



Health, Safety, and Environmental Assurance

Career Goal (O*NET Code): Environmental Engineer (17-2081), Health and Safety Manager (17-2111), Safety Technician (29-9011), Safety Engineer (17-2111).

Cluster Overview: Planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

SUGGESTED COURSEWORK

EXTENDED LEARNING EXPERIENCES

High School	9th	Core Courses:	English I Algebra I Biology	World Geography Languages other than English I Health/PE or Equivalent	Curricular Experiences: SkillsUSA TSA Career Learning Experiences: Career Preparation (Paid/Unpaid) Job Shadowing Internship Apprenticeship	Extracurricular Experiences: Odyssey of the Mind Science Olympiad Service Learning Experiences: Boy Scouts of America Girl Scouts of the USA Community Service Volunteer
		Career-Related Electives:	Engineering Principles or Anatomy/Physiology of Human Systems or Agricultural Biotechnology			
	10th	Core Courses:	English II Geometry Principles of Technology I	World History Languages other than English II Technology Applications		
		Career-Related Electives:	Engineering Graphics or Electricity/Electronics Technology or Health Science Technology**			
	11th	Core Courses:	English III Algebra II Physics	United States History Communication Applications PE or Equivalent		
		Career-Related Electives:	Bio-Related Technology or Energy, Power, and Transportation Systems or Manufacturing Systems or Health Science Technology** or Medical Microbiology			
	12th	Core Courses:	English IV AP Statistics Engineering	Government/Economics Fine Arts		
		Career-Related Electives:	Research Design and Development or Problems and Solutions in Technology or Manufacturing Technology			
Postsecondary	On-the-Job Training	Safety Technician Assistant NOTE: These experiences may be completed as part of the high school experience.			Professional Associations: American Machine Tool Distributors Association American Society for Nondestructive Testing American Society for Testing and Materials Industrial Fasteners Institute National Tooling and Machining Association	
	Certificates	OSHA CareerSafe Hazard Identification Bloodborne Pathogens Training Confined Entry Space Awareness NOTE: Students may earn all or part of these certificates as part of the high school experience.				
	Associate's Degree	15 hours Core Curriculum including Environmental Biology (BIOL 2X06) Cluster Foundation Industrial Math (TECM 1X01) OR Technical Algebra and Trigonometry (TECM 1X43) Quality Control (QCTC 1X03) Productions and Operations Management (BMGT 1X31) OR Principles of Management (BMGT 1X03) Teaming (QCTC 1X05) OR Human Relations (HRPO 1X11) Integrated Software Applications I (ITSC 1X09) OR Business Computer Applications (BCIS 1X05) OR Computer Applications I (POFI 1X01) OR Introduction to Computer Technology (CPMT 1X03) Introduction to Environmental Safety and Health (EPCT 1X07) OR Material Handling (OSHT 1X16) OR Construction Site Safety and Health (OSHT 1X07) POS Specific Courses Accident Prevention, Inspection, and Investigation (OSHT 1X13) Material Handling (OSHT 1X16) Fire Protection Systems (FIRT 1X38 OR OSHT 1X21) Contingency Planning (EPCT 1X13) Management of Change (BMGT 2X11) Radiation Physics (NUCP 1X19) Applied General Chemistry (SCIT 1X14) Principles of Industrial Hygiene (EPCT 1X41) OR Environmental Toxicology (EPCT 2X33) OSHA Regulations- General Industry (OSHT 1X05) OR OSHA Regulations- Construction Industry (OSHT 1X05) HAZWOPER Training & Related Topics (EPCT 1X01) Internship- OSHA Regulations- General Industry (OSHT 2X88) OR Applications of Industrial Hygiene (OSHT 2X31) Waste Minimization and Pollution Prevention (EPCT 1X47)				
		Career Options:	Safety Manager			
Bachelor's Degree	Industry and Technology	Technology Management	Engineering Technology	Career Options: Manager/Supervisor		
Graduate Degree	Management of Technology	Engineering Technology	Industrial Safety	Career Options: Risk Management Supervisor		

* May substitute for the required credit for Physical Education
 ** Satisfies the required credit for Technology Applications
 *** May substitute for the required credit for Health Education

Students should take Advanced Placement (AP), International Baccalaureate (IB), dual credit, Advanced Technical Credit (ATC), or locally articulated courses, if possible.

This plan of study serves as a guide, along with other career planning materials, for pursuing a career path and is based on the most recent information as of 2007. All plans should meet high school graduation requirements as well as college entrance requirements. Students may select other elective courses for personal enrichment purposes.