseling services. Geographic isolation, limited resources, fear and



stigma regarding services, and lack of anonymity are only some of the difficulties facing counselors in rural communities. Unfortunately, the training of most counselors is based on service delivery models developed in urban and suburban communities.

Counselors are now assuming leadership roles in school systems, community agencies, employee assistance programs, substance abuse treatment centers, private practices, and institutions of higher education. Many have had little or no formal learning experiences to prepare them for the daunting tasks of leading and managing systems. Our program would provide training in management skills, administration strategies, and approaches to planning, implementing and evaluating programs.

Thus, enrollment would reflect the growing need for counselors with advanced training in the areas of Emergency Services/Crisis Intervention, Rural Services, and Leadership/Program Administration. During the next few years JMU likely would offer a “completion” option that would allow students with an advanced counseling degree to return to earn the Ph.D. in Counseling. Enrollment at JMU should grow as the market demand for counselors with specific training in the areas of Emergency Service/Crisis Intervention, Rural Services, and Leadership/Program Administration.

Competitive Advantage

The present JMU Counseling Psychology Program enjoys an excellent reputation for training successful counselors. In fact, recently the Southern Association of Counselor Education and Supervision named it the Outstanding Program at the Master’s Level.

Both internal and external sources have recognized the excellence of the Counseling Psychology faculty. In the past five years alone, counseling faculty have been the recipients of three national ACES awards, including Distinguished Professional Service in Counselor Education, Counseling Vision and Innovation, and Publications in Counselor Education and Supervision. Faculty members have also received the Virginia Counselors Association Humanitarian and Caring Person Award, James Madison University Distinguished Teaching Award, James Madison University All Together One Award, College of Education and Psychology Award for Distinguished Teaching, Madison Scholar Award, College of Integrated Science and Technology Award for Distinguished Teaching, College of Integrated Science and Technology Outstanding Junior Faculty Award, William Hall Faculty Award for Outstanding Service to Students, and other recognitions.

Resource Issues

Counseling Psychology will need more sophisticated technology to offer distance-learning courses and to engage in interactive video supervision. Current faculty will need training and support in the use this technology. Outreach adjunct faculty will be required to coordinate fieldwork project at distant sites. Finally, additional core faculty will be needed to provide an adequate student-teacher ratio for the new doctorate program.

At the present time, the Counseling Psychology Program relies a great deal on adjunct faculty. Ten adjunct and part-time faculty members are teaching many of our required courses. Although these adjunct and part-time faculty have provided excellent coverage of essential courses, the six core Counseling Psychology faculty members must



provide all the additional labor-intensive services that are essential for successful graduate training. For example, core faculty members serve as academic advisors, perform admissions screenings and interviews, complete progress reviews, evaluate comprehensive examinations, supervise independent studies, and serve on Ed.S. Research Project committees of all 58 Community and School Counseling students.

Collaboration, Internal/External Partnerships

The proposed program will take full advantage of collaborative relationships, including Counseling and Psychological Services, and the Counseling and Student Development Center on campus, along with other psychology, health and social service programs. Faculty members have developed long-term partnerships with the area community mental health services, regional disaster planning task force, and Central Valley Emergency Medical Services in designing and implementing emergency preparedness programs. They have also maintained alliances with area school crisis teams and counseling services.

Program
Biomedical Engineering

Probable “Degree”
Minor

General Program Description

Biomedical engineering integrates physical, chemical, mathematical, and computational sciences and engineering principles to study biology, medicine, behavior, and health. It advances fundamental concepts; creates knowledge from the molecular to the organ systems level; and develops innovative biologics, materials, processes, implants, devices and informatics approaches for the prevention, diagnosis, and treatment of disease, for patient rehabilitation, and for improving health.

By combining biology and medicine with engineering, biomedical engineers develop devices and procedures that solve medical and health-related problems. Many do research, along with life scientists, chemists, and medical scientists, to develop and evaluate systems and products for use in the fields of biology and health, such as artificial organs, prostheses (artificial devices that replace missing body parts), instrumentation, medical information systems, and health management and care delivery systems. Biomedical engineers design devices used in various medical procedures, such as the computers used to analyze blood or the laser systems used in corrective eye surgery. They develop artificial organs, imaging systems such as magnetic resonance, ultrasound, and x-ray, and devices for automating insulin injections or controlling body functions. Most engineers in this specialty require a sound background in one of the basic engineering specialties, such as mechanical or electronics engineering, in addition to specialized biomedical training. Some specialties within biomedical engineering include biomaterials, biomechanics, medical imaging, rehabilitation engineering, and orthopedic engineering. Unlike many other engineering specialties, a graduate degree is recommended or required for many entry-level jobs. Skills sets include solid working understanding of math, computer science, physics, chemistry, biology, and basic engineering. Practical training in a variety of sub-areas is necessary.

Duke University has an undergraduate degree, described at http://www.bme.duke.edu/downloads/undergrad_handbook.pdf.

Labor Forecasts

Biomedical engineers held about 7,600 jobs in 2002. Manufacturing industries employed 38 percent of all biomedical engineers, primarily in the pharmaceutical and medicine manufacturing and medical instruments and supplies industries. Many others worked for hospitals. Some also worked for government agencies or as independent consultants.

Overall job growth is projected to be 14.8 percent, according to the U.S. Bureau of Labor Statistics (BLS). The bureau's growth projections have declined slightly since the last national survey two years ago. At that time, the government foresaw a 31.4 percent increase in biomedical engineering jobs over 10 years and a 15.2 percent overall growth.

Employment of biomedical engineers is expected to grow faster than the average for all occupations through 2012. The aging of the population and the focus on health issues will increase the demand for better medical devices and equipment designed by biomedical engineers. For example, computer-assisted surgery and molecular, cellular, and tissue engineering are being more heavily researched and are developing rapidly. In addition, the rehabilitation and orthopedic engineering specialties are growing quickly,



increasing the need for biomedical engineers. Along with the demand for more sophisticated medical equipment and procedures is an increased concern for cost efficiency and effectiveness that also will boost demand for biomedical engineers. However, because of the growing interest in this field, the number of degrees granted in biomedical engineering has increased greatly, leading to the potential for competition for jobs.

Salary

According to a 2003 salary survey by the National Association of Colleges and Employers, bachelor's degree candidates in biomedical engineering received starting offers averaging \$39,126 a year, and master's degree candidates, on average, were offered \$61,000.

*Source: Bureau of Labor Statistics, U.S. Department of Labor. Used by permission.
<http://www.collegegrad.com/careers/proft09.shtml>

Virginia or Regional Programs Already in Place

George Mason: undergraduate and graduate degrees

Va. Commonwealth: undergraduate and graduate degrees

Va. Tech (joint program with Wake Forest): graduate degrees

Accrediting Bodies

Biomedical Engineering Society, 8401 Corporate Dr., Suite 225, Landover, MD 20785-2224. Internet: <http://www.bmes.org>

Positives and Negatives

This area of study is most logical for JMU as an add-on in the context of a biomedical engineering program. If we put in a general engineering program, it is logical also to have a biomedical engineering program. This approach is done fairly often without the medical school connection. Without an engineering program, JMU is limited more to the biological and medical aspects. In the Duke University program, there are 5 courses specific to this program; all others in the curriculum are in other departments. JMU would have all those courses—just would have to put in the program specific courses.

The JMU materials science program, in addition to other more obvious connections in physics, chemistry, and biology, would be a natural fit for an undergraduate program in biomedical engineering.

Sources of Additional Information:

<http://www.bmes.org/careers.asp>

<http://www.whitaker.org/glance/outlook2012.html>

Program Name

Interdisciplinary Health
and Human Services
Modular Program

Probable “Degree”

Bachelor’s, Minor, Certificate,
Curriculum Embedded

General Program Description

Leading a “meaningful and productive” life is a lofty goal that is not achieved through the acquisition of certain skills, but rather through continuous, life-long examination of one’s environment and the challenges present. Relevant skills can be attained through formal education and developed through careful cultivation and extracurricular activities. To meet JMU’s stated mission of creating educated and enlightened citizens, our graduates must possess unique and dynamic skills. They must be flexible enough to thrive in constant change; they must be able to communicate effectively with diverse populations and in divergent media; they should be able to make sound decisions quickly with the best information available; and most importantly they have to retain the ability to learn new skills throughout the course of their lives. The environment in which our students learn today will be very different from the environments in which they will work tomorrow. In order to prepare students for an uncertain future, there should be an option for students to design their own course of study. The model being proposed is one in which students could combine existing coursework in order to design a unique course of study resulting in either a minor, a bachelor’s degree or a post-graduate certificate. By strategically combining classes from across the colleges, graduates would emerge with unique skill sets not offered in existing majors. Students pursuing existing courses of study (nursing, health science, social work, etc.) would have the option of combining courses to create their own minors.

This program is similar to the Bachelor’s of Individualized Study, in that students have control over their individual curriculum. By choosing the appropriate combination of courses they would emerge with either a bachelor’s degree in interdisciplinary health and human services, or a minor in interdisciplinary health and human services with an emphasis on the chosen area. This option would allow students to graduate with a degree that would be recognized and with areas of concentration that would also be recognized by employers.

**For a major in multidisciplinary health and human services*
the requirements would be**

- Completion of the General Education Requirements
- Completion of at least four complete modules (some of these require a specific choice of GenEd courses)
- Completion of 12 fieldwork/service learning credit hours

**For a minor in multidisciplinary health and human services
the requirements would be**

- Completion of major course of study and any associated fieldwork
- Completion of two complete modules

**Please see the information at the end of this document for an example of a sample course of study.*

Sources to indicate a need for this course of study

Most of the individuals interviewed by the taskforce identified the skills that the packages pull together as skills they would like future employees to have.



- Jane Woods, Secretary of Health and Human Services for the state of Virginia noted a need for healthcare practitioners who understand and can work on public policy issues. She also noted a need for healthcare providers to understand naturopathic medicine, especially as it relates to self-care and to care for uninsured populations.
- Jim Krauss of Rockingham Memorial Hospital noted that RMH already employs patient “navigators” to help their patients understand the complexities of their individual healthcare needs and treatments. Mr. Krauss also predicted that passive data gathering will increase, as will other kinds of technology, necessitating the need for healthcare professionals who are proficient in the use of information technology (informatics).
- Jim Cato, VP and chief nursing officer, Eclipsys Corporation, predicted that the electronic medical record will become dominant, demanding that healthcare workers be conversant in informatics.
- Almost every respondent to the survey noted the need for graduates to be able to work in cross-disciplinary teams, and to understand research (evidence-based practice), and to work with an increasingly diverse population.

There is also a wealth of published research and information that reflects the needs that this program would address. Among them are the following:

- *College curriculum competencies and skills former students found essential to their careers*, By: Zekeri, Andrew A., College Student Journal, 0146-3934, September 1, 2004, Vol. 38, Issue 3 (“The key skills needed to improve their careers are oral communication, written communication, problem solving techniques, motivating and managing others, and setting personal and organizational goals...Communication and interpersonal relationship skills, problem solving and critical thinking are essential in the work force as we begin the 21st century.”)
- *Social work gerontological practice: the need for faculty development in the new millennium*, by Barbara Berkman, Barbara Silverstone and June Simmons, Journal of Gerontological Social Work, 2000, vol. 34, issue 1, 5-23. (“There are major trends in the health care environment which impact on social work education, including technological advances, a shift from inpatient to outpatient and community care settings, increasing diversity of the older population, and client and family participation in decision making.”)
- *Crossing the Quality Chasm: A New Health System for the 21st Century*, Committee on Quality of Health Care in America, Institute of Medicine, 2001. (“At no time in the history of medicine has the growth in knowledge and technologies been so profound. Since the first contemporary randomized controlled trial was conducted more than 50 years ago, the number of trials conducted has grown to nearly 10,000 annually (Chassin, 1998). Between 1993 and 1999, the budget of the National Institutes of Health increased from \$10.9 to \$15.6 billion, while investments by pharmaceutical firms in research and development increased from \$12 to \$24 billion (National Institutes of Health, 2000; Pharmaceutical Research and Manufacturers of America, 2000). Genomics and other new technologies on the horizon offer the promise of further increasing longevity, improving health and functioning, and alleviating pain and suffering. Advances in rehabilitation, cell restoration, and prosthetic devices hold potential for improving the health and functioning of many with disabilities.”)



- The program directly addresses some of the core competencies identified in the Institute of Medicine's Health professions education: A bridge to quality. Core competencies are:
 - Provide patient-centered care
 - Work in interdisciplinary teams
 - Employ evidence based practice
 - Apply quality improvement
 - Utilize informatics.
- Due to the size of JMU, the tendency for colleges to be geographically and administratively disconnected, and the complexities of assuring that credit requirements are met, the task force identified inter-college separatism as a barrier to students who wish to pursue a truly interdisciplinary education. A program that would require students to take classes in more than one college throughout their education would address this issue. This would have the added benefit of establishing formal lines of communication between colleges to assure that curriculum development is not redundant, but complementary.
- Finally, this program addresses both goals of Healthy People 2010, to increase the quality and years of healthy life for Americans and to eliminate health disparities. The list of individual objectives that this program addresses is too long to include here. Many of the packages would address improvements in the delivery and quality of healthcare through informatics; improvements in health education and outreach through research and writing and policy studies; and substantial improvements in health communication through health literacy and diversity issues.

JMU Courses that are Addressing this Program

A course of study in this program would include classes from the colleges of Education, Business, CISAT, Science and Math, and Visual and Performing Arts.

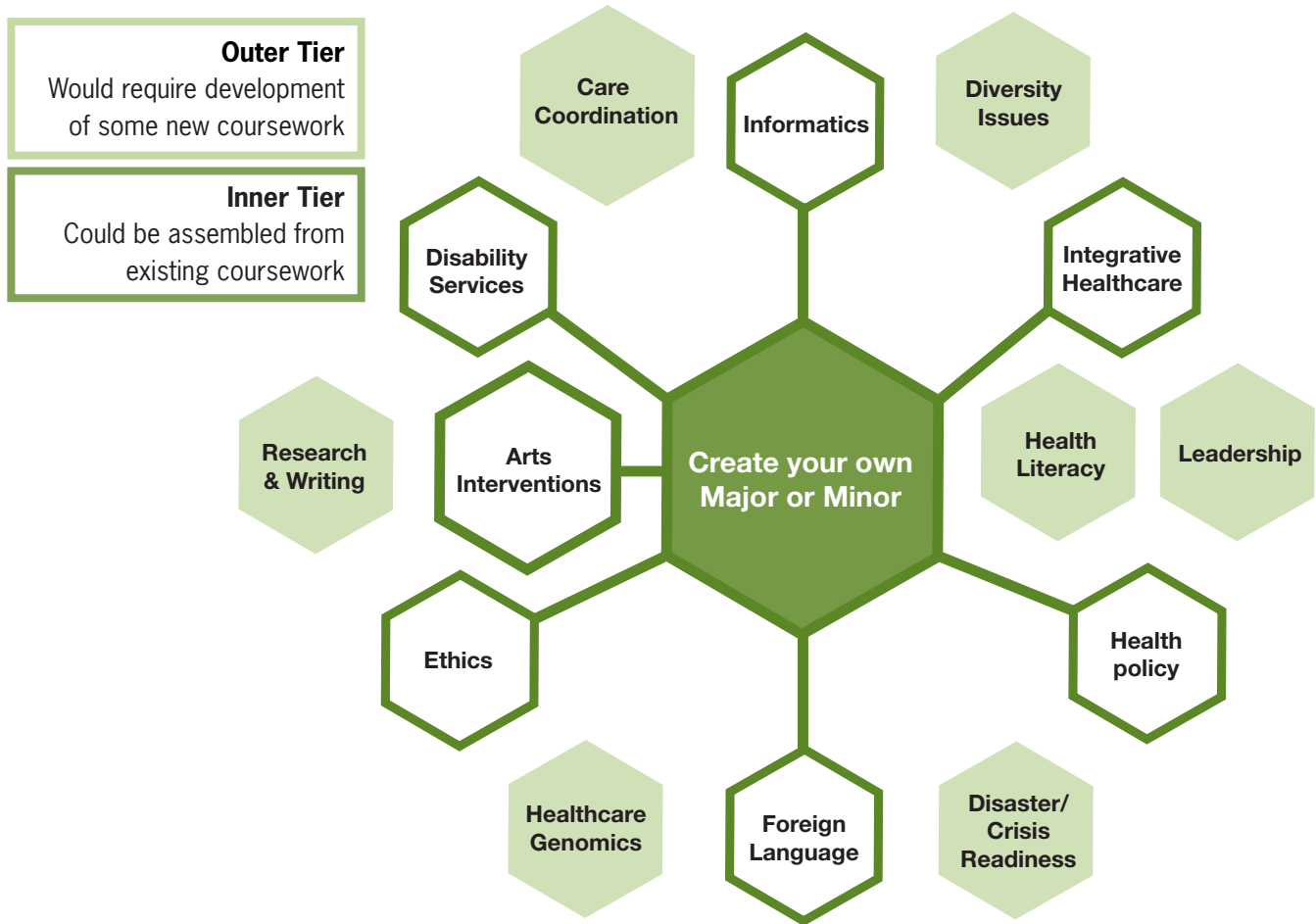
JMU Compatibility

The hallmark of this program is its flexibility. Because it allows students to pursue a course of study that allows for in depth examination of other cultures, socio-economic groups, and approaches to therapies, it is strongly linked to JMU's stated commitment to diversity. The possibility of marketing the individual packages as continuing education or certificate options also connects this program to JMU's efforts to diversify its funding sources. The option to combine some of the packages with existing graduate programs (psychology, health science, communication sciences and disorders, nursing, etc.) correlates this approach to JMU's commitment to offering graduate programs of distinction.

Additional continuing commitment characteristics that relate to this program include:

- The university will strategically select innovative new academic programs for development;
- The university will expand its strategic alliances;
- The university will challenge students to achieve beyond their expectations;





Sample packages

Each package would consist of at least 9 credits of coursework, and would be subject to approval by the student's advisor. The composition of the packages could look something like this:

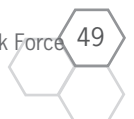
Diversity Issues: sociology classes, anthropology classes, women's studies classes, Africana studies, Asian studies, Latin American studies, Russian studies, geography classes, cultural communication classes, social work, justice studies, disabilities and society (already developed)

Health Literacy: research methods in health sciences, cultural communication classes, health communication classes, social work, foreign languages,

Leadership: conflict analysis (comm. studies) classes, public communication, public relations, coursework from Business, public administration classes (political science), psychology classes, social work, nonprofit studies,

Disaster/crisis readiness: informatics, counseling, human-computer interaction (ISAT), decision support (ISAT), psychology, social work, substance abuse intervention,

Healthcare Genomics: biology, psychology, chemistry, health information systems, computer science, informatics, biotechnology classes,



Research and Writing: research methods, classes in Technical and Scientific Communication, classes in writing and rhetoric, statistics, communication studies,

Care Coordination: classes in health systems, sociology, family studies, social work, accounting, political science, gerontology,

Disability services (minor already under development)

Informatics: some coursework already developed, computer science, healthcare systems, public administration,

Integrative Healthcare: ISAT coursework, geography coursework, Asian studies, Latin American studies, Africana studies, nursing coursework,

Health Policy: courses in political science, public administration, sociology, social work, health administration,

Ethics: courses in philosophy, social work, business, accounting,

Arts Therapies: studio arts classes, theater and dance classes, writing classes, sociology classes, anthropology classes, psychology, education,

Sample Bachelor's Degree Coursework

A student who wanted to work in a health services field and emphasize alternative and complementary approaches to healthcare could take the following courses:

General Education Requirements (Includes cluster 3 package C, health issues)	41 credits
Arts therapies package	9 credits
Integrative healthcare package	9 credits
Health Literacy package	9 credits
Diversity package	9 credits
Health Sciences electives	21 credits
Field placement	12 credits
Free electives	10 credits
<hr/> Total	120

Program
Aging Studies/
Gerontology/Geriatrics

Proposed “Degree”
Minor, Certificate,
Curriculum Embedded

General Program Description

The Association of Gerontology Higher Education (AGHE) defines aging studies, gerontology and geriatrics as follows:

Aging is a multidisciplinary field. This means that the study of aging combines or integrates information from several separate areas of study. Biology, sociology, and psychology are the “core” or basic areas, along with content from many other areas of study such as public policy, humanities, and economics.

Gerontology is the study of the aging processes and individuals as they grow from middle age through later life. It includes:

- a. the study of physical, mental, and social changes in older people as they age
- b. the investigation of the changes in society resulting from our aging population
- c. the application of this knowledge to policies and programs. As a result of the multidisciplinary focus of gerontology, professionals from diverse fields call themselves “gerontologists”

Geriatrics is:

- a. the study of health and disease in later life
- b. the comprehensive health care of older persons and the well-being of their informal caregiver

Skills Required

For professionals working directly with older persons activities/skills might include:

- ability to communicate effectively with older adults [demonstrates understanding of life stages and listening skills]
- assessment (holistic) including physical, cognitive, social, emotional, spiritual, and the impact of disruptive life events
- identification of elder abuse with knowledge and skills on how to intervene and refer
- developing appropriate interventions [multidimensional and interdisciplinary]
- identification, ability to access and coordinated support services and resources
- evaluation of the effectiveness of interventions and services
- development of programs and intergenerational activities in various venues
- advocacy skills, including advocating for and impacting on policies that adversely impact on client(s)
- provision of direct care [hospitals, clinics, nursing homes, adult day care, home care programs]
- mental health counseling
- counseling older persons and their families about issues of caregiving, death and dying, etc.
- advising older clients about estate planning and investments, financing long-term care, or housing options.



For professionals less directly involved with older persons, but who work on their behalf, activities/skills might include:

- planning, administering, and evaluating community-based services and service delivery systems for older persons
- conducting research on the aging processes and diseases associated with aging
- advocating with or on behalf of older persons
- analyzing issues and policies related to older persons
- teaching courses on aging to college and university students, health care professionals, and older adults
- designing products to meet the special interests and needs of older persons

Sources to indicate a need for this course of study:

The AGHE Careers in Aging website supplies the following information [www.careersinaging.com/careersinaging/].

Labor Forecasts

Populations are aging worldwide. This means that people are living longer, and the number of older persons is increasing. These trends are evident in American society, as well as in many countries around the world. In the U.S., of those born in 1900 nearly half died before they were 50 years old. People born today can expect to live beyond their 75th year. In 1900 about one in 25 Americans was over 65; today one in eight is over 65. And the age group growing fastest in our society and in many other countries is the “very old,” people aged 85 and over. The growth of the elderly population will continue into the future. By the middle of the 21st century, one in five Americans will be over 65, and there will be 15 to 18 million persons over the age of 85. These growth trends will result in a demand for professionals with knowledge and expertise in aging. Expanded career opportunities in gerontology and geriatrics are forecast in many disciplines and professions.

The field of aging is very diverse, offering many different employment opportunities. This diversity exists, in part, because older persons are very different from each other in many ways. As we age, our experiences, needs, resources, and abilities vary according to such factors as gender, race, ethnicity, and economic status. For example, many older persons are very healthy and active. Persons working with these older people might be providing educational opportunities, recreation and leisure programs, and volunteer activities. Some older persons are frail and less active. Jobs which relate to these more vulnerable elders might be in long-term care or other health care settings or in certain agencies that deliver services to older persons. The relative newness of the field means that there are opportunities for innovative ideas and new programs and products. Many people have started their own businesses, such as coordinating home health care or consulting with businesses and corporations about how to develop services or design products that would attract older consumers.



The varied needs of older persons lead to exciting opportunities for working side by side with professionals from other disciplines. As a service provider, you may be coordinating information from housing agencies, lawyers, transportation providers, nurses, and family counselors. As a health professional, you might serve on a health care team providing hospital care, day care, or home care to older persons. As an educator, you might teach a course on work and retirement to students from several university departments. As a researcher, you might study the relationships between the maintenance of friendship networks and the mental and physical health of older persons.

Professionals in the field of aging work in a variety of settings:

- community, human service, religious and professional organizations
- health care, long term care institutions, and retirement communities
- federal, state and local government organizations, including the aging network (the system of service delivery to older persons established by a federal law entitled the Older American Act)
- academic and other educational research settings
- business and industry

Websites

AARP Age Line Data Base

www.aarp.org/research/ageline

Alliance for Aging Research

www.agingresearch.org

American Society of Aging

www.asaging.org/networks/index.cfm?cg=HAN

Association of Gerontology in Higher Education

www.aghe.org/site/aghewebsite

Careers in Aging

www.careersinaging.com/careersinaging/

Center for Aging Research, Boston College

www.bc.edu/centers.crr/

Center for Retirement Research, Michigan University

www.mrrc.isr.umich.edu/

Gerontological Society of America

www.geron.org

John A. Hartford Foundation

www.jhartfound.org

Hartford Institute for Geriatric

Institute www.hartfordign.org

Hartford Gerontological Social Work Initiative

www.geron.org/hartford/socialwork.htm



Merek Institute on Aging
www.miahonline.org

Society Security on Line
www.ssa.gov

United States Administration on Aging
www.aoa.dhhs.gov

Virginia or Regional Programs Already in Place

Christopher Newport University

Undergraduate Minor in Gerontology

George Mason University

MS in Health Sciences, concentration in gerontology

MSN (Nursing), Advanced Practice Gerontological Nursing

Undergraduate Certificate in Gerontology

Graduate Certificate in Gerontology

Undergraduate Certificate in Assisted Living/Senior Housing Administration

Graduate Certificate in Assisted Living/Senior Housing Administration

Studies in Aging for Gerontology Employees (SAGE) Certificate

James Madison University

Undergraduate Minor in Gerontology

Certificate in Gerontology (must have associates or bachelor's degree)

MSN Gerontology Nurse Practitioner

JMU Lifelong Learning Institute (Department of Social Work)

JMU Adult Health and Development Program (Department Of Social Work)

The Center for the Promotion of Physical Activity in Girls and Women (Department of Kinesiology)

Norfolk State University

MS in Gerontology

Virginia Commonwealth University

MS Gerontology [concentrations in Education, Health Care Organization and Planning, Psychogeriatrics, Public Administration, Social Services, and Research]

Graduate Certificate in Aging Studies

Virginia Geriatric Center

Virginia Tech University

Graduate Certificate in Gerontology

Virginia Community College SystemCareer Studies Certificate in Gerontology
[BRCC]Long Term Care Assistant Career Studies
Certificate [Eastern Shore CC—Nursing]

Adult Home Administration [John Tyler CC]

As illustrated by the information in preceding questions, study in gerontology is appropriate at the certificate, minor, major and graduate study level. People who are interested in the field of aging studies/gerontology/geriatrics can enter at any educational level and in many disciplines, professions, and clinical areas, such as social work, nursing, counseling, recreation, public policy, long-term care administration, medicine, architecture, psychology, adult education, and rehabilitation therapy.

Courses at JMU that are addressing this program

Undergraduate Minor in Gerontology: Housed in the Department of Social Work; open to all majors.

Certificate in Gerontology: Housed in the Department of Social Work; students are generally currently working in the field of aging and are seeking additional/advanced knowledge and skill base. Must hold an Associates Degree or a Bachelor's Degree.

MSN Gerontology Nurse Practitioner**Accrediting Bodies**

Gerontology programs can be assessed by a team assigned by the Association of Gerontology in Higher Education. If approved, they become designated as a Program of Merit. Information on this process follows.

PROGRAM OF MERIT**The National Review of Educational Programs in Gerontology**

AGHE's Program of Merit is a voluntary program of review available to any program in aging at the Master's, Bachelor's, or Associate's level. The designation provides gerontology programs with an AGHE "stamp of approval," which can be used to verify program quality to administrators, to lobby for additional resources to maintain a quality program, to market the program, and to recruit prospective students into the program. Each program is evaluated according to its own goals and objectives. For more information on applying for the Program of Merit designation for your school, contact Derek Stepp at dstepp@aghe.org or (202) 289-9806 or Bradley Fisher at bjf690f@smsu.edu or (417) 836-5284.



Program Name
Disabilities Studies

Proposed “Degree”
Minor, Curriculum Embedded

General Program Description

This program is designed for an interprofessional student body that recognized that disability affects all members of our society to some extent and at some point in our lives. The Disabilities Studies Minor will increase students’ own level of knowledge and skills pertaining to disabled persons, their families and community, as well as their understanding of the social perceptions of disability and the impact on work, recreation, social, religious, and intellectual activities. Students in this program will be prepared to play a leadership role in disability policy and practice in a broad range of public and private contexts. The design and delivery of the program curriculum and learning experiences is inter-professional and depends on collaborative relationships across colleges and departments on campus as well as with the disability community.

Programming

The Disabilities Studies Minor will consist of 18-credits in course work related to disabilities. A 9-credit core of courses focusing on disability will include the introductory course HHS 490: Perspectives of Disabilities: A Disabilities Studies Overview (3 credits). Two other courses will either be developed or adapted/adopted for this minor. Courses might focus on Disability Ethics, Disability Policy, or Disability Messages from the Arts and Media. Nine-credits of electives in disability related courses might come from anthropology, philosophy, nursing, education, business, literature, etc. The focus will be to build a cross-disciplinary, collaborative program design.

Labor Forecasts

An estimated 19.4% of non-institutionalized civilians in the United States, totaling 48.9 million people, have a disability. Almost half of these people (an estimated 24.1 million people) can be considered to have a severe disability. Almost one in five people has a disability. 18.7% of the working-age population 18-64 (32.1 million people) report a disability. Professionals in all disciplines—health care, business, education, hospitality and service, defense—will interact with, be impacted by and impact disabled persons. As the number of disabled persons increases, as well the diversity within this population, it will be necessary that citizens have the knowledge and skills to successfully interact with, and support their efforts in all contexts of life.

Feedback from Internal and External Sources

The pilot course for this minor; HHS 490: Perspectives of Disabilities: A Disabilities Studies Overview has been met with internal support. Individuals in Social Work, Anthropology, Psychology, Nursing, Pre-OT, Education, and Business expressed interest in such a course and have supported its design. This course also supports the university’s diversity initiative as it makes the campus and community a more positive place for disabled persons to work and learn. Disabilities Studies have been institutionalized in a number of universities and the Society for Disabilities Studies has taken a leadership role in providing a framework for development of such programs, and advocacy of disabilities studies research.

Virginia or regional programs already in place

No programs known in the region.

Accrediting Bodies

Although there is no accrediting body the Society for Disabilities Studies (SDS) has established Guidelines for Disabilities Studies (<http://www.uic.edu/orgs/sds/generalinfo.html#4>)

Positive and Negatives

Enrollment Trends

Enrollment of undergraduates will depend upon whether or not Disabilities Studies courses can be used as electives in their GenEd or major programs of studies. Enrollment should maintain, if not grow, with support from colleges and departments across the university.

Competitive Advantage: The quality of preparation of individuals graduating from JMU with such a minor better enables them to serve leadership roles in their chosen field. This enhances JMU's reputation and own leadership role.

Resource Issues

Additional faculty will be needed to design/adapt courses, cover additional enrollment in existing courses and supervise learning experiences focusing on disabled persons and social perspectives. Equipment and materials to provide a range of learning experiences will also require additional resources. Formal and informal partnerships with community agencies that represent disabled persons will require time and resources to establish and maintain. Supervision of the minor and facilitation between the collaborative partners, both within JMU and with the community will require time and personnel.

Collaboration:

This Disabilities Studies Minor is meant to be inter-professional and collaborative in nature. The idea for the minor was initiated by a disabled student, forwarded by the Office of Disability Services, endorsed by the Institute for Innovation in Health and Human Services, and developed by faculty in Education, Occupational Therapy, Nursing and the aforementioned student. Recruitment of instructors and guest lecturers will pull individuals from all disciplines and a variety of contexts. This minor MUST have successful collaboration in order to meet the end objectives. Students will develop collaborative skills as they complete learning activities, and interact with instructional faculty.

SUMMARY

The IHHS Task Force in Educational Futures believes that the reported information reflects a strategic and comprehensive analysis of the potential programming opportunities in Health and Human Services at James Madison University. The recommended areas of study are consistent with the guidelines provided to the Task Force upon inception. Specifically, the programs recommended within this document are

- Consistent with the mission, the values, and the Centennial Plan for the University.
- Founded on a comprehensive review of existing materials, projections and seminal reports on the societal and educational trends relative to workforce needs for the future in health and human services.
- Capitalize on existing and potential internal strengths at James Madison University for interdisciplinary collaboration as well as the unique external partnerships at both regional and national levels.
- Supportive of various levels of programming or “degrees” including traditional undergraduate and graduate degrees, certificates, continuing education and minors. The concept of “curriculum embedded” programming is advocated as a viable means to address projected niche areas of study in health and human services.

The IHHS Educational Futures Task Force recognizes that recommended programs will require further, more stringent analysis consistent with the documentation necessary to secure approvals through the State Council of Higher Education of Virginia (SCHEV). The committee remains open to discuss and to consult as requested as programs are considered for further investigation.