ELECTRICAL LINEWORKER 3
COURSE CODE: 6307
STUDENT PROFILE

STUDENT'S NAME:	TEACHER'S NAME:
School Year/Semester:	**Date Begin:**
Grade:	**Date Completed:**

Directions: Document student's progress using the applicable rating scales below: Enter date of completion under the appropriate column.

0 - Has not received instruction in this area / **no experience or knowledge of this task (N/A)**
1 – Can apply and perform **independently (80-100)**
2 – Can perform the task completely with **limited supervision (70-79)**
3 – Requires additional instruction and or **close supervision (60-69)**

	A. STUDENT ORGANIZATIONS	0	1	2	3
1	Identify the purpose and goals of a Career and Technology Student Organization (CTSO).				
2	Explain how CTSOs are integral parts of specific clusters, majors, and/or courses.				
3	Explain the benefits and responsibilities of being a member of a CTSO.				
4	List leadership opportunities that are available to students through participation in CTSO conferences, competitions, community service, philanthropy, and other activities.				
5	Explain how participation in CTSOs can promote lifelong benefits in other professional and civic organizations.				
	B. TECHNOLOGY KNOWLEDGE	**0**	**1**	**2**	**3**
1	Demonstrate proficiency and skills associated with the use of technologies that are common to a specific occupation				
2	Identify proper netiquette when using e-mail, social media, and other technologies for communication purposes.				
3	Identify potential abuse and unethical uses of laptops, tablets, computers, and/or networks.				
4	Explain the consequences of social, illegal, and unethical uses of technology (e.g., cyber bullying; piracy; illegal downloading; cyberbullying; licensing infringement; inappropriate uses of software, hardware, and mobile devices in the work environment).				

5	Discuss legal issues and the terms of use related to copyright laws, fair use laws, and ethics pertaining to downloading of images, photographs, Creative Commons, documents, video, sounds, music, trademarks, and other elements for personal use.				
6	Describe ethical and legal practices of safeguarding the confidentiality of business-related information.				
7	Describe possible threats to a laptop, tablet, computer, and/or network and methods of avoiding attacks.				

C. PERSONAL QUALITIES AND EMPLOYABILITY SKILLS		**0**	**1**	**2**	**3**
1	Demonstrate punctuality.				
2	Demonstrate self-representation.				
3	Demonstrate work ethic.				
4	Demonstrate respect.				
5	Demonstrate time management.				
6	Demonstrate integrity.				
7	Demonstrate leadership.				
8	Demonstrate teamwork and collaboration.				
9	Demonstrate conflict resolution.				
10	Demonstrate perseverance.				
11	Demonstrate commitment.				
12	Demonstrate a healthy view of competition				
13	Demonstrate a global perspective.				
14	Demonstrate health and fitness.				
15	Demonstrate self-direction.				
16	Demonstrate lifelong learning.				
D. PROFESSIONAL KNOWLEDGE		**0**	**1**	**2**	**3**
1	Demonstrate effective speaking and listening skills.				
2	Demonstrate effective reading and writing skills.				
3	Demonstrate mathematical reasoning.				
4	Demonstrate job-specific mathematics skills.				

5	Demonstrate critical-thinking and problem-solving skills.				
6	Demonstrate creativity and resourcefulness.				
7	Demonstrate an understanding of business ethics.				
8	Demonstrate confidentiality.				
9	Demonstrate an understanding of workplace structures, organizations, systems, and climates.				
10	Demonstrate diversity awareness.				
11	Demonstrate job acquisition and advancement skills.				
12	Demonstrate task management skills.				
13	Demonstrate customer-service skills.				

E. LOAD CALCULATIONS – BRANCH AND FEEDER CIRCUITS		**0**	**1**	**2**	**3**
1	Calculate branch circuit ratings.				
2	Apply de-rating factors.				
3	Calculate branch circuit ampacity.				
4	Calculate motor loads.				
F. CONDUCTOR SELECTION AND CALCULATIONS		**0**	**1**	**2**	**3**
1	Identify overcurrent protection for branch circuits and feeders.				
2	Identify the properties of conductors.				
3	Calculate wire sizes based on resistance.				
4	Calculate conductor resistances.				
5	Calculate voltage drops for various applications.				
G. ADVANCED PERSONAL PROTECTIVE EQUIPMENT		**0**	**1**	**2**	**3**
1	Identify and use personal protective equipment for high-voltage cables.				
2	Identify and use personal protective equipment when using excavation equipment.				
3	Identify and use personal protective equipment when entering confined enclosures.				

H. HAZARDOUS LOCATIONS		0	1	2	3
1	Identify Class I locations.				
2	Identify Class II locations.				
3	Identify Class III locations.				
4	Locate NESC® requirements for hazardous locations.				
5	Identify sources of ignitions.				
6	Select and install explosion-proof equipment and seals.				
I. OVERCURRENT PROTECTION		**0**	**1**	**2**	**3**
1	Identify overload conditions.				
2	Identify short circuit conditions.				
3	Identify ground faults.				
4	Identify arc faults.				
5	Identify fuse ratings.				
6	Identify types of fuses and their operating characteristics.				
7	Identify fuse classes and applications.				
8	Identify circuit breaker classifications.				
9	Identify circuit breaker interrupting capacity ratings.				
10	Select overcurrent devices for various applications.				
11	Apply short circuit calculations.				
12	Test and troubleshoot circuit breakers.				
13	Test and troubleshoot fuses.				
J. DISTRIBUTION EQUIPMENT		**0**	**1**	**2**	**3**
1	Describe switchboards and switchgear, including NEC requirements for installation, grounding, and maintenance.				
2	Describe the proper installation of distribution equipment.				
3	Test and maintain distribution equipment.				
K. TRANSFORMERS		**0**	**1**	**2**	**3**
1	Describe construction, operations, and applications of various transformers.				
2	Describe the NESC® requirements for the installation of connections, and grounding requirements of transformers.				
3	Calculate transformers and transformer banking.				
L. COMMERCIAL ELECTRICAL SERVICES		**0**	**1**	**2**	**3**
1	Describe the components, installation considerations, and NESC® requirements for commercial electrical services.				
M. AC ELECTRICAL CIRCUITS (SINGLE AND 3-PHASE)		**0**	**1**	**2**	**3**
1	Calculate conductor capacities for AC circuits.				

2	Use a dynamometer to calculate conductor loads.				

N. UTILITY POLE USAGE		**0**	**1**	**2**	**3**
1	Demonstrate appropriate pole setting.				
2	Determine construction measurements.				
3	Determine single-phase or three-phase construction.				
4	Identify guy load values.				
5	Demonstrate proper guying techniques.				
6	Identify framing materials.				
7	Demonstrate appropriate framing techniques.				
O. PROFESSIONAL DEVELOPMENT		**0**	**1**	**2**	**3**
1	Research certifications appropriate to the Electrical Line Worker industry.				
2	Research appropriate interviewing skills and participate in mock interviews.				