## PUBLIC HEALTH (AS DEGREE S0428)

## Natural Sciences Division Degree S0428

The AS degree in Public Health at Mt. San Antonio College is an interdisciplinary program grounded in the biological sciences and designed to prepare students for entry level employment in public health fields. Students completing this program will exemplify a high level of health literacy and will be exposed to a large variety of disciplines. Through this preparation, they will improve their understanding of the relationship of the environment to health, recognize and evaluate the economic impact of changing demographics on health care, identify and control disease outbreaks, and develop interventions to promote healthy behavior.

This degree requires the completion of General Education coursework plus the following:

## **Required Courses**

| Course Prefix                          | Course Name  | Units |
|--|--|-------|
| Select one of the following sequences: |  | 8-10  |
| ANAT 10A<br>& ANAT 10B                 | Introductory Human Anatomy<br>and Introductory Human Physiology    |       |
| or ANAT 35<br>& ANAT 36                | Human Anatomy<br>and Human Physiology                              |       |
| ANTH 5                                 | Cultural Anthropology  | 3     |
| or SOC 1                               | Introduction to Sociology  |       |
| or SOC 1H                              | Introduction to Sociology - Honors                                 |       |
| BIOL 1                                 | General Biology  | 4     |
| or BIOL 4                              | Biology for Majors   |       |
| or BIOL 4H                             | Biology for Majors - Honors  |       |
| MATH 110                               | Elementary Statistics  | 3-4   |
| or MATH 110H                           | Elementary Statistics - Honors                                     |       |
| or PSYC 10                             | Statistics for the Behavioral Sciences                             |       |
| MICR 1                                 | Principles of Microbiology   | 4 - 5 |
| or MICR 22                             | Microbiology   |       |
| NF 25                                  | Introduction to Nutrition Science                                  | 3     |
| or NF 25H                              | Introduction to Nutrition Science - Honors                         |       |
| PUBH 22                                | Introduction to Epidemiology                                       | 3     |
| PUBH 24                                | Introduction to Public Health                                      | 3     |
| PUBH 26                                | Introduction to Global Public Health                               | 3     |
| PUBH 27                                | Public Health and the Environment                                  | 3     |
| or PUBH 28                             | Public Health and Bioethics  |       |
| Choose two courses from the following  |  | 6     |
| ANAT 38                                | Pathophysiology  |       |
| BIOL 5                                 | Contemporary Health Issues   |       |
| MICR 26                                | Introduction to Immunology   |       |
| PUBH 20                                | History of Western Medicine  |       |
| PUBH 29                                | Public Health Microbiology   |       |
| PUBH 30                                | Principles of Public Health and Infectious Disease<br>Epidemiology |       |
| Total Units                            |  | 43-47 |

- Explain how the history, philosophy, and literature of public health reflect broader social influences and movements that influence our view of health.
- Explain the population health perspective and the methods used in public health to define and address population-wide/social concerns and the needs of vulnerable populations through the provision of essential services.
- Apply options for intervention frameworks including when (primary, secondary, tertiary), who (individual, population at risk, general population), and how (education, motivation, obligation) to intervene.
- Explain principles of epidemiology that are necessary in order to understand health and impairments of health, including the uses of rates, the meaning of causation, and the evaluation of the effectiveness of interventions.
- Apply the principles of epidemiology to assigned reading of research articles, including case-control, cohort studies, and randomized clinical trials.
- Explain from a global perspective the burden of disease, socioeconomical determinants of health, the links between health and development, and approaches to global cooperation to monitor, promote, and protect health.
- Describe biological principles needed to understand public health issues across the life span and apply these principles to public health interventions to eliminate, prevent, and control disease and to minimize the impact of disease on health.
- Explain the use of clinical interventions for assessing, protecting, and improving health and preventing, detecting, treating, and minimizing the impact of disease.
- Explain the way biological, environmental, and social/cultural factors interact in disease production and understand how these influences can impact prevention strategies.
- Describe the historical examples of the changing definitions of public health in a variety of cultures and times, including major scientific advancements.

Review Student Learning Outcomes (SLOs) (http://www.mtsac.edu/ instruction/outcomes/sloinfo.html) for this program.

## **Program Learning Outcomes**

Upon successful completion of this program, a student will be able to: