

# Rubric for Assessing OSH&E Program Outcomes

Objective 1: Apply knowledge and principles of mathematics, science, technology, and management in industry, business, or other related areas of employment as occupational safety, health, and environment professionals.

Expected Outcomes: Students completing the Baccalaureate degree in OSH&E will demonstrate the ability to apply basic mathematical and scientific knowledge in the safety, health, and environment field.

<b>Performance Criteria</b>	<b>Below Expectations 1</b>	<b>Progressing to Criteria 2</b>	<b>Meets Criteria 3</b>	<b>Exceeds Criteria 4</b>	<b>Score<sup>1</sup></b>
1. Students will be able to apply basic mathematical and statistical knowledge in the safety, health, and environment field.	Student fails to solve typical OSH&E problems using basic mathematical and statistical knowledge.	Student identifies typical OSH&E problems, but struggles to select proper mathematical and statistical tools needed to solve the problems.	Student correctly identifies typical OSH&E problems and applies basic mathematical and statistical knowledge, but makes minor mistakes during problem solving.	Student clearly identifies typical OSH&E problems and correctly applies basic mathematical and statistical knowledge to solve the problems.	
2. Students will be able to demonstrate knowledge of basic principles in chemistry, physics, and biology as it pertains to the practice of safety, health, and environment.	Student is unable to demonstrate knowledge of basic principles in chemistry, physics, and biology that are applied to the OSH&E field.	Student demonstrates knowledge of basic principles in chemistry, physics, and biology that are applied to the OSH&E field, but struggles to apply those principles properly to solve specific problems.	Student demonstrates knowledge of and applies basic principles in chemistry, physics, and biology that are applied to the OSH&E field, but makes minor mistakes and/or demonstrates a lack of clarity during problem solving.	Student clearly and correctly demonstrates knowledge of and applies basic principles in chemistry, physics, and biology that are applied to the OSH&E field to solve specific problems.	

<p>3. Students will be able to demonstrate knowledge of basic principles in business management as it pertains to the practice of safety, health, and environment.</p>	<p>Student is unable to demonstrate knowledge of basic principles in business management that are applied to the OSH&amp;E field.</p>	<p>Student demonstrates knowledge of basic principles in business management that are applied to the OSH&amp;E field, but struggles to apply those principles properly to solve specific problems.</p>	<p>Student demonstrates knowledge of and applies basic principles in business management that are applied to the OSH&amp;E field, but demonstrates a lack of clarity during problem solving.</p>	<p>Student clearly and correctly demonstrates knowledge of and applies basic principles in business management that are applied to the OSH&amp;E field to solve specific problems.</p>	
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<sup>1</sup>Score is presented as the percentage of samples that meets and/or exceeds criteria. 75% is used as the success rate based on the OSH&E Major Field Assessment plan.

Objective 2: Apply practical-oriented knowledge and skills in safety, health, and environment to anticipate, identify and evaluate hazardous conditions and practices, to develop hazard control designs, methods, procedures and programs, and to implement and manage effective safety and health programs.

Expected Outcomes 2A: Students completing the Baccalaureate degree in OSH&E will demonstrate the understanding of safety, health, and environment knowledge.

<b>Performance Criteria</b>	<b>Below Expectations 1</b>	<b>Progressing to Criteria 2</b>	<b>Meets Criteria 3</b>	<b>Exceeds Criteria 4</b>	<b>Score<sup>1</sup></b>
2A1. Students will be able to demonstrate knowledge of occupational safety, health, and environment fundamentals.	Student fails to demonstrate knowledge of occupational safety, health, and environment fundamentals.	Student demonstrates knowledge of the basics of occupational safety, health, and environment, but struggles to differentiate between concepts.	Student demonstrates knowledge of the basics of occupational safety, health, and environment and how they are interrelated, but demonstrates a lack of clarity.	Student clearly and correctly demonstrates knowledge of occupational safety, health, and environment fundamentals.	
2A2. Students will be able to demonstrate knowledge of legal aspects of safety, health, and environmental practices.	Student fails to demonstrate knowledge of the legal framework within the OSH&E field.	Student demonstrates knowledge of the legal framework within the OSH&E field, but struggles to differentiate between agency/organization responsibilities.	Student demonstrates knowledge of the legal framework within the OSH&E field and how different agencies/organizations are interrelated, but demonstrates a lack of clarity.	Student clearly and correctly demonstrates knowledge of the legal framework within the OSH&E field.	
2A3. Students will be able to demonstrate knowledge of the interactions of physical, chemical, biological, and ergonomic agents, factors, and/or stressors on the human body.	Student fails to demonstrate knowledge of physical, chemical, biological, and ergonomic agents, factors, and/or stressors.	Student demonstrates knowledge of the impacts of physical, chemical, biological, and ergonomic agents, factors, and/or stressors on the human body, but struggles to differentiate between substances.	Student demonstrates knowledge of the interactions of physical, chemical, biological, and ergonomic agents, factors, and/or stressors on the human body, but demonstrates a lack of clarity.	Student clearly and correctly demonstrates knowledge of the impacts and interactions of physical, chemical, biological, and ergonomic agents, factors, and/or stressors on the human body.	

<p>2A4. Students will be able to demonstrate knowledge of the application of laws, regulations, standards, and codes to safety, health and environmental conditions.</p>	<p>Student fails to demonstrate knowledge of the application of laws, regulations, standards, and codes to safety, health and environmental conditions.</p>	<p>Student demonstrates knowledge of how to apply laws, regulations, standards, and codes to safety, health and environmental conditions, but struggles to differentiate between substances.</p>	<p>Student demonstrates knowledge of the application of laws, regulations, standards, and codes to safety, health and environmental conditions, but demonstrates a lack of clarity.</p>	<p>Student clearly demonstrates knowledge of and correctly applies laws, regulations, standards, and codes to safety, health and environmental conditions.</p>	
<p>2A5. Students will be able to demonstrate and use basic principles of fire prevention and protection in the workplace.</p>	<p>Student fails to demonstrate knowledge of basic principles of fire prevention and protection in the workplace.</p>	<p>Student demonstrates knowledge of basic principles of fire prevention and protection in the workplace, but struggles to use the principles properly.</p>	<p>Student demonstrates and uses basic principles of fire prevention and protection in the workplace, but demonstrates a lack of clarity.</p>	<p>Student clearly demonstrates knowledge of and correctly uses basic principles of fire prevention and protection in the workplace.</p>	
<p>2A6. Students will be able to demonstrate knowledge of industrial and construction safety throughout the work processes.</p>	<p>Student fails to demonstrate knowledge of industrial and construction safety throughout the work processes.</p>	<p>Student demonstrates knowledge of industrial and construction safety throughout the work processes, but struggles to differentiate between concepts and substances.</p>	<p>Student demonstrates knowledge of industrial and construction safety throughout the work processes, but demonstrates a lack of clarity.</p>	<p>Student clearly and correctly demonstrates knowledge of industrial and construction safety throughout the work processes.</p>	

Expected Outcomes 2B: Students completing the Baccalaureate degree in OSH&E will demonstrate the ability to obtain the necessary skills to anticipate, identify and evaluate safety, health, and environment hazards, and to develop and implement hazard control methods, programs, and system designs.

<b>Performance Criteria</b>	<b>Below Expectations 1</b>	<b>Progressing to Criteria 2</b>	<b>Meets Criteria 3</b>	<b>Exceeds Criteria 4</b>	<b>Score<sup>1</sup></b>
2B1. Students will be able to utilize basic laboratory instrumentations associated with safety, health, and environment.	Student fails to demonstrate knowledge of basic laboratory techniques associated with industrial hygiene and basic sciences.	Student demonstrates knowledge of the application of basic laboratory techniques associated with industrial hygiene and basic sciences, but struggles to differentiate between concepts and methods.	Student demonstrates knowledge of the application of basic laboratory techniques associated with industrial hygiene and basic sciences, but demonstrates a lack of clarity.	Student clearly demonstrates knowledge of and correctly applies basic laboratory techniques associated with industrial hygiene and basic sciences.	
2B2. Students will be able to anticipate, identify and evaluate hazardous agents, conditions, and practices.	Student fails to demonstrate how to anticipate, identify and evaluate hazardous agents, conditions, and practices.	Student demonstrates how to anticipate, identify and evaluate hazardous agents, conditions, and practices, but struggles to differentiate between methods.	Student demonstrates knowledge of different methods to anticipate, identify and evaluate hazardous agents, conditions, and practices, but demonstrates a lack of clarity.	Student clearly demonstrates knowledge and correctly applies different methods to anticipate, identify and evaluate hazardous agents, conditions.	
2B3. Students will be able to demonstrate knowledge and skills of fundamental exposure assessment and environmental sampling techniques.	Student fails to demonstrate knowledge and skills of fundamental exposure assessment techniques.	Student demonstrates knowledge of the basics of exposure assessment techniques, but struggles to differentiate between methods.	Student demonstrates knowledge and skills of different fundamental exposure assessment techniques, but demonstrates a lack of clarity.	Student clearly demonstrates knowledge and skills of fundamental exposure assessment techniques.	

<p>2B4. Students will be able to develop control designs, methods, procedures, and programs to eliminate or mitigate safety, health, and environmental hazards.</p>	<p>Student fails to demonstrate how to develop hazard control designs, methods, procedures, and programs.</p>	<p>Student demonstrates how to develop hazard control designs, methods, procedures, and programs, but struggles to differentiate between concepts and methods.</p>	<p>Student demonstrates knowledge of different means to develop hazard control designs, methods, procedures, and programs, but demonstrates a lack of clarity.</p>	<p>Student clearly demonstrates knowledge and correctly develops hazard control designs, methods, procedures, and programs.</p>	
<p>2B5. Students will be able to conduct accident/incident investigation and analysis.</p>	<p>Student fails to demonstrate how to conduct accident/incident investigation and analysis.</p>	<p>Student demonstrates how to conduct accident/incident investigation and analysis, but struggles to differentiate between theories, models and methods.</p>	<p>Student demonstrates knowledge of different theories, models and methods to conduct accident/incident investigation and analysis, but demonstrates a lack of clarity.</p>	<p>Student clearly demonstrates knowledge and correctly conducts accident/incident investigation and analysis.</p>	
<p>2B6. Students will be able to implement and manage effective safety, health, and environment programs.</p>	<p>Student fails to demonstrate how to implement and manage effective safety, health, and environment programs.</p>	<p>Student demonstrates how to implement and manage effective safety, health, and environment programs, but struggles to differentiate between elements.</p>	<p>Student demonstrates knowledge of different elements to implement and manage effective safety, health, and environment programs, but demonstrates a lack of clarity.</p>	<p>Student clearly demonstrates knowledge and correctly implements and manages effective safety, health, and environment programs.</p>	

Objective 3: Become effective communicators and ethical facilitators within the practice of safety, health, and environment.

Expected Outcomes: Students completing the Baccalaureate degree in OSH&E will demonstrate the ability to express thoughts effectively in oral and written communications, and to understand ethical behaviors and professional responsibility.

<b>Performance Criteria</b>	<b>Below Expectations 1</b>	<b>Progressing to Criteria 2</b>	<b>Meets Criteria 3</b>	<b>Exceeds Criteria 4</b>	<b>Score<sup>1</sup></b>
1. Students will be able to effectively express thoughts in oral and written communications.	Student fails to effectively express thoughts in oral and written communications.	Student expresses thoughts in oral and written communications, but struggles to demonstrate the effectiveness.	Student generally effectively expresses thoughts in oral and written communications, but demonstrates a lack of consistency.	Student consistently and effectively expresses thoughts in oral and written communications.	
2. Students will be able to demonstrate knowledge of the techniques, skills, and modern behavioral tools necessary for the practice of safety, health, and environment.	Student fails to demonstrate knowledge of the techniques, skills, and modern behavioral tools necessary for the practice of safety, health, and environment.	Student demonstrates knowledge of the techniques, skills, and modern behavioral tools necessary for the practice of safety, health, and environment, but struggles to differentiate between concepts and methods.	Student demonstrates knowledge of different techniques, skills, and modern behavioral tools necessary for the practice of safety, health, and environment, but demonstrates a lack of clarity.	Student clearly demonstrates knowledge of the techniques, skills, and modern behavioral tools necessary for the practice of safety, health, and environment.	
3. Students will be able to effectively function as a part of multi-disciplinary team.	Student fails to effectively function as a part of multi-disciplinary team.	Student functions as a part of multi-disciplinary team, but struggles to demonstrate the effectiveness.	Student generally effectively functions as a part of multi-disciplinary team, but demonstrates a lack of consistency.	Student consistently and effectively functions as a part of multi-disciplinary team.	

Objective 4: Continue professional development to address the need of applying principles of safety, health, and environment within a constantly changing and increasingly diverse environment.

Expected Outcomes: Students completing the Baccalaureate degree in OSH&E will demonstrate the ability to broaden education and life-long learning necessary to understand safety, health, and environment issues within a global and social context.

<b>Performance Criteria</b>	<b>Below Expectations 1</b>	<b>Progressing to Criteria 2</b>	<b>Meets Criteria 3</b>	<b>Exceeds Criteria 4</b>	<b>Score<sup>1</sup></b>
1. Students are encouraged to become members of ASSE (American Society of Safety Engineers) and AIHA (American Industrial Hygiene Association) Southeastern Louisiana University Student Section and be actively involved in the events and activities organized by the Student Section. At least 50% of upper-level students are ASSE/AIHA members.	Student shows no interest in becoming a member of ASSE Southeastern Louisiana University Student Section and is not involved in the events and activities organized by the Student Section. Lower than 50% of upper-level students are ASSE members.	Student is interested in becoming a member of ASSE Southeastern Louisiana University Student Section and is involved in the events and activities organized by the Student Section, but does not become a member eventually. Close to 50% of upper-level students are ASSE members.	Student becomes a member of ASSE Southeastern Louisiana University Student Section and is generally actively involved in the events and activities organized by the Student Section. At least 50% of upper-level students are ASSE members.	Student becomes a member of ASSE Southeastern Louisiana University Student Section and is consistently actively involved in the events and activities organized by the Student Section. 75% of upper-level students are ASSE members.	
2. Students are encouraged to continue professional growth and improvement by pursuing the widely recognized certifications including, but not limited to: Certified Safety Professional (CSP) and Certified Industrial Hygienist (CIH); and/or by pursuing master's/doctoral degrees in environmental, health, and safety and similarly named programs. As measured on the Southeastern Alumni Survey,	Student shows no interest in continuing professional growth and improvement by pursuing the widely recognized certifications including CSP and CIH; and/or by pursuing master's/doctoral degrees in environmental, health, and safety and	Student is interested in continuing professional growth and improvement by pursuing the widely recognized certifications including CSP and CIH; and/or by pursuing master's/doctoral degrees in environmental, health, and safety and	Student takes early steps to continue professional growth and improvement by pursuing the widely recognized certifications including CSP and CIH; and/or by pursuing master's/doctoral degrees in environmental, health, and safety and	Student consistently continues professional growth and improvement by pursuing the widely recognized certifications including CSP and CIH; and/or by pursuing master's/doctoral degrees in environmental, health, and safety and	

<p>at least 50% of the OSH&amp;E graduates will become CSPs and/or CIHs.</p>	<p>similarly named programs. As measured on the Southeastern Alumni Survey, lower than 50% of the OSH&amp;E graduates will become CSPs and/or CIHs.</p>	<p>similarly named programs. As measured on the Southeastern Alumni Survey, close to 50% of the OSH&amp;E graduates will become CSPs and/or CIHs.</p>	<p>similarly named programs. As measured on the Southeastern Alumni Survey, 50% of the OSH&amp;E graduates will become CSPs and/or CIHs.</p>	<p>similarly named programs. As measured on the Southeastern Alumni Survey, 75% of the OSH&amp;E graduates will become CSPs and/or CIHs.</p>	
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