# HIGH VOLTAGE LINEMAN DEGREE PROGRAM

## Oklahoma State University Institution of Technology

### Associate in Applied Science – 90 Credit Hours

### Typical Program of Study

**Please note the Internship will alternate from the 1st half of the semester to the 2nd half depending on the semester you are in. Students in their 2nd and 3rd semester will have their internships the 2nd half of the Semester. Students in the 4th, 5th, and 6th semesters will have their internships the 1st half of the semester. In the first semester, all students are on campus the entire semester and internships start in the second semester. Updated 03-01-19**

| 1ST SEMESTER | | 2ND SEMESTER | |
|---|---|---|---|
| HVLP 1121 | Intro. to High Voltage Lineman Program | HVLP 2563 | Overhead Distribution Systems |
| HVLP 1243 | High Voltage Pole Climbing Techniques | HVLP 1132 | High Voltage Lineman Safety |
| HVLP 2663 | Heavy Construction Equipment | HVLP 1353 | AC/DC for High Voltage Lineman (1st Half of Semester) |
| PHIL 1213 | Ethics | | |
| CS 1013 | Computer Literacy & Applications | | |
| MATH 2003 | Business Mathematics OR | HVLP 1216 | Internship I 6 Credit hours** (2nd Half of Semester) |
| MATH 1513 | College Algebra | | |
| | 16 Credit Hours | | 14 Credit Hours |
| **3RD SEMESTER** | | **4TH SEMESTER** | |
| HVLP 2483 | Principle of Operation of High Voltage Distribution Systems** | HVLP 2416 | Internship III 6 Credit hours** (1st Half of Semester) |
| HIST 1483 | American History to 1865 OR | | |
| HIST 1493 | American History Since 1865 | HVLP 2553 | Underground Distribution Systems** |
| SPCH 2313 | Small Group Communications (1st Half of Semester) | HVLP 2673 | Transmission Principles** |
| | | PSYC 2313 | Psychology of Personal Adjustment (2nd Half of Semester) |
| HVLP 1316 | Internship II 6 Credit hours** (2nd Half of Semester) | | |
| | 15 Credit Hours | | 15 Credit Hours |
| **5TH SEMESTER** | | **6THSEMESTER** | |
| HVLP 2516 | Internship IV 6 Credit hours** (1st Half of Semester) | HVLP 2716 | Internship V 6 Credit hours** (1st Half of Semester) |
| HVLP 2643 | Advance Distribution Systems** | HVLP 2726 | High Voltage Lineman Capstone Experience** |
| POLS 1113 | US Government | | |
| ENGL 1033 | Technical Writing I (2nd Half of Semester) | ENGL 2033 | Technical Writing II (2nd Half of Semester) |
| | 15 Credit Hours | | 15 Credit Hours |

**** These courses have prerequisites. Please look at OSUIT's catalog for prerequisites.**

SCHOOL OF ENGINEERING & CONSTRUCTION TECHNOLOGIES
OSU Institute of Technology

# *HIGH VOLTAGE LINEMAN PROGRAM (HVLP)*

**HVLP 1121 INTRODUCTION TO HIGH VOLTAGE LINEMAN PROGRAM**
**High Voltage industry's career opportunities including job salary information, placement requirements, current trends, research on companies and what are the physical, mental and social needs in the high voltage industry will be covered. Topics related to being successful in college and a career cornerstone experience that will emphasize networking with professional and student organizations will be included. Theory**

**HVLP 1132 HIGH VOLTAGE LINEMAN SAFETY**
**Pole top rescue, bucket truck rescue, and the many safety hazards that exist including, heat exhaustion, heat stroke, insect bite or stings in the High Voltage industry will be covered. Administering first aid, training opportunities that must occur, and the proper use of different types of fall protection will be studied. Theory/Lab**

**HVLP 1243 HIGH VOLTAGE POLE CLIMBING TECHNIQUES**
**Strength and flexibility training needed to perform the duties of a line technician as well as wooden pole climbing techniques, tool recognition and proper use, material recognition, and knot tying are covered topics. Students will work with various types of material and equipment in this hands-on course. Safety instructions will be emphasized and required safety equipment will be used while in the pole climbing area. Theory/Lab**

**HVLP 1353 AC/DC FOR HIGH VOLTAGE LINEMAN**
**A study of overhead electricity introduces principles of alternating current through step-up, step-down transformers, sub-stations, long distance transmission, and distribution from power generation to the consumer and through the power line circuit. Atomic theory of electron flow, magnetism, induction, capacitance, resistance, electrical measurements and transformer characteristics will also be covered. Theory**

**HVLP 2483 PRINCIPLE OF OPERATION OF HIGH VOLTAGE DISTRIBUTION SYSTEMS**
**Study of overhead and underground high voltage systems, transformer configurations, line voltage drops and the installation of overhead and underground systems are covered. Safety practices are emphasized and students will work with various types of material and equipment in this hands-on course. Theory / Lab. Prerequisites: HVLP 2563 and HVLP 2663.**

**HVLP 2553 UNDERGROUND DISTRIBUTION SYSTEMS**
**While similar in nature to overhead systems, an underground system has its own requirements. Construction techniques, tools & equipment, and traffic control are given extensive coverage. Trouble-shooting, maintenance, and care of personal equipment are covered with a special emphasis on safety. Students will work with various types of material and equipment in this hands-on course. Theory/Lab**
**Prerequisites: HVLP 2483**

**HVLP 2563 OVERHEAD DISTRIBUTION SYSTEMS**
**An in depth study of construction techniques, tools, equipment and personal protective equipment used in overhead distribution systems. Safety practices are emphasized while students work with various types of material and equipment in this hands-on course. Theory / Lab. Prerequisites: HVLP 1243 and HVLP 1353**

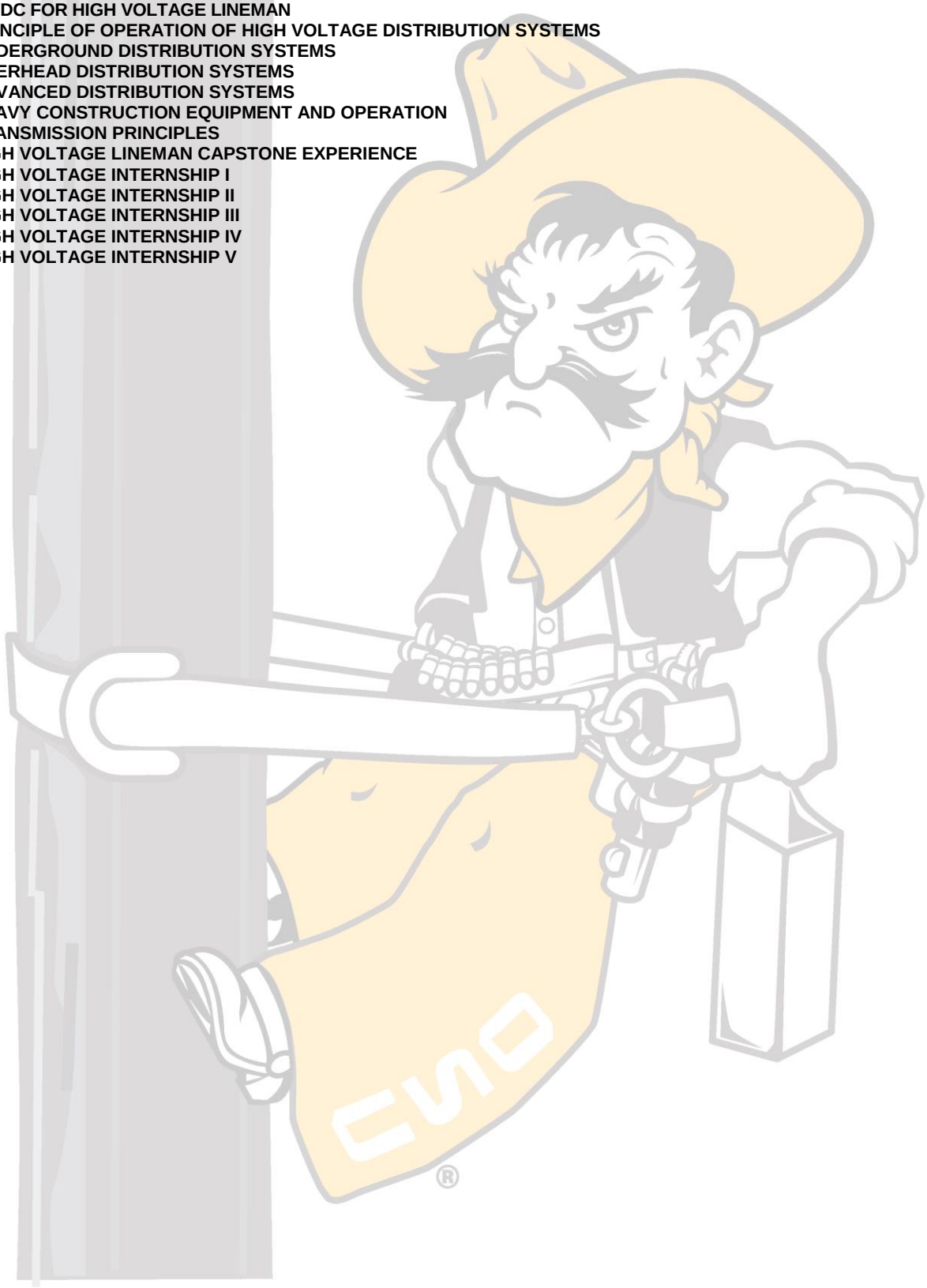
**HVLP 2643 ADVANCED DISTRIBUTION SYSTEMS**
**A study of high voltage and the distribution electrical field. High voltage equipment, tools, distribution equipment, and safety procedures are covered. Local rules and regulations as well as the electrical codes will be covered as they pertain to these two types of installations. Students will work with various types of material and equipment in this hands-on course. Theory/Lab. Prerequisites: HVLP 2563, HVLP 2553, and completed two (2) H.V. Internships.**

**HVLP 2663 HEAVY CONSTRUCTION EQUIPMENT AND OPERATION**
**A study of the Class A Commercial Driver's License (CDL) driving regulations and various types of equipment used in overhead and underground high voltage systems. Safety practices are emphasized while students drive and back equipment in this-hands on course. Theory / Lab Prerequisites: Departmental approval and current CDL Permit.**

**HVLP 2673 TRANSMISSION PRINCIPLES**
**The study of transmission construction which includes building and maintaining different transmission structures. Students will work with various types of material and equipment in this hands-on course. Theory/Lab. Prerequisites: HVLP 2483**

**HVLP 2726 HIGH VOLTAGE LINEMAN CAPSTONE EXPERIENCE**
**The designing of distribution, transmission, and underground systems, and includes the procuring and estimating of the material involved in these systems. Local rules and regulations, as well as, electrical codes are covered as they pertain to these types of installations. Reviews the high voltage lineman procedures learned in previous courses as needed. Safety practices are emphasized as students work with various types of material and equipment in this hands-on course. Theory / Lab Prerequisites: HVLP 2643 and completed four (4) High Voltage Internships.**

**HVLP 1216 HIGH VOLTAGE INTERNSHIP I; HVLP 1316 HIGH VOLTAGE INTERNSHIP II; HVLP 2416 HIGH VOLTAGE INTERNSHIP III; HVLP 2516 HIGH VOLTAGE INTERNSHIP IV; HVLP 2716 HIGH VOLTAGE INTERNSHIP V**
**A cooperative agreement between industry and education, which allows the student to utilize and define skills learned in their educational process. All work is to be performed in accordance with industry standards and supervised by an electrical line foreman or utility worker. In this hands-on course, students will work for different types of companies and with various types of material and equipment.**

**Prerequisite (s): HVLP 2563, departmental approval, and an Institution GPA of 2.5 or greater, and current CDL.**

**HVLP 1121 INTRODUCTION TO HIGH VOLTAGE LINEMAN PROGRAM**
**HVLP 1132 HIGH VOLTAGE LINEMAN SAFETY**
**HVLP 1243 HIGH VOLTAGE POLE CLIMBING TECHNIQUES**
**HVLP 1353 AC/DC FOR HIGH VOLTAGE LINEMAN**
**HVLP 2483 PRINCIPLE OF OPERATION OF HIGH VOLTAGE DISTRIBUTION SYSTEMS**
**HVLP 2553 UNDERGROUND DISTRIBUTION SYSTEMS**
**HVLP 2563 OVERHEAD DISTRIBUTION SYSTEMS**
**HVLP 2643 ADVANCED DISTRIBUTION SYSTEMS**
**HVLP 2663 HEAVY CONSTRUCTION EQUIPMENT AND OPERATION**
**HVLP 2673 TRANSMISSION PRINCIPLES**
**HVLP 2726 HIGH VOLTAGE LINEMAN CAPSTONE EXPERIENCE**
**HVLP 1216 HIGH VOLTAGE INTERNSHIP I**
**HVLP 1316 HIGH VOLTAGE INTERNSHIP II**
**HVLP 2416 HIGH VOLTAGE INTERNSHIP III**
**HVLP 2516 HIGH VOLTAGE INTERNSHIP IV**
**HVLP 2716 HIGH VOLTAGE INTERNSHIP V**