Georgia Science

Epidemiology

Adopted 2019

Obtain, evaluate, and communicate information to understand and analyze the disease process. SEPI1	**a.** **Obtain, evaluate and communicate information about the history and uses of epidemiology.** SEPI1.A
	b. **Ask questions about diseases and pathogens that cause them.** SEPI1.B
	c. **Construct an explanation of the body's defense mechanisms and how illness results when the mechanisms fail to maintain homeostasis.** SEPI1.C
	d. **Construct an argument from evidence to explain how the rapid evolution of pathogens results in diseases that will continue to be a public health concern.** SEPI1.D
	e. **Develop and use models to explain the different modes of disease transmission and how timing of exposure during the disease process affects spread of disease.** SEPI1.E
Obtain, evaluate, and communicate information to identify and formulate hypotheses about patterns of health and disease. SEPI2	**a.** **Analyze and interpret data focusing on the amount, distribution and patterns of disease within a population by person, place and time.** SEPI2.A
	b. **Use models that are based on empirical evidence to identify patterns of health and disease to characterize a public health problem.** SEPI2.B
	c. **Analyze and interpret data about the patterns of illness, including at least one chronic disease.** SEPI2.C
Obtain, evaluate, and communicate information about the type and use of analytical epidemiology and study designs and associations. SEPI3	**a.** **Develop and use models to explain basic epidemiologic study designs (e.g., cross-sectional, case-control, cohort, and randomized controlled trial).** SEPI3.A
	b. **Plan and carryout investigations to determine if exposure and disease are associated and communicate the information, including the limits of the investigation.** SEPI3.B
	c. **Ask questions to assess ethical issues in epidemiology and human trials.** SEPI3.C
Obtain, evaluate, and communicate inf as	**a.** **Use mathematical models to predict and explain the relationship between variables and the presence, nature, and impact of any confounding factors.** SEPI4.A

Skip to main content

causations of health and disease. SEPI4	**b.** **Analyze and interpret epidemiological data as well as evidence from other scientific disciplines to determine if exposure to a variable causes a disease.** SEPI4.B
Obtain, evaluate, and communicate information about health-related messages in the media to make informed public health decisions and life goals. SEPI5	**a.** **Construct an argument based on evidence to assess the impact of emergent technologies on health and disease.** SEPI5.A
	b. **Construct an argument based on evidence to assess the strengths and limitations of epidemiological reports.** SEPI5.B
	c. **Develop and use models to analyze strategies that promote a healthy lifestyle in relation to eating habits and exercise.** SEPI5.C
	d. **Obtain, evaluate, and communicate information about various career paths in public health as well as the applications and benefits of public health for a healthy society.** SEPI5.D