MONROE COUNTY COMMUNITY COLLEGE

Course Outcome Summary

Required Program Core Course

NUET 205
Nuclear Plant Experience

Course Information

Division	**Applied Science and Engineering Technology**
Contact Hours	**45**
Theory	**15**
Lab Hours	**30**
Total Credits	**2.0**

Prerequisites: NUET 100, NUET 120, NUET 220

Course Description

This course is held in cooperation with DTE's Fermi 2 Nuclear Power Plant Training Center. The course consists of 40 hours of training activities held on-site at Fermi 2. Training is conducted by instructors from the Nuclear Training Center. The emphasis is on Hands-on maintenance training with the same facilities used by plant personnel. Training takes place over five consecutive days, and includes a tour of the control room simulator, and an Instrumentation and Control walkdown in the plant.

This course is a required core course for students pursuing an AAS in Nuclear Engineering Technology

Program Outcomes Addressed by this Course:

Upon successful completion of this course, students should be able to:

A. Describe and apply the culture of safety, continuous improvement, and peer checking
B. Explain the requirement for documentation, formal procedures, and recordkeeping for nuclear related activities
D. Identify typical power plant components and explain their function
E. Describe different sources of radiation, their effects on organic matter, methods of detection, and shielding
H. Recognize the need to engage in lifelong learning, and to perform research or conduct investigations to continuously upgrade knowledge and skills
I. Communicate effectively, and work as part of a team

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Course Outcomes

In order to evidence success in this course, the students will be able to:

1. **Disassemble and rebuild plant components such as valves.**
   Applies To Program Outcome

   A. Describe and apply the culture of safety, continuous improvement, and peer checking
   B. Explain the requirement for documentation, formal procedures, and recordkeeping for nuclear related activities
   D. Identify typical power plant components and explain their function
   I. Communicate effectively, and work as part of a team

2. **Perform maintenance activities on rotating equipment such as motors and generators.**
   Applies To Program Outcome

   A. Describe and apply the culture of safety, continuous improvement, and peer checking
   B. Explain the requirement for documentation, formal procedures, and recordkeeping for nuclear related activities
   D. Identify typical power plant components and explain their function
   I. Communicate effectively, and work as part of a team

3. **Perform Foreign Material Exclusion, set Tagging Boundaries, and identify Hazards during maintenance activities.**
   Applies To Program Outcome

   A. Describe and apply the culture of safety, continuous improvement, and peer checking
   B. Explain the requirement for documentation, formal procedures, and recordkeeping for nuclear related activities
   D. Identify typical power plant components and explain their function
   I. Communicate effectively, and work as part of a team

4. **Apply lifting and rigging techniques to equipment**
   Applies To Program Outcome

   A. Describe and apply the culture of safety, continuous improvement, and peer checking
   I. Communicate effectively, and work as part of a team

5. **Follow detailed instruction steps in maintenance work orders.**
   Applies To Program Outcome

   B. Explain the requirement for documentation, formal procedures, and recordkeeping for nuclear related activities
   H. Recognize the need to engage in lifelong learning, and to perform research or conduct investigations to continuously upgrade knowledge and skills
   I. Communicate effectively, and work as part of a team

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6. Locate plant components from plant drawings
Applies To Program Outcome

B. Explain the requirement for documentation, formal procedures, and recordkeeping for nuclear related activities
D. Identify typical power plant components and explain their function

Date Updated: October 10, 2019
By: MJ Dubois