SAN JUAN COLLEGE
Success Matters

SAFE-2560 Risk Assessment and Hazard Control 3

Credits **SYLLABUS**

CATALOG DESCRIPTION

Course provides an understanding of risk management principles and regulatory issues in the context of safety and health management. Specific hazard control issues that are addressed are: Systems and Process Safety, Electrical Safety, Permit-to-Work Systems, Basic Safety Engineering and Pressure Vessels.

Prerequisites:

Semester Offered: All

COMMON STUDENT LEARNING OUTCOMES

Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in…

BROAD AND SPECIALIZED LEARNING

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

CRITICAL THINKING

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

CULTURAL AND CIVIC ENGAGEMENT

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

EFFECTIVE COMMUNICATION

Students will exchange ideas and information with clarity in multiple contexts.

INFORMATION LITERACY

Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

INTEGRATING TECHNOLOGIES

Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

COURSE LEARNING OUTCOMES

Upon successful completion of the course, the student will be able to…

1. Examine the principles of risk assessment and risk management
2. Define a hazard, exposure, unsafe conditions, and unsafe behavior

3. Describe and explain basic safety engineering principles

4. Evaluate the recognition, investigation, analysis, and control of hazards

5. Explain the need for accident investigation

6. Summarize the regulatory requirements to define risk assessment

7. Recognize the policies and regulations that embody environmental and occupational risks

8. Paraphrase the concepts of risk and risk assessment

9. Tell basic design solutions for identified hazards

10. Distinguish basic analysis techniques

11. Identify and understand the hazards of working on or near energized electrical conductors and equipment, and energy isolation procedures

12. Identify tasks that need to be controlled by permit-to-work system

13. Express the concept of designing safety and safety engineering

14. Explain and apply the essential components of pressure vessel safety

15. Express the rationale for cost analysis and budgeting from a safety management perspective

16. Apply the concepts of reliability and validity to the evaluation of any measurement process

17. Explain hazard reviews and identify best practices in process design