PUBLIC HEALTH (PHEA)

PHEA 6001. Concepts in Public Health - From Person to Population. 3 Credit Hours.
This introductory, interdisciplinary Foundational Course will examine public health in the US, focusing on our unique local/regional issues. It will emphasize the importance of health promotion, access, and opportunity at both the individual and population levels. The course will cover foundational elements of public health, including its history, development, and impact; careers in public health; core values, leadership, and ethics; concepts and functions of essential public health services; population health and health improvement. The course will also build a sense of community for entering students to learn together and to work effectively in interprofessional teams.

PHEA 6002. Perspectives and Decisions Through Public Health Data. 3 Credit Hours.
This course will introduce students to analytical methods commonly used in public health. The course will provide skills related to epidemiology, data management, sampling procedures, analysis, hypothesis testing, interpretation, and communication of results. Common computer software will be used to apply analytical methods to both quantitative and qualitative data. Relevant epidemiological, biostatistical, and qualitative data from local and regional sources will be used to illustrate methods where available.

PHEA 6003. Designing Public Health Inquiry: Quantitative and Qualitative Research Methods. 3 Credit Hours.
This course will introduce the fundamentals of research methods in public health settings. Topics will include principles of research investigation, reviewing scientific literature, research design, research-related epidemiological concepts, sampling methods, measurement, and data collection. Topics will cover quantitative, qualitative, and mixed research methods. Issues and problems commonly encountered in public health research will be discussed using real-world examples, emphasizing local and regional examples where applicable.

PHEA 6004. Health Promotion and Health Behaviors. 3 Credit Hours.
This course will provide foundational information about health theory, applications, and strategies to affect positive health behaviors in individuals and communities. Course content will include primary health theories and constructs grounded in non-medical determinants of health, and the social-ecological model. Students will examine and apply strategies to real-world public health challenges at all levels of the social-ecological model.

PHEA 6005. Health Policy and Public Health Advocacy. 3 Credit Hours.
This course will provide foundational information about the health policy development process and public health advocacy in the United States. Students will understand how health policies are made at all levels of government, as well as the role of the media and various stakeholder groups in influencing health policy. Students will gain practical experience designing and implementing an advocacy campaign to change health policy on current public health issues at local, state, regional, or national levels.

PHEA 6006. Introduction to Environmental and Occupational Health. 3 Credit Hours.
This course will provide an overview of the anticipation, recognition, evaluation, and control of occupational and environmental hazards. An introduction to the various physical, chemical, radiological, and biological hazards impacting public health are reviewed. Topics covered will include local and global issues, including One Health and planetary health-related concepts.

PHEA 6007. Leadership in Public Health. 3 Credit Hours.
This course will provide students with a deep dive into the core leadership theories and principles that can be applied in the context of public health. By the end of the course, students will have developed the knowledge and critical thinking skills required to become effective public health practitioners, leaders, or administrators. Key topics covered in this course will include leadership skills development, strategic planning, stakeholder identification, partnership and collaboration building, organizational leadership and management, communication, and systems thinking. Prerequisites: PHEA 6001.

PHEA 6008. Creating Mechanisms for Prevention and Intervention in Public Health. 3 Credit Hours.
This course will introduce students to methods used to identify and prioritize community needs, concerns, preferences, and assets to inform the development of public health interventions. It will exemplify the most important health issues affecting our South Texas communities and the process of public health programming in this arena, including assessment, design, planning and implementation, coordination, and evaluation across multiple levels. Topics covered will include an introduction to planning models, stakeholder identification, coalition building, engagement, data collection methods, analysis, and framing for communities to enhance the health and well-being of individuals, families, priority groups, and the community. Prerequisites: PHEA 6004 or consent of the course instructor.

PHEA 6009. Public Health Systems Administration. 3 Credit Hours.
This course will provide students with an exploration of the principles and practices of managing public health systems, including organizational structures, management processes, and policy frameworks of public health systems at local, state, and national levels. By the end of the course, students will be able to manage teams, allocate resources, develop partnerships, and coordinate programs and interventions in a public health setting, with a particular emphasis on local, state, and non-profit public health entities and organizations. Key topics in this course will include securing and managing fiscal resources, developing grant proposals tailored to specific stakeholders, developing and managing a workforce, and promoting health and well-being through public health programs and policies. Prerequisites: PHEA 6001 or consent of the course instructor.

PHEA 6010. Structural and Social Determinants of Health. 3 Credit Hours.
This course will introduce concepts related to structural and non-medical determinants of health, including frameworks for studying structural and non-medical determinants of health, challenges, and best practices related to measuring structural and non-medical determinants of health and understanding the intersection of various social and structural factors on individuals and their communities. Concepts will include the social gradient, healthcare access barriers, and health and disease disparities. This course will also address structural and non-medical determinants of health downstream and upstream and build on concepts covered in Health Policy and Public Health Advocacy. Must complete the listed prerequisites or consent of the course instructor to enroll. Prerequisites: PHEA 6001.

PHEA 6011. Continuous Quality Improvement in Public Health. 3 Credit Hours.
This course will provide students with an in-depth study into the systems approach to quality improvement in public health to improve health outcomes and optimize resource utilization. The course is designed to equip students to use data and metrics to apply systems thinking and process improvement methodologies to identify and address complex problems in public health settings. Throughout the course, students will learn how to identify trends, patterns, and variations in public health processes, how to develop and implement effective solutions using a variety of process improvement methodologies, how to manage change effectively, and how to communicate changes to stakeholders to achieve sustainable results. Prerequisites: PHEA 6001 or consent of the course instructor.

PHEA 6012. Communicating Applied Data Science. 3 Credit Hours.
This course will introduce the key skills in modern data visualization and methods for gathering, displaying, and interpreting public health data. Effective visualizations will be tailored to engage and empower key stakeholders such as the research community, public health leaders, and the public. Different data will be used, including epidemiological trends and non-medical determinants of health. Data may come from various sources, including static or dynamic databases and large- and small-scale data. This variety of sources and audiences presents both challenges and opportunities. Must complete the listed prerequisites or consent of the course instructor to enroll. Prerequisites: PHEA 6002.

PHEA 6013. Community Engagement and Health Communication. 3 Credit Hours.
This course will provide students with theoretical knowledge and practical experience in community engagement and stakeholder collaboration. This course will focus on how to apply principles of community engagement in public health programs and organizational settings. Students will learn how to effectively engage with different stakeholder sectors, collaboratively lead and design strategic plans, promote cohesion at multiple levels, and communicate to varying audiences in a culturally competent manner. By the end of the course, students will have gained the skills needed to impact their communities and organizations positively. Prerequisites: PHEA 6001 or consent of the course instructor.

PHEA 6014. Global Health-Current Health Issues Facing Our World. 3 Credit Hours.
This course will explore various key issues and current topics in global health. It will cover various topics, such as measuring the global disease burden, identifying key health problems and determinants worldwide, analyzing health systems, and examining international public health organizations. The course will also explore communicable and non-communicable diseases, examine the impact of climate change on human health, and address how to respond to health crises. Additionally, students will acquire technical knowledge, skills, and vocabulary essential for working in global health. Prerequisites: PHEA 6001 or consent of the course instructor.

PHEA 6015. Program Management, Assessment, and Evaluation. 3 Credit Hours.
This course will introduce multiple methods for program planning and evaluation. Students will learn about needs assessment and developing program priorities to address community needs. Students will also learn the models and concepts for evaluation plans applied to public health interventions and programs. Topics will include recruitment strategies and evaluation techniques. Must complete the listed prerequisites or consent of the course instructor to enroll. Prerequisites: PHEA 6004.

PHEA 6017. Health Systems and Public Health Data. 3 Credit Hours.
This course will provide students with the knowledge and skills necessary to work effectively with diverse types of healthcare and public health data and understand how data are used for healthcare decision-making. Throughout this course, students will learn about various data types, sets and systems, how to collect, analyze, interpret, and present data, and how to effectively communicate distribution patterns, determinants of health and well-being with stakeholders. Students will also gain an understanding of data privacy and security and how to ensure data are used ethically and responsibly. By the end of this course, students will be able to work with multidimensional healthcare and public health data to provide actionable insights that improve the delivery and effectiveness of healthcare services. Must complete the listed prerequisites or consent of the course instructor to enroll. Prerequisites: PHEA 6002.

PHEA 6018. Health Systems in the Community Context. 3 Credit Hours.
This course will explore how the principles and practices of public health can be used to cultivate comprehensive and people-centered responses to fragmented care delivery and how community and clinical collaborations are critical in healthcare delivery. Students will learn to conduct asset and needs assessments, implement quality improvement initiatives, and foster partnerships with interprofessional teams and community-based organizations. Students will explore and evaluate diverse approaches and barriers to collaboration within communities, including challenges related to communication, role ambiguity, and cultural contexts, and how to lead systems-level changes to achieve practical solutions. By the end of the course, students will have the skills and knowledge needed to improve patient outcomes, patient satisfaction, and community engagement approaches in health systems. Must complete the listed prerequisites or consent of the course instructor to enroll. Prerequisites: PHEA 6005.

PHEA 6095. Special Topics in Public Health. 3 Credit Hours.
This course is designed for special or emerging topics related to public health. The learning objectives, course materials, and formats will vary depending on the topic and semester, as specified in the course syllabus. This course may be repeated as the topics will differ. Prerequisites: PHEA 6001 or consent of the course instructor.

PHEA 6096. Seminar in Public Health. 3 Credit Hours.
This course will offer a series of presentations and discussions led by faculty, guest speakers, and graduate students. The topics covered will be focused on current issues in public health practice. Throughout this course, students will learn, analyze, and evaluate scientific and non-scientific information on crucial and timely public health issues. The course topics will vary based on timely and relevant Public Health topics. Prerequisites: PHEA 6001 or consent of the course instructor.

PHEA 6098. Discovery-Based Paper or Project. 3 Credit Hours.
This course is specifically designed for students pursuing a Master of Public Health (MPH) degree to provide enough time for a discovery-based paper or project under the guidance of a faculty advisor. This course is an integrative learning experience drawing on all competencies presented in the MPH program. Students may only add this course after the student has been approved for MPH degree candidacy, the faculty advisor is approved, and the faculty advisor approves the discovery-based paper or project. Credit will not be given until the discovery-based paper or project is completed. Must complete the listed prerequisites or consent of the course instructor to enroll. Students are expected to have completed the core courses and concentration courses to register. Permission of program required. Prerequisites: PHEA 6001, PHEA 6002, PHEA 6003, PHEA 6004, PHEA 6005, and PHEA 6006.

PHEA 6099. Capstone Experience. 3 Credit Hours.
As a requirement for the Master of Public Health (MPH) degree, this course will enable students to examine a public health issue using the lens of public health practice. This course is an integrative learning experience drawing on all competencies presented in the MPH program. Students may only add this course after the student has been approved for MPH degree candidacy. Throughout the course, students will learn and implement a problem-solving methodology to analyze current public health issues, collaborate to make recommendations on interventions and apply evaluation methods to address specific problems. Must complete the listed prerequisites or consent of the instructor to enroll. Students are expected to have completed the core courses and concentration courses to register. Permission of program required. Prerequisites: PHEA 6001, PHEA 6002, PHEA 6003, PHEA 6004, PHEA 6005, and PHEA 6006.