Georgia CTAE

Applications of Public Health (2021)

Demonstrate employability skills required by business and industry. APH	**1.1** Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities. APH
	1.2 Demonstrate creativity by asking challenging questions and applying innovative procedures and methods. APH
	1.3 Exhibit critical thinking and problem solving skills to locate, analyze and apply information in career planning and employment situations. APH
	1.4 Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity. APH
	1.5 Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply team work skills. APH
	1.6 Present a professional image through appearance, behavior and language. APH
Describe the context and scope of public health on improving health and quality of life in personal, community (including local, state, and federal health department), and the global population based on the ten essentials of public health. APH	**2.1** Identify patterns in the written text about the history, philosophy, and services provided by public health. APH
	2.2 Identify the 10 essential services of public health: / a. Monitor health status to identify and solve community health problems / b. Diagnose and investigate health problems and health hazards in the community / c. Inform, educate, and empower people about health issues / d. Mobilize community partnerships and action to identify and solve health problems / e. Develop policies and plans that support individual and community health efforts / f. Enforce laws and regulations that protect health and ensure safety / g. Link people to needed personal health services and assure the provision of health care when otherwise unavailable / h. Assure competent public and personal health care workforce / i. Evaluate effectiveness, accessibility, and quality of personal and population-based health services / j. Research for new insights and innovative solutions to health problems. APH
	2.3 Define the core functions of public health and how they relate to the ten essential services of public health (assessment, policy development, and assurance). APH

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	2.4 Explain the career pathways as they related to the essential services provided by public health. APH
	2.5 Define the ethical obligations required of a public health practitioner versus the community as a whole. APH
	2.6 Outline the phases of community mobilization as they relate to public health communication (planning, awareness, taking action, and monitoring and evaluating). APH
	2.7 Analyze the levels of collaboration (networking, cooperation, coordination and collaboration) required for effective communication of information about personal risk behaviors and primary prevention of common public health concerns. APH
	2.8 Define the broad spectrum of enforcement activities in areas of public health concern, including, but not limited to the protection of drinking water; enforcement of clean air standards; regulation of care provided in health care facilities and programs; re-inspection of workplaces following safety violations; review of new drug, biologic, and medical device applications; enforcement of laws governing the sale of alcohol and tobacco to minors; seat belt and child safety seat usage; and childhood immunizations. APH
	2.9 Explain how public health can utilize health information and health communications to improve the health of populations. APH
	2.10 Connect the relationship that economics has with the implementation of public health practices and strategies. APH
Explain how epidemiology is the basic science of public health and describe how it is used to study, prevent, and control disease. APH	**3.1** Summarize the major objectives of epidemiologic methods. APH
	3.2 Discuss the classification of notifiable diseases and the basic steps of an epidemiological investigation. APH
	3.3 Describe the application of epidemiology in the study of chronic diseases. APH
	3.4 Differentiate between the uses of the following terms in defining disease: prevalence rates, incidence rates, death rates, disease distribution, and epidemic curves. APH
	3.5 Differentiate between the following epidemiologic studies: intervention studies, cohort studies, and case control studies. APH
	3.6 Analyze sources of potential errors in epidemiologic study. APH
	3.7 Discuss basic ethical and legal principles pertaining to the collection, maintenance and use and reporting of epidemiologic data. APH

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	3.8 Apply basic knowledge of statistics to identify the p-value, statistical significance, and confidence intervals related to an epidemiologic study. APH
	3.9 Evaluate the role of data in public health and the strengths and limitations of epidemiologic reports. APH
	3.10 Analyze current studies in Georgia and the methodology being utilized in those studies. APH
Differentiate the means of transmission as they relate to the biomedical basis of disease for infectious, chronic, and genetic diseases. APH	**4.1** Define common infectious agents associated with public health. APH
	4.2 Construct the chain of infection using the following concepts: pathogen, reservoir, place of exit, method of transmission, port of entry, and susceptible host. APH
	4.3 Develop a logical argument for the benefit of vaccination and compare these arguments to those related to fear of vaccination. APH
	4.4 Investigate the role vaccination has with the prevention of diseases such as rabies, smallpox, measles, and polio. APH
	4.5 Identify patterns of the emergence and resurgence of various infectious diseases (e.g. AIDS, HIV, West Nile Virus, Influenza, MRSA, and TB). APH
	4.6 Analyze the public health response to emerging infections. APH
	4.7 Identify common chronic diseases (e.g. cardiovascular diseases, cancer, diabetes, arthritis, and Alzheimer's disease). APH
	4.8 Analyze the role that public health professionals play with the reduction of risk and prevention of common chronic diseases. APH
	4.9 Define terminology associated with genetic diseases. APH
	4.10 Investigate the relationship that patterns of inheritance have with the development of disease. APH
	4.11 Critique the potential ethical issues related to genetics and genomics with the prevention and training of genetically associated diseases. APH
Identify how psychosocial factors affect health behavior. APH	**5.1** Explain the relationship of demographic factors on an individual's health status. APH
	5.2 Evaluate the effects of socioeconomic status (SES) on the health of population groups. APH
	5.3 Investigate current health behavior theories and the role in the development of health intervention and promotion programs. APH

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	5.4 Assess, interpret, and evaluate public health data using information technology. APH
	5.5 Analyze evidence-based practices applied to social and behavioral public health interventions. APH
	5.6 Research the concept of social determinants of public health. APH
Discuss the significance that obesity, substance abuse (including tobacco usage), and mental health disorders have with relation to the development of illness. APH	**6.1** Identify and discuss the major diseases caused by smoking and the estimated number of annual deaths. APH
	6.2 Define the biomedical basis for smoking's harmful effects of the body. APH
	6.3 Critically analyze the relationships between advertising of tobacco products, historical trends in smoking, and regulatory restriction on smoking. APH
	6.4 Investigate the epidemiological research that supports the link between obesity and the development of disease. APH
	6.5 Define the diseases commonly associated with obesity. APH
	6.6 Summarize the role that healthy eating, physical activity, and healthy minds have with confronting the obesity epidemic. APH
	6.7 Define the most commonly diagnosed mental health illnesses. APH
	6.8 Connect the epidemiologic evidence linking mental health illnesses with substance abuse, injuries, and illnesses. APH
	6.9 Differentiate between the treatment of mental health illness in childhood, adults, and older adults. APH
	6.10 Summarize the common causes and prevention of mental health illness. APH
	6.11 Assess the various methods of treatment for mental health illness. APH
	6.12 Research programs and initiative available through the State of Georgia Department of Public Health. APH
Investigate the reasons child and maternal health is a high priority in public health. APH	**7.1** Cite several studies depicting improvement in child and maternal health through United States and world history. APH
	7.2 Analyze infant mortality rates (IMR) in different countries and among different races. APH
	7.3 Cite evidence supporting infant mortality as either a social or a health problem. APH
	Summarize programs developed to decrease the IMR including those targeting congenital malformations, preterm birth, and sudden infant death

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	syndrome. APH
	7.5 Discuss family planning and prevention of adolescent pregnancy related to abstinence and comprehensive sex education in schools. APH
	7.6 Analyze the development of nutritional programs for women and children. APH
	7.7 Critique the effectiveness of immunization programs in the prevention of infectious diseases. APH
	7.8 Evaluate results of the ongoing National Children's Study. APH
	7.9 Investigate and analyze data regarding women and children's health and Independent Medical Researcher (IMR) in local community and state. APH
Assess that injuries are not accidents, are a major public health issue, and dependent on people's behavior and environment. APH	**8.1** Research the laws and regulations designed to protect health and safety at the local, state, and federal public health level. APH
	8.2 Analyze the relationship of epidemiology and accident prevention considering the host, agent, and environment, primary, secondary, and tertiary prevention. APH
	8.3 Cite evidence of government and public campaigns effective in decreasing motor vehicle injuries. APH
	8.4 Investigate current issues of poisoning including fatalities related to prescription drugs. APH
	8.5 Critique data collected and studies conducted on fire arm injuries and deaths in the United States. APH
	8.6 Analyze data related to leading causes of childhood accidents and prevention programs. APH
	8.7 Investigate current issues surrounding student athletes' safety including concussion and traumatic brain injury prevention (TBI) and sudden cardiac death. APH
	8.8 Investigate domestic violence including child abuse and domestic partner violence for risk factors and prevention programs. APH
	8.9 Define agencies responsible for enforcement of public health policy at the local, state, and federal level. APH
Summarize the relationship between role of environmental an wi	**9.1** Identify and describe the role that the government has with the establishment of environmental health. APH
	Define the governmental agencies responsible for the various environmental public health concerns at the local, state, and federal level. APH

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injury and illnesses. APH	9.3	Critically analyze the relationship between the use of pesticides and industrial chemicals in the environment and the impact on both humans and the ecological system. APH
	9.4	Investigate the scope of occupational injuries, illnesses, and fatalities since the 19th century. APH
	9.5	Identify the governmental agencies responsible for the development and enforcement of occupational safety and health regulations. APH
	9.6	Identify the governmental agencies responsible for conducting research related to occupational health injuries and illness prevention. APH
	9.7	Classify patterns in the regulatory process for both environmental and occupational standards. APH
	9.8	Critically analyze the process of risk-benefit analysis. APH
Investigate the relationship between medical care and public health. APH	10.1	Investigate the concept of medical care as a public health issue. APH
	10.2	Differentiate between patient diagnosis (individual medical care) versus community diagnosis (public health). APH
	10.3	Cite evidence supporting the responsibility of public health regarding specific areas of medical care including communicable diseases, emergency services, veterans, and prisoners. APH
	10.4	Assess the conflict between public health and the medical profession including insurance, indigent care, and school children. APH
	10.5	Discuss and critique the major trends in government health insurance programs and laws including The Patient Protection and Affordable Care Act of 2010. APH
	10.6	Identify the criteria for evaluating health systems including issues of access, quality, and cost. APH
	10.7	Investigate the governmental licensing and regulation system of health care professionals. APH
	10.8	Describe the fundamental concepts and features of project implementation, including planning, assessment and evaluation and determine methods used to evaluate the effectiveness, accessibility and quality of personal and population-based health services. APH
Investigate prominent eth… in…	HS-APH-11	Describe the fundamental concepts and applications of health services research as they intersect public health practice with medical care, institutions of higher learning, and governmental agencies at the local, state, and federal level. APH

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	11.1 Connect public health research with institutions of higher learning, and critique this role. APH
	11.2 Identify the institutions of higher learning and agencies at the local, state, and federal level that are responsible for initiating research, participating in research by others, reporting results, and implementing policy based on these results. APH
	11.3 Analyze the broad spectrum of public health research that spans from practical field-based efforts to foster change in public health practice, to more academic efforts to encourage new directions in scientific research. APH
	11.4 Define the scientific methods and terminology used in public health to conduct research, including, but not limited to: epidemiology, statistical analyses, behavioral health, environmental health, occupational health, global health, and public health policy. APH
	11.5 Design a grant application to synthesize the process of developing a public health research project. APH
	11.6 Analyze public health research publications for information establishing innovative solutions to public health problems. APH
	11.7 Summarize how public health research is critical for each of the nine other essential areas of public health. APH
	11.8 Critique the internal capacity of local, state, and federal agencies to mount timely epidemiological and health policy analyses and conduct health systems research. APH
	11.9 Discuss the ethical issues in research. APH
Research the health needs of the elderly population and how changing trends, medical costs, and existing programs can result in a positive health outcome. APH	**12.1** Analyze trends in the aging of the population. APH
	12.2 Identify and research general approaches to maximizing health in the elderly population. APH
	12.3 Evaluate and investigate the effectiveness of programs targeting the following identified health risks of the elderly populations: medications, osteoporosis, falls, vision and hearing impairment, oral health, and Alzheimer's and other dementias. APH
	12.4 Analyze medical costs of the elderly population and discuss current and future payment strategies. APH
Describe the role that pu[illegible] en	**13.1** Define commonly used terminology associated with emergency preparedness planning. APH

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preparedness planning. APH

13.2 Investigate the relationship that public health organizations at the local, state, and federal level with the establishment of an Incident Command System during a disaster response. APH

13.3 Identify the different types of disasters (man-made, natural, biological, and technological.) APH

13.4 Investigate recent disasters and analyze the public health responses and how they may have prevented potential spread of disease. APH

13.5 Summarize the role that the Federal Emergency Management Agency (FEMA) and the National Guard have for emergency response, preparedness, and planning purposes. APH

13.6 Define the key principles of emergency planning and preparedness (e.g. sharing of information, resource management, warnings of evacuations, warnings must be consistent, coordination of search and rescue efforts, involvement of mass media, triage, casualty distribution, tracking of patients and survivors, establishment of care of patients, management of volunteers and donations, and unanticipated problems). APH