

TRANSMITTAL AND ABSTRACT OF SENATE REPORT

Date Presented to the Senate: April 23, 2009

Presenter: Carmen Balthrop, Chair, Senate Programs, Curricula, and Courses Committee

Subject of Report: Proposal to establish a B.S. in Public Health Science, to be offered at the Universities at Shady Grove

Senate Document Number: 08-09-29

Voting: (a) on resolutions or recommendations one by one, or
(b) in a single vote
(c) to endorse entire report

A. Statement of Issue:

The School of Public Health proposes to establish a Bachelor of Science degree in Public Health Science, to be offered at the Universities at Shady Grove (USG), a regional center of the University System of Maryland. This degree would prepare students for graduate work in any of the principle public health disciplines (biostatistics, epidemiology, environmental health, health services and policy, and behavioral sciences) as well as for allied health disciplines. A national shortage of qualified public health personnel means that employment prospects are very good for appropriately-trained individuals. While this degree does not lead directly to certification or licensure, it is specifically designed to prepare students for success for graduate work in public health-related fields.

The degree is expected to draw students primarily from Montgomery College and other community colleges. However, the program may also attract College Park students who might currently choose the Community Health or Kinesiological Science majors. The specific science content is expected to be very attractive to students interested in public health who are looking for a rigorous, explicitly science-based degree.

The Public Health Science major would require 60 credits to be completed at USG. These final 60 credits are comprised of 15 credits in public health foundational courses; 19 credits in a public health science core; 14 credits in public health science electives; 9 credits in general education and a 3-credit elective. Students coming from Montgomery College or other institutions, including UMCP, will have taken a preparatory program of study that includes biology, chemistry, and physics, as well as 100-200 level courses in School of Public Health disciplines. Admission will be selective and students will be required to have completed all fundamental studies and almost all UMCP distributive requirements prior to beginning the program at USG.

This new degree program will be offered uniquely at USG. As an interdepartmental academic program within the School of Public Health, an interdisciplinary faculty and administrative board representing the units within the School will be formed to provide programmatic and administrative oversight.

The proposal was submitted to the Senate by the Office of Academic Affairs following favorable recommendation by the Academic Planning Advisory Committee (APAC) in April, 2009, and the Senate Programs, Curricula & Courses Committee on April 3, 2009. If the Senate approves the proposal, it would still require further approval by the President, the Board of Regents and the Maryland Higher Education Commission.

B. Recommendation:

The Senate Committee on Programs, Curricula, and Courses recommends that the Senate approve the B.S. in Public Health Science.

C. Committee Work:

The Committee considered the proposal at its meeting on April 3, 2009. Robert Gold (Dean, School of Public Health) and Colleen Farmer (Assistant Chair, Kinesiology) were present to answer questions. After discussion, the Committee voted unanimously to recommend approval of the new program.

D. Alternatives:

The Senate could decline to approve the program.

E. Risks:

N/A

F. Financial Implications:

The program is expected to be fully self-supporting within two years as per the financial model for UMCP programs at USG. Some start up funds for the program from the Provost will be made available.

April 14, 2009

TO: SEC

FROM: Phyllis Peres

RE: Proposal for a new B.S. in Health Sciences to be offered at the Universities at Shady Grove (USG)

The School of Public Health proposes to offer a Bachelor of Science program in Health Sciences at Shady Grove effective Fall 2009. Please note the following:

- USG is a University System of Maryland Regional Center
- UM currently offers four bachelors programs at USG (BMGT, BSCI, CCJS, COMM) and several graduate programs (BMGT, CLIS, EDUC, and some Professional Engineering non-live courses).
- Undergraduates complete their last two years (60 credits) at USG. Most Shady Grove undergraduates transfer from one of the area two year colleges, primarily Montgomery College.
- The B.S. in Health Sciences would be a degree unique to Shady Grove and would not be offered on the College Park campus. College Park students could choose to complete the last two years of the B.S. program out at Shady Grove (internal transfers).
- The program would be housed in the School of Public Health itself, as it is an interdisciplinary degree program made up of courses in the undergraduate degree offering units (KNES, HLTH) and those that currently only offer graduate degrees.
- Oversight for the degree would be by a faculty committee representative of the School's academic units.
- Although a budget is included (primarily for MHEC purposes), the program is expected to be self-support within 2-3 years, but will have start up funds from Academic Affairs. The program is strongly supported by USM as the System seeks to increase undergraduate enrollment at the regional center.
- The program was developed with extensive collaboration and discussion with the College of Chemical and Life Sciences and, particularly, with Biological Sciences, so as to interact and build upon, not duplicate, the latter's program at Shady Grove. There are also excellent opportunities for collaboration with other College Park and non-College Park (Nursing, Pharmacy) programs at the Regional Center.

**PROPOSAL FOR
NEW INSTRUCTIONAL PROGRAM
UNIVERSITY OF MARYLAND COLLEGE PARK, MARYLAND**

PUBLIC HEALTH SCIENCE

**SCHOOL OF PUBLIC HEALTH
DEAN ROBERT S. GOLD**

**Bachelors Degree to begin
Fall 2009**

I. OVERVIEW and RATIONALE

A. The field of public health is experiencing a dramatic increase in interest nationally, driven by rising health care costs, 43 million uninsured Americans, the aging of the population, growing health disparities, and the rise in human-made and natural disasters such as 9-11 and Hurricane Katrina. Amelioration of any of these problems will require professionals with a strong knowledge base in public health science. Public health is concerned with protecting the health of entire populations. The field of public health draws on and applies knowledge from many different disciplines in its research, teaching, practice, and service. A 2003 Institute of Medicine (IOM) report, "Who Will Keep the Public Healthy?" identified several issues facing all cities and states, including uncertainties about the impacts of environmental changes on disease occurrence and an increasing recognition of the impacts of lifestyle choices on health status and wellness. The IOM committee emphasized the need for health professionals to understand public health issues. The report also underscored the need for broad, interdisciplinary public health training. It is in this light that we propose the creation of a new program opportunity at Shady Grove – an undergraduate degree in Public Health Science that would prepare students for graduate work in any of the principle public health disciplines (including biostatistics, epidemiology, environmental health, health services and policy, and the behavioral sciences) and also enable them to pursue other allied health science disciplines.

The IOM report estimates that there are approximately 450,000 people employed in salaried positions in public health in the United States, with an additional 2,850,000 who volunteer their services. Nationally, it has been estimated that 80% of public health workers lack specific public health training, and only 22% of chief executives of local health departments have graduate degrees in public health. Data from the American Public Health Association (APHA) indicate that 50% of the federal public health workforce and 25% of the state public health workforce will retire in the next five years. The APHA concludes that "this massive attrition in personnel will create a critical shortage of workers that clearly can not be remedied through existing training programs and recruitment efforts." These factors present a tremendous opportunity for a Maryland public institution to provide high quality public health training in anticipation of future public health workforce needs in Maryland and the nation.

The impending retirements of middle and executive level health practitioners, combined with the growing demand for professionals to address public health problems, have produced a very promising occupational outlook for graduates of public health training programs. Occupational employment data from the U.S. Department of Labor, Bureau of Labor Statistics, indicate that there will be a strong demand for graduates with training in public health. Specifically, these disciplines provide support for public health surveillance, research, assessment, practice, and evaluation.

B. The Public Health Science program is expected to reach an annualized major FTE of 60 by FY13, starting with a target enrollment of 20 annualized major FTEs for FY10 and increasing by 10 annualized major FTEs through FY12. It is expected that students will come primarily from Montgomery Community College, but also from other state community colleges whose students planned to transfer to the University of Maryland and from the University of Maryland. It is expected that this major will attract current Community Health and Kinesiological Science

majors whose career goals are medically based (such as nursing, occupational therapy, and physical therapy), but also find an interest in public health. It should also prove appealing to students (both at community colleges and from UMCP) who originally thought medicine was their interest, but have come to question this goal. This program is expected to appeal to very bright students who may be considering the University of Maryland, but looking for very specific public health content. For example at one of the Academically Talented Programs this year, one student who came to the School session was specifically interested in infectious diseases and another student expressed interest in public health policy. This program might be more useful in recruiting these students to the University of Maryland than current programs.

II. CURRICULUM

The Public Health Science degree is a science-based program which prepares students to work with people at the local, state, national, and international level in all aspects of disease prevention, environmental protection, and health promotion. This University of Maryland Bachelor of Science degree in Public Health Science is located at Shady Grove campus and is predicated on the completion of 60 credits at another institution. A basic foundation in public health and health behavior, biology, chemistry, microbiology, physics, anatomy and physiology, and genetics are specific pre-requisite requirements to the program. Course work at Shady Grove includes introduction to all aspects of public health and the implications that biology, immunology, genetics, the environment, and public policy have on health and health behavior. Students are particularly well prepared to pursue graduate work in any of the principal public health disciplines (biostatistics, environmental health, epidemiology, health services and policy, and the behavioral sciences). Preparation for pursuit of other professional health degrees such as nursing, occupational therapy, and physical therapy is also possible. Students have the opportunity to build their own emphasis through the selection of public health science electives and field/research experiences.

Specific goals of the program include:

- Facilitate integrative thinking necessary for understanding the role of science in public health.
- Facilitate critical thinking necessary for applying scientific concepts to solutions for public health problems.
- Develop the ability to use public health science to inform public laws, policies, and regulations relevant to public health.

B. Courses and Course Descriptions

The Public Health Science Program is a two-year program at Shady Grove, predicated on students completing 60 credits prior to coming to Shady Grove. This includes specific courses that students must complete prior to matriculating at Shady Grove. Flexibility to these requirements will be discussed in section C.

PUBLIC HEALTH SCIENCE
Overview

Public Health Foundations	15 credits
Public Health Science Core	19 credits
Public Health Science Electives	14 credits
General Education	9 credits
Elective	<u>3 credits</u>
Total=60 credits	

PUBLIC HEALTH SCIENCE
Requirement Summary

Course	TITLE	Credits	Exists Revision
General Education Requirements			
ENGL 390	Science Writing	3	Exists
300/400	Advanced Study (300/400 outside Public Health)	3	Exists
Comm 482	Advanced Study –Intercultural Communication	3	Exists
Public Health Foundations			
SPHL 401	History of Public Health (SH)	3	New
MIEH 300	Introduction to Environmental Health	3	New
HLSA 302	Introduction to Health Policy & Services	3	New
BSCI 425	Epidemiology & Public Health	3	Exists
EPIB 350	Introduction to Biostatistics	3	New
Public Health Science Core			
Bsci 330	Cell Biology and Physiology	4	Exists
KNES 360	Physiology of Physical Activity	3	Exists
SPHL 400	Intro to Global Health	3	New
SPHL402	Public Health Preparedness	3	New
SPHL 405	Public Health Internship	3	New
SPHL 409	Social, Political and Ethical Issues in Public Health	3	New
Public Health Science Electives			
KNES 464	Exercise Metabolism	3	Exists
KNES 465	Exercise and Disease Prevention	3	Exists
KNES 467	Genetics in Physical Activity & Sport	3	Exists
HLTHxxx	Public Health Program Planning and Evaluation	3	New
HLTH 377	Human Sexuality	3	Exists
HLTH 434	Intro to Public Health Informatics	3	Exists
HLTH 472	Health and Medical Terminology	3	New
BSCI422	Immunology	3-5	Exists

NEW COURSES

EPIB 350. Introduction to Biostatistics (3). Basic statistical concepts and useful biometric inference procedures focusing on applications in public health. Emphasis on drawing appropriate inferences for research data obtained from public health studies.

MIEH 300. Introduction to Environmental Health (3). Exploration of chemical, physical and biological hazards present in our environment and their effects on human health, including, community and indoor air pollution, pesticides, food-borne agents, solid and hazardous wastes, and water pollution.

HLSA 302. Introduction to Health Policy and Services (3). Overview of U.S. health care system and the social and political forces that mold it.

SPHL 401. History of Public Health (3). Public health in the Western world from antiquity to the present. Development of public health institutions, policies, and methods with specific attention to the history of major infectious diseases and epidemics and the evolution of public health's concern with the effects of environment, nutrition, lifestyle behavior, and other factors on health and disease.

SPHL 400. Introduction to Global Health (3). Exploration of theoretical frameworks and practical perspectives on issues shaping the global health panorama. Determinants examined through: biological and epidemiologic; social, cultural and economic; environmental and geographic; multi-section, legal and institutional perspectives with synopsis of how these issues are addressed by international and community organizations in developing countries.

SPHL 402 Public Health Preparedness (3). Introduction to issues related to public health emergency preparedness and response, including bio-terrorism as well as natural events and threats. Examines practices of the Public Health Corp, other governmental and nongovernmental organizations in response to both natural and unnatural (i.e. terrorist, human-caused) events, with emphasis on providing support to communities affected by these disasters.

SPHL 409. Social, Political, and Ethical Issues in Public Health (3). Understanding the social, political, and ethical factors that influence the health of populations through the analysis of historical, theoretical, and current public health issues.

SPHL 405. Public Health Science Internship (1-4). Repeatable to 9 credits. An independent, guided experience in public health research or practice.

HLTHxxx. Public Health Program Planning and Evaluation (3). A systematic approach to the planning and evaluation of Public Health programs, including program monitoring, impact assessment and measurement of efficiency.

HLTH 472. Health and Medical Terminology (3). Examination of how health and medical compound words are developed, constructed and used to describe and diagnose health and medical problems, disorders and diseases.

C. Selective admission

- Completion of 60 credits at another institution (up to 9 of these credits can be completed while enrolled in the first year excluding Anatomy and Physiology).
- Meet Fundamental Studies requirements (General Education at UMCP)
- Meet all Distributive Studies Requirements except Social History (General Education at UMCP)
- If transferring from another institution, meet transfer requirements
- Have completed the following pre-requisites with a C or better: HLTH 130, HLTH 230, MATH 220, BSCI 105, CHEM 131/132, CHEM 231/232, BSCI 201 and 202, PHYS 121, ANTH 260, BSCI 222, and BSCI 223 (for the first two cohorts, a different acceptable social behavioral course can be substituted for ANTH 260).

The following is an outline of the Public Health Science Program with the first two years of this program at the University of Maryland, College Park and the comparable first two years at Montgomery College.

**PUBLIC HEALTH SCIENCE
First 2 Years at UMCP**

Year 1 Fall			Year 1 Spring		
ENGL 101 Intro to Writing	3	FE	CHEM 231/232 Organic Chemistry	4	
MATH 220 Elementary Calculus I	3	FM	History/Theory of the Arts	3	HA
BSCI 105 Principles of Biology I	4	LL	HLTH 230 Intr HLTH Behavior	3	SB
HLTH 130 Intro Pub and Comm. HLTH	3		PHYS 121	4	
CHEM 131/132 Chemical Fundamentals	4	PL	Elective	1	
Year 2 Fall			Year 2 Spring		
BSCI 201 Human Anatomy & Physiology I	4	LL	BSCI 202 Anatomy and Physiology II	4	
Literature	3	HL	HL/HA/HO	3	HO
ANTH 260 Intro to Sociocultural Anthropology & Linguistics	3	SB/D	BSCI 222 Principles of Genetics	4	
BSCI 223 General Microbiology	4		Elective	3	

First 2 Years at Montgomery College

Year 1 Fall			Year 1 Spring		
EN 102 Tech Reading & Writing	3	FE	CH 101 Principles of Chemistry I	4	PL
MA 181 Calculus I or MA181Elem Applied Calculus	4	FM	History/Theory of the Arts	3	HA
BI 107 Principles of Biology I	4	LL	HE 230 Intro HLTH Behav	3	SB
HE 120 Science/theory of HLTH	3	IE	PH 202 Physics Non-Engr I	4	
Year 2 Fall			Year 2 Spring		
BI 204 Human Anatomy and Physiology I	4	LL	BI 205 Anatomy and Physiology II	4	
Bi 203 Microbiology	4		Approved Literature	3	HL
AN 101 Intro to Sociocultural Anthropology	3	SB/D	BI 209 Principles of Genetics	4	
CH 102 Prin. of Chemistry II	4		Elective*	3	
Elective*	3		Elective	1	

*Recommended electives include: HE 101-Personal and Community Health, SO 108- Women and Men in American Society, SO 208-Race and Ethnic Relations, SO 210-Aging in America, So 240-Globalization Issues

Years 3 & 4 at Shady Grove

Year 3 Fall		Year 3 Spring	
SPHL 401 History of Public Health (SH)	3	ENGL 390 Science Writing (FS)	3
MIEH 300 Intro to Environmental Health	3	SPHL 400 Intro to Global Health	3
KNES 360 Physiology of Physical Activity	3	HLSA 302 Intro to Health Policy and Services	3
COMM 482 Intercultural Communications (AS)	3	EPIB 350 Biostatistics	3
Public Health Elective	3	Elective	3
Year 4 Fall		Year 4 Spring	
BSCI 330 Cell Biology and Physiology with Lab	4	SPHL 409 Social, Political, and Ethical Issues in Public Health	3
BSCI 425 Epidemiology and Public Health	3	SPHL 402 Public Health Preparedness	3
Public Health Elective or SPHL 405 Public Health Science Internship	3/2	SPHL 405 Public Health Science Internship or Public Health Elective	2/3
Advanced Study (any non Public Health 300/400 level class)	3	Public Health Elective	3
Public Health Elective	3	Public Health Elective	3

III, STUDENT LEARNING OUTCOMES AND ASSESSMENT (see attached forms)



Assessment Plan

Public Health Science—B.S.

(PROGRAM OF STUDY / MAJOR / DEGREE LEVEL, ETC.)

Program Contact: TBA Phone: ext. E-mail: _____

Date submitted to Academic Unit Head: _____

Program Goals: 1. Facilitate integrative thinking necessary for understanding the role of science in public health; 2. Facilitate critical thinking necessary for applying scientific concepts to solutions for public health problems; 3. Develop the ability to use public health science to inform public laws, policies, and regulations relevant to public health..

Relevance of goals to the mission statements and/or strategic plans of the University, College, or Program as applicable:

Student Learning Outcomes (list the three-to-five most important)	Assessment Measures and Criteria (describe one or more measures for each outcome and criteria for success)	Assessment Schedule (initial year, and subsequent cycle)
1. Identify the biological, chemical, physical, environmental, genetic, social, and behavioral determinants of public health issues.	At the conclusion of Global Health (HLTH 400) students will be given a real or hypothetical health issue and asked to identify the biological, environmental, and behavioral determinants of the issue and to explain why/how these determinants impact the issue. The instructor of the class will develop a 3 X 5 rubric for scoring the question. Both the	Plan & collect data year one fall semester. Collect data, and year two spring semester. Thereafter assessment on this LOA will be completed every 4 years using a sample

	<p>program director and the instructor will score the rubric. The Interdisciplinary Committee will review the results using the overall score for each factor to determine strengths and weakness of the current program in developing an understanding of the role of each of these determinants in public health. Where issues arise, the Interdisciplinary Committee will work with the Program Director and the Academic Dean on curriculum improvement.</p>	<p>(minimum 20) of students in the class until this LOA is replaced with another.</p>
<p>2. Apply scientific principles to disease prevention, control, and management in public health programs.</p>	<p>As a part of Intro to Health Policy and Services (HLSAXXX) and Public Health Preparedness (SPHL 402), students will be given a real or hypothetical public health program and asked to apply the scientific principles relevant to prevention, control, and management in this particular program. The instructor of the class will develop a 5 by 3 rubric for evaluating the response. The Instructor as well as the Program Director will score the rubric. The Interdisciplinary Committee will review the results using the overall score for each factor to determine strengths and challenges of the current program in developing application of biological principles to disease prevention, control, and management in public health programs. Where issues arise, the Interdisciplinary Committee will work with the Program Director and the Academic Dean on curriculum improvement.</p>	<p>Plan year two during fall semester. Collect data and analyze year 2 and 3 during spring semester. Thereafter assessment on this LOA will be completed every 4 years using a sample (minimum 20) of students in the class until this LOA is replaced with another.</p>

<p>3. Use public health science to inform public laws, policies, and regulations.</p>	<p>During Social, Political, and Ethical Issues in Public Health (SPHL 409) groups (no larger than 5) of students will be given a current issue or event and asked to develop a plan to inform public laws, policies, or regulations using evidence based-biological or molecular concepts. The group efforts will be evaluated on a 4X5 rubric. The projects will be scored by the instructor in the class and the Program Director. The Interdisciplinary Committee will review the results of each aspect of the rubric to determine strengths and challenges of the current program in developing students ability to utilize evidence-based biological and molecular concepts to inform public laws, policies, or regulations. Where issues arise the Interdisciplinary Committee will work with the Program Director and the Academic Dean on curricular improvement.</p>	<p>Plan fall year 3. Collect data and analyze year 3 and 4 during spring semester. Thereafter assessment on this LOA will be completed every 4 years using a sample (minimum 4) of groups in the class until this LOA is replaced with another.</p>
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IV. FACULTY AND ORGANIZATION

- A. The program will be administered by an on-site Faculty Program Director with oversight by a faculty committee for interdisciplinary programs.
- B. The program will be housed in the School of Public Health with an oversight committee
 - i. The oversight committee will have three members with faculty from at least two different public health masters' emphasis areas and representation from at least two undergraduate programs in the School of Public Health.
 - ii. The academic home will be the Dean's Office with academic oversight by the Assistant/Associate Dean for Academic Affairs and the School Interdisciplinary Committee.
 - iii. The oversight committee will approve curriculum, course outlines, and review assessment making recommendations for changes. Appointment will be by the Dean with collaboration and approval of the Department Chairs. Appointment is for a three-year period with rolling change in membership.
 - iv. Faculty will be adjunct, Research Faculty housed in the dean's office, and department faculty upon negotiation with individual department chairs. Teaching assignments will be negotiated with department chairs to enable department faculty to teach at overload or on load with the department being reimbursed from the Dean's Office.
 - v. The Program Director will handle recruitment, orientation, advising, scheduling, teach one class per semester, and supervise all Public Health Science Internships.
 - vi. Recommendations for changes to the program can originate from the Program Director, the Assistant/Associate Dean for Academic Affairs, or members of the Interdisciplinary Programs Committee. All proposal must be approved first by the School Interdisciplinary Committee and then by the School Program, Courses, and Curriculum Committee before being sent to campus.

V. OFF CAMPUS PROGRAMS

- A. The program will be offered at Shady Grove with utilization of all the resources there and those on College Park campus at the disposal of students.
- B. No

VI. OTHER ISSUES

- A. There will need to be communication between community colleges and this program, but no formal agreements are needed as articulation with University of Maryland and state two-year schools already exist.
- B. School of public health are accredited with review of all graduate and undergraduate programs within the school. When this program becomes a major within the School, the review

of it will be part of the accreditation process for the School of Public Health. This program does not lead to a certificate or licensure.

VII. COMMITMENT TO DIVERSITY

Due to the nature of the content of this major and the population from which it will be drawn, it is believed that there will be a large percentage of culturally and racially diverse applicants to the program. The School already has one of the most diverse populations on campus with 42% of the undergraduates from diverse backgrounds.

VIII. REQUIRED PHYSICAL RESOURCES

A. Additional library and other information resources required to support the proposed program. You must include a formal evaluation by Library staff.

The courses proposed have been forwarded to the Library for determination of costs.

B. Additional facilities, facility modifications, and equipment that will be required. This is to include faculty and staff office space, laboratories, special classrooms, computers, etc.

See attached description of lab space needed.

C. Impact, if any, on the use of existing facilities and equipment. Examples are laboratories, computer labs, specially equipped classrooms, and access to computer servers.

No impact as this is being offered at Shady Grove

IX. RESOURCE NEEDS and SOURCES

Describe the resources that are required to offer this program, and the source of these resources. Project this for five years. In particular:

A. List new courses to be taught and needed additional sections of existing courses. Describe the anticipated advising and administrative loads. Indicate the personnel resources (faculty, staff, and teaching assistants) that will be needed to cover all these responsibilities.

All courses to be taught each semester will need to be covered as the program is at Shady Grove. For the first year this would mean five classes fall and five in spring. For the second year and thereafter, this would mean 9 classes fall and 10 in spring. Of this, the Program Director will teach one class each semester and manage any research or field internships. All other courses will be taught by either faculty on-load with reimbursement to the department, faculty overload, or adjuncts. The Program Director will manage all recruitment, orientation, and advising of students. As the student body grows, plans will be made to add either a graduate assistant, faculty assistant director, or an assistant director depending upon the size of the student body.

B. List new faculty, staff, and teaching assistants needed for the responsibilities in A, and indicate the source of the resources for hiring them.

Program director will teach at least one course per semester and handle all administrative matters in the program which includes recruitment.

Adjuncts will be needed to teach courses the cost of which is anticipated to be offset by the revenue after FY2010. Through FY2010 start-up costs will be provided by provost.

C. Some of these teaching, advising, and administrative duties may be covered by existing faculty and staff. Describe your expectations for this, and indicate how the current duties of these individuals will be covered, and the source of any needed resources.

Research associate professor currently on staff will be integral to teaching as well as several adjunct instructors. In addition the business transactions (e.g. appointments, payroll) will be absorbed by the School's business office.

D. Identify the source to pay for the required physical resources identified in Section VIII.

Funds have been encumbered to cover costs of parking, offices and initial start up costs for class offerings through FY2010.

E. List any other required resources and the anticipated source for them.

Lab costs have not been included in this proposal.

F. Provide the information requested in **Table 1** and **Table 2** (for Academic Affairs to include in the external proposal submitted to USM and MHEC).

E. List any other required resources and the anticipated source for them.

Lab costs have not been included in this proposal.

F. Provide the information requested in **Table 1** and **Table 2** (for Academic Affairs to include in the external proposal submitted to USM and MHEC).

TABLE 1: RESOURCES					
Resources Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1.Reallocated Funds	n/a	n/a	n/a	n/a	n/a
2. Tuition/Fee Revenue ¹ (c+g below)	\$160,098	\$240,147	\$320,196	\$480,294	\$480,294
a. #F.T Students	20	30	40	60	60
b. Annual Tuition/Fee Rate	\$8,004.90	\$8,004.90	\$8,004.90	\$8,004.90	\$8,004.90
c. Annual Full Time Revenue (a x b)	\$160,098	\$240,147	\$320,196	\$480,294	\$480,294
d. # Part Time Students	n/a	n/a	n/a	n/a	n/a
e. Credit Hour Rate	n/a	n/a	n/a	n/a	n/a
f. Annual Credit Hours	n/a	n/a	n/a	n/a	n/a
g. Total Part Time Revenue (d x e x f)	n/a	n/a	n/a	n/a	n/a
3. Grants, Contracts, & Other External Sources	n/a	n/a	n/a	n/a	n/a
4. Other Sources ²	\$118,450	n/a	n/a	n/a	n/a
TOTAL (Add 1 - 4)	\$278,548	\$240,147	\$320,196	\$480,294	\$480,294

1 = full time instate yearly tuition for undergraduate x number of full time students

2 = provost support: program director, instructions, office/parking, operating

TABLE 2: EXPENDITURES

Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1.Total Faculty [*] (b+c below)	\$51,840	\$112,320	\$112,320	\$112,320	\$112,340
a. #FTE	2.00	4.25	4.25	4.25	4.25
b. Total Salary	\$48,000	\$104,000	\$104,000	\$104,000	\$104,000
c. Total Benefits	\$3,840	\$8,320	\$8,320	\$8,320	\$8,320
2.Total Administrative ^{**} (b+c below)	\$84,500	\$84,500	\$84,500	\$84,500	\$84,500
a. #FTE	1	1	1	1	1
b. Total Salary	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000
c. Total Benefits	\$19,500	\$19,500	\$19,500	\$19,500	\$19,500
3.Total Support Staff (b+c below)	\$0	\$0	\$0	\$0	\$0
a. #FTE					
b. Total Salary					
c. Total Benefits					
4. Equipment ^{***} (see attached details)	\$59,300	\$9,717	\$9,717	\$9,717	
5. Library					
6. New or Renovated Space					
7. Other Expenses ^{****}	\$11,500	\$18,000	\$19,300	\$19,300	\$19,300
TOTAL (Add 1 - 7)	\$207,140	\$224,537	\$225,837	\$225,837	\$216,120

*= calculation based on 3 credits per course, adjunct is .25 FTE @ \$6,000 and \$2,000 after year 1 for TA;

**= Program Director;

***= equipment for KNES labs (see attachment);

****= Others: office space/parking, operating, and classrooms