RARITAN VALLEY COMMUNITY COLLEGE
ACADEMIC COURSE OUTLINE

UTIL 290 Summer Field Experience

I. Basic Course Information
   A. Course Number and Title: UTIL 290 Summer Field Experience
   B. New or Modified Course: Modified
   C. Date of Proposal: Semester: Spring Year: 2015
   D. Effective Term: Fall 2015
   E. Sponsoring Department: Science & Engineering
   F. Semester Credit Hours: 2
   G. Weekly Contact Hours: 40 hours per week
   H. Prerequisites: A minimum GPA of 2.5 in the Electric Utility Program
   I. Laboratory Fees: none
   J. Name and Telephone Number or E-Mail Address of Department Chair at time of approval: Sarah Imbriglio 908-526-1200 X8241, sarah.imbriglio@raritanval.edu

II. Catalog Description
    Prerequisites: A minimum GPA of 2.5 in the Electric Utility Program
    This course integrates college classroom work with planned supervised experience in the Electric Utility field.

III. Statement of Course Need
    A. Practical work experience to enhance classroom learning.
    B. There is no lab component to this course
    C. This course is not designed for transfer.

IV. Place of Course in College Curriculum
    A. Free Elective
    B. This course meets a program requirement for the Electrical Utility Technology A.A.S.
B. To see course transferability: a) for New Jersey schools, go to the NJ Transfer website, www.njtransfer.org; b) for all other colleges and universities, go to the individual websites.

V. Outline of Course Content

Through cooperative education, the course provides the qualified student a ten-week summer field experience in the Electric Utility Industry. The student will complete assigned work activities, based on current qualifications obtained in the first and second semesters of the program, related to their program of study in which the student is enrolled. The field work assignment is supervised by the employer.

Under close supervision, students will be provided opportunities to perform/demonstrate the following:

**Line Worker:**

1. Work from wood pole or an approved aerial device.
2. Work energized conductors, *not to exceed 300 volts phase to phase*.
3. Work in manhole or vault, *not energized above 300 volts*.
4. Install, remove, and maintain secondary lines.
5. Install UD/URD primary/secondary cable, transformers, and all associated splices and connections.
6. Install line extensions and all associated equipment.
7. Install, remove, and maintain street/area lighting equipment in a non-congested area.
8. Operate a Company commercial motor vehicle.

**Substation Worker:**

1. Work from ladder or approved aerial device.
2. Work energized equipment, *not to exceed 300 volts phase to phase*.
3. Assist with the installation, removal, and maintenance of substation equipment.
4. Assist with the installation, removal, and maintenance of test equipment.
5. Operate a Company commercial motor vehicle.
VI. General Education and Course Learning Outcomes

A. General Education Learning Outcomes:

At the completion of the summer field experience, the student will be able to:

1. Demonstrate compliance with FirstEnergy safety rules and practices
2. Demonstrates the knowledge to competently perform assigned job or task (based on a “C” level worker)
3. Demonstrates the skills necessary to competently perform assigned job or task (based on a “C” level worker)
4. Demonstrates ability to build effective working relationships with co-workers
5. Demonstrate ability to accept responsibility for actions and results

B. Course Learning Outcomes

At the completion of the summer field experience, the student will be able to:

Line Worker:

1. Demonstrate proficiency in contributing to job briefing discussions
2. Demonstrate proficiency in climbing wood poles (line program)
3. Demonstrate proficiency in basic line construction
4. Demonstrate competency in the utilization of hand tools
5. Demonstrate competency in the utilization of line equipment
6. Demonstrate competency in the installation and removal of line secondary (300 volt maximum)
7. Demonstrate competency in the installation of new UD/URD allotments
8. Demonstrate competency in the installation of line extensions

Substation Worker:

1. Demonstrate proficiency in working from a ladder and/or steel structure
2. Demonstrate competency in the utilization of hand tools
3. Demonstrate competency in the utilization of substation equipment
4. Demonstrate competency in the installation and removal of substation structures, equipment, and ground grids (300 volt maximum)
5. Demonstrate competency in the ability to assist in activities associated with preventative maintenance of substation equipment.

C. Assessment Instruments

Student will be evaluated by senior crew member(s) as well as assigned management team. A structured evaluation process is utilized which identifies potential
tasks/assignments. Competency of student is based on field observations and hands-on demonstrations.

VII. Grade Determinants

Practical on the job hands-on instructional training in small work groups is provided by supervision and senior crew members. Proficiency is determined on the job.

A. Discussion (job briefings, job set-up)
B. Hands-on work activities
C. Attendance / Tardiness
D. Observation (behavioral)

VIII. Texts and Materials

A. FirstEnergy Accident Prevention Handbook
B. Job Briefing documentation
C. Instructions from lead line / substation worker

(Please Note: The course outline is intended only as a guide to course content and resources. Do not purchase textbooks based on this outline. The RVCC Bookstore is the sole resource for the most up-to-date information about textbooks.)

IX. Resources

No additional resources are needed from the college for this course.