

Subject Matter Experts (SME) Review New Safety Curriculum

Program/Course Reviewed: SAFE-130

College: Lorain County Community College (LCCC), 1005 N. Abbe Rd., Elyria, Ohio 44035

Reviewed By: ELSMART Associates, LLC (credentials of reviewers include Certified Safety Professional (CSP), Certified Industrial Hygienist (CIH), Certified Hazardous Material Manager (CHMM), Certified Environmental Trainer (CET), Registered Nurse (RN), Society Human Resources Manager – Certified Professional (SHRM-CP), Professional in Human Resources (PHR)) – Total years of experience for reviewers in Environmental, Safety, and Health over 100 years.

Date: 6-7-2018

Review scale definitions:

Exceptional: Review component is a "best practice" and represents a model for replication.

Very good: Review component is complete and effective.

Good: Review component is adequate but presents opportunities for improvement.

Ineffective: Review component is weak and in need of significant improvement.

No or Insufficient Evidence: Review component was not covered or information provided in the documents was insufficient for assessment.

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| Curriculum Map, Career Ladder/Stackable Credential Documentation, Syllabi | | Excellent | Very Good | Good | Ineffective | No/Insufficient Evidence |
|--|---|-----------|--------------|------|-------------|-----------------------------|
| 1. | Program CIP code/s appropriate to program title and outcomes. | | X | | | |
| 2. | Effective program structure (prerequisites, course sequence, stackable credential-structure provide a clear, logical path to completion). | | Χ | | | |
| 3. | Outcomes aligned to occupational focus (industry skills and standards) and prepare students for appropriate industry certification/s. | | X | | | |
| 4. | Outcomes are clearly stated. | | X | | | |
| 5. | Outcomes are introduced and reinforced effectively. | | | Х | | |
| 6. | Course objectives are clearly stated and measurable. | | Χ | | | |
| 7. | In multi-course programs, course objectives support one or more program or student learning outcome. In single-course programs, modules support one or more course objective. | | X | | | |

Comments or recommendations specific to each section rated:

- 1. Classification of Instructional Programs (CIP) is appropriate
- 2. No prerequisites listed. May want to add basic chemistry, biology, and physics.
- 3. Concepts used in industry and certification in EHS profession.
- 4. Almost all outcomes effectively outlined. Several need to be formatted in SMART goals.
- 5. Use different learning styles and educational techniques.
- 6. Almost all outcomes effectively outlined. Several need to be formatted in SMART goals.
- 7. Objectives fundamental to all occupational health courses.

General comments or recommendations:

Varied assessment, activities, and learning styles and preferences.

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| Ins | structional Materials and Lab Resources | Excellent | Very Good | Good | Ineffective | No/Insufficient Evidence |
|-----|---|-----------|--------------|------|-------------|-----------------------------|
| 1. | Support stated course or unit learning objectives. | | X | | | |
| 2. | Meet/reflect current industry practices and standards. | | Х | | | |
| 3. | Provide options for multiple learning styles. | | X | | | |
| 4. | Instructional materials are cited properly. | | Χ | | | |
| 5. | There is evidence of materials and resources that support on-line or technology-enabled learning. | | | Х | | |

Comments or recommendations specific to each section rated:

- 1. Syllabus lists several resources.
- 2. Should include links to 1910.1000 TABLE Z-1 and 1910.1000 TABLE Z-2.
- 3. Needs improvement see general comments.
- 4. Most cited correctly. Some references need updated.
- 5. Very limited online support and technology used.

General comments or recommendations:

Instructional media should include films, videotapes, cell phone apps, and computer applications. Case studies would assist modules.

| Overview Table: Objectives, Modules/Units, Learning Activities and Assessments | | Excellent | Very Good | Good | Ineffective | No/Insufficient Evidence |
|---|---|-----------|--------------|------|-------------|-----------------------------|
| | Modules/units are linked to course objectives. | | | X | | |
| | Learning activities promote achievement of stated module/unit objectives. | | | Χ | | |
| | Learning activities provide opportunities for interaction and active learning. | | | X | | |
| | Learning activities provide options for multiple learning styles. | | | Χ | | |
| | Learning activities are linked to current industry practices, standards and certifications. | | | X | | |

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| 6. Learning activities demonstrate evidence of innovation or enhancements to support adult learner success. | | | Х | |
|--|---|---|---|--|
| 7. Materials/resources (to include equipment, tools and software) are used in a way that students understand their purpose and use in industry settings. | | | Х | |
| 8. Assessments measure stated learning objectives and link to industry standards. | X | | | |
| 9. Assessments align with course activities and instructional materials and resources. | | X | | |
| 10. Assessments are sequenced throughout the instructional period to enable students to build on feedback. | | X | | |
| 11. Assessments are varied and appropriate to content. | | Х | | |
| 12. Assessments provide opportunities for students to measure their own learning progress. | | X | | |

Comments or recommendations specific to each section rated:

- 1. Modules enhanced when learning objectives/outcomes are revised.
- 2. Learning objectives will improve when learning objectives/outcomes are revised.
- 3. Need more interaction.
- 4. Need to be linked with more professional bodies in EHS (AIHA, ABIH, BCSP, ASSP, CDC, etc.)
- 5. Good connection, however, program management needs to be included.
- 6. No learning activities provided that motivate students to apply and use cognitive abilities.
- 7. Use videos and equipment to validate activities.
- 8. Need to relate objectives to regulatory standards and benchmarking. Consider introduction of international standards.
- 9. Increase recommended resources to include cell phone apps (WISER, ERG 2016, SKC pump, etc)
- 10. Consider matching, essay tests, problem sets, and performance tests.
- 11. Consider matching, essay tests, problem sets, and performance tests.
- 12. Assessments need to identify good work, improve self-evaluation and encourage lifelong learning. General comments or recommendations:

Outcomes listed below. Need to be Specific, Measurable, Attainable, Relevant and Timely (SMART). Several goals do not meet the format. Consider supplemental and alternative to just lecture like small subgroups, brainstorming, guest speakers, simulation games, and case studies. Homework assignments should be various types of assessments.

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- 1. Introduction to OSHA standards 29 CRF 1910.134 relating to respiratory protection.
- a. Terminology
- 2. NIOSH Certification
- a. What does it mean?
- b. Why is it important?
- 3. respiratory protection programs
- 4. Medical evaluation requirements
- 5. Qualitative and quantitative fit testing
- a. Workshops
- 6. Using respiratory protection and support equipment
- a. Workshops

| Innovative or Enhanced Strategies | Excellent | Very Good | Good | Ineffective | No/Insufficient Evidence |
|--|-----------|--------------|------|-------------|-----------------------------|
| 1. Accelerate Entry into Career Programs Refine assessment, transform developmental education and add support services to meet the needs of participants | | X | | | |
| 2. Create Clear Pathways to STEM Careers Expand access to and/or develop new stacked and latticed credentials in programs that meet employer needs | | X | | | |
| 3. Improve Employment Attainment Collaborate with industry, WIBs, state, and community-based organizations to engage, guide and employ participants | | X | | | |

- 1. Course skills when objectives are updated will meet all employers need for safety objectives.
- 2. Core to this course is chemistry, physics, math, and biology prerequisites.
- 3. This course should have guest speakers and real world examples.

General comments or recommendations: This course must provide skills that all employees will recognize as providing a company their license to operate in the current business environment. Real world examples and case studies will increase retention and application of principles outlined in the course

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