



## LSU Health Sciences Center at New Orleans School of Public Health

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# LOUISIANA STATE UNIVERSITY HEALTH SCIENCES CENTER SCHOOL OF PUBLIC HEALTH



## Elizabeth T.H. Fontham, MPH, DrPH, Dean

Appointed to the Deanship: May 1, 2004

Appointed to the Health Sciences Center Faculty: April 1, 1980

Faculty Academic Rank: Professor and Dean, School of Public Health and  
Professor, School of Medicine Department of Pathology

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School of Public Health  
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New Orleans, LA 70112

Telephone Number: (504) 568-5700

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## Administration

ELIZABETH T.H. FONTHAM, MPH, DrPH  
Dean

STEPHANIE TORTU, PhD  
Associate Dean, Academic Affairs

EDWARD TRAPIDO, ScD, FACE  
Associate Dean for Research

SCOTT A. DESSENS, CPA  
Assistant Dean, Business Affairs

EDWARD S. PETERS, DMD, SM, SM, ScD  
Academic Program Director  
Epidemiology

JAMES H. DIAZ, MD, MHA, DrPH, MPH&TM  
Academic Program Director  
Environmental/Occupational Health

DONALD E. MERCANTE, PhD  
Academic Program Director  
Biostatistics

SARAH MOODY-THOMAS, PhD  
Academic Program Director  
Community and Behavioral Health Sciences

ALICE I. LeBLANC, MPH  
Director of Admissions and Student Affairs

## Administrative Council

ELIZABETH T.H. FONTHAM, MPH, DrPH  
*Ex officio, Dean*

STEPHANIE TORTU, PhD  
*Ex officio, Associate Dean for Academic Affairs*

EDWARD TRAPIDO, ScD, FACE  
*Ex officio, Associate Dean for Research*

HILARY THOMPSON, PhD  
*Ex officio, Faculty Assembly President*

SARAH MOODY-THOMAS, PhD  
*Ex officio, Academic Program Director  
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DONALD E. MERCANTE, PhD  
*Ex officio, Academic Program Director  
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EDWARD S. PETERS, DMD, SM, SM, ScD  
*Ex officio, Academic Program Director  
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ARIANE RUNG, MPH, PhD  
*Elected, Senior Faculty*

DANIEL HARRINGTON, ScD  
*Elected, Junior Faculty*

SCOTT A. DESSENS, CPA  
*Ex officio, Assistant Dean, Business Affairs*

ALICE I. LeBLANC, MPH  
*Ex officio, Director of Admissions & Student Affairs\**  
\*Non Voting

## HISTORY

In 1995, LSUHSC proposed a Master of Public Health (MPH) degree. Approved by the LSU Board of Regents, enrollment was initially limited to students concurrently pursuing graduate degrees in the Schools of Allied Health, Dentistry, Graduate Studies, Medicine and Nursing. During this period, the Department of Public Health and Preventive Medicine in the School of Medicine offered and administered the MPH degree.

By 2003, LSUHSC reorganized the Department of Public Health and Preventive Medicine to create the School of Public Health, the new home of the MPH degree. Since then, the school has grown and developed to offer MPH degrees within the following five concentrations: behavioral and community health sciences, biostatistics, environmental and occupational health sciences, epidemiology, and health policy and systems management.

Students may also opt to pursue a Master of Science (MS) in biostatistics, or a PhD in biostatistics, community health sciences, or epidemiology. The PhD in biostatistics was first offered in 2008, with the PhD in epidemiology beginning two years later in 2010. The PhD in community health sciences program is currently accepting applications for its inaugural class in fall 2011.

## MISSION

To advance the public's health and well-being through education, research, and service.



## CALENDAR 2011 – 2012

### August 2011

Monday	16	Fall Student Orientation
Tuesday	17	Day for Fall Semester Registration
Wednesday	18	Fall Classes Begin

### September 2011

Wednesday	1	Last Day to Add Classes
Wednesday	1	Last Day to Withdraw from Course or Term without "W" on Transcript
Wednesday	1	"I" Grades from Summer Semester Converted to "F"
Thursday	2	"W" on Transcript for All Course or Term Withdrawals
Monday	6	Last Day to Withdraw from Course or Term without "W" on Transcript

### October 2011

Thursday	28	Last Day to Apply for Additional Federal Financial Aid for Spring Semester
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### November 2011

Friday	5	Withdrawal from a Course or Term Results in a Graded "W"
Wednesday	17	Pre-Registration for Spring Semester Begins
Friday	19	Last Day to Withdraw from Course with a "WF" Grade
Thursday	25	Last Day to Complete Financial Aid Exit Interview for Graduating Students
Thursday	25	Thanksgiving Holidays
Friday	26	Thanksgiving Holidays

### December 2011

Friday	3	Last Day of Semester
Monday	6	ALL GRADES DUE
Thursday	9	Degrees Conferred No Commencement Exercises

### January 2012

Tuesday	11	Last Day for Spring Semester Registration
Wednesday	12	Spring Semester Classes Begin
Monday	17	Martin Luther King Holiday
Tuesday	25	Last Day to Add Classes
Tuesday	25	Last Day to Withdraw from Course or Term without "W" on Transcript
Wednesday	26	"W" on Transcript for All Course or Term Withdrawals
Wednesday	26	"I" Grades from Fall Semester Convert to "F"

## CALENDAR 2011 – 2011

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### March 2012

Tuesday	8	Mardi Gras
Tuesday	15	Priority Deadline for Financial Aid for Summer
Wednesday	30	Pre-Registration for Summer Semester Begins

### April 2012

Thursday	7	Supplemental Financial Aid Deadline
Friday	15	Withdrawal from a Course or Term Results in a Graded "W"
Tuesday	19	Last Day to Withdraw from Course with a "WF" Grade
Friday	22	Good Friday Holiday
Friday	29	Last Day to Complete Financial Aid Exit Interview for Graduating Students
Friday	29	Last Day to Withdraw from Course or Term; the Grade Will Be "WF"

### May 2012

Friday	13	Last Day of Semester
Monday	16	ALL GRADES DUE
Saturday	21	Commencement
Tuesday	24	Last Day for Summer Semester Registration
Wednesday	25	Summer Semester Begins

### June 2012

Wednesday	8	Last Day to Withdraw from Course or Term without "W" on Transcript
Thursday	9	"W" on Transcript for All Course or Term Withdrawals
Wednesday	15	Pre-registration for Fall Semester Begins
Thursday	30	Supplemental Financial Aid Deadline

### July 2012

Monday	4	Independence Holiday
Friday	8	Withdrawal from a Course or Term Results in a Graded "W"
Friday	22	Last Day to Withdraw from Course with a "WF" Grade
Friday	22	Last Day to Complete Financial Aid Exit Interview for Graduating Students

### August 2012

Friday	5	Last Day of Semester
Monday	8	ALL GRADES DUE
Saturday	13	Degrees Conferred No Commencement Exercises

## ADMISSIONS

### GENERAL ADMISSIONS POLICIES

Minimum requirements for admission in the LSUHSC School of Public Health are as follows.

1. A baccalaureate degree from a college or university approved by a regional accrediting agency.
2. Grade point average of 3.0 for undergraduate and graduate work on a 4-point scale and based on all work for which a grade is given.
3. A minimum combined score of 1000 on the Verbal and Quantitative components of the Graduate Record Examination (GRE).
4. Satisfactory standing at the most recent educational institution attended.

In addition, all foreign students must present a minimum score of 550 on the paper-based or 213 on the computer-based Test of English as a Foreign Language (TOEFL) or 79 on internet-based. Official GRE and TOEFL reports from the Educational Testing Service are required along with World Education Services (WES) or Educational Credential Evaluators (ECE) report. The WES and ECE convert educational credentials from any country in the world into their U.S. equivalents. It describes each certificate, diploma or degree that has been earned and states its academic equivalency in the United States.

Foreign Nationals must provide a copy of their passport and a signed letter (on bank letterhead) of adequate funding or a letter of sponsorship from a recognized sponsoring agency (on agency letterhead) in order to obtain a visa. Please note that the process of obtaining a visa may take 90 or more days. Therefore, early application is recommended.

Acceptance is contingent upon recommendation by one of the programs. Note that specific programs may establish requirements *that surpass* the minimum standards of the School of Public Health.

Graduate students in the School of Public Health who later apply for admission to the LSUHSC-School of Medicine, or any other LSUHSC professional school or training program, shall not be enrolled in the professional school or training program until they have completed the public health degree toward which they are working. However, students may apply to be in the School of Medicine and School of Public Health to pursue both degrees concurrently.

### APPLICATIONS PROCEDURES

#### Checklist of Application Materials

- Application Form
- Application Fee
- **Official Report** of Graduate Record Examination Scores
- Transcripts from All Colleges and Universities Previously Attended
- **Original** Goal Statement or Statement of Purpose
- Resume or CV
- Recommendation Forms (3 required)
- Letters of Recommendation

In addition to the Checklist Materials, International Applicants must include official reports from the World Education Services (WES) or Educational Credential Evaluators (ECE) and Test of English as a Foreign Language (TOEFL). The TOEFL scores use the 1316 LSUHSC institution code and 50-department code for Public Health. Foreign Nationals must provide a copy of their passport and a signed letter (on bank letterhead) dated within in the calendar year of application documenting adequate funding or a letter of sponsorship from a recognized sponsoring agency (on letterhead) in order to obtain a visa. Please note that the process of obtaining a visa may take 90 or more days.

Applicants should download the application and recommendation forms at <http://publichealth.lsuhsoc.edu>. They are required to complete the application form and specify which program they wish to pursue and then send the signed original along with the application fee to the School of Public Health at the address noted below. Applicants must also specify whether they wish to be admitted as a full-time or part-time student.

The School of Public Health requires official reports of Graduate Record Exam (GRE) scores from the Educational Testing Service. The codes are 1316 for LSUHSC institution code and 0616/GRE for Public Health department code. It takes six weeks or longer for official GRE reports to reach the school. Applicants may submit a photocopy of a "Student Copy" of the scores; however, official reports are needed for admission.

Official transcripts are required from each college or university applicants have attended. Transcripts that show transfer credits from other colleges are not acceptable. The school requires that the transcripts be sent from the Registrar's Office of each university directly to the Office of Admissions. Transcripts issued to students are not considered official.

All programs require a goals statement of long-term and/or short-term goals in relation to the program of study. For MPH applicants the statement should be brief – not more than one page – but written in an applicant's own words. PhD applicants should refer to the program specific requirements. If using a phrase or longer text from other sources (such as the Internet or books), an applicant must credit the original source. Failure to do so constitutes plagiarism, which is immediate cause for rejection of an application.

A current resume or CV is also required, along with three recommendations. Applicants should use the "Admissions Recommendation" forms provided on the school's website. Additional recommendation forms and/or letters may be sent; however, only three forms or letters are required.

Send each of the items to  
LSUHSC SPH Office of Admissions  
1615 Poydras Street, Suite 1400  
New Orleans, LA 70112

After submitting your application, check with the Office of Admissions and Student Affairs at (504) 568-5773 ([sph@lsuhsc.edu](mailto:sph@lsuhsc.edu)) to track whether all materials have been received. Please do not assume that letters of recommendation or transcripts have arrived.

## Deadlines

Applications for master's degrees for fall admission must be complete by May 31. Application for spring admission must be complete by October 1. Please note that only the ENHS and HPSM programs have spring admissions for fulltime students. BCHS has spring admissions with limited class options for students.

PhD application deadlines vary by program. Applications deadlines are as follows: Epidemiology, January 15; Biostatistics, February 1; and Community Health, March 1.

## Deposits

A non-refundable fee of \$30 must be submitted for each graduate program to for which you have applied. For example, if you apply to two programs, you must submit \$60.

A matriculation fee of \$30 is required upon admission into a program.

Make checks or money orders payable to "LSU Health Sciences Center."

## REGISTRATION

All students are expected to comply with the general Health Sciences Center provisions governing registration as specified in the general information section of this publication. Dates for registration are listed in the school calendar. Late registration is permitted only under unusual circumstances.

It is sometimes necessary for a student to carry more than 15 hours of credit per semester. Permission to exceed the usual 15-hour credit limit may be granted by the Associate Dean for Academic Affairs.

## Health Requirements

All students are required to comply with the general Health Sciences Center provisions governing registration as specified in the general information section of this publication. Students must satisfy the requirements of the Student Health Services Office at the Health Sciences Center as listed in the form distributed by the Office of Admissions and Student Affairs upon acceptance into a degree program. This completed form is submitted to the Student Health Services Offices, not the School of Public Health.

## Reapplication

Students once registered in the School of Public Health who wish to resume studies after an absence of more than one semester will be required to submit an application for re-admission at least ten days before registration.

Supplementary transcripts must be submitted if any work has been taken at another institution during the interim. Exceptions to this requirement must be by successful petition to the Dean.

## Multi-campus Registration Procedures

Students enrolled full-time in the LSU System (LSU BR, UNO, LSUHSC) may cross enroll. Students are required to complete an application for LSU System Multi-Campus Registration (available in Student Affairs Office). This form must be submitted to the Student Affairs office two weeks prior to registration. Students should first register with their home school. Documentation that fees have been paid at the home school, a course schedule form, and two copies of Multi-Campus Registration Form must be submitted at registration.

## Auditing Courses

Courses may be audited only with the written permission of the course director or instructor. The same fees will be charged for audited courses as for those courses taken for credit. The student must note the intention to audit on the Schedule of Courses registration form.

## STUDENT AID

A complete, detailed summary of all provisions governing financial aid available to students of the Health Sciences Center may be found elsewhere in this publication, under the heading TYPES OF STUDENT FINANCIAL AID AVAILABLE. (See General Instruction Section.)

## STANDARDS

### REHABILITATION & DISABILITIES STANDARDS

The School of Public Health is in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act by providing reasonable accommodations to students with documented disabilities. Students must register with the Office of Admissions and Student Affairs to request disability-related accommodations, and are responsible for providing acceptable documentation of a disability as described in the 2010-2011 LSUHSC School of Public Health Student Handbook. Technical standards are detailed in the Student Handbook.

### ACADEMIC STANDARDS

To receive a graduate degree through the School of Public Health, a student must maintain at least a B average on all course work taken as a graduate student. If the Academic Program and the Associate Dean for Academic Affairs concur that the student is not qualified to continue, the individual will be terminated as a student.

### Satisfactory Academic Progress

A student who is permitted continuous enrollment is considered making satisfactory progress. The Academic Program Directors and the Associate Dean for Academic Affairs review the qualitative and quantitative academic progress of each student. A student may be permitted to

remediate upon the recommendation of the student's Academic Program Director and concurrence by the Associate Dean for Academic Affairs. Such a student is considered to be making satisfactory academic progress.

## GRADING SYSTEM

In the School of Public Health, a grade of A has the value of 4 quality points per semester hour. A grade of "B" has the value of 3 quality points per semester hour. "C" has the value of 2 quality points per semester hour and in some academic programs a course with a "C" grade or less may not be accepted for credit toward a degree. "D" has the value of 1 quality point, while "F" has the value of 0.

For certain courses, "Pass" and "Fail" will be used.

## Evaluation of Performance

Criteria for academic performance evaluation are described at length in the School of Public Health Student Handbook, available at <http://publichealth.lsuhschool.edu>.

## Incomplete Grades

Work, which is of passing quality but which, because of circumstances beyond the student's control, is not complete, may be marked "I" for incomplete. An "I" is given only upon approval by the instructor. If an explanation is not received, the faculty is to consider that the incomplete work is of failing quality and an "F" is to be given. It is the responsibility of the student to seek approval from the instructor. An "I" will be converted to an "F" unless it is removed prior to the deadline for adding courses for credit in the subsequent semester as published in the school calendar. The Associate Dean for Academic Affairs may authorize an extension of time for removing the grade.

## Withdrawal Grades

Students should refer to the Academic Calendar on the school website, which lists dates upon which they may withdraw from courses.

## Grade Appeals

If a student receives a grade which he or she feels is unwarranted, the student may appeal this grade. It is the intention of the school administration and faculty that grade appeals are resolved quickly and fairly at the lowest level of the process.

1. The student must first meet with the course director and discuss the basis for appealing the grade within three working days of receiving the grade.
2. If dissatisfied with the results of this meeting, the student may submit a formal written appeal of the grade no later than five working days of the discussion with the course director. This written appeal is sent to the course director and academic program director.
3. Within five working days from receiving the student's appeal, the course director and academic program director must examine the appeal, discuss it with the

student and respond with a written decision regarding the appeal. If dissatisfied with these results, the student may submit a final formal written appeal of the grade to the Associate Dean for Academic Affairs within five working days of the course director and academic program director's decision. The document must include the basis for appealing the grade.

4. Within ten working days of receiving the appeal, the Associate Dean for Academic Affairs will appoint an ad hoc committee of five including two students and three faculty members, none of which will be members of the academic program to evaluate the merits of the appeal. The committee must review the appeal and advise the Associate Dean for Academic Affairs of their recommendation in writing within five working days of the appointment of the committee.
5. Within five working days, the Associate Dean for Academic Affairs will review the findings of the committee and render a decision. The Associate Dean for Academic Affairs will forward the decision to the Dean as the final step of due process in the School.

## STUDENT MISCONDUCT

The principles, definitions, policies, and procedures on student misconduct are specified in the LSUHSC School of Public Health Student Handbook. In summary, reports of student misconduct should be made to the Associate Dean for Academic Affairs. The case may be resolved at that level, or it may be referred to a hearing panel of students and faculty. All recommendations will be forwarded to the Dean for action. Sanctions range from censure for minor infractions to expulsion for infractions that are gross or egregious.

## SPECIAL STUDENTS

### Non-degree seeking students

Non-degree seeking students may apply for admission in a non-degree seeking status in order to register for courses at the LSUHSC School of Public Health. Upon completion of a maximum of 9 hours, those individuals will be required to apply for full admission into a specific academic program if they wish to apply earned credits toward the MPH degree.

### DEGREES FOR FULL-TIME FACULTY AND STAFF

The School of Public Health will not award graduate degrees to full-time faculty of the Health Sciences Center above the rank of Instructor or to other employees without permission of the Program and the Dean.

### LSUHSC Employees

LSUHSC employees who are admitted to one of the Programs may not register for more than six hours of credit per semester. No full time employee will be permitted to register without written approval of the employee's immediate supervisor, program director, and Dean.

The employee must deliver the letter to the Director of Admissions and Student Affairs of the School of Public Health at least two weeks before registration.

The employee must also complete a School of Public Health application form and pay the \$30 application fee. At registration, the employee will pay for the course according to the Health Sciences Center Fee Schedule. All employees must comply with LSUHSC Student Health requirements and also maintain health insurance. A Course Schedule Form must be completed, signed by employee's supervisor and submitted at registration.

## GRADUATION

Eligible students may graduate at the end of summer, fall and spring semesters, though commencement occurs only in May. The LSUHSC School of Public Health Student Handbook provides graduating students with details for procedures.

### Time Limit for Earning Degrees

The School of Public Health requires that all master degree programs be completed within seven years and eight years for the doctoral programs. This time limit applies for both part-time and full-time students. Requests for extension of this policy are subject to approval by the Associate Dean for Academic Affairs, based on recommendations from the student's Academic Program Director.



## PROGRAM DESCRIPTIONS

### PUBLIC HEALTH - MPH

The Master of Public Health (MPH) degree program is a 45-credit competency-based curriculum.

The MPH program is to prepare individuals to improve the health of the population through evidence-based practice and research. Coursework, practice experience and the culminating experience/capstone will provide students with a foundation in the basic disciplines of public health, while allowing them to pursue individual interests and build upon existing strengths and previous experiences. Students can develop the intellectual and analytical skills to define, evaluate and solve complex problems encountered in public health and health care systems.

#### Transfer of Credits from Other MPH Degree Programs

A maximum of nine credit hours of coursework may be transferred into the MPH degree. Core courses transferred from CEPH approved degree programs can be accepted without review. All other course transfers are subject to review by the relevant LSUHSC SPH Course Director. (See the Student Handbook for the procedure to transfer credits.)

#### Master of Public Health Curriculum

	Credits
BIOS 6100 Biostatistical Methods I .....	3
or	
BIOS 6200 Principles of Applied Statistics (BIOS majors) 3	
BIOS 6101 Biostatistical Methods I Lab.....	1
EPID 6210 Principles of Epidemiology .....	3
ENHS 6238 Principles of Environmental Health .....	3
BCHS 6212 Behavioral Science Theories in PH.....	3
HPSM 6268 Health Services Administration and Management .....	3
PUBH 6221 Foundations for Public Health Ethics .....	1
EPID 6216 Biologic Basis of Health* .....	3
PUBH 6800 Practice Experience .....	3
Concentration Specific Courses.....	22
<b>Total Hours .....</b>	<b>45</b>

*\*Required of all students without doctoral level clinical degrees.*

#### BCHS Concentration

	Credits
BCHS 6213 Community Analysis, Ecology & Health Disparities .....	3
BCHS 6214 Health Communication .....	3
BCHS 6215 Monitoring and Evaluation.....	3
BCHS 6216 Health Program Development & Planning .....	3
BCHS 6227 Research Methods in Health Sciences .....	3
BCHS 6600 Culminating Experience in Behavioral and Community Health Sciences .....	3
Electives.....	4

#### BIOS Concentration

	Credits
BIOS 6202 Applied Linear Models .....	3
BIOS 6204 Statistical Theory I .....	3
BIOS 6206 Statistical Theory II .....	3
BIOS 6210 Categorical Data Analysis .....	3
BIOS 6212 Survival Analysis .....	3
BIOS 6610 Biostatistical Consulting.....	2
BIOS 6700 Research Seminar in Biostatistics .....	2
BIOS 6600 Culminating Experience/Capstone in Biostatistics .....	3

#### ENHS Concentration

	Credits
ENHS 6239 Occupational Health & Medicine .....	3
ENHS 6241 Medical Toxicology .....	3
ENHS 6243 Air Quality, Air Pollution & Dispersion Modeling .....	3
ENHS 6245 Health Risk Assessment & Management Communication .....	3
ENHS 6246 Water Quality Management.....	3
ENHS 6600 Culminating Experience in Environmental and Occupational Health Sciences .....	3
Electives.....	5

#### EPID Concentration

	Credits
EPID 6211 Intermediate Epidemiology.....	3
EPID 6213 Epidemiology Seminar .....	1
EPID 6226 Epidemiologic Design and Analysis .....	3
BIOS 6102 Biostatistical Methods II .....	3
EPID 6600 Culminating Experience in Epidemiology .....	3
Content Elective .....	2-3
Methodology Elective .....	3
Other Electives.....	3-4

#### Content Electives

EPID 6214 Infectious Disease Epidemiology
EPID 6222 Cancer Epidemiology
EPID 6223 Chronic Disease Epidemiology
EPID 6224 Emergent Epidemiology
EPID 6220 Molecular Epidemiology
EPID 6301 Epidemiology of Sexually Transmitted Infections/Diseases
EPID 6352 Social Epidemiology

#### Methodology Electives

EPID 6217 Database Management
EPID 6218 Spatial Analysis
EPID 6219 Nutritional Epidemiology
EPID 6221 Qualitative and Quantitative Research Methods
EPID 6225 Health Outcomes Research
EPID 6351 Public Health Surveillance System Theory and Methods
BCHS 6215 Monitoring and Evaluation
BCHS 6221 Survey Design
PUBH 6201 Principles of Geographic Information Systems for Health

#### HPSM Concentration

	Credits
HPSM 6248 Organizational Behavior.....	3
HPSM 6269 Healthcare Economics and Economic Evaluation of Healthcare Services.....	3
HPSM 6270 Financial Management and Accounting In Healthcare Organizations .....	3
HPSM 6288 Health Policy and Law .....	3
HPSM 6600 Culminating Experience in Health Policy and Systems Management .....	3
Electives.....	7

## **Behavioral and Community Health Sciences**

**Sarah Moody Thomas, PhD**  
**Academic Program Director**

The Master of Public Health (MPH) program in Behavioral and Community Health Sciences (BCHS) prepares students for professional careers which focus on the development, implementation and evaluation of health promotion/disease prevention programs to improve the quality of life of individuals, families and communities. The BCHS program places a strong emphasis on students acquiring knowledge and skills needed to understand socio-cultural, system, and policy issues affecting health and applying behavioral theory to the conceptualization of effective public health interventions.

## **Biostatistics**

**Donald E. Mercante, PhD**  
**Academic Program Director**

The Master of Public Health (MPH) program in Biostatistics (BIOS) provides students with coursework in biostatistical methods including categorical data analysis, survival analysis, multivariate statistics, and the design and analysis of clinical trials. The Biostatistics Program also offers an MS degree and a PhD degree. PhD students without a prior degree in public health will be required to take course work in the fundamentals of public health.

## **Statistical Consulting Experience**

Students in the MPH in Biostatistics Program are required to complete a two credit course in statistical consulting as part of their coursework. Students will apply what they have learned in their classroom experiences to real-world clinical research problems, while working under the supervision of a biostatistics faculty mentor. Practice experiences in local, regional, and national health care organizations will be available.

## **Admission Prerequisites**

- Differential and integral calculus through Calculus III
- Introductory linear algebra
- Experience with computers

Students may take the calculus and/or linear algebra courses either during the summer prior to admittance or concurrently during their first year in the program with prior approval from the program director. The equivalent courses at the University of New Orleans (UNO) are MATH 2111, 2112, 2511. Students with limited or no computer background might consider taking CSCI 1060 at the University of New Orleans.

## **Environmental & Occupational Health Sciences**

**James H. Diaz, MD, MHA, DrPH, MPH&TM**  
**Academic Program Director**

The Master of Public Health (MPH) program in Environmental & Occupational Health Sciences (ENHS) is designed to provide students interested in careers in health risk assessment, regulatory toxicology, occupational safety and health, or industrial hygiene with a solid academic background. Program course material helps students prepare for appropriate certification examinations in industrial hygiene and safety after meeting the practice and experiential requirements as determined by the professional certifying boards.

## **Career Opportunities**

Graduates from ENHS regularly find positions in the environmental and occupational fields in government, industry, academia, and consulting firms. Potential employment opportunities include positions with the U.S. Environmental Protection Agency (US EPA), the Occupational Safety and Health Administration (OSHA), the Centers for Disease Control and Prevention (CDC), state health departments, state departments of environmental quality or environmental protection, major manufacturing and petrochemical industries, and environmental and civil engineering consulting firms. Recent graduates have secured employment with the state health department, academia, and private industry.

The MPH will assist graduates in preparing for national certification examinations in public health, industrial hygiene or toxicology, as required for professional advancement.

## **Epidemiology**

**Edward S. Peters, DMD, SM, SM, ScD**  
**Academic Program Director**

The Master of Public Health (MPH) program in Epidemiology (EPID) is a two-year curriculum designed to provide students with a diverse set of skills essential to the practice of epidemiology. The foundation of public health, epidemiology focuses on the distribution and causes of disease in human populations and on developing and testing ways to prevent and control disease. The mission of the Epidemiology Program at LSUHSC School of Public Health is to evaluate and improve human health through research, education, and service. Students are prepared for a career as future researchers and practitioners in the fields of epidemiology and public health through the study and application of epidemiological principles and practices.

The Epidemiology Program includes practice experience, problem-based learning, seminars as well as classroom instruction.

**Health Policy and Systems Management**

**Peter J. Fos, DDS, PhD, MPH**  
**Academic Program Director**

The Master of Public Health (MPH) program in Health Policy & Systems Management (HPSM) is concerned with personal and population health improvement through planning, implementation and operation of systemic, effective and community responsive programs and organizations. The HPSM program prepares students for managerial, consulting, and leadership roles in public health and health care organizations. Pre-professional and professional students are prepared for these roles through the study and application of the principles of health systems management with a special focus on the quality and cost effectiveness of the care they provide and on the information systems that support them. Program core courses also prepare students to pursue careers to develop and advocate for health policies to achieve cost-effective delivery of health services as well as to ensure desired health outcomes.

Career opportunities exist in hospitals and clinics and other health care institutions, state and federal health agencies, consulting firms, non-profit organizations, local health departments, and managed care organizations. A strong background in quality and cost effectiveness is a competitive advantage for a range of positions from mid-management to top executives. Healthcare systems throughout the country are actively seeking individuals prepared to make improvements in health systems management. Cost effectiveness has become the strategic focus of many of the provider organizations as well as for the organizations that pay for healthcare including the government, insurance companies, and managed care organizations.

**BIostatISTICS– MS**

**Biostatistics**

**Donald E. Mercante, PhD**  
**Professor and Director**

The Master of Science in Biostatistics is a two-year, 30 credit degree program that begins with a core of basic biostatistical methods and statistical theory and continues with electives in biostatistical methods directly applicable in public health. Students graduating from this program have been placed in well-paid positions in industry, government and academia.

Entry Requirements are differential and integral calculus (through calculus III) and introductory linear algebra. In some cases, a student deficient in some of the entry requirements may be admitted provided a plan for remediation is developed and approved by the faculty. The MS is offered through the School of Graduate Studies, [click here](#) for information on applying to the MS Biostatistics program.

Applicants should have strong quantitative aptitude and skills and are reviewed on the basis of the following criteria.

- Strength of their previous coursework based on grades and coursework with particular emphasis given to courses in statistics, mathematics and computer science.
- Scores on the Graduate Record Exam (GRE) with emphasis placed on the quantitative component.
- Three letters of reference from individuals who can provide an assessment of your quantitative skills and potential for success in the MS program.
- Goal Letter written by applicant that describes short and long-term goals related to the PhD program and the biostatistics profession.

**Fellowships**

Graduate fellowships are offered when available and on an extremely competitive basis.

**Biostatistics Curriculum**

	Credits
BIOS 6200 Principles of Applied Statistics .....	3
BIOS 6202 Applied Linear Models .....	3
BIOS 6204 Statistical Theory I .....	3
BIOS 6206 Statistical Theory II .....	3
BIOS 6210 Categorical Data Analysis .....	3
BIOS 6212 Survival Analysis .....	3
BIOS 6610 Biostatistical Consulting.....	2
BIOS 6700 Research Seminar in Biostatistics .....	2
PUBH 6221 Foundations for Public Health Ethics .....	1
BIOS Electives.....	7
<b>Total .....</b>	<b>30</b>

## DOCTOR OF PHILOSOPHY

The faculty of the School of Public Health offers rigorous doctoral training programs in biostatistics, epidemiology and community health that comprises both formal classroom instruction and guided research with faculty mentors trained at top school of public health programs nationally and internationally. The size of our school encourages students to develop in-depth working relationships with their mentors. The PhD degree is awarded jointly by the School of Public Health and the School of Graduate Studies.

## ADMISSIONS

### ADMISSION REQUIREMENTS

Admission is competitive. Applicants should have earned a master of public health or master of science degree or equivalent with a strong background in statistics, epidemiology or community health. A background in health or biological sciences is desirable.

Specific admissions requirements are dependent upon the individual public health PhD Program and these requirements are available in the individual program descriptions.

### STIPENDS/FELLOWSHIPS

Students pursuing the PhD degree are usually provided tuition waivers, and contingent upon the availability of funds may be awarded either a research assistantship or graduate fellowship. Such awards are made on an annual basis. Students on research assistantships are expected to work up to 20 hours per week in active participation in research projects, and/or assisting faculty in teaching activities through grading and conducting recitation/lab sessions. Graduate fellowships do not carry a service obligation, freeing the student to devote more time to their studies. These are offered when available and on an extremely competitive basis.

### REQUIREMENTS FOR THE DOCTOR OF PHILOSOPHY DEGREE

The Doctor of Philosophy degree is the highest degree offered by universities. It is conferred only for work of distinction in which the student displays original scholarship.

**Enrollment** – For full-time students three years (9 semesters) of enrollment is required. One year (three consecutive semesters) must be taken at the Health Sciences Center following completion of the preliminary examination. Exceptions may be made by petition to the School of Public Health Dean. Credit may be transferred from other institutions if approved by the Major Professor and Program Head. Written notification clearly listing the courses to be transferred must be sent to the Dean who will notify the Registrar.

**Transfer Credit** – Students entering with a master's degree in biostatistics, epidemiology, community health or a related field who seek to transfer graduate credit may do so only at the discretion of the program director and in accordance with

School of Public Health policy. For transfer credit to count towards the credit hours required for the PhD, it must be in excess of the master's degree requirements and it must be course work normally taken by doctoral students.

**Course Requirements** – Specific course requirements are dependent upon individual Program policy. However, in general, a minimum of 60 credit hours is required. The minimum courses required by each Program are listed in the Course Descriptions in this catalog. Some credit may be earned in minor fields. Students are encouraged to develop a minor field, individual programs may have specific requirements. No more than fifteen credits may be counted for research and dissertation and no more than four credits for seminar, even though both may be carried throughout the program. Programs may have additional requirements for students to participate in teaching in the public health, graduate, medical, dental, nursing, allied health, and undergraduate courses.

**Foreign Languages** – There is no School of Public Health requirement for foreign languages, but individual Programs may require one or more.

**Qualifying Process** – Each Program will be responsible for the qualifying process and will develop appropriate policies, which will be on file in the Dean's Office. Complete details can be found in the School of Public Health Student Handbook.

**Qualifying Examinations** – All PhD students will be required to pass a comprehensive written examination before registering for research credit and embarking upon their dissertation work. These exams confirm that students have a command of discipline specific concepts and reasoning sufficient to undertake doctoral research. All course work listed should be completed with a grade of B or better.

The written examination will be a comprehensive exam written and graded by the program faculty. The examination is taken after completion of all PhD core courses.

The oral qualifying examination will be given by the student's Doctoral Committee and will assess the student's research prospectus. The student's PhD advisor will be the Chair of the Committee.



The oral qualifying examination should be scheduled to take place after completion of the core course sequence and major electives specified by the student and their Committee Chair. If a student fails either the written or oral exam, the Doctoral Advisory Committee determines the conditions to be met before another examination may be given.

The oral examination committee will ordinarily consist of the student's major professor and at least four other faculty members representing major and minor (if applicable) disciplines. At least one member must be from another Program/Department, one member from the LSUHSC School of Graduate Studies, and one member may be from outside the Health Sciences Center. The Dean may make substitution or addition of committee members after consultation with the major professor and Program Head, but continuity of membership is sought to provide consistent guidance of the student through the program. This examination is the most thorough in the doctorate program. It should require the candidate to demonstrate competence in a broad segment of the major and minor (if applicable) fields. If there is no more than one negative ballot out of a minimum of five, the student becomes a "candidate" after the Dean has been notified by the student's major professor and Program Head of successful completion of the preliminary examination. Examination and defense request forms are available from the Office of Admissions and Student Affairs. To access fillable PDF forms; use the "Forms" link on the School of Public Health website.

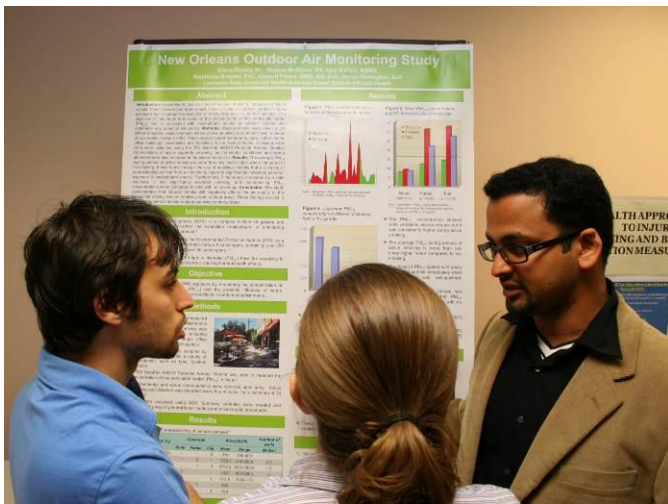
examination. The examining committee is made up of no less than five graduate faculty members, one of whom must be from a Program other than the student's Program, nominated by the major professor, Head of the Program and appointed by the Dean and one of whom must be from outside the School of Public Health and a member of the faculty of the School of Graduate Studies. The Dean may serve as a member or may appoint members to the Committee. Traditionally, this examination is a test of the student's intimate knowledge of the area of the field in which the student is working. However, at the discretion of the Committee or the Dean, the examination may include questions from the major or minor fields in general. Voting is by secret ballot, and to pass the examination there may be no more than one negative vote.

**Certification** – If not more than one member of the examining committee dissents and if the dissertation is accepted, the candidate will be certified to the School of Public Health Faculty, Graduate Faculty and Chancellor as having met all requirements for the degree of doctor of philosophy.

**Time Limit** – The School of Public Health requires that all work towards a PhD degree be completed in not more than eight calendar years. Any requests for extension of this policy are subject to approval by the student's Public Health Graduate Research Committee and the Dean.

## GRADUATION FEES

Fees for graduation are normally assessed at registration for the semester in which the student intends to graduate.



**Dissertation** – The dissertation must be a significant contribution to the field, suitable for publication in a peer reviewed journal of international repute. The format of the dissertation is specified in the student handbook for each doctoral program. For the planned graduation date, the student should check the school calendar for the final date for submission of the dissertation to the School of Public Health.

**Dissertation Defense** – Permission to hold the final examination will be granted by the dean of the School of Public Health only after all the foregoing conditions are satisfied and one academic year has elapsed since the student passed the prospectus. "One academic year" in this case is the interval between the prospectus held early in one semester and a final examination held toward the close of the following semester. The Defense may be preceded by an open seminar of the student's dissertation research. The student must petition the Dean for permission to take the

## BIostatISTICS – PhD

Donald E. Mercante, PhD  
Professor and Director

The PhD in Biostatistics is an advanced, research-oriented degree program requiring in-depth study and research in a particular area of emphasis within biostatistics. The core curriculum includes coursework in advanced statistical methods and statistical theory. Additional coursework will include multivariate methods, linear and generalized linear models, statistical computing, design and analysis of clinical trials, and other advanced statistical methods. PhD students will also receive training in research ethics, hands-on experience in statistical consulting, and gain teaching experience through a formal teaching practicum. Students will have the opportunity to take elective courses in epidemiology and other core disciplines in public health. Advanced coursework in bioinformatics is available through the Bioinformatics Track, in which students learn how to apply and develop advanced statistical methods for the analysis of micro-array, genomic, and proteomic data.

**Entry Requirements** – Requirements include differential and integral calculus (through calculus III) and introductory linear algebra. In some cases, a student deficient in some of the entry requirements may be admitted provided a plan for remediation is developed and approved by the faculty. Generally, only students who have successfully completed a master's degree in statistics, biostatistics or related field will be considered for acceptance. A limited number of stipends are available to qualified students on a competitive basis.

Applicants should have strong quantitative aptitude and skills and are reviewed on the basis of the following criteria.

- Strength of their previous coursework based on grades and coursework with particular emphasis given to courses in statistics, mathematics and computer science.
- Scores on the Graduate Record Exam (GRE) with emphasis placed on the Quantitative component.
- Three letters of reference from individuals who can provide an assessment of your quantitative skills and potential for success in the PhD program.
- Goal Letter written by applicant that describes short and long-term goals related to the PhD program and the Biostatistics profession.

In addition to requirements listed in tables below, all PhD students are required to take courses in consulting, ethics, research seminar, and teaching practicum. PhD students are required to successfully complete a minimum of 60 semester credit hours beyond the Master of Science (MS) for graduation.

## Biostatistics Curriculum

The following is the typical sequence of courses during first year in PhD program for students entering with a master's degree in biostatistics.

### Fall Semester

	Credits
BIOS 7200 Theory of Linear Models .....	3
BIOS 7204 Advanced Statistical Theory I.....	3
EPID 6210 Principles of Epidemiology .....	3

### Spring Semester

	Credits
BIOS 6212 Survival Analysis .....	3
BIOS 7202 Generalized Linear Models .....	3
BIOS 7205 Advanced Statistical Theory II.....	3

The minimum core requirements for the PhD Program in Biostatistics for all students are as follows. Additional requirements are specified in detail in the biostatistics student handbook.

## Core Requirements

	Credits
BIOS 6212 Survival Analysis .....	3
BIOS 7200 Theory of Linear Models .....	3
BIOS 7202 Generalized Linear Models .....	3
BIOS 7204 Advanced Statistical Theory I.....	3
BIOS 7205 Advanced Statistical Theory II.....	3

\* Note: PhD Qualifying Examinations are based on material from the core courses and are usually offered in the summer following completion of these courses.

## Elective Courses

Students will choose elective credit hours from the following three lists:

### Group A: Theoretical Emphasis

	Credits
At least one course from this group:	
BIOS 6300 Statistical Computing .....	3
BIOS 6316 Stochastic Processes .....	3
BIOS 6308 Multivariate Methods.....	3
BIOS 7302 Mixed Models .....	3

### Group B: Applied Emphasis

	Credits
At least two courses from this group:	
BIOS 6302 Applied Longitudinal Analysis .....	3
BIOS 6304 Design and Analysis of Experiments.....	3
BIOS 6310 Applied Bayesian Analysis.....	3
BIOS 6312 Sampling Methods .....	3
BIOS 6314 Clinical Trials Methodology.....	3

### Group C: Bioinformatics Emphasis

	Credits
BIOS 6450 Design and Analysis of Expression Studies ....	3
EPID 6220 Molecular Epidemiology .....	3

Bioinformatics Track: BIOS 6450 and EPID 6220 may be substituted for other electives with the approval of the graduate advisor.

**COMMUNITY HEALTH SCIENCES – PhD**

**Sarah Moody-Thomas, PhD**  
**Professor and Program Director**

The Doctor of Philosophy in Community Health Sciences is an advanced program of study designed primarily for those who intend to pursue careers involving research, teaching, and professional practice to promote health, prevent disease and improve the quality of life. The program advocates an ecological approach to understanding determinants of health. The diverse education and cultural backgrounds of the faculty are linked by their collective reliance on this approach.

This program will train students to: 1) conduct original research to identify and examine individual and social determinants of health, illness, and disease; 2) design, implement and evaluate multi-level interventions to promote health, prevent disease and reduce health disparities; and 3) translate knowledge derived from research into public health practice. The curriculum includes coursework, research and practical instruction in community health promotion, health education, systems thinking, research and intervention design including traditional (experimental) and applied (community-based participatory) approaches, as well as statistical methods and data analysis and interpretation. Doctoral students also gain expertise through participation in a formal teaching practicum. Each student will be required to complete a dissertation based on independent empirical research that generates knowledge and promotes innovation in the field of Public Health.

**Community Health Sciences Curriculum**

	Credits
BCHS 7201 Ecological Approaches to Community Health Sciences .....	3
BCHS 7202 Health Behavior Change .....	3
BIOS 6210 Categorical Data Analysis .....	3
BCHS 7700 Community Health Sciences Seminar II .....	1
BIOS 6102 Biostatistical Methods II .....	3
PUBH 6221 Foundations of Public Health Ethics.....	1
BCHS 7401 Teaching Practicum .....	2
EPID 7202 Grantsmanship and Proposal Development for Epidemiologic Research .....	3

**Electives**

**Group A: Content Courses**  
 (At least two of the following)

	Credits
BCHS 7352 Mental Health Promotion in Community Health .....	3
BCHS 7351 Race/Ethnicity, Gender, and Health .....	3
BCHS 6218 Principles of Rural Health .....	3
BCHS 6220 Issues in Maternal, Child, and Adolescent Health .....	3
BCHS 6222 Chronic Disease Prevention and Management .....	3
BCHS 6223 Public Health Implications of an Aging Society .....	3
BCHS 6224 Health Related Physical Activity .....	2
BCHS 6225 Infectious Disease: A Public Health Response .....	3

**Group B: Methods Courses**  
 (At least two of the following)

	Credits
BCHS 7350 Translational Research.....	3
BCHS 6221 Survey Design .....	3
EPID 6217 Database Management .....	3
PUBH 6201 Principles of Geographic Information Systems in Public Health.....	3
EPID 6225 Health Outcomes Research.....	3

**Group C: Biostatistics Courses**  
 (At least two of the following)

	Credits
BIOS 6202 Applied Linear Models .....	3
BIOS 6308 Multivariate Methods.....	3
BIOS 6314 Clinical Trials Methodology.....	3

*Other School of Public Health electives as approved by advisor*

## EPIDEMIOLOGY — PhD

**Edward S. Peters, DMD, SM, ScD**  
**Professor and Program Director**

The School of Public Health offers an educational program in Epidemiology leading to the PhD degree. The doctoral program is research-intensive, where students work closely with faculty members in developing skills necessary to be future leaders in epidemiologic research and teaching. The School of Public Health offers a rigorous doctoral training program in epidemiology that comprises both formal classroom instruction and guided research with faculty mentors trained at top School of Public Health programs nationally and internationally. The size of our school encourages students to develop in-depth working relationships with their mentors.

Students complete at least 60 credits beyond the master's degree (83 without). It is expected that at least half of these courses be from the epidemiology and biostatistics course offerings at the School of Public Health. The core curriculum includes a required suite of coursework in epidemiologic methods and theory. Additional coursework is available focusing on specific content areas as well as topics in biostatistics such as categorical analysis, survival analysis, and the design and analysis of clinical trials. PhD students will gain teaching experience through a formal teaching practicum. Students will also have the opportunity to take elective courses in the other core disciplines in the School of Public Health and Graduate Studies. Such classes might include genetics or molecular biology. Each student will be required to write and defend a dissertation that is publishable in the epidemiologic literature.

Admission is competitive. Applicants should have earned a Master of Public Health degree or its equivalent with a strong background in epidemiology and statistics. Students entering with a master's degree in epidemiology or a related field may transfer up to 18 hours of credit at the discretion of the program director and in accordance with graduate school policy. For transfer credit to count towards the 60 credit hours required for the PhD, it must be in excess of the master's degree requirements and it must be course work normally taken by doctoral students. Students should have a solid quantitative background, and while college algebra and calculus are not required for the epidemiology degrees, they are highly recommended. A background in health or biological sciences is also desirable. Tuition waivers and a limited number of stipends are available for qualified full-time doctoral students.

## Epidemiology Curriculum

	Credits
EPID 6210 Principles of Epidemiology .....	3
EPID 6211 Intermediate Epidemiology.....	3
EPID 7700 Epidemiology Seminar II.....	1
EPID 6226 Epidemiologic Design and Analysis .....	3
EPID 7200 Advanced Epidemiology .....	2
EPID 7202 Grantsmanship and Proposal Development for Epidemiologic Research.....	3
EPID 7410 Teaching Practicum .....	2
EPID 7900 Dissertation Research .....	9
BIOS 6100 Biostatistical Methods I .....	3
BIOS 6101 Biostatistical Methods I Lab.....	1
BIOS 6102 Biostatistical Methods II .....	3
PUBH 6221 Foundations of Public Health Ethics .....	3
BIOS 6103 Biostatistical Methods II Lab... ..	1
BIOS 6210 Categorical Data Analysis .....	3
Content Electives.....	6
Methods Electives .....	6
BIOS Electives.....	6
Electives.....	12
<b>Total .....</b>	<b>83</b>

### Content Electives

EPID 6214 Infectious Disease Epidemiology
EPID 6220 Molecular Epidemiology
EPID 6222 Cancer Epidemiology
EPID 6223 Chronic Disease Epidemiology
EPID 6224 Emergent Epidemiology
EPID 6301 Epidemiology of Sexually Transmitted Infections/HIV
EPID 6352 Social Epidemiology

### Methods Electives

BCHS 6215 Monitoring and Evaluation
EPID 6217 Database Management
EPID 6218 Spatial Analysis
EPID 6219 Nutritional Epidemiology
EPID 6221 Qualitative & Quantitative Research Methods
EPID 6225 Health Outcomes Research
EPID 6351 Public Health Surveillance System Theory and Methods
EPID 7350 Evolution of Epidemiologic Theory and Methods
EPID 7351 Sampling and Survey Methods

### Biostatistics Electives

BIOS 6267 Applied General Linear Models
BIOS 6226 Survival Analysis
BIOS 6264 Clinical Trials
BIOS 6260 Longitudinal Data Analysis

## COURSE DESCRIPTIONS

### Behavior and Community Health Sciences

#### **BCHS 6212 Behavioral Science Theories in Public Health Practice**

[3 Credits] This course is designed to expose students to the origin and use of behavioral and psychosocial theories in public health research and practice. Specifically, this course will explore how theoretical concepts, constructs, frameworks and models are utilized in developing, implementing and evaluating public health interventions.

#### **BCHS 6213 Community Analysis, Ecology, and Health Disparities**

[3 Credits] The purpose of this course is to identify and understand how multiple social determinants of health contribute to health disparities at the community level. This course examines the use of quantitative and qualitative research methods to track health disparities and monitor progress of public health interventions designed to reduce or eliminate health disparities at the community level. Prerequisites: First year Core Courses.

#### **BCHS 6214 Health Communication**

[3 Credits] Providing a foundation in the science, theory, and practice of effective health communication, this course also prepares the student to develop, deliver, and evaluate health communication campaigns and disseminate information to a wide variety of potential audiences. Prerequisites: BCHS 6212.

#### **BCHS 6215 Monitoring and Evaluation**

[3 Credits] The purpose of this course is to introduce the student to the concepts of monitoring and evaluation of community, health promotion, and other public health programs. This course presents models, techniques, and practices of designing and implementing program evaluation plans. Prerequisite: EPID 6210.

#### **BCHS 6216 Health Program Development and Planning**

[3 Credits] This course provides the student with a review of the basic principles and methods for planning, executing, monitoring, and evaluating health promotion and health education intervention programs. Prerequisites: BCHS 6212.

#### **BCHS 6217 Community Based Participatory Programming**

[3 Credits] This course introduces the student to the concepts of community-based participatory research and interventional programming in public health. This course presents concepts, models, techniques, and practices useful in developing a collaborative program. Prerequisites: EPID 6210 and BCHS 6212.

#### **BCHS 6218 Principles of Rural Health**

[3 Credits] The purpose of this course is to provide the student with an overview of healthcare and access issues involved in rural areas of the US.

#### **BCHS 6219 Behavior Theory Applications**

[3 Credits] The purpose of this course is to expand the student's knowledge of the analytic and research methods applied in the behavioral and health sciences. This course presents an overview of how these are used to inform the design, implementation, and evaluation of research and interventions within the context of established behavioral theories and models. Prerequisites: BCHS 6212.

#### **BCHS 6220 Issues in Maternal, Child and Adolescent Health**

[3 Credits] This course examines the history, organization, and financing of Maternal and Child Health (MCH) services in the U.S and to provide an overview of the health, social, economic, and policy issues currently affecting reproductive age women, infants, children and adolescents. This course presents practices of assessing MCH related data and retrieving evidence-based interventions and translating data/evidence into policy recommendations. Prerequisites: BCHS 6212.

#### **BCHS 6221 Survey Design**

[3 Credits] The purpose of this course is to gain the knowledge necessary to develop and execute a survey and analyze the collected data. Students will gain knowledge essential to design, create, and conduct a survey project. Utilizing knowledge gained from prerequisites, students will be able to analyze the survey data and determine its quality. Prerequisites: BIOS 6100

#### **BCHS 6222 Chronic Disease Prevention and Management**

[3 Credits] This course introduces the public health student to current issues in chronic disease management, including challenges in disease prevention and management, the population-based perspective of chronic disease, integrating clinical preventive services into chronic care, and issues of public policy that impact the burden of chronic illness. Prerequisites: BCHS 6212.

#### **BCHS 6223 Public Health Implications of an Aging Society**

[3 Credits] This course prepares the public health student to address health promotion, chronic disease self-management and other behavioral and quality of life issues of health care for an aging society. Prerequisites: EPID 6210 and BCHS 6212.

#### **BCHS 6224 Health Related Physical Activity**

[3 Credits] This course introduces the student to the role physical activity and nutrition contribute to creating and maintaining optimum health.

#### **BCHS 6225 Infectious Disease: A Public Health Response**

[3 Credits] This course provides the student with an overview of the impact of infectious diseases on the populations' health. This course will focus on the public health burden of infectious diseases and public health measures to prevent and control infectious diseases.

**BCHS 6227 Research Methods in the Health Sciences**

[3 Credits] The purpose of this course is to provide students with a practical introduction to conducting research and preparing reports using quantitative methods in a structured environment. This course presents an overview of how theory is used to inform the design, implementation, and evaluation of research and interventions. Students will conduct guided research projects using secondary data analysis. Prerequisites: EPID 6210 and BIOS 6100.

**BCHS 6400 Independent Study**

[1-3 Credits] This course provides the student an opportunity to study a topic in depth while under the guidance of a faculty member. The focus of the course will be a specific aspect of a public health discipline which is not the primary focus of existing public health courses. The course will involve directed readings and may require completion of a paper or study project that provides evidence of comprehension and professional proficiency in the area studied. Independent Study may only be taken for a maximum of 3 credit hours toward the MPH Degree.

**BCHS 6600 Culminating Experience/Capstone in Behavioral and Community Health Sciences**

[3 Credits] All professional degree programs identified in the instructional matrix shall assure that each student demonstrates skills and integration of knowledge through a culminating experience. A culminating experience is one that requires a student to synthesize and integrate knowledge acquired in coursework and other learning experiences and to apply theory and principles in a situation that approximates some aspect of professional practice. Prerequisites: BIOS 6100 Biostatistical Methods I, BIOS lab or BIOS 6200 Principles of Applied Statistics; EPID 6210 Principles of Epidemiology; ENHS 6238 Principles of Environmental Health; BCHS 6212 Behavioral Science Theories in Public Health; and HPSM 6268 Health Services Administration and Management.

**BCHS 7201 Ecological Approaches to Community Health Sciences**

[3 Credits] This course introduces students to the concept that health-related outcomes involve the interaction of the individual with the environment at multiple levels. The ecological approach addresses how both individual-level risk factors, as well as beliefs, attitudes, and perceptions, may be moderated and/or mediated by environmental and social factors, such as norms, social networks, and cultural values, to affect health outcomes. Mirroring the complexity of contemporary public health problems, the major variables in social ecological models are multi-level and their influence is bi-directional. Students will learn to use this approach to address several major public health issues, including health disparity, smoking, obesity, and addiction. Class activities will include lecture, group projects, films, and discussion.

**BCHS 7202 Health Behavior Change**

[3 Credits] This is an advanced course on theoretical and practical aspects of health behavior change. The course is designed to provide an understanding of theoretical issues and current methodologies influencing health behavior change. Several models of health behavior changes will be studied in detail. The strengths and shortcomings of these models for the development and evaluation of interventions at individual, community and system levels will be critically assessed. Students will be expected to translate their knowledge into practical interventions for health behavior change.

**BCHS 7350 Translational Research**

[3 Credits] This course will focus on multidisciplinary research skills needed to carry out bench to bedside to community health and population translational research. The primary objective of the program is to train individuals to interpret basic and clinical science research and apply this knowledge to the development of community health and population research projects. Students will gain expertise in research study design, statistical methodology, translational research technologies, grant and scientific writing skills, evaluation and dissemination strategies.

**BCHS 7351 Race/Ethnicity, Gender and Health**

[3 Credits] This course will explore the interconnection between race/ethnicity, gender and health by examining theoretical and research paradigms from sociology, anthropology, policy studies and public health. The course will explore how race/ethnicity and gender are shaped by political, social, economic, geographical and organizational factors and contribute to variations in health outcomes according to social class, geographical location, and social economic position. Class activities include: 1) class discussion with regard to how race/ethnicity and gender translate into unequal distribution of power that simultaneously operate at both the macro (societal) and micro (individual) levels of society; 2) data collection approaches and analytical methods to identify and understand links between race/ethnicity, gender and health; and 3) discussions concerning the role of public health in identifying ways to utilize emerging research regarding race/ethnicity, gender and health to advance public health research and practice.

**BCHS 7352 Mental Health Promotion in Community Health Sciences**

[3 Credits] This course exposes students to the emerging field of mental health promotion; its history, principles, theories; and its differences and linkages to mental illness prevention. The course objectives are to impart knowledge of the basic principles of mental health promotion; teach the many factors causal to mental illness and the maintenance of mental health; and afford students an understanding of the complexity and multiplicity of disciplines involved in the practice of mental health promotion. In this course, students will review trends (vital statistics and epidemiology) in mental health among different populations as well as the risk and protective factors associated with mental health. Students will explore the sociocultural definitions and impact of mental health, mental illness, and stigma. The course describes a conceptual paradigm for mental health promotion from both policy and practice frameworks, including assessment, consultation, education, and training.

**BCHS 7700 Community Health Sciences Seminar II**

[1 Credit] This seminar series provides exposure to current research and special topics of interest in the community health sciences.

**Biostatistics****BIOS 6100 Biostatistical Methods I**

[3 Credits] Three hours of lecture per week. General introduction to descriptive and inferential statistics: The role of biostatistics in the health sciences, techniques and principles for summarizing data, estimation, hypothesis testing and decision-making. Examples and problems from the health sciences are used. Non-Biostatistics majors only. Co-requisite: BIOS 6101.

**BIOS 6101 Biostatistical Methods I Lab**

[1 Credit] Two hours of statistical laboratory per week. This course will instruct students on the proper use of statistical software to manage, manipulate, and analyze data and to prepare summary reports and graphical displays. Laboratory sessions will be held in the SoPH computing lab and are designed to closely follow the lecture material presented in BIOS 6100.

**BIOS 6102 Biostatistical Methods II**

[3 Credits] Three hours of lecture per week. Continuation of BIOS 6100. Additional coverage of biostatistical techniques in the health sciences: Hypothesis testing and interval estimation, including analysis of variance, correlation analysis, and multiple linear and logistic regression techniques. Examples and problems from the health sciences are used. Prerequisite: BIOS 6100, 6101. Co-requisite: BIOS 6103. Non-Biostatistics majors only.

**BIOS 6103 Biostatistical Methods II Lab**

[1 Credit] Two hours of statistical laboratory per week. This course will provide more advanced instruction to students on the proper use of statistical software to analyze data arising from multiple linear and logistic regression models and multi-way ANOVA models. Laboratory sessions will closely follow the lecture material presented in BIOS 6102.

**BIOS 6200 Principles of Applied Statistics**

[3 Credits] Three hours lecture per week. Broad coverage of methods of applied statistics, designed for students who want to take advantage of their good math backgrounds for better understanding. Data description; elementary probability, random variables, distributions; principles of statistical inference; methods for one-, two-, and multi-sample settings, including ANOVA and multiple regression; methods for categorical responses. Use of SAS and other software for analysis, simulations, graphics, and report writing. Some cases will use large national databases, such as NHANES and CPS. Prerequisites: multi-variable calculus and linear algebra.

**BIOS 6202 Applied Linear Models**

[3 Credits] Three hours of lecture per week. This is a practical course on the use of general linear models. Topics include a review of relevant matrix algebra; general linear models including multiple regression, analysis of variance, analysis of covariance, multivariate response, and logistic regression models; methods for estimation, hypothesis testing and diagnostics; model specification for designed experiments and for observational studies; applications are in the health sciences. Prerequisites: BIOS 6100 or BIOS 6200.

**BIOS 6204 Statistical Theory I**

[3 Credits] Three hours of lecture per week. Elementary concepts of probability; conditional probability, Bayes' theorem; random variables and probability distributions, transformations of random variables; moments and moment generating functions; discrete and continuous random variables, common families of distributions; essential inequalities and identities; multivariate distributions, joint, conditional and marginal distributions; covariance and correlation, conditional expectation; basic concepts of random samples; convergence concepts, convergence in probability and in distribution, the law of large numbers, and the central limit theorem. Prerequisites: multivariate calculus and linear algebra.

**BIOS 6206 Statistical Theory II**

[3 Credits] Three hours of lecture per week. Principles of data reduction, sufficiency and completeness, minimal

sufficient statistics; the likelihood principle; point estimation, method of moments, maximum likelihood estimation; methods of evaluating estimators, unbiased estimation, Fisher information, hypotheses testing, likelihood ratio tests, methods of evaluating tests. methods of evaluating interval estimators Prerequisite: BIOS 6204.

**BIOS 6210 Categorical Data Analysis**

[3 Credits] Three hours of lecture per week. Model formulation, parameter estimation, and hypothesis testing for categorical data from different types of experimental and survey research situations: Characterization of interaction in multidimensional contingency tables, stepwise regression procedures for proportions, and exact inference. Prerequisite: BIOS 6102 or BIOS 6202.

**BIOS 6212 Survival Analysis**

[3 Credits] Three hours of lecture per week. This course provides students with statistical methodology for the analysis of time-to-event data and trains students in the appropriate analysis of survival data, by both parametric and nonparametric methods. Emphasis will be placed on methods and models most useful in clinical research with attention to proper interpretation of statistical packages output. Prerequisite: BIOS 6102 or BIOS 6202.

**BIOS 6300 Statistical Computing**

[3 Credits] Three hours of lecture per week, summer semester. An introductory programming course oriented toward statistical applications using SAS (including IML) and the R programming languages. Topics include data types, assignment statements, operators, sequential control, conditional control, iteration, subprograms, arrays, character manipulation, manipulating and processing SAS output from SAS procedures, Gibbs sampler, and Markov Chain Monte-Carlo methods. Prerequisite: BIOS 6202 or permission of the instructor.

**BIOS 6302 Longitudinal Data Analysis**

[3 Credits] Three hours of lecture per week. This course will emphasize analysis and interpretation of data obtained from subjects measured repeatedly over time. Coverage will begin with traditional approaches to analysis of longitudinal data such as multivariate repeated measures and the univariate analysis of repeated measures as a split-plot model and will quickly lead into models for mean response such as the analysis of response profiles and parametric curve fitting including linear splines. Models for the covariance matrix will be then be considered. Linear mixed models and generalized estimation equations will be covered in detail.

Other topics will be covered as time allows. Examples from the health and biomedical sciences will be presented to motivate the material. Prerequisites: BIOS 6102 or BIOS 6202.

**BIOS 6304 Design and Analysis of Experiments**

[3 Credits] Three hours of lecture per week. Principles of experimentation. Completely randomized designs, randomized complete block designs, factorial designs, Latin squares, crossover designs, blocking, response surface designs. Applications in the health sciences. Prerequisite: BIOS 6100 or BIOS 6200, or permission of the instructor.

**BIOS 6308 Multivariate Methods**

[3 Credits] Three hours of lecture per week. Review of matrix algebra, multivariate normal distribution, multivariate general linear model, principal components, factor analysis, cluster analysis, discriminant analysis. Applications to the health sciences. Prerequisites: BIOS 6202, BIOS 6206.

**BIOS 6310 Applied Bayesian Analysis**

[3 Credits] Three hours of lecture per week. Introduction to Bayesian approach to statistical inference. Application orientated, but such theory as is necessary for a proper understanding of the Bayesian methodology will be covered. Topics covered include Bayesian Inference – prior determination, point and interval estimation, hypothesis testing, prediction, model assessment and model choice; Bayesian Computation – Markov Chain Monte Carlo (MCMC) methods. Gibbs Sampling and extensions; and Bayesian applications on real data sets from the biological or medical fields. Prerequisites: BIOS 6102 (or BIOS 6202), BIOS 6206, BIOS 6300, or permission of the instructor.

**BIOS 6312 Sampling Methods**

[3 Credits] Three hours of lecture per week. Methods for conducting sample surveys in the health sciences: Biases and non-sampling errors, probability and non-probability samples, simple random sampling, stratification, varying probabilities of selection, multi-stage sampling, systematic sampling, cluster sampling, double sampling, and ratio estimation. Prerequisite: Permission of the instructor.

**BIOS 6314 Clinical Trials Methodology**

[3 Credits] Three hours of lecture per week. Introduction to the conduct of clinical trials and clinical trials methodology. Topics covered include selection of primary and secondary research questions and hypotheses, use of surrogate variables, defining study population, generalizability of results, basic study design, randomization process, blinding, sample size estimation, using baseline assessments, recruitment of study participants, data collection and quality control, assessing and reporting adverse events, assessing quality of life, participant adherence, survival analysis techniques and issues, monitoring response variables, data analysis issues, study closeout, and reporting and interpreting results. Prerequisite: BIOS 6102 or BIOS 6202.

**BIOS 6316 Stochastic Processes**

[3 Credits] Three hours of lecture per week. Markov chains; birth-death processes; random walks; renewal theory; Poisson processes; Brownian motion; branching processes; martingales; with applications. Prerequisites: BIOS 6206.

**BIOS 6400 Independent Study**

[1-3 Credits] This course provides the student an opportunity to study a topic in depth while under the guidance of a faculty member. The focus of the course will be a specific area within biostatistics which is not the primary focus of an existing biostatistics course. The course will involve directed readings and may require completion of a paper or study project that provides evidence of comprehension and proficiency in the area studied. Independent Study may only be taken for a maximum of 3 credit hours toward the MPH Degree.

**BIOS 6450 Design and Analysis of Expression Studies**

[3 Credits] Three hours of lecture per week. Introduction to DNA, RNA, protein and gene expression; statistical methods; microarray technology; data visualization and quality control; variability in microarray data; specific and non-specific hybridization—background correction; normalization and transformation; gene expression summarization; missing value problems; detection of differentially expressed genes; design of microarray experiments. Prerequisites: BIOS 6202.

**BIOS 6500 Special Topics in Biostatistics**

[1-4 Credits] This course is designed depending upon student's interest and faculty availability, to cover advanced topics such as time series analysis, machine learning, bioinformatics, robust statistics, etc. The hours and credits will be arranged depending on the particular topic.

**BIOS 6600 Culminating Experience/Capstone in Biostatistics**

[3 Credits] All professional degree programs identified in the instructional matrix shall assure that each student demonstrates skills and integration of knowledge through a culminating experience. A culminating experience is one that requires a student to synthesize and integrate knowledge acquired in coursework and other learning experiences and to apply theory and principles in a situation that approximates some aspect of professional practice. Prerequisite: BIOS 6200 Principles of Applied Statistics; EPID 6210 Principles of Epidemiology ; ENHS 6238 Principles of Environmental Health; BCHS 6212 Behavioral Science Theories in Public Health; and HPSM 6268 Health Services Administration and Management. MPH students only.

**BIOS 6610 Biostatistical Consulting**

[2 Credits] A practical course designed to expose students to real-life consulting situations and the statistical problems that arise in the health sciences. The student will work on a consulting project under the supervision of a faculty member and will present a progress report each week. Prerequisite: BIOS 6202.

**BIOS 6700 Research Seminar in Biostatistics**

[1 Credit] Reports on research progress in current literature. Students attend colloquium and give an oral presentation in their second year.

**BIOS 6900 Thesis Research**

[1-6 Credits] Registration by permission of the program. Amount of credit must be stated at time of registration.

**BIOS 7200 Theory of Linear Models**

[3 Credits] Three hours of lecture per week. This course presents the essentials of statistical inference theory for general linear models. Topics include a review of relevant matrix algebra; distributions of quadratic forms; theoretical aspects of estimation, hypothesis testing and diagnostics. Prerequisites: BIOS 6202, BIOS 6206, or permission of the instructor.

**BIOS 7202 Generalized Linear Models**

[3 Credits] Three hours of lecture per week. Study of parametric models in the exponential family of distributions including the normal, binomial, Poisson, and gamma. Parameter estimation with iterative re-weighted least squares and quasi-likelihood methods. Modeling of correlated data or data with non-constant variance via mixed models (e.g., GLIMMIX). In-depth coverage of generalized estimating equations (GEE1 and GEE2) and quadratic estimating equations (QEE). Applications with be presented from a variety of settings such as the basic sciences, medicine, dental, and public health. Prerequisites: BIOS 6202, BIOS 6206, or permission of the instructor.

**BIOS 7204 Advanced Statistical Theory I**

[3 Credits] Three hours of lecture per week. A mathematical study of the classical theory of statistical inference. Moment generating functions and characteristic functions, distributions of order statistics, exponential family of distributions, models of convergence, the Cramer-Rao inequality, efficiency, best

unbiased estimation, completeness, minimal sufficiency, maximum likelihood estimators; monotone likelihood ratio, unbiased and invariant hypothesis tests, generalized likelihood ratio tests, Bayes' and minimax procedures. Prerequisite: BIOS 6206.

**BIOS 7205 Advanced Statistical Theory II**

[3 Credits] Three hours of lecture per week. A mathematically rigorous survey of selected topics in the theory of statistical inference such as: Bayesian inference, decision theory, information theory, large sample theory, multivariate distributions, nonparametric inference, sequential analysis, stochastic processes, time series, components of variance. Prerequisite: BIOS 7204.

**BIOS 7302 Mixed Models**

[3 Credits] Three hours of lecture per week. Rigorous course on the theory of mixed models. Essentials of relevant matrix algebra; distribution of quadratic forms; models with variance-covariance components; one-way, two-way random and mixed models with fixed effects; methods of estimation of variance components; ML, REML, ANOVA; estimation of fixed effects; testing hypotheses about fixed effects; repeated measures design methods; choices of covariance structures; generalized linear mixed models. Prerequisite: BIOS 7200.

**BIOS 7410 Teaching Practicum in Biostatistics**

[1-3 Credits] Advanced PhD students in Biostatistics working under the supervision of a faculty member will have the opportunity to gain valuable in-class teaching experience. Students will be intensively involved in all aspects of course teaching and administration. Working closely with a faculty member, the student will prepare a syllabus, lectures, handouts, quizzes, and exams. The student will also be responsible for all grading of homework, quizzes and exams. The faculty member will evaluate each of the lectures, providing direction, advice and feedback to the student. A written evaluation detailing the student's performance will be provided as feedback to the student and will be the basis for the (Pass/Fail) grade. Each PhD student in Biostatistics is required to successfully complete at least 3 hours of supervised teaching before graduation. Prerequisite: Successful completion of the qualifying exam at the PhD level.

**BIOS 7900 Dissertation Research**

[1-8 Credits] Registration by permission of the program. Amount of credit must be stated at time of registration.

**Environmental & Occupational Health Sciences****ENHS 6220 Clinical Preventive Medicine**

[3 Credits] The purpose of this ENHS curriculum core curriculum course is (1) to provide future public health and preventive medicine practitioners and administrators with an overview of clinical preventive medicine and related medical issues. (2) to inculcate a proactive, prospective approach not only to the management of individual patients but also to the management of maintenance panels and even larger populations of patients. (3) to fulfill the Clinical Preventive Medicine course requirements, and (4) ultimately, to meet the physician requirements for future board eligibility in General Preventive Medicine and Public Health and/or Medical Management by the American Board of Preventive Medicine.

**ENHS 6238 Principles of Environmental Health**

[3 Credits] This course explores the relationships between man and the natural environment by examining the impact of human activities on air, water, soil, and food quality, and by analyzing the outcomes of encounters between humans and natural events, venomous animals, and toxic plants and fungi.

**ENHS 6239 Principles of Occupational Health**

[3 Credits] The purpose of this ENHS curriculum core curriculum course is (1) to provide public health practitioners and managers with an overview of occupational health and related medical issues, (2) to link occupational hazards and exposures with the pathophysiologic development of occupationally-related illnesses, and (3) to fulfill the Occupational Health and Medicine course requirements.

**ENHS 6240 Traveler's Health and Tropical Medicine**

[3 Credits] The purpose of this course is (1) to provide an overview of traveler's health and related travel and tropical medical issues, and (2) to link foreign travel and tropical and other environmental exposures with the pathophysiologic development of travel and environmentally related illnesses. This course is not a laboratory course and does not duplicate the didactic and laboratory material presented in Medical Microbiology, Immunology, and Parasitology (MIP). This course emphasizes the etiologic agents, clinical manifestations, medical and surgical management, and primary and secondary prevention of travel-acquired and tropical diseases.

**ENHS 6241 Medical Toxicology**

[3 Credits] The purpose of this course is (1) to provide public health, medical, and health sciences graduate students with an introduction to medical toxicology and related medical issues; (2) to link illicit, prescribed, and OTC pharmaceutical poisonings with the pathophysiologic development of drug-induced illnesses, (3) to link occupational, environmental, and wilderness hazards and exposures with the pathophysiologic development of organic toxin-induced illnesses; (4) to develop methodologies for the primary prevention, diagnosis and treatment of common poisonings in children and adults; and (5) to prepare medical students for the USMLE Parts 2 and 3, specifically to prepare for questions regarding common poisonings and envenomations in children and adults.

**ENHS 6242 Analytical and Forensic Toxicology**

[3 Credits] The purpose of the course is to provide public health professionals with an understanding of the application of Analytical Chemistry in Forensic Toxicology. Forensic Toxicology (analytical, clinical, environmental, etc.) is the science of toxicology used in a legal setting.

**ENHS 6243 Air Quality, Air Pollution, and Dispersion Modeling**

[3 Credits] This course will consider the common biological, chemical, and physiochemical contaminants of indoor and outdoor air in relationship to national air quality standards and recommended maximum exposure levels. In addition, this course will introduce the application of computer modeling in predicting the directions, configurations, maximum contaminant levels, and human health effects of intentional and unintentional vapor plume releases. Designs for gaseous pollutant and particulate control are discussed.

**ENHS 6245 Health Risk Assessment and Management Communication**

[3 Credits] This course provides students with the knowledge and methodology to determine whether current or future

chemical exposures will pose health risk to certain population or ecosystems. The objectives of this course are (1) to provide the concept of environmental health risk assessment, (2) to understand the basic components of risk assessment, (3) to understand the methods for risk analysis and management, (4) to familiarize with different toxicological databases and resources, (5) to familiarize with the regulatory aspect of risk assessment (6) to provide the skills of effective risk communication.

**ENHS 6246 Water Quality Management**

[3 Credits] The purpose of this course is (1) to provide an overview of principle of water quality management, (2) to familiarize with water quality law and regulation, (3) to familiarize with water sources/usage and water quality characteristics, (4) to identify water pollution parameters, (5) to examine the available treatments, (6) and to understand the importance of water quality monitoring and protection.

**ENHS 6247 Prevention and Management of Food Borne Diseases**

[3 Credits] The purpose of this course is to provide an overview of (1) food borne diseases and their etiologies, (2) factors that favor and deter microbial growth in foods, (3) characteristics of food borne disease outbreaks, (4) emerging pathogens related to food borne disease, and (5) federal and state responsibilities in control of food borne disease.

**ENHS 6248 Medical Entomology**

[3 Credits] The purpose of this ENHS curriculum core curriculum course is (1) to provide an overview of medical entomology and arthropod-borne diseases, (2) to link arthropod envenomings or infestations with the development of infectious diseases, allergic reactions, or toxic poisonings, and (3) to serve as an elective course for other ENHS majors (Occupational Health, Disaster Management and Emergency Response) other MPH degree-seeking students, medical students, or veterinary medicine students.

**ENHS 6249 Occupational Lung Diseases**

[3 Credits] The purpose of this course is to provide public health professionals with a solid understanding of: (1) How occupational and environmental exposures can cause pulmonary disease; (2) How respiratory protection can be employed to prevent occupational pulmonary disease; (3) How physicians assess a worker for possible lung disease; (4) Clinical presentation, diagnosis, and prognosis of common occupational pulmonary diseases.

**ENHS 6251 Radiological Health and Radiation Safety**

[3 Credits] This course provides a basic review of nuclear physics and considers the common environmental sources of natural and manmade ionizing radiation and the human health impact of ionizing radiation. Radiation protection of workers and the general public are discussed.

**ENHS 6252 Industrial Hygiene and Environmental Safety**

[3 Credits] This course considers the principles of industrial hygiene including skin and lung absorption, dermal and inhalation toxicology, biohazards, ergonomics, chemical agents, and indoor heating/cooling and ventilation systems. In addition, this course teaches the principles of industrial plant safety including job safety analysis, job re-design, hazard identification, biomarker monitoring, emergency operations, and the socio-behavioral aspects of safety compliance.

**ENHS 6253 Geospatial Health and the Environment**

[3 Credits] The purpose of the ENHS public health course entitled Geospatial Health and Environment is (1) to provide public health, medical, and health sciences graduate students with an introduction to medical applications of the geospatial sciences and related environmental issues; (2) to link new tools in Geographic Information Systems and Remote Sensing (GIS/RS) to environmental and geospatial risk factors that determine the spatial distribution and prevalence of disease, (3) understand the fundamental concepts of landscape epidemiology and the basis for ecological niche modeling of disease agents, (4) develop technical skills needed for application of GIS/RS decision support systems in prevention, control and health education programs, and (5) integrate course concepts and skills by development and presentation of a class project that applying GIS/RS to a disease issue of public health importance.

**ENHS 6400 Independent Study**

[1-3 credits] This course provides the student an opportunity to study a topic in depth while under the guidance of a faculty member. The focus of the course will be a specific aspect of a public health discipline, which is not the primary focus of exiting public health courses. The course will involve directed readings and may require completion of a paper or study project that provides evidence of comprehension and professional proficiency in the area studied. Independent Study may only be taken for a maximum of 3 credit hours toward the MPH Degree.

**ENHS 6600 Culminating Experience/Capstone in Environmental Health**

[3 Credits] All professional degree programs identified in the instructional matrix shall assure that each student demonstrates skills and integration of knowledge through a culminating experience. A culminating experience is one that requires a student to synthesize and integrate knowledge acquired in coursework and other learning experiences and to apply theory and principles in a situation that approximates some aspect of professional practice. Prerequisites: BIOS 6100 Biostatistical Methods I, BIOS lab or BIOS 6200 Principles of Applied Statistics; EPID 6210 Principles of Epidemiology; ENHS 6238 Principles of Environmental Health; BCHS 6212 Behavioral Science Theories in Public Health; and HPSM 6268 Health Services Administration and Management.

**Epidemiology****EPID 6210 Principles of Epidemiology**

[3 Credits] This course provides an introduction to epidemiology as a basic science for public health and clinical medicine. It will address the principles of the quantitative approach to public health and clinical problems. The course will discuss measures of frequency and association, introduce the design and validity of epidemiologic research, and give an overview of data analysis. This course is an introduction to the skills needed by public health professionals to interpret critically the epidemiologic literature. It will provide students with the principles and practical experience needed to initiate the development of these skills. Lectures are complemented by seminars devoted to case studies, exercises, or critique of current examples of epidemiologic studies.

**EPID 6211 Intermediate Epidemiology**

[3 Credits] This course provides an integrated coverage of the principles of epidemiologic design, analysis, and interpretation at an intermediate level, suitable for epidemiologists and other public health professionals

interested in a more thorough understanding of these concepts. Prerequisite: EPID 6210, BIOS 6100 and Pre- or Co-requisite: BIOS 6102 or equivalent.

**EPID 6213 Epidemiology Seminar**

[1 Credit] This seminar series provides exposure to current research and special topics of interest in epidemiology. Prerequisite: EPID 6210.

**EPID 6214 Infectious Disease Epidemiology**

[3 Credits] This introductory course provides an overview of infectious disease epidemiology. It is a companion course to Chronic Disease Epidemiology (EPID 6223). The course addresses the most important groups of infectious diseases, including respiratory and enteric infections, Tuberculosis, Hepatitis and Sexually Transmitted Diseases. It focuses on the biological basis, incidence, prevalence, morbidity and mortality of infectious diseases. EPID 6210.

**EPID 6216 Biological Basis of Health**

[3 Credits] This course is designed to provide a background in the biologic basis of health and disease for MPH students who do not have a background in health sciences. The course will focus on the most salient public health topics and diseases.

**EPID 6217 Database Management**

[3 Credits] This course provides students with the basic skills to design good relational databases, hands-on experience in creating and managing databases using Microsoft Access, and sources of information for the construction of databases in public health. Prerequisites: EPID 6210 and BIOS 6100.

**EPID 6218 Spatial Analysis**

[3 Credits] This course introduces students to a range of geospatial analytic methods. Students will apply problem solving abilities, critical thinking skills, and creative thinking to diverse examples of medical geography and spatial epidemiology. Content will focus on teaching methods and interpretation of spatial analysis. Non-content objectives are for students to develop a critical and creative approach to questions which can benefit from spatial epidemiology. Prerequisites: EPID 6210 and BIOS 6100.

**EPID 6219 Nutritional Epidemiology**

[3 Credits] This course is an introduction to the methodological issues related to the design, conduct, analysis, and interpretation of studies investigating the relationship between nutritional status, diet, and disease. An emphasis will be placed on the types of dietary and nutritional status assessment methods and their advantages and disadvantages in epidemiologic research. Students will gain practical experience in the actual collection, analysis, and interpretation of dietary intake. The interpretation of studies in nutritional epidemiology given the dietary instrument used and the study design will be considered. Issues such as intra- and inter-individual variation, measurement error, misclassification, homogeneity of intake within populations, and correlations among nutrients, micronutrients, and food groups will be discussed. Prerequisite: EPID 6210, and BIOS 6100.

**EPID 6220 Molecular Epidemiology**

[3 Credits] This course covers the theoretical concepts and practical issues involved in conducting research involving molecular biomarkers in human populations. Class topics include the theoretical advantages of biomarkers, criteria for evaluating potential markers, sample collection and storage, laboratory quality control considerations, issues in epidemiologic study design and analysis, ethical/legal

concerns, and discussion of specific examples of research involving molecular markers of internal dose, susceptibility, early pathological alteration, and prognosis. The course will emphasize examples from the cancer research literature. Prerequisites: EPID 6210 and BIOS 6100.

**EPID 6221 Qualitative & Quantitative Research Methods**

[3 Credits] The purpose of this course is to provide students concentrating in Epidemiology a practical introduction to conducting research and preparing reports using qualitative and quantitative methods in a structured environment. Students will conduct specifically tailored projects as a class that illustrates some of the key skills necessary in basic epidemiological research. Qualitative research methods will be illustrated through the use of a focus group study conducted as a class project, and quantitative methods will be illustrated through the use of secondary survey data. Prerequisite: EPID 6210, EPID 6212, and BIOS 6100.

**EPID 6222 Cancer Epidemiology**

[2 Credits] This course provides students with an understanding of the theory of carcinogenesis and major etiologic factors for cancer, including tobacco, diet and nutrition, alcohol, viruses and bacteria, drugs, occupation, and radiation. The epidemiology of major cancer sites i.e. lung, breast, prostate, colon and rectum, cervix and uterine corpus, and selected cancers of specific interest to the class will also be presented. Study design and methodology used in cancer research are discussed throughout the course. Prerequisites: EPID 6210 and BIOS 6100.

**EPID 6223 Chronic Disease Epidemiology**

[2 Credits] This introductory course provides an overview of chronic disease epidemiology and prevention strategies. It is a companion course to Infectious Disease Epidemiology (EPID 6214). The course addresses the most important groups of chronic diseases, including heart disease, stroke, hypertension, cancer, diabetes, lung diseases and, neurologic diseases. It focuses on the biological basis, incidence, prevalence, morbidity and mortality of chronic diseases as well as etiologic factors accounting for differences in incidence and mortality. Students will learn how to apply epidemiologic methods in studies of chronic disease prevention and control and to understand the importance of surveillance and applied research as a basis for public health interventions. Prerequisite: EPID 6210.

**EPID 6224 Emergent Epidemiology**

[2 Credits] This is an advanced epidemiology course for students interested in new developments in epidemiology. The course is focused on epidemiologic techniques used to address emerging diseases and public health issues of concerns such as bioterrorism, disasters, pandemics, detection of opportunistic pathogens, environmental concerns, and increasing institutionalized populations. It does not address management of disasters, environmental health issues, or disease control in institutions. Students will learn to apply and adapt traditional and new epidemiologic methods to detect and evaluate progress in response to emerging diseases. Pre-requisite: EPID 6210.

**EPID 6225 Health Outcomes Research**

[3 Credits] The purpose of this course is to help students understand outcomes research and to provide background on the basic tools used in outcomes studies. It will also enable students to critically review and use outcomes data for clinical decision-making as well as health care program planning and evaluation.

**EPID 6226 Epidemiologic Design and Analysis**

[3 Credits] The course is designed to integrate and apply concepts learned in previous biostatistics and epidemiologic methods courses as they relate to epidemiologic studies. The conceptual basis for the design, conduct, and analysis of observational and experimental studies will be covered, focusing on providing students with data analysis, interpretation, and presentation skills. Students will gain hands-on experience in designing and analyzing studies through classroom sessions and homework assignments. Prerequisites: EPID 6210, EPID 6211, BIOS 6100, and BIOS 6102.

**EPID 6301 Epidemiology of Sexually Transmitted Infections/Diseases**

[3 Credits] Designed for doctoral and master's degree students, this course covers the theories and methodologies related to the epidemiology of HIV/AIDS and other sexually transmitted infections (STIs). Students will gain an understanding of important issues in the epidemiology of HIV and STIs in the US and internationally, and will increase their understanding of the strengths and weaknesses of various epidemiologic study designs and the interpretation of data. Also addressed will be implications for transmission, prevention, and the psychosocial, behavioral, and economic aspects of STIs, particularly HIV. Prerequisites: EPID 6210 and BIOS 6100.

**EPID 6351 Public Health Surveillance System Theory & Methods**

[3 Credits] The goal of this course is to make the students aware of all aspects that must be considered when designing or working with a Public Health Surveillance System (PHSS). The lectures will concentrate on the different types of PHSS, database structures, practical design elements, data gathering strategies, quality control and evaluation considerations and the role of PHSS within the public health community. Additionally, students will be given the opportunity to utilize their analytical skills and demonstrate their mastery of statistical software packages by performing preliminary analysis of a real PHSS data set. Prerequisite: EPID 6210.

**EPID 6352 Social Epidemiology**

[3 Credits] This course will provide students with a systematic and selective overview of the conceptual approaches necessary to investigate the impact of social context on the health of populations. Among the social processes to be examined are social inequalities (including social class differences as well as the effects of income inequality per se), social capital and social cohesion, social networks and neighborhood characteristics. The course will include discussion of methods related to the study of social factors across multiple levels. The course will be taught as a seminar. Some analytic writing will be required. Previous exposure to social science methods and theory is advised, but not required. Prerequisite: EPID 6211.

**EPID 6400 Independent Study**

[1-3 Credits] This course provides the student an opportunity to study a topic in depth while under the guidance of a faculty member. The focus of the course will be a specific aspect of a public health discipline, which is not the primary focus of existing public health courses. The course will involve directed readings and may require completion of a paper or study project that provides evidence of comprehension and professional proficiency in the area studied. Independent Study may only be taken for a maximum of 3 credit hours toward the MPH Degree.

**EPID 6600 Culminating Experience/Capstone in Epidemiology**

[3 Credits] All professional degree programs identified in the instructional matrix shall assure that each student demonstrates skills and integration of knowledge through a culminating experience. A culminating experience is one that requires a student to synthesize and integrate knowledge acquired in coursework and other learning experiences and to apply theory and principles in a situation that approximates some aspect of professional practice. Prerequisite: BIOS 6200 Principles of Applied Statistics; EPID 6210 Principles of Epidemiology; ENHS 6238 Principles of Environmental Health; BCHS 6212 Behavioral Science Theories in Public Health; and HPSM 6268 Health Services Administration and Management.

**EPID 7200 Advanced Epidemiologic Methods**

[2 Credits] Students will explore methodological issues in epidemiology like measurement error, missing data, intermediate variables, complex study designs, meta-analysis, splines, propensity scores, simulation. Exercises with provided data sets and the student's own data will be included. Prerequisites: EPID 6226, BIOS 6210.

**EPID 7202 Grantsmanship and Proposal Development for Epidemiologic Research**

[3 Credits] This course covers the fundamental knowledge and skills necessary for effective proposal development and grant writing. Included are sources of grant opportunities and funding and how to find them as well as identification of appropriate study questions and approaches for a given grant or funding target. Development and articulation of effective background documentation, rationale, research design, budgeting and budget justification and IRB process will be covered in the context of the mechanics of the grant submission process, including the key elements that reviewers use in evaluating a grant. As part of the course, students will develop a research question and prepare a grant application and budget, addressing the selected topic including the relevant IRB and HIPAA documents.

**EPID 7350 Evolution of Epidemiologic Theory and Methods**

[3 Credits] This course will examine the development of modern epidemiological concepts from the 19th to the 21st century. The course will utilize weekly readings and discussions of original key papers. Emphasis will be placed on exploring the links between epidemiological methods, concepts of disease and public health practice. Prerequisites: EPID 6226, BIOS 6102.

**EPID 7351 Sampling and Survey Methods**

[2 Credits] Designed for doctoral degree students, this course will focus on sampling and survey methodology. First, sampling will be covered with emphasis on the practical problems of sample design, which will provide students with an understanding of principles and practice in skills required to select subjects and analyze sample data. Topics covered include stratified, clustered, systematic, and multi-stage sample designs, unequal probabilities and probabilities proportional to size, area and telephone sampling, sampling errors, and practical designs and procedures (e.g., non-response, coverage). The second phase of the course will focus on data collection, including the design of questions and questionnaires used in survey research as well as various survey techniques. Topics include techniques for measuring past, current, and future behaviors and events, the effects of question wording and cognitive guidelines for question construction, response formats and question sequence on responses, an introduction to the psychometric perspectives in multi-item scale design, strategies for obtaining sensitive

or personal information, issues in translating questionnaires, and an introduction to techniques for testing survey questions. Methods and modes (e.g., face-to-face, telephone, mail, web-based) of data collection will be covered and compared, including self-completion versus interview surveys, alternative methods such as diaries, administrative records, and direct observation, and current advances in computer-assisted survey data collection (e.g., CAPI, CATI).

### **EPID 7410 Teaching Practicum**

[0-3 Credits] This course will provide doctoral students in epidemiology with supervised teaching experience to develop their teaching skills. This experience will come primarily from serving in the role of teaching assistants for epidemiology courses. Developmental workshops and materials offered by the LSU Health Sciences Center's Academy for the Advancement of Educational Scholarship and other resources will be incorporated as part of the training experience. Prerequisites: EPID 6226.

### **EPID 7700 Epidemiology Seminar II - Doctoral**

[1-2 Credits] This seminar series provides exposure to current research and special topics of interest in epidemiology. Doctoral students participating for credit will be expected to lead at least one session. Prerequisite: EPID 6210.

### **EPID 7900 Dissertation Research**

[1-9 Credits] For PhD candidates who are conducting research for their dissertation. Prerequisite: Successful completion of the oral qualifying examination.

## **Health Policy & Systems Management**

### **HPSM 6248 Organizational Behavior**

[3 Credits] This focus of this course is upon individual and small group behavior and communication among employers, employees, hospitals, clinics, academic medical centers, insurance companies, HMOs and PPOs. The topics addressed in classes pertain to issues of management within the changing health care market.

### **HPSM 6258 Healthcare Law and Ethics**

[3 Credits] This comprehensive course addresses the principles and practice of health law and the relationship of health law and regulations to medical ethics. Subject matter encompasses federal and state laws and regulations that relate to the health professions and to provider organizations including professional liability, informed consent, rationing of health care, referral relationships, genetic testing, end of life issues and others. Emphasis will be placed on application of these principles, laws, and regulations to evolving systems of providing and financing health care in the United States.

### **HPSM 6268 Health Services Administration and Management**

[3 Credits] This course is designed to provide public health and health professional students with an introduction to the skills needed to manage and lead health care and public health programs, organizations and systems with an emphasis on planning and execution. The key activities (planning, deciding, communicating, controlling), competencies (conceptual, technical, interpersonal, political and entrepreneurial), roles (interpersonal, informational, decisional) and obligations (to individuals, the public, third parties, employers and profession) and the disciplines of resource management (human, organizational, financial) and

quality and cost management will provide a theoretical and practical framework for the analysis of cases from the public and private sectors. The course is focused on what public health and health professionals need to know in all areas of practice today and includes overview of the topics, case presentations, and study questions.

### **HPSM 6269 Healthcare Economics and Economic Evaluation of Healthcare Services**

[3 Credits] The purpose of this course is to give students an overview of the major economic considerations in the health care industry and to demonstrate how economic ideas are crucial to an understanding of the functioning of the health care system from both policy (external) and health care management (internal) points of view. There will be a strong emphasis both on economic theory and on empirical studies of the various topics and on economic evaluation of health care programs including cost effectiveness, benefit and utility analysis. Prerequisite: HPSM 6268.

### **HPSM 6270 Financial Management and Accounting in Healthcare Organizations**

[3 Credits] This course introduces the most-used tools and techniques of health care financial management, including health care accounting and financial statements; managing cash, billings and collections; making major capital investments; determining cost and using cost information in decision-making; budgeting and performance measurement; and pricing.

### **HPSM 6271 Principles of Healthcare Quality**

[3 Credits] This course will serve as a survey of the major concepts of quality in healthcare and the basic techniques used in planning, controlling and improving quality in healthcare in order to equip students to understand the multiple dynamics at work in quality issues.

### **HPSM 6272 Methods in Healthcare Quality**

[3 Credits] This course is an in-depth presentation of methods and techniques for evaluating, monitoring, and improving the quality of healthcare. General approaches to the measurement of healthcare quality will be presented first. Report cards and provider profiles will then be discussed. After discussion of visual display of information, topics in statistical process control will be discussed in detail. Specific issues in healthcare measurement will then follow. A session will be devoted to patient satisfaction surveys. Additional sessions will concentrate on functional status measurement. Prerequisite: BIOS 6100.

### **HPSM 6273 Information Systems in Healthcare**

[3 Credits] This course examines the rapidly evolving discipline of health informatics in the complex and diverse world of healthcare. The course will review the history, current applications, and the potential future of information, information management and information technology, including data acquisition, storage and processing; information systems (clinical and administrative); standards; security; decision support; and an understanding of medical/health informatics methods and principles.

### **HPSM 6274 Marketing in Healthcare**

[3 Credits] This course provides an introduction to nature of healthcare markets, healthcare consumers and consumer behavior, marketing strategies and techniques, market research, sources of market data and the future of healthcare marketing.

**HPSM 6275 Human Resources Management in Healthcare**

[2 Credits] This course is designed to provide students with a basic understanding of human resources management in a wide array of health care organizations at the corporate, departmental, team and individual level and to gain an appreciation for the distinct roles that managers and human resource professionals play in resolving conflicts and dealing with other human resources issues.

**HPSM 6276 Organizational Leadership**

[3 Credits] This course studies collaborative leadership and the personalities and traits of effective leaders. Effective leaders work across boundaries in today's world. Leaders in public health recognize that collaboration among organizations and people from diverse backgrounds is necessary to achieve successful health outcomes on the individual, community and national levels. The course explores how leaders achieve this and analyzes the differences between leadership and authority, the personality traits of successful leaders and the characteristics of the organizations they lead. The course uses the case study method where real situations are presented in which the leader must make decisions. The case studies, the supporting literature and personal experiences provide the material for learning.

**HPSM 6277 Health Advocacy and Community Based Activism**

[2 Credits] The purpose of this course is to consider public health issues that have social, political, and economic determinants and to examine how health professionals can promote change through advocacy and activism. The course consists of 3 parts, which are intertwined. The first part covers social epidemiology, a history of the U.S. health system and the role of government in health care, and the principles of organizing for social change. The second part builds on this foundation taking up the most important issues of the day. Perspectives are provided by visiting faculty who have played leadership roles in solving problems on the front lines. The third part is like the second but is based on readings with discussions led by students.

**HPSM 6288 Health Policy and Law**

[3 Credits] This course explores the formation, implementation, and evaluation of health policy, and the impact on the delivery of health services. The purpose of the course is to enable the student to more effectively participate in health related policy and political deliberations.

**HPSM 6289 The Role of Government in Health and Health Care**

[3 Credits] This course examines the role of government in improving access to healthcare, controlling the costs, and improving the quality and safety of healthcare. The impact of recent developments in the private and public sectors including changes in the provider and payer systems and the experience of other countries with different systems for organizing and financing will be examined. Special topics will include prescription drugs, mental health services, long-term care and HIV. Prerequisite: HPSM 6288

**HPSM 6290 Public Health Law, Ethics, and Human Rights**

[2 Credits] This course examines the legal powers and duties of the state that exist to assure the conditions for people to be healthy and the limits on that power to constrain the autonomy, privacy, liberty, proprietary, or other legally protected interests of individuals for protection or promotion

of community health. Consideration is given to the role of the state from legal and ethical perspectives, to the application of ethical principles to populations as well as individuals and to the inherent rights that exist for all humans to a healthy life.

**HPSM 6292 Health Policy Analysis**

[3 Credits] This course focuses on key issues, concepts, arenas and actors in decision making for health policy. Decision models will be used to describe, explain, and predict behavior and health outcomes. The policy analysis methods include: forecasting, case method, technology, political feasibility, and economic viability assessments. Whether descriptive or analytical, the objective of any policy analysis is better understanding of information through research and actions taken by key stakeholders in the health arena. This course will teach students about government intervention to correct market failures and regulation of the health sector. For example, the US political-economy pressures government officials to respond to demands for federal entitlement programs, private-sector health benefit programs, alternative health policy approaches, and regulation of health services. Regulatory mechanisms governing healthcare industries are explored.

**HPSM 6400 Independent Study**

[1-3 Credits] This course provides the student an opportunity to study a topic in depth while under the guidance of a faculty member. The focus of the course will be a specific aspect of a public health discipline, which is not the primary focus of exiting public health courses. The course will involve directed readings and may require completion of a paper or study project that provides evidence of comprehension and professional proficiency in the area studied. Independent Study may only be taken for a maximum of 3 credit hours toward the MPH Degree.

**HPSM 6600 Culminating Experience/Capstone in Health Policy and Systems Management**

[3 Credits] All professional degree programs identified in the instructional matrix shall assure that each student demonstrates skills and integration of knowledge through a culminating experience. A culminating experience is one that requires a student to synthesize and integrate knowledge acquired in coursework and other learning experiences and to apply theory and principles in a situation that approximates some aspect of professional practice. Prerequisite: BIOS 6100 Biostatistical Methods I, (BIOS lab) OR BIOS 6200 Principles of Applied Statistics; EPID 6210 Principles of Epidemiology; ENHS 6238 Principles of Environmental Health; BCHS 6212 Behavioral Science Theories in Public Health; and HPSM 6268 Health Services Administration and Management.

**Interdisciplinary Courses****PUBH 6201 Geographic Information Systems for Health**

[3 Credits] This course provides a solid foundation in Geographic Information Systems (GIS), explaining basic concepts and demonstrating how to implement core data analysis techniques. In this course, students will learn what GIS are; why GIS should be used in public health, and how GIS can be used to map and analyze the geographical distributions of populations at risk, health outcomes, and risk factors, to explore associations between risk factors and health outcomes.

**PUBH 6221 Foundations of Public Health Ethics**

[1 Credit] This course will examine public health issues in light of scientific, moral and political considerations including autonomy, individual rights, coercion, justice, community, the common good, the norms of research, and multi-cultural values. The student will obtain a working knowledge ethics of the skills in public health ethics to explain and apply them in the professional life of the public health practitioner including consent, privacy, responsibility to the community, the operations of an internal review board, the rights of the individual. The application of ethics over a range of public health issues will be delivered from an historical perspective from ancient Greece to present day.

**PUBH 6500 Special Topics**

[1-3 Credits] Public health topic taught and credit assigned by public health teaching faculty member.

**PUBH 6800 Practice Experience**

[3 Credits] The Practice Experience is a fieldwork project or activity that immerses the student in one or more aspects of public health operations under the guidance of a preceptor. The fieldwork is to be taken in its entirety within one semester. Required for all MPH students. Prerequisites: Students must complete at least 12 public health credits (including the EPID and BIOS core courses and the core course from the students' home program) satisfactorily before a student may begin his/her practice experience.

**FACULTY ROSTER**

AIKEN, JAMES, MD, MHA, LSU, 1979  
Joint Assistant Professor

ANDREWS, PATRICIA, MPH, Tulane University School of Public Health & Tropical Medicine, 1992  
Instructor

BALSAMO, GARY, DVM, LSU SVM, 1981  
Adjunct Assistant Professor

BAUMGARTNER, ERIC, MD, LSU School of Medicine, 1981  
Adjunct Assistant Professor

BLOUIN, DAVID C., PhD, LSUBR, 1977  
Adjunct Professor

BONIS, MARC, PhD, University of New Orleans, 1977  
Adjunct Assistant Professor

BOWERS-STEPHENS, CHERYL, MD, MBA, LSU School of Medicine, New Orleans, 1988; University of New Orleans, New Orleans, 1998  
Joint Assistant Professor

BRENNAN, CHRISTINE, PhD, University of Southern Mississippi, Hattiesburg, 2007  
Assistant Professor

BREWER, ERIN, MD, MPH, University of North Carolina, Chapel Hill, and Tulane University, 1993 & 2002  
Adjunct Assistant Professor

BROWN, CHARLES, MD, Tulane University Medical School, 1953  
Professor

BROYLES, STEPHANIE T., PhD, Tulane University Graduate School, 2003  
Adjunct Assistant Professor

BULTMAN, ELLIS JOHANN, MBA, Tulane University, 1981  
Adjunct Instructor

BUTLER, MICHAEL, MD, MHA, Tulane University School of Medicine and School of Public Health & Tropical Medicine, 1980 & 1990  
Assistant Professor

CHAUVIN, SHEILA, PhD, Louisiana State University, 1992  
Joint Professor

CHEN, LI-WEI, PhD, Johns Hopkins University, 2008  
Assistant Professor

CHEN, VIVIEN W., MPH, PhD, University of Oklahoma School of Public Health, 1978  
Professor

CHIU, YU-WEN, MPH, DrPH, Tulane University School of Public Health & Tropical Medicine, 1996 & 2002  
Assistant Professor

COHEN, DEBORAH, MD, MPH, University of Pennsylvania, 1981  
Adjunct Professor

CROW, STEPHEN, PhD, North Texas State University, 1989  
Adjunct Professor

DEPRATO, DEBRA K. MD, LSU School of Medicine, 1984  
Associate Professor

DIAZ, JAMES, MD, MHA, DRPH, MPH&TM, Tulane University Schools of Medicine and Public Health & Tropical Medicine, 1975, 1990, 1995 & 2001  
Professor

ESCOBAR, LUIS A., PhD, Iowa State University, 1981  
Adjunct Professor

ESTRADA, JOHN, MD, University of Antioquia Medical School, 1981  
Joint Associate Professor

FANG, ZHIDE, PhD, University of Alberta, Canada, 1999  
Associate Professor

FANTACI, ELLEN, MPA, JD, Tulane University and Loyola University, New Orleans, 1978 & 1994  
Adjunct Assistant Professor

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## LSU Health Sciences Center at New Orleans School of Public Health

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- FONTHAM, ELIZABETH, MPH, DrPH, Tulane University School of Public Health & Tropical Medicine, 1978 & 1983  
Professor and Dean
- FRADY, PHILLIP, MSW, Tulane University, 1976  
Adjunct Instructor
- FRONTINI, MARIA, DrPH, Tulane University School of Public Health & Tropical Medicine, 1998  
Joint Assistant Professor
- GEAGHAN, JAMES P., PhD, North Carolina State University, 1980  
Adjunct Professor
- GEE, REBEKAH E. MS, MD, MS, Columbia University, 1998; Cornell University, 2002; University of Pennsylvania, 2009  
Assistant Professor
- GROVES, MICHAEL, DVM, PhD, Texas A&M University and Catholic University of America, 1964 & 1975  
Adjunct Professor
- GRUBER, DEANN, PhD, Tulane University Graduate School, 2003  
Assistant Professor
- HAGAN, JOSEPH, MSPH, University of Louisville, 2003  
Instructor
- HARRINGTON, DANIEL, SCD, Tulane University School of Public Health & Tropical Medicine, 2004  
Assistant Professor
- HARRIS, RONALD, PhD, Washington University, St. Louis, 1996  
Associate Professor
- HELM, EDWARD G., MD, Chicago Medical School, 1976  
Joint Professor
- HICKS, WILLIAM JOSEPH, MD, MPH, University of Michigan, Ann Arbor, 1985; LSUHSC, 2008  
Adjunct Assistant Professor
- HORSWELL, RONALD, PhD, Louisiana State University, Baton Rouge, 1990  
Adjunct Assistant Professor
- HSIEH, MEI CHIN, MSPH, Tulane University School of Public Health & Tropical Medicine, 1998  
Instructor
- HU, CHIH-YANG, MS, SCD, Tulane University School of Public Health & Tropical Medicine, 1996 & 2001  
Assistant Professor
- HUGH-JONES, MARTIN, DVM, PhD, Cambridge University, 1979  
Adjunct Professor
- JACK, LEONARD, JR., PhD, Pennsylvania State University, 1990  
Adjunct Professor
- JAZWINSKI, MICHAL, PhD, Stanford University, 1975  
Adjunct Professor
- KENDRICK, RHONDA, MD, University of Illinois at Chicago, College of Medicine, 1988  
Joint Assistant Professor
- KIMBRELL, JOSEPH, MS, Tulane University, 1967  
Adjunct Assistant Professor
- KRONENBERG, FRANNIE, MD, MS, University of Connecticut and Harvard University, 1990 & 2006  
Adjunct Assistant Professor
- LAMOTTE, LYNN R., PhD, Texas A&M University, 1969  
Professor
- LANE, WALTER, PhD, University of California, San Diego, 1978  
Adjunct Professor
- LEBLANC, ALICE, MPH, Tulane University School of Public Health & Tropical Medicine, 1996  
Instructor
- LEE, KEUNBAIK, PhD, University of Florida, 2007  
Assistant Professor
- LEVITAN, MARC, PhD, Texas Tech University, 1993  
Adjunct Associate Professor
- LIRETTE, DAVID K., PhD, LSUHSC, 2004  
Adjunct Assistant Professor
- LOONEY, STEPHEN, PhD, University of Georgia, 1980  
Adjunct Professor
- MALONE, JOHN, DVM, PhD, University of California at Davis, 1967 & 1974  
Adjunct Professor
- MARIER, ROBERT, MD, MHA, Yale University School of Medicine, 1969  
Professor Emeritus
- MARX, BRIAN D., PhD, Virginia Polytechnical Institute & State University, 1988  
Adjunct Professor
- MASON, KAREN E., MSPH, Massachusetts University, 1980  
Adjunct Instructor
- MERCANTE, DONALD, PhD, Virginia Polytechnical Institute & State University, 1990  
Professor
- MONLEZUN, CHARLES J., PhD, Tulane University, 1972  
Adjunct Associate Professor
- MOODY-THOMAS, SARAH, PhD, University of Georgia, 1978  
Professor
- MORES, CHRISTOPHER, ScD, Harvard University, 2002  
Adjunct Assistant Professor
- NUSS, HENRY, PhD, University of Texas at Austin, 2008  
Assistant Professor
- ORAL, EVRIM, PhD, Hacettepe University, Ankara, Turkey, 2002  
Assistant Professor
- PATOUT, CHARLES, MD, LSU Medical School, 1970  
Joint Assistant Professor
- PETERS, EDWARD S., DMD, SCD, University of Connecticut Health Center and Harvard University, 1990 & 1999  
Associate Professor
- PHILLIPPI, STEPHEN, JR., PhD, Tulane University, 2007  
Assistant Professor
- PORCHE, DEMETRIUS JAMES, DNS, LSU Medical Center, 1995  
Joint Professor
- RAGAN, AVERY F., JR., PhD, University of Alabama, 1978  
Joint Associate Professor
- RATARD, RAOULT, MD, Paris School of Medicine, 1968  
Adjunct Associate Professor
- RICHARDS, KIMBERLY, EdD, University of Pittsburgh, 1995  
Adjunct Assistant Professor
- RIGAMER, ELMORE, MD, MPA, LSU School of Medicine, 1966  
Assistant Professor, Part-time
- ROBERTS, ELLIOTT C., SR., MBA/HA, George Washington University, 1963  
Professor Part-time
- ROBINSON, WILLIAM PhD, Tulane University, 2001  
Assistant Professor
- RUNG, ARIANE, PhD, Tulane University Graduate School, 1999  
Associate Professor
- SCRIBNER, RICHARD, MD, MPH, University of Southern California, University of California, Los Angeles, 1984 & 1987  
Professor
- SHELLITO, JUDD, MD, Tulane University School of Medicine, 1974  
Joint Professor
- SIMONSEN, NEAL, PhD, University of North Carolina-Chapel Hill, 1993  
Assistant Professor

SOTHERN, MELINDA, PhD, University of New Orleans, 1997  
Professor

STRAIF-BOURGEOIS, SUZANNE, PhD, University of Bonn,  
Germany, 1994  
Adjunct Associate Professor

SWIFT, DOUGLAS, MD, MSPH, LSU School of Medicine and  
Tulane University School of Public Health & Tropical  
Medicine, 1976 & 1984  
Adjunct Assistant Professor

THEALL, KATHERINE, MPH, PhD, Emory University and Tulane  
University School of Public Health & Tropical Medicine,  
2000 & 2005  
Adjunct Associate Professor

THOMAS, DWAYNE, MD, LSU Medical Center, 1984, MMM,  
Tulane University, 2006  
Joint Associate Professor

THOMPSON, HILARY, PhD, Louisiana State University, Baton  
Rouge, 1986  
Professor

THOMSON, JESSICA, PhD, University of Louisiana at  
Lafayette, 2002  
Adjunct Assistant Professor

TORTU, STEPHANIE, PhD, University of Pittsburgh, 1984  
Professor and Associate Dean

TRAPIDO, EDWARD, ScD, Harvard University, 1981  
Professor and Associate Dean

TSENG, TUNG-SUNG, DrPH, Tulane University, 2005  
Assistant Professor

VALLIERE, JEAN, MSW, University of Michigan, 1976  
Assistant Professor

VELASCO-GONZALEZ, CRUZ, PhD, Tulane University Graduate  
School, 2000  
Assistant Professor

VOLAUFOVA, JULIA G., PhD, Comenius University, Bratislava,  
1984  
Professor

WIGHTKIN, JOAN G., DrPH, Tulane University School of Public  
Health & Tropical Medicine, 2002  
Adjunct Assistant Professor

WILBRIGHT, WAYNE, MD, MS, Tulane University School of  
Medicine, 1988  
Adjunct Associate Professor

WILCOX, RONALD DEAN, MD, University of Kansas Medical  
School, 1992  
Joint Assistant Professor

WILLIAMS, CLAYTON, MPH, Tulane University School of Public  
Health & Tropical Medicine, 1999  
Adjunct Instructor

WILLIAMS, DONNA, MPH, DrPH Tulane University School of  
Public Health & Tropical Medicine, 2009  
Assistant Professor

WU, XIAO CHENG, MD, MPH, Xian Medical University, 1986  
Associate Professor

XIAO, KE, PhD, Louisiana State University, Baton Rouge,  
2002  
Assistant Professor

YU, QINGZHAO, PhD, Ohio State University, 2006  
Assistant Professor

## **RECAPITULATION OF FACULTY**

Below are the names of faculty members of the School of Public Health listed by academic rank and in alphabetical order.

PROFESSOR: Blouin, Brown, Chauvin, Chen, Cohen, Crow, Diaz, DePrato, Escobar, Fontham, Geaghan, Groves, Helm, Hugh-Jones, Jack, Jazwinski, LaMotte, Lane, Looney, Malone, Marier, Marx, Mercante, Moody-Thomas, Porche, Roberts, Scribner, Shellito, Sothern, Thompson, Tortu, Trapido, Volaufova.

ASSOCIATE PROFESSOR: Estrada, Fang, Harris, Levitan, Monlezun, Peters, Ragan, Ratard, Rayford, Rung, Straif-Bourgeois, Theall, Thomas, Wilbright, Wu

ASSISTANT PROFESSOR: Aiken, Balsamo, Baumgartner, Bonis, Bowers-Stephens, Brennan, Brewer, Broyles, Butler, Chen, Chiu, Frontini, Gee, Gruber, Harrington, Hicks, Horswell, Hu, Kendrick, Kimbrell, Kronenberg, Lee, Lirette, Mores, Nuss, Oral, Patout, Phillippi, Richards, Rigamer, Robinson, Simonsen, Swift, Thomson, Tseng, Valliere, Velasco-Gonzalez, Wightkin, Wilcox, Williams, Xiao, Yu

INSTRUCTOR: Andrews, Bultman, Frady, Hagan, Hsieh, LeBlanc, Mason, Williams