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# ACADEMIC PLANNING COMMITTEE RECOMMENDATION

## SR-09-10-(34) 80 APC

Recommends that the College of Health Profession's Intent to Plan for a Bachelor of Science in Public Health be approved.

## **RATIONALE:**

The Academic Planning Committee reviewed the College of Health Profession's Intent to Plan and voted to approve.

## **FACULTY SENATE CHAIR:**

APPROVED BY THE FACULTY SENATE: The Prannice	DATE: 4/36/10
DISAPPROVED BY THE FACULTY SENATE:	DATE:
UNIVERSITY PRESIDENT:	, ,
APPROVED:  DISAPPROVED:	DATE:DATE:
COMMENTS:	

## **Executive Summary**

Name of Institution:

Date:

Category of Action Required:

Title of Degree:

Location:

Effective Date to Proposed Action:

Marshall University March 12, 2010 Initial Approval

**Bachelor of Public Health Degree** 

Huntington

**Brief Summary Statement:** 

## Bachelor of Science in Public Health Marshall University College of Health Professions

Marshall University's (MU) College of Health Professions (COHP) is requesting approval to develop a baccalaureate degree in public health (BSPH). This program will offer the first baccalaureate public health degree by any school in West Virginia (WV). The only remaining option for WV students for completion of a BSPH that do not wish to relocate would be an online program of study; often at greater cost than traditional on-campus programs.

Public health, like all health professions, is experiencing a greater demand for highly trained professionals. Meanwhile, public health issues in WV continue to escalate with WV often leading the nation in poor health. For example, WV ranks second in percent of population with diabetes, fourth for overall obesity, and ranks in the top ten for smoking, sedentary life-styles, poor mental and physical health days, occupational deaths, air pollution, and preventable hospitalizations.

Public health professionals work to optimize the health of populations and communities through participation in scholarship of discovery, integration, and teaching. Their goal is preventing problems from happening or re-occurring through implementing educational programs, developing policies, administering services, and conducting and applying research. In contrast, clinical professionals such as doctors and nurses focus primarily on treating individuals with illnesses or injuries. The field is also deeply concerned with limiting health disparities. A large part of public health is the fight for health care equity, quality, and accessibility for marginalized and disparate populations.

Currently, at a time of great need, there are no BS programs of public health in West Virginia. Students wishing to study public health must travel far from home at great personal expense or complete their degree from online sources. Most never return to WV, especially in the rural areas so prominent in this state. At a time of severe public health issues, especially among citizens of WV and the surrounding Appalachia region, the need for a public health education in West Virginia has never been greater.

The proposed MU BSPH program will consist of a minimum of 121 credit hours obtained over a four year period. The length of time to completion of the degree will be largely dependent upon the route of entry, but the program is designed so that students can complete the degree in four years from freshman status.

To facilitate progress through this 121 credit degree program and to ensure sufficient students to meet the program objectives, three entry points will be developed:

- 1. Students may enter MU at the freshman level as pre-health students with an emphasis on public health.
- 2. Students may transfer into MU from another institution.
- 3. Students may enter the program as post-baccalaureate from any degree and complete the required public health curriculum.

#### PART I: PROGRAM DESCRIPTION

The College of Health Professions is proposing a baccalaureate degree in public health (BSPH) as a stand-alone program housed within the COHP. The program's mission is to educate students in the biological, environmental, and behavioral determinants of key public health issues for the purpose of promoting and maintaining health, preventing disease and disability, and educating the public on healthrelated matters with an appreciation for the special healthcare issues of Appalachia. The program provides an educational model that will allow a cohort of students to move through the foundational courses and on to a more focused curriculum compatible with public health related employment. It will therefore prepare public health professionals at a time of critical health care professional shortages and distribution of workforce issues both nationally and state-wide. The BSPH program will serve to train a diverse group of public health professionals, a process inseparably linked to the discovery and application of new knowledge. Through these activities, the program will bring to WV an improvement of health and prevention of disease and disability.

Graduates from the MU BSPH will apply the knowledge and skills of public health practice in areas that include all five core domains of knowledge basic to public health: biostatistics, epidemiology, environmental health, behavioral and health sciences, and health services administration. They will analyze, intervene, and evaluate population-based health issues in ways that are highly differentiated, discriminating, and self-critical. Graduates will synthesize and apply a broad range of knowledge and skills with a high degree of autonomy and proficiency. They will refine and advance the quality of their practice and that of the public health profession.

The program objectives are listed below:

## A. Program Objectives

Our objectives are to educate, train, and prepare the public health practitioner who will:

- 1. Deliver the highest quality health care to the individuals and communities of West Virginia and beyond, across a continuum of care, including sparsely populated rural settings.
- 2. Demonstrate sound, independent and evidenced-based decisions utilizing information literacy, critical thinking skills, and empirical data.
- 3. Serve as leaders in public health policies who are responsive to the scope of public health practice.
- 4. Serve as agents of change where appropriate and possible to improve patient outcomes through public health policies.

- 5. Adhere to the core professional values associated with the profession.
- 6. Adhere to all established ethical and legal guidelines for practice and research
- 7. Provide culturally sensitive care distinguished by advocacy, trust, respect, and an appreciation for individual differences.
- 8. Promote health and prolong life by informing governments, organizations, communities and individuals.
- 9. Commit to evidence-based practice through ongoing assessment and application of new knowledge.
- 10. Possess basic and applied research skills characterized by discovery and dissemination of new knowledge.
- 11. Possess the research skills necessary to track patterns of health and disease within a population.
- 12. Demonstrate a commitment to the health of the community through participation in primary and secondary prevention programs.
- 13. Commit to improving the quality of life of those we serve.

## B. Program Identification

- 1. The following is the appropriate program identification as provided in the Classifications of Instructional Programs developed and published by the U.S. Department of Education Center for Educational Statistics: (currently no identification exists for undergraduate public health)
  - 51.2201 Public Health, General (MPH, DPH). A program that generally prepares individuals to plan, manage, and evaluate public health care services and to function as public health officers. Includes instruction in epidemiology, biostatistics, public health principles, preventive medicine, health policy and regulations, health care services and related administrative functions, public health law enforcement, health economics and budgeting, public communications, and professional standards and ethics.

## C. Program Features

The BSPH program will offer the first ever such program in the State of West Virginia provided by a public or private institution. The degree will consist of 121 undergraduate credit hours over a three to four year period (three year option includes summer semesters). Students may enter the program in three ways: (1) direct admit as freshman level progressing through all levels of coursework and required hours; (2) post-baccalaureate degree from any university; (3) transfer from accredited university.

Students entering the program through non-traditional routes of acceptance such as post-baccalaureate will be required to complete the public health core courses and meet the MU

requirements for graduation and granting of degree. Transfer students will be evaluated for level of acceptance depending upon coursework completed and will need to meet MU requirements for graduation.

#### Admission and Performance Standards

Prospective students who wish to apply to for admission to the BSPH program must meet the general admission requirements for MU admissions. Applicants to the BSPH program are admitted based on overall cumulative GPA and ACT scores.

#### **Admission Criteria**

Prospective students must meet the minimum criteria listed below to be considered for admission to the program.

#### **Direct Freshman Admission**

For students applying for freshman admission, minimum qualifications include:

- A high school diploma (official transcript with graduation date and a grade of C or better required).
- An Overall Grade Point Average of at least 2.5 and a composite score of at least 19 on the ACT or a combined score (critical reading + math) of at least 910 on the SAT.
- Completion of the 2008 Higher Education Policy Commission (HEPC) course requirements. 2008 HEPC course requirements include:
  - 4 years of English (including courses in grammar, composition, literature)
  - 3 years of social studies (including U.S. history)
  - 4 years of math (including Algebra I and at least two higher units)
  - 3 years of science (all units must be laboratory science)
  - 2 years of the same foreign language
  - 1 year of fine arts

#### Post-Baccalaureate Degree

For students applying undergraduate credits, minimum qualifications include

- Unconditional admission to Marshall University.
- Earned a baccalaureate degree with a minimum 2.5 GPA overall.

#### **Transfer Student**

- All transfer students must be eligible to return to the institution they most recently attended.
- In addition, transfer students who have fewer than 26 earned credit hours must meet one of the following criteria:
  - Must meet the freshman admission standards of a 2.5 cumulative high school GPA and a composite score of 19 on the ACT or 910 on the SAT (CR+M)

OR

- Have earned 12 college credit hours and completed all required developmental courses while maintaining a 2.5 cumulative college GPA
- Transfer students who do not meet either of these requirements may appeal the decision through the Academic appeals process

## D. Program Outcomes

The following outcome measures have been established for the BSPH program

- 1. Eighty-five percent or more of all students admitted will successfully complete the program within four years.
- 2. Within six months of successful completion of the BSPH, 90% of graduates will be employed in the field of public health.

## E. Program Delivery

All didactic coursework will be offered on the Huntington campus. All clinical experiences and practicum will be completed at local, regional, or state public health care facilities, or private facilities that provide public health to populations. Each clinical practicum will accommodate the students' focus of interest where possible.

## **PART II: Program Need and Justification**

## A. Relationship to Institutional Goals/Objectives

The addition of this health professions program would be beneficial to the citizens of West Virginia and surrounding Appalachia region by providing improved health services with an emphasis on rural Appalachia and public health. This program is consistent with Marshall University's current mission and areas of emphasis. The University has demonstrated a commitment to improving the education, health, and welfare of WV through innovative and necessary programs of study.

The mission of the university, adopted by Marshall University's President in his strategic plan "Owning the Opportunity, MU-2010", confirms the university's commitment to excellence in a broad range of disciplines and professional fields. "Marshall University will continue to serve the needs of the state and the region, and move toward increased national prominence by fostering academic excellence through strong academic programs... [and] will develop new programs that provide unique opportunities for advanced study in fields important to Marshall University and to the vitality of the region, state, and nation." Thus, the mission of the BSPH is entirely compatible with the larger mission and purposes of the College of Health profession and the University as a whole. The courses supporting professional preparation will include much material specific to this region and, therefore, the BSPH program will have a continuing focus on the needs and development of issues in the rural Appalachian areas and small towns surrounding the Tri-State.

## **B.** Existing Programs

There are no programs that offer a BSPH in WV. Students in WV with an interest in undergraduate public health must travel out of state to seek their education at greater expense. Currently, the nearest program offering a baccalaureate in public health degree is located in Tennessee. Attending school so far from home would necessitate a student relocating and add living expenses to the cost of education. Successful implementation of the BSPH at MU could be the first step in creating a program of public health that would make education available and affordable for the majority of WV students. Future offerings could include a master's of science in public health graduate program (MPH) and potentially, a doctorate of public health (Dr.PH) program of study.

A baccalaureate of public health degree is relatively new to the academic world, but has proven extremely successful in fulfilling its mission where it exists. The BSPH at Johns Hopkins' is currently that universities fastest growing and largest undergraduate program with over 800 students. Although graduate programs in public health have been formally accredited since 1945, undergraduate programs are not yet being granted accreditation. According to a survey of the 40 member and 8 associate member schools in the Association of Schools of Public Health (ASPH) taken in 2005, only 8 offered the bachelors degree (Johns Hopkins University, Loma Linda University, Berkeley, University of North Carolina, University of Wisconsin, Tulane, and The George Washington University). An additional 5 schools were planning to begin a BS in public health program. Currently, in 2009, 10 schools confer the BSPH.

The average costs of BSPH programs vary across the US. Since the majority of the schools offering the BSPH degree are either private or highly sought after schools, tuition and fees are higher than the WV average.

The suggested tuition for MU's BSPH program would be based on the standard MU undergraduate tuition. Additional costs would be incurred for required summer practicum courses at the current hourly rate charged by MU. For students taking full 12 credit hours in the summer, full time tuition rates would prevail.

Table 1 Accredited Bachelor of Public Health Programs in United States

College/State	Tuition				
	Resident	Non resident			
East Tennessee State University College of Public Health, Johnson City, TN	\$189 credit hour	\$473 credit hour			
MARSHALL UNIVERSITY*	\$205 credit hour	\$526 credit hour			
University of South Carolina Arnold School of Public Health, Columbia, SC	\$318 credit hour	\$631 credit hour			
Loma Linda University School of Public Health, Loma Linda, CA	\$325 credit hour	\$325 credit hour			
University of Massachusetts School of Public Health and Health Sciences	\$344 credit hour	\$844 credit hour			

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Amherst, MA		
University of Arizona Mel and Enid	\$454 credit hour	\$1556 credit hour
Zuckerman College of Public Health	And the state of t	
Tucson, AZ		
University at Albany SUNY School of	\$506 credit hour	\$1028 credit hour
Public Health, Rensselaer, NY		
University of Washington School of	\$558 quarter hour	\$558 quarter hr
Public Health, Seattle Washington	_	_
University of California at Berkeley	\$638 credit hour	\$2355 credit hour
School of Public Health, Berkeley, CA		
Tulane University School of Public	\$1479 credit hour	\$1479 credit hour
Health and Tropical Medicine, New		
Orleans, LA		
John Hopkins University Bloomberg	\$1631 credit hour	\$1631 credit hour
School of Public Health, Baltimore,		
MD		
The George Washington University	\$1683 credit hour	\$1683 credit hour
Medical Center School of Public		
Health and Health Services,		
Washington, DC		

<sup>\*</sup>converted to credit hour for comparison

## C. Program Planning and Development

Marshall University has a long and successful history of granting undergraduate level degrees. MU confers a wide range of BS degrees in a variety of fields. Each has been successful at gaining national certification where available. As the number of undergraduate public health programs grow, professional accreditation is certain to follow. The Commission on Education in Public Health (CEPH) is currently exploring accreditation for undergraduate public health programs and does accredit those programs associated with a graduate program of public health. Consistent with the other MU undergraduate and professional programs, the BSPH will seek accreditation from the Commission on Education in Public Health (CEPH), the accrediting body of the American Public Health Association (APHA), when this accreditation becomes available. In keeping with the accreditation standards of CEPH, the mission, standards, and curriculum of the BSPH program will be rigorous and provide students with the educational tools necessary to be successful public health leaders.

To maintain the integrity of the program curriculum, MU BSPH degree requirements are similar to other programs offered at other institutions while building upon the strengths unique to MU and the Appalachian region and culture. Therefore, the course selection for a general public health degree at MU consists of a cross-section of course work requirements from existing programs (refer to tables 2A and 2B). In addition, the US government and Institute of Medicine have called for an increased use of health informatics to elevate quality of care and reduce medical errors. Thus, this program infuses medical information systems courses to highlight and strengthen students understanding of health informatics. Please see Appendix B for the suggested curriculum for the MU BSPH.

Table 2A: Curricu	···		,	$\overline{}$			<del></del>		1		
	ETSU	USC	LLU	UM	UA	SUNY	UWa	UC	TU	JHU	GWU
English Composition	6 hr	6 hr	6 hr	6 hr	6 ḥr	6 hr	6 hr	6 hr	6 hr	12 hr	10 hr
Oral Comm.	3 hr		3 hr			3 hr					
Liberal Arts			6 hr		6 hr	12 hr	15 hr			12 hr_	
Humanities and Fine Arts	9 hr	3 hr	24 hr	9 hr	6 hr	6 hr			6 hr		15 hr
Social Sciences	6 hr	6 hr	12 hr	6 hr	6 hr	6 hr	20 hr	9 hr	6 hr	9 hr	6 hr
Foreign Language		*	6 hr		12 hr	6 hr			6 hr		6-8 hr
History	6 hr	3 hr		3 hr		3 hr			6 hr		
Natural Sciences	8 hr	32 hr	6 hr	12 hr	12 hr	6 hr	30 hr	8 hr	8 hr	24 hr	32 hr
Mathematics Statistics	3-4 hr	8 hr	6 hr	6 hr	3 hr	6 hr	6-8 hr	8 hr	6 hr	3 hr	6 hr

Table 2B:						alth degree:					
	ETSU	USC	LLU	UM	UA	SUNY	UWa	UC	TU	JHU	GWU
Intro to Public Health		3 hr	3 hr	3 hr		3 hr	3 hr	***	3 hr		3 hr
Intro to Epidemiology	3 hr	3 hr	3 hr	3 hr		3 hr	3 hr	3 hr	3 hr		3 hr
Biostatistics	3 hr	3 hr	3 hr	3 hr			3 hr		3 hr		
Personal and Community Health	3 hr	3 hr	3 hr			3 hr	3 hr	3 hr	3 hr		3 hr
Environmental Health	3 hr	3 hr	3 hr				3 hr	3 hr			3 hr
Health Problems Policy	3 hr	3 hr	3 hr			3 hr	3 hr	3 hr	3 hr		3 hr
Intro to Health Promotion		3 hr						3 hr			3 hr
Intro to Health Care Management	3 hr	3 hr					3 hr	3 hr	3 hr		3 hr
Medical Terminology	3 hr										
Internship	3-6 hr			3-6 hr			5 hr				
Research						3 hr					

<sup>\*</sup>examination for proficiency

#### D. Clientele and Need

The Institute of Medicine of the National Academies has recommended that all undergraduates have access to education in public health. To facilitate this call, a Consensus Conference on Undergraduate Public Health Education was convened in Boston, MA during November, 2006. Leaders in public health, arts and sciences, and health-professions education attended. The conference was sponsored by the Association for Prevention Teaching and Research, the Association of Schools of Public Health (ASPH), and the Council of Colleges of Arts and Sciences (CCAS).

The conference outcomes were a strong recommendation that BSPH programs or minors be established to "produce an educated citizenry that is better prepared to cope with public health challenges ranging from acquired immunodeficiency syndrome to aging, avian influenza, and health-care costs." To begin the process in undergraduate programs, the consensus conference also recommended two introductory courses as a minimum (introduction to public health and introduction to epidemiology) be infused into all undergraduate curricula across the United States. This has not yet occurred in a widespread manner.

Of the 10 schools currently offering a BSPH, over 1,200 students were enrolled. The 2009 enrollment ranged from 8 at Linda Loma University, a newly developed program, to over 800 at Johns' Hopkins University. Data for average class size is not available online in the public domain. The University of Berkley, however, began their program in 2003 with 225 students enrolled and had a 2005 graduating class of 83. For a 4 year program, assuming all things equal, this would equate to 57 students per class. The addition of any areas of emphasis or minors would increase class sizes.

The COHP enjoys a growing base of applicants to all programs. Currently, more than 550 students are admitted to COHP but not committed to any major. Many of these students decide after their freshman year to leave MU for other opportunities not currently available in the MU program offerings. The addition of a BSPH program would provide additional options for existing students to choose from and draw even greater numbers of applicants to MU COHP. Three courses in the COHP have been developed for public health; Introduction to Public Health, Introduction to Epidemiology, and Global Health. Each course has been taught at least once with enrollment greatly exceeding expectations.

The State of WV Department of Health and Human Services has indicated that recruitment of employees with a background in PII, especially with an emphasis on epidemiology and biostatistics, is problematic with few qualified applicants. Many state employees are trained on the job and lack critical thinking skills that would enhance their productivity and work to increase the health of West Virginians.

In the average public health program, many minorities and women typically apply for admissions. A recent review of program statistics revealed that on average, BSPH program enrollees were more than 60% female. This matches the MU goal of increasing educational opportunities for women and minorities.

WV suffers from a disparate number of citizens with chronic health problems. It is consistently among the top five states in terms of obesity, sedentary lifestyles, heart disease, and diabetes among other chronic and acute diseases. In addition, WV is the second most rural state in the US and has one of the oldest populations, factors which will only secure this unfortunate positioning for WV for decades to come. Yet, WV lacks programs in public health that could serve as a catalyst in discovery and application that would lessen the tremendous burdens facing our state.

## E. Employment Opportunities

According to Association of Schools of Public Health, there are five core areas of study in public health including health sciences administration, biostatistics, epidemiology, behavioral sciences and health education, and environmental health sciences. Additional opportunities for study include global health, biomedical and laboratory practice, nutrition, public health practice and program management, maternal and child health, nursing, and occupational safety and health.

The BSPH proposed for MU COHP will begin with a general public health degree. Future plans could include offerings with an area of emphasis in public health practice such as health practice and program management, epidemiology, nutrition, nursing, and biomedical or laboratory practice.

According to ASPH, public health positions are expected to grow rapidly over the next decade. It is anticipated that significant improvements in public health will not come from new medical findings or cures, but from a broader application of health promotion, requiring increased numbers of public health practitioners.

While there are dozens of specialties in public health, most career opportunities are found in the following fields. The salary ranges included along with career opportunities are the actual salaries earned (adjusted for inflation using the national CPI - Bureau of Labor Statistics) within one year of graduation as reported by the most recent nationwide survey of graduates conducted by ASPH:

- Health Services Administration \$37,050 - \$161,400
- **Biostatistics** \$33,000 - \$63,000
- Epidemiology \$38,175 - \$136,237
- Health Education/Behavioral Science \$33,000 - \$86,625
- Environmental Health \$44,550 - \$143,700
- International Health \$31,500 - \$86,625
- Nutrition \$31,500 - \$70,875

- Public Health Practice/Program Management \$41,175 - \$102,000
- Biomedical Laboratory
   \$31,500 \$78,750

The above salary ranges encompass employees with the BSPH, MSPH, and Dr. PH degrees.

## F. Program Impact

Although attempts have been made to recruit public health professionals into rural areas of WV, little progress has been realized. Rural areas, especially in Southern WV continue to have a dearth of providers. Many have to travel miles to find medical professionals. Successful recruitment from rural areas of Southern WV will no doubt add to the dearth of professionals available within smaller communities as many of these students are known to return to their home to establish a practice.

The BSPH program will provide an opportunity for citizens of WV and surrounding states to procure an education in a secure field. This will provide MU positive linkages to the community and state and lay foundations for scholarly activities related to public health. Additionally, with an expected increase in minority and female applicants, the program will help to diversify the labor pool in WV. Graduates from the BSPH program will contribute to the economy of WV through taxes and a healthier citizenry.

## G. Cooperative Agreements

Existing affiliation agreements with Marshall University's College of Health Professions and every large provider of health care in the region already exists. If additional sites are necessary for practicums, obtaining such contracts will not be problematic.

COHP has an excellent working relationship with the Cabell County Health Department (CCHD) and Dr. Tweel, medical director CCHD. The health department would be an ideal partner for public health initiatives and Dr. Tweel has indicated his support for this program and has offered to partner with COHP for clinical experiences in real world locations.

COHP reports administratively to the Vice President of Medical Services, Dr. Charles McKown, who is also dean of the Joan C. Edwards School of Medicine (SOM). This relationship provides direct linkages to the Family and Community Health program at the SOM, the Center for Rural Health, and SOM outreach programs throughout the region. Development of this program has also been encouraged and supported by Dr. Omayma Touma, a strong champion and leader of public health efforts in WV.

COHP also has been active in the Rural Health Education Partnership (RHEP) program through our nursing and health professions programs. RHEP sites are located throughout rural WV providing access to available community resources in areas experiencing the greatest need for public health reform.

## H. Alternatives to Program Development

Students wishing to pursue a baccalaureate degree in public health must leave the area at considerable cost, or resort to online programs. There are no West Virginia university's offering the BSPH degree program. MU needs to capitalize on this opportunity and through program development, accelerate the positive influence on our current public health problems through additional well-educated public health professionals in WV. Meanwhile, the population of WV continues to experience a disparate amount of health problems compared to the US.

## PART III: PROGRAM IMPLEMENTATION AND PROJECTED RESOURCE REQUIREMENTS

## A. Program Administration

Program administration will be accomplished by the Dean, COHP and the department Chair. The Chair will organize, administer, review, develop and assure program effectiveness through on-going program assessment. This person will participate in the budget process through the COHP dean's office and be responsible for a leadership role in the continued development of the program. It is expected that the Chair will maintain current knowledge of the professional discipline and educational methodologies.

The proposed organizational chart for Marshall University's College of Health Professions illustrates the relationship between all departments, divisions, and schools for Education and Marshall University. Further delineation of the organizational structure within Marshall University's College of Health Professions can be noted in the organization charts in Appendix A.

## **B.** Program Projections

Initial enrollment is presently projected for 40 students per class. For consistency, this plan assumes 30 resident students each year and increases non-resident from 10 year one to 20 for each year thereafter. This is a conservative estimate based on the newness of this program and actual enrollment may be higher. Public health is a time intensive particularly in the field practicum in the fourth year. Growth of the program will be determined by classroom size and faculty to student ratios. Table 3 displays the projected enrollment for five years.

Table 3: Projected student numbers by year

students: 1st year	30	30	30	30	30
students: 2nd yr		27	27	27	27
students: 3rd yr			25	25	25
students: 4th yr				25	25
students: transfer	5	10	10	10	10
students: second degree	5	10	10	10	10
Totals	40	77	102	127	127

## C. Faculty Instructional Requirements

COHP will be responsible for faculty resources and benefits upon implementation of a BSPH program. All faculty will be required to hold a professional degree appropriate for the subject material taught. The development of a general public health degree will require 30 hours of additional coursework and field/clinical experiences currently not available at MU (refer to table 4). Students will start taking their public health courses in the sophomore year with increasing hours during their junior and senior years. This program will utilize existing courses where possible

During the first year of the program, only one faculty member would be needed, the director/department chair. The director will oversee development of the curriculum and assist in hiring additional faculty. The director will teach the initial course offerings during year two of the program. Two additional faculty would be hired during the third and fourth years of the program for a total of three faculty. Additional part time faculty would be necessary for field observations and clinical rotations. Additional clinical and associate faculty may be required depending on program growth.

Table 4: Total Credits per Semester for BSPH

Year	Fall	Spring	Total	Total New PH
1	16 cr.	16 cr.	32 cr.	0 cr.
2	16 cr.	16 cr.	32 cr.	3 cr.
3	12 cr.	15 cr.	27 cr.	12 cr.
4	15 cr.	15 cr.	30 cr.	15 cr.
Total Cours	se Credits		121 cr.	30 cr.

## D. Library Resources and Instructional Materials

Library resources currently offered at MU are sufficient. Students in the BSPH program will have access to all MU library resources normally afforded students. No new or additional library resources will be necessary at this time. Additional library needs will be assessed by the program director on an annual basis.

## E. Support Service Requirements

All support service requirements will be jointly determined by the director of the public health program and the dean, COHP. One support staff will be required to support the faculty and to maintain clinical records. The office of student services will assume responsibility for recruitment for this program and standard duties as performed for all COHP departments.

#### F. Facilities Requirements

MU will be responsible for all facilities necessary to operate and maintain the BSPH program. COHP is currently housed in Prichard Hall and occupies the entire third and fourth floors and one half of the second floor. Additional faculty office space will be necessary for the Chair and newly hired faculty in the BSPH program. There are currently no offices in Prichard Hall available to COHP, therefore, appropriate space would have to be located. Ideally, faculty for the BSPH would be housed in Prichard Hall with other college departments.

## G. Operating Resource Requirements

Faculty, personnel and facility resources are the responsibility of MU and COHP. Space suitable for faculty and one staff would be required over the next two years. Classrooms that are suitable for 40-50 students would be necessary. We believe that suitable classrooms exist on campus and with creative scheduling can accommodate the needs of the BSPH program.

## H. Source of Operating Resources

Faculty, personnel and facility resources are the responsibility of MU. Operational funds will be derived from tuition and fees. The total costs of operations for the program started with a base level estimated based on the average costs per departments currently in COHP. Costs associated with a start up program are likely to be higher related to specialized needs, therefore 25% additional operating expenses were added to the proposed budget. The Program Director will be able to assist with refining the budget.

#### PART IV: OFFERING EXISTING PROGRAMS AT NEW LOCATIONS

Not Applicable

#### PART V: PROGRAM EVALUATION

#### XXI. Evaluation Procedures

#### **Internal Evaluations**

Evaluation is a critical component to maintaining effective programs. Marshall University has a systematic and on-going evaluation process. All departments must submit an annual evaluation and program evaluation through the Office of Program Review and Assessment.

Faculty will be employed through COHP which conducts annual evaluations. Faculty of the PH program are considered Marshall University faculty. All courses will be developed utilizing CEPH criteria and will be submitted through the appropriate committees for approval by the COHP and Marshall University. A proposed course structure can be found in Appendix C.

Student satisfaction with and effectiveness of the didactic component of the program will be assessed in a variety of ways. Each semester, students will complete computer-scored anonymous surveys for all courses in which they are enrolled. The Office of Institutional Research will compile survey results and disseminate to the Dean and Chair.

Students will also be provided the opportunity to evaluate and comment on their clinical education. Evaluations for individual clinical sites and clinical instructors employed by the sites are submitted at the end of each semester for all clinical sites visited during the term.

Alumni surveys will be sent to graduates within 6 months of graduation requesting feedback with professional development and program satisfaction. Employer surveys are sent to students employed within the field after six months in order to evaluate the effectiveness of the program's graduates as public health workers.

Throughout the program, a variety of measures will be employed to assess student learning and comprehension. Among the measures utilized in the classroom setting include, but are not limited to, written objectives and examinations. In the clinical setting, student competence will be formally evaluated by the faculty throughout the entire clinical rotation.

Another common practice of measuring competence is through student GPA. The program policies state that a student must maintain a GPA of 2.5 throughout the program. If a student's GPA falls below a 2.5, they will be placed on academic probation and have one semester to bring it to an acceptable level or be dismissed from the program.

#### **External Evaluation**

The Graduate Survey is a common method utilized to measure preparedness for practice as a public health worker. Students who complete the entry level program at MU and obtain employment in the field will be surveyed within six months for feedback on the program's effectiveness in preparing them for practice.

Students/Graduates of the program will be asked to submit the name of their employer upon securing professional employment. Employer information will be requested from students after six months of employment. The Employer Survey solicits information on their ability to perform in their current capacity. This provides additional feedback to enhance program content.

#### Accreditation Status

There is currently no regional or national certification program for the bachelor level degree in public health. BSPH programs that are associated with a master in public health program are usually accredited under the umbrella of accreditation for the masters or doctorate programs, or as part of a school of public health. In anticipation of potential future growth, the MU BSPH will be designed to articulate into a MPH program. Future growth should allow for expansion into a full MPH program which would accelerate accreditation possibilities. Full accreditation requirements can be found at www.CEPH.org.

## b. Termination of Program

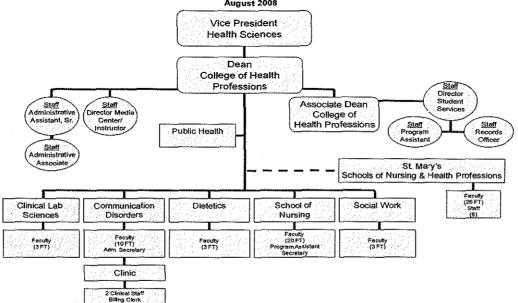
All program termination procedures will be guided by MU policies on program termination located in the undergraduate student handbook and MU's Greenbook. Any decision to terminate this program would require that sufficient coursework be taught to complete the degree for all accepted

students, or arrangements be made with another institution offering a like degree to accept all students enrolled.

## APPENDIX A

MARSHALL UNIVERSITY COLLEGE OF HEALTH PROFESSIONS PROPOSED ORGANIZATIONAL CHART

## **Marshall University** College of Health Professions Organizational Chart August 2008



## APPENDIX B

Marshall University Bachelor of Public Health Proposed Curriculum

	<u> </u>	YEAR ONE	
F	ALL	SPR	RING
Course	CR Hours	Course	CR Hours
ENG 101	3	ENG 102	3
BSC 120	4	BSC 121	4
MTH 125	3	CMM 103	3
SOC 200	3	Fine Art Elective	3
FYS 101	3	Humanities Elective	3
TOTAL	16	TOTAL	16
	Y	EAR TWO	<u> </u>
F.	ALL	SPR	ING
HP 200	3	HP 250	3
CLS 105	3	CD 480	3
BSC 302	4	Elective	4
DTS 201	3	WAC Elective	3
*PH 201	3	MIS 290	3
TOTAL	16	TOTAL	16
	YE	AR THREE	
F	ALL		ING
CMM 308	3	BSC 438	3
*PH 301	3	*PH 304	3
*PH 302	3	MIS 340	3
History Elective	3	*PH 401	3
MTH 225	3	WAC Elective	3
TOTAL	15	TOTAL	15
······································	YI	EAR FOUR	,
FALL SPR			ING
HP 400	3	*PH 456	6
DTS 409	3	*PH 457	3
*PH 440 (research)	3	MIS 470	3
*PH 441 cap. dev.	3	Elective	3
TOTAL	12	TOTAL	15
Grand Total			121

<sup>\*</sup>indicates new course required

## APPENDIX C PROPOSED COURSE DESCRIPTIONS

## BSC 120 Principles of Biology (4)

Study of basic biological principles common to all organisms through lecture and laboratory activities. Chemistry of life, cell biology, metabolism, heredity, and evolution. Intended for science majors and pre-professional students. 3 lec-2 lab. (PR: at least 21 on Math ACT, or *C* or better in MTH 121or higher)

## BSC 121 Principles of Biology. 4 hrs.

A continuation of the study of basic biological principles common to all organisms. Diversity of life, phylogeny, structure, function, and ecology. Intended for+ science majors and pre-professional students. 3 lec-2 lab. (PR: BSC 120; Grade of *C* or better in BSC 120 recommended)

## BSC 302 Principles of Microbiology (3)

Basic microbiological techniques, fundamental principles of microbial action, physiological processes, immunology, serology, disease process. 2 lec.-4 lab. (PR: BSC 121 with grade of C or better)

## BSC 438 Emerging Infectious Diseases (3)

Introduces students to infectious diseases that are either newly emergent or have returned to prominence within the last decade. (PR: BSC 302 or 320 or 322 or 324)

### CD 480 (3)

Sign language.

## CLS 105 Introduction Medical and Laboratory Terminology (3)

Introduction to health sciences careers and professions, emphasizing programs at Marshall University. Features practitioners involved in health care delivery and educational programs and common language found in medical and laboratory settings.

#### CMM 103 Fundamentals of Speech Communication (3)

A course designed to enhance the development of critical thinking skills and their application to verbal and nonverbal interaction in interpersonal and public communication contexts.

## CMM 308 Persuasive Communication (3)

Introduction to the understanding, practice and analysis of persuasion. Behavioral and rhetorical theories of persuasion will be examined and applied to contemporary persuasive communications. (PR: CMM 103)

## DTS 201 Introductory Nutrition (4)

Provides basic understanding of the science of nutrition and dietetics. The role of food and nutrient intake in health promotion and disease prevention will be explored in hands-on laboratory experiences.

## DTS 409 Community Nutrition (3)

Nutritional needs of communities and dietitian's role in addressing them are identified, and community nutrition programs are closely examined.

## ENG 101 (3)

Introduction to academic writing with emphasis on writing as a multi-stage process, critical thinking, and fundamental research strategies and skills. (PR: ACT English 18-27 [450 on the SAT] or ENG 100)

#### ENG 102 (3)

Academic writing with an emphasis on research related writing and higher levels of critical thinking and reading. (Not open to juniors and seniors. PR: English 101 or equivalent)

## HP 200 Introduction to Epidemiology (3)

This course provides an introduction to epidemiology for undergraduate students.

### HP 250 Introduction to Public Health (3)

Course introduces students to the concepts and models of public health.

#### HP 400 Global Health (3)

This course provides students the opportunity to study health care systems in developed and developing countries and compare these systems to the U.S. health care system.

## MIS 290 Principles of Management Information Systems (3)

To develop and use decision driven information systems. Emphasis on MIS/DDS applications common to business environments. Importance of communicating effectively with professional systems development groups will also be stressed.

## MIS 340 Database Management Systems (3)

A study of database design, data structures, and database administration in a business environment. File processing with multiple databases will also be taught.

## MIS 470 Business Systems Development Project (3)

Continuation of the techniques and concepts learned in MIS 330 and MIS 340 courses. Students will be required to design, develop, and implement an information system.

## PH 201 Community Health and Public Health Worker (3)

Introduces students to strategies employed by public health professionals to maintain and enhance the health of populations. The focus will be on humans as part of the systems influencing patterns and mechanisms of health and disease. Examples of interventions designed to solve public health problems will be drawn for both national and international experience.

## PH 301 Public Health Systems Design and Decision Analysis (3)

This course develops conceptual and methodological skills for the design and implementation of public health policy. A solid grounding in systems theory will complement the use of practical management tools such as strategic planning, cost effectiveness analysis and decision analysis. Students will apply these concepts and tools within the context of current international and domestic policy frameworks in the field of public health.

## PH 302 Knowledge and Information in the Practice of Public Health (3)

This course provides an overview of how data, information and knowledge are acquired and applied to public health problems. The philosophy of scientific inquiry and systems approaches to problem solving are covered. The course describes the methods by which data are collected, analyzed and applied to public health planning, as well as the measures and statistical tools necessary to assess the importance of public health problems. Students learn to understand and evaluate scientific publications on public health topics.

#### PH 304 Survey of Environmental Health Sciences (3)

Major environmental health problems, including water quality, wastewater, occupational health, trace elements in the environment, municipal and hazardous waste, food protection, vector control, and air quality are discussed.

#### PH 400 Research Strategies for Public Health (3)

This course will cover the basic research techniques and data analysis sets frequently used in public health. The course will specifically focus on population correction methods, discovery and analysis of population-based illnesses.

#### PH 401 Foundations and Formulation of Public Health Policy (3)

Students will be introduced to health policy and the process by which it is developed. Various approaches to health policy are defined and their rationale considered. The ethics of public health policy are addressed.

## PH 441 Capstone Development (3)

This course guides students through the development of a unique field experience that incorporates the student's interests and introduces them to the field of public health.

## PH 456 Internship (6)

This 6 hour field practicum is designed for students to synthesize and integrate knowledge and skills acquired through coursework and other learning experiences and to apply theory and principles in an experience that approximates an aspect of professional practice.

## PH 457 Senior Seminar (3)

Directed readings or research. Written reports are required. A course drawing together the major areas of public health to form an integrated picture of the field

## APPENDIX D PROPOSED BUDGET

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Tuition In State	\$ 171,622	\$ 330,372	\$ 437,635	\$ 544,899	\$ 544,899
Tuition Metro	\$ 40,224	\$ 77,431	\$ 102,571	\$ 127,711	\$ 127,711
Tuition Out of State	\$ 9,602	\$ 18,483	\$ 24,484	\$ 30,485	\$ 30,485
Program/lab Fees	\$ 18,000	\$ 34,650	\$ 45,900	\$ 57,150	\$ 57,150
Total Revenue	\$ 239,447	\$ 460,936	\$ 610,590	\$ 760,245	\$ 760,245
1 otal Revenue	Ψ 237,441	W 400,230	\$ 010,570	Φ 700,243	\$ 100,ETS
Expenses	alahan ing dia 1944, inda samungan kalifat panda ing diang a mang antawan asaman asaman ang masa	gy agus phing think the Edwards and the first than the street street and a company of first	entropy ( Tarlow & M. et allow Asher ( Sheet Sheet Sheet) in the sheet Sheet of the same and best secure of the		constructive material and an antitropic analysis of specifical properties and specifical and by the pro-
Faculty Salaries	\$ 75,000	\$ 77,250	\$ 139,568	\$ 203,755	\$ 209,867
Non Classified Salaries	\$ 12,500	\$ 12,875	\$ 27,500	\$ 28,325	\$ 29,175
Total FT salary	\$ 87,500	\$ 90,125	\$ 167,068	\$ 232,080	\$ 239,042
Fringe Benefits @ 26%	\$ 22,750	\$ 23,433	\$ 43,438	\$ 60,341	\$ 62,151
Part Time Faculty	·····	\$ 12,000	\$ 12,600	\$ 13,230	\$ 13,892
PT benefits		\$ 600	\$ 630	\$ 662	\$ 695
Total Personnel Costs	\$ 110,250	\$ 113,558	\$ 210,505	\$ 292,420	\$ 301,193
Operating Expense	\$ 25,500	\$ 26,265	\$ 27,053	\$ 27,865	\$ 28,700
Travel	\$ 3,000	\$ 3,090	\$ 5,183	\$ 7,338	\$ 7,558
Faculty Research Start-	\$ 25,000		\$ 25,000	\$ 25,000	
Faculty Recruitment/Visits	\$ 3,000	\$ 3,000	\$ 3,000		
Total Expense Budget	\$ 163,750	\$ 142,823	\$ 265,558	\$ 345,285	\$ 329,893
Net Revenue	\$ 75,697	\$ 318,113	\$ 345,032	\$ 414,960	\$ 430,352
Income to COHP	\$ 36,924	a, na papa pi Militadira di Mara adempi di menangan pada armangan pada paga pada paga pada paga pada paga pada			
neome to COAP	3 30,924	\$ 114,178	\$ 132,158	\$ 160,890	\$ 164,738
Income +/- to University	\$ 38,773	\$ 203,935	\$ 212,874	\$ 254,070	\$ 265,614
Assumes 3% annual inc	crease in tuiti	on, salaries a	nd expenses		
Faculty	1	1			3
tudents: 1st year	30	30	30	3(	) :
tudents: 2nd yr		27	27		
tudents: 3rd yr			25		5
tudents: 4th yr	····	············		25	
tudents: transfer	5	10	10	10	) 1
tudents: second degree	5	10	10	10	)
- totale	2.2	——————————————————————————————————————	400	4 ^ *	7 4.
otals	40	77	102	127	7 12

## APPENDIX E BUDGET JUSTIFICATION

- 1. Tuition: Establishing the appropriate tuition level will be one of the key decisions to be made in the planning process. The draft budget uses the standard MU tuition rates for full time and hourly calculations. This level was determined to maintain parity to other COHP undergraduate programs.
- 2. Program/lab Fees: Fees were derived by estimating fees charged by other COHP programs. These program fees will be used to support operating expenses, departmental growth and community outreach. The program fees for the BSPH will be assessed at \$450.00 per student per AY. Total AY fees include a matriculation fee of \$150.00, program fees of \$100.00, and lab fees of \$100.00 per student.

## **Expenses**

- 3. Faculty: Three faculty will be hired over 4 years as the size of the student population and the number of programmatic course requirements increase. The first faculty hire will occur in year one and serve as director. One additional faculty will be hired in years three and four of the program for a total of three faculty. The proposed BSPH salaries are in line with the current national average salary and align with other faculty salaries within COHP.
- 4. Non-Classified Salaries: One support staff will be required for operation of department. Hiring of this person will not be required until year three when students enter the public health program specific courses. The non-classified staff position will be part time in years one and two. The position will be converted to full time in year three.
- 5. Fringe Benefits: 26% of salary.
- 6. Operating expenses: These are the normal costs associated with operation of a university department (supplies, administrative support, travel, etc.).
- 7. Faculty recruitment/visits: Costs associated with advertising for faculty and campus interviews. Year one will be for the director position. Timing for additional recruitment visits will be determined by the director and the dean, COHP.
- 8. Faculty Research Funds: The BSPH degree is a pre-professional degree with tremendous potential for clinical research. Providing start-up funding for initial research is essential to expedite collection of data that could lead to outside grant support providing another source of revenue for MU. Students will also be involved in research activities and research funds will be needed to support these activities.
- 9. Revenue to University: These would be additional resources for use within the university budget as the President decides.