

## COURSES

### **MPH 645D      Emergency      Preparedness      in      Public      Health      3 CREDITS**

In this course you will learn how emergency preparedness affects you as an individual as well as a Public Health professional. We will examine how the emergency response system works locally and federally as well as the role of public health workers in responding to natural disasters, disease outbreaks and other types of emergencies. Upon completion you will be more effectively be able to participate in the emergency response plan in the event of a major event or disaster.

### **MPH 645E      Violence and Public Health Framework      3 CREDITS**

Sexual assault, domestic violence, stalking, trafficking, and other forms of interpersonal violence disproportionately affect women, girls, and marginalized populations. Violence against women has become a significant public health threat with measurable impact on indicators such as illness, injury, and mortality. This course will use the public health framework to examine the causes and consequences of interpersonal violence, including an analysis of individual, community, and societal risk and protective factors, implications for public policy, and research directions for primary prevention.

### **MPH 645F      Health Disparities      3 CREDITS**

This course examines the extent/causes of social inequalities in health. The focus is on individual, community and policy approaches to reducing social inequalities in health.

### **MPH 645G      Principles of Public Health Informatics      3 CREDITS**

The purpose of this course is to provide students with a basic understanding of "Informatics" and its application in a Public Health setting. The goal of Public Health Informatics is for students to understand the basic technological tools and building blocks needed to develop and manage Public Health data collection systems to meet analytical needs. Students will learn how to take these systems and implement them successfully in Public Health environments.

### **MPH 645H      Foundations of Global Health      3 CREDITS**

The focus of this course is an overview of public health on a global scale. Students in this course will immerse themselves with a global outlook of public health, and understand how disease and illness ignore national borders. The course will begin with a broad overview of the global health situation, comparing the different regions of the world. Students will then be exposed to specific topics in global health, including infectious diseases, chronic diseases, women and children's health, nutrition, occupational and environmental diseases, mental health, culture/religion and health, traditional and indigenous health, and health care systems. The course will be a blend of lectures and discussion, along with guest lectures and multimedia presentations. The capstone for the course will be a presentation and final paper on a topic of the student's choice.

### **MPH 645I      Advanced Epidemiology      3 CREDITS**

MPH 645I will introduce students to intermediate and advanced principles in Epidemiology. This class will focus primarily on epidemiologic methods for practice and research, including study designs, bias, confounding, effect modification, and interaction. Students will learn how to design epidemiologic studies, plan epidemiologic analysis and analyze data.

### **MPH 690A      Capstone I: Research Project      3 CREDITS**

This capstone course will require students to synthesize all previous course work and practical experience to generate an evidence-based public health research project. Students will select a research topic, submit intermediate assignments, generate a submission-quality research paper, and present the results to peers and faculty. Faculty mentors will provide guidance along each step of the research process.

### **MPH 690B      Capstone II: Research Project      3 CREDITS**

This capstone course will require students to synthesize all previous course work and practical experience to generate an evidence-based public health research project. Students will select a research topic, submit intermediate assignments, generate a submission-quality research paper, and present the results to peers and faculty. Faculty mentors will provide guidance along each step of the research process.

### **MPH 500      Principles of Public Health Practice      3 CREDITS**

This course will introduce and analyze the ten essential services of public health. The essential services include monitoring the health status of a

community, diagnosing and investigating health problems and hazards, health education, community partnerships and bridge-building, health planning and policy, health and safety regulations and laws, health services particularly for the underserved, workforce training and regulation, health services evaluation, and health research. Students will also become familiar with the eight core competencies of public health practice through application and case studies. The course will be a combination of seminar, lecture and discussion. A final project will be required as well as a written paper and oral presentation.

### **MPH 510      Social and Behavioral Sciences, In Public Health      3 CREDITS**

The focus of this course is to study the relationship between cultural, social and behavioral factors and its role in both individual and population health. A general overview of social and behavioral sciences relevant to public health will be discussed. Emphasis will be placed on the complex interactions between health at the level of individuals and groups and how they are affected by cultural and social determinants. Extensive readings and case studies will reinforce the concepts introduced in class. The course will be a mix of in-class discussion and lectures.

### **MPH 520      Environmental Health      3 CREDITS**

This course is an overview of environmental factors; including physical, biological and chemical factors; and their impact on health at a population-level. Theories and concepts in environmental health will be introduced and reinforced with real-life case studies, particularly those from the state of Utah. Students will be required to participate in discussions and write and present a project paper during the course.

### **MPH 530      Principles of Epidemiology      3 CREDITS**

This course is the first of two courses that will focus on quantitative methods for public health. The course will be an overview of the epidemiologic and biostatistical tools necessary to understand the complex interactions between health outcomes and human populations. Upon completion of the course, students will be able to apply these tools to public health practice, critical evaluation of health research, analysis of data, and proper application of epidemiology and biostatistics in conducting health research. Concepts will be reinforced with historical and contemporary examples and case studies. Commercially available statistical packages will be used for data analysis. The course will be a combination of lecture and discussion. Although this course is the first of two, it can be taken without the second course for a more elementary overview of quantitative methods for public health.

### **MPH 540      Healthcare Management      3 CREDITS**

The focus of this course is to provide students the opportunity to understand various approaches to administration and management as they apply to administering public health programs. The text approaches healthcare management from a population-based management perspective. The class will examine the underlying elements of healthcare management, the administrative processes and issues in carrying out these elements, and then explore the strategies for managing population health across selected functional areas and organizational boundaries. Lectures will also explore leadership principles using preparedness as a theme. The class format will be lectures, quizzes, discussions, some written assignments and class presentations.

### **MPH 555      Global Health      3 CREDITS**

The focus of this course is an overview of public health on a global scale. Students in this course will immerse themselves with a global outlook of public health, and understand how disease and illness ignore national borders. The course will begin with a broad overview of the global health situation, comparing the different regions of the world. Students will then be exposed to specific topics in global health, including infectious diseases, chronic diseases, women and children's health, nutrition, occupational and environmental diseases, mental health, culture/religion and health, traditional and indigenous health, and health care systems. The course will be a blend of lectures and discussion, along with guest lectures and multimedia presentations. The capstone for the course will be a presentation and final paper on a topic of the student's choice.

### **MPH 575      Introduction to SAS Programming      3 CREDITS**

The focus of this course is to learn to program in SAS. SAS is a powerful data management and statistical analysis software package, used extensively in health and medical research, in academic, government and private sectors.

It is available on mainframe computers, as well as on microcomputers under the UNIX, Apple, LINUX and Windows operating systems. This introductory course will introduce the SAS programming software to students interested in conducting research in the health and medical fields. Students will learn how to create SAS databases from a variety of sources, manipulate and manage the data, conduct elementary statistical analysis, and output and present the data. This is an introductory course, designed for those who have little or no programming experience in SAS or any other programming language. However, even those who have some SAS programming experience can benefit from this course.

**MPH 600 Public Health Leadership and Ethics 3 CREDITS**

Teaches students the principles of leadership and ethical professional practice. The course also presents leadership and ethical challenges relative to public health practice. Content areas will include leadership and ethical theory; personal leadership; leadership in organizations; leadership in communities and leadership in research. Emphasis will be placed on the application of these concepts to real life public health problems and issues. This course will prepare students to make reasoned ethical decisions when engaged in public health practice or public health research. Students will be required to read articles, case studies and be prepared to discuss and dissect them in class. Students will also be required to research and present a case study in bioethics to the class, and lead a discussion on issues raised by this case study.

**MPH 621 Practicum I 3 CREDITS**

The practicum experience is meant to give students direct, hands-on experience comparable to a career position suitable for someone with an advanced public health degree. This will not only supplement the student's coursework and enrich their academic experience, but also prepare the student for employment after completion of their degree. A minimum of 90 contact hours is required for the three credit hours.

**MPH 622 Practicum II 3 CREDITS**

The practicum experience is meant to give students direct, hands-on experience comparable to a career position suitable for someone with an advanced public health degree. This will not only supplement the student's coursework and enrich their academic experience, but also prepare the student for employment after completion of their degree. A minimum of 90 contact hours is required for the three credit hours.

**MPH 630 Statistical Methods for Public Health 3 CREDITS**

This course is the continuation of MPH 530 (Principles of Epidemiology). Students will review more advanced topics in epidemiology and biostatistics. Topics covered include study design, simple and multiple regression, analysis of categorical data, and confounding and bias in quantitative analysis. Concepts will be reinforced with historical and contemporary examples and case studies. Commercially available statistical packages will be used for data analysis. The course will be a combination of lecture and discussion.

**MPH 635 Capstone I: Research Design & Stat Analy 3 CREDITS**

In addition to the advanced/applied biostatistics (qualitative and quantitative) and epidemiology statistical methods the course will include the students developing a research proposal for Capstone II and developing an IRB for submission. The course will address the ethics in the IRB procedures. Questionnaire/survey development and the fundamental skills or presenting and publishing findings will also be addressed.

**MPH 640 Prog Planning & Eval-Public Health 3 CREDITS**

This course presents methods for the identification of population-based needs for public health intervention, development of programs to meet those needs, and evaluation of the effectiveness of these public health interventions. The course integrates several knowledge and skill areas including: research methods, proposal writing, budget planning, project management, and program evaluation. Students will learn the process of public health programming including research methods, proposal writing, budget planning, assessment, design, planning, implementations, project management, and evaluation.

**MPH 645 Special Topics in Public Health 1 to 3 CREDITS**

A special topics course highlighting specific areas or themes in public health.

**MPH 655 Infectious Disease Epidemiology 3 CREDITS**

Infectious Disease Epidemiology provides an overview of the foundations and methods used in assessing the phenomena of infectious disease from

a public health perspective. The cause and treatment of common infectious diseases are explored as a foundation for the learning objectives.

**MPH 668 Directed Studies 1 to 4 CREDITS**

Allows students to undertake independent research and readings on special topics not fully covered in the MPC Program. Requires consent of instructor and school dean. This course is repeatable for credit.

**MPH 690 Capstone Research Project 6 CREDITS**

This capstone course will require students to synthesize all previous course work and practical experience to generate an evidence-based public health research project. Students will select a research topic, submit intermediate assignments, generate a submission-quality research paper, and present the results to peers and faculty. Faculty mentors will provide guidance along each step of the research process.