

Board of Global EHS Credentialing – General Environmental Science/EPI Exam Blueprint

Approved: April 2023

GES Topic Number	GES Topic Name	Percent of Exam	GES Topic Description
1.0	Basic and Media Specific Science	40%	Detailed knowledge and experience in understanding the applicable legal requirements as well as characterizing and conducting studies and projects within 4 major media/waste areas with respect to environmental quality. Also, basic calculations related to each item.
1.1	Basic Sciences	16	Understanding of the basic principles of chemistry and environmental systems related to the four major media/waste areas with respect to environmental quality.
1.2	Air	6	Detailed knowledge in identifying the applicable legal requirements as well as characterizing and/or conducting air inventories and other projects related to air quality.
1.3	Soil	6	Detailed knowledge in identifying the applicable legal requirements as well as characterizing and/or conducting related to soil, earth science, geology, and related environmental issues.
1.4	Water	6	Detailed knowledge in identifying the applicable legal requirements as well as characterizing and/or conducting projects related to surface and groundwater water quality.
1.5	Waste	6	Detailed knowledge in identifying the applicable legal requirements as well as characterizing and/or conducting projects related to solid, hazardous, and other types of waste.
2.0	Environmental Management Systems (EMS) and Programs	10%	Detailed knowledge and understanding of the principals involved in developing and implementing EMS, environmental compliance and related programs, policies, and projects, including ethical practices, identification of applicable requirements and emerging issues, and obtaining required permits, licenses and approvals.
2.1	Compliance	5%	Detailed knowledge and understanding the principals involved in establishing and implementing compliance programs, including identification of applicable requirements and, generally, the process for obtaining required permits, licenses and approvals.
2.2	Management	3%	Detailed knowledge and understanding the principals involved in developing and implementing EMS and related programs, policies, budgets, and projects including identification of emerging issues.
2.3	Ethics	2%	Knowledge of the BGC Ethics code and how it applies to EPIs.

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3.0	Applying Environmental Technical and Related Skills	47%	Apply critical thinking skills to the understanding of media specific and cross-media impacts of pollution, fate, and transport of environmental contaminants, conducting and evaluating environmental projects and programs, and understanding the remedial investigation process in all media. Collect and analyze data, including risk assessment.
3.1	Evaluation	5%	Understand the principles of media and cross-media impacts of pollution including the fate and transport of environmental contaminants as well as identifying and evaluating potential sources of contamination and environmental risk. Detailed knowledge and understanding of the principals involved in evaluating and judging the effectiveness of treatment and pollution minimization and reduction operations/practices.
3.2	Treatment	11%	Detailed knowledge and understanding the principals involved in identifying and evaluating available pollutant treatment methods in all media and wastes, including minimization, reduction, and optimization of treatment.
3.3	Remediation	3%	Detailed knowledge and understanding the principals involved in remedial investigation and remedy selection and implementation processes.
3.4	Monitoring	7%	Detailed knowledge and understanding the principals involved in characterizing and measuring, in all media and wastes, constituent/contaminant levels, including representative sample collection and appropriate analytical methods. Understand key aspects of analytical methods, including field instrument operations and limitations, calibration requirements etc.
3.5	Risk Assessment	4%	Understand the principles of risk assessment and evaluating site risk characteristics.
3.6	Environmental Math & Statistical Analysis	13%	Identify statistical methods likely to be used in a data analysis to assist in setting Data Quality Objectives. Understand data trends using statistics and provide written interpretation of statistical results, including identifying limitations. Also, basic environmental calculations such as mass balances.
3.7	Health and Safety	4%	Understand and communicate health and safety requirements and risks as they pertain to environmental systems.
4.0	Communication	3%	Understand the principles of environmental communication, including effective written and oral communications with community, agencies, employees, and management and other stakeholders.