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| **Institution:** | Texas State Technical College | **Award Title:** | Associate of Applied Science |
| **Program:** | Electrical Lineworker Technology | **Award CIP Code:** | 46.0303 |

|  | **Key Activities to WECM Courses Matrix** |  |  |
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| **Transmission Line Worker skill standards****Competency Statement** |  | **WECM Course Rubric, Number and Title** |  |  |
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| Orientation and Line Skills FundamentalsLNWK 1301 | Climbing SkillsLNWK 1311 | Rigging for Electrical LineworkerLNWK 1370 | Work Procedures & Safety in Electrical LineworkerLNWK 2372 | Distribution OperationsLNWK 1241 | Electrical Safety, Tools and CalculationsLNWK 1470 | Live Line SafetyLNWK 2321 | Special Topics in LineworkerLNWK 1391 | Distribution Line ConstructionLNWK 2322 | OSHA Regulations – Construction IndustryOSHT 1305 | Troubleshooting Distribution SystemsLNWK 2324 | Transmission and Underground UtilitiesLNWK 2370 | Maintenance, Testing, and Reconducting for Lineworker LNWK 2371 |
| 1.A: Properly uses and maintains tool and equipment including saws, digging equipment, drills, wrenches, compressors, presses, crimpers and dies  | x |   |   |   |   |   |   |   |   |   |   |   |   |
| 1.B: Properly uses and maintains electrical measuring and testing equipment such as voltage meters, multi-meters, phase sequence indicators, etc. |   |   |   |   |   |   | x |   |   |   |   |   |   |
| 1.C: Properly assembles and uses ropes and rigging (handlines, hoisting equipment, slings, shackles, etc.) to ensure personal safety and to move equipment and materials |   |   | x |   |   |   |   |   |   |   |   |   |   |
| 1.D: Operates vehicular equipment properly, including trucks, diggers, and aerial lifts |   |   |   |   |   |   | x |   |   |   |   |   |   |
| 1.E: Plans job tasks and prepares work sites properly including communicating plan to crew and identifying hazards |   |   |   |   |   | x |   |   |   |   |   |   |   |
| 1.F: Adheres to safety requirements including safety of the site, personal safety and the safety of other workers and the community |   |   |   |   |   |   |   |   |   | x |   |   |   |
| 2.A: Provides job site protection for the general public |   |   |   |   |   |   |   | x |   |   |   |   |   |
| 2.B: Performs hazard assessment and controls powerline hazards |   |   |   | x |   |   |   |   |   |   |   |   |   |
| 2.C: Controls environmental hazards |   |   |   |   |   |   |   |   |   | x |   |   |   |
| 2.D: Participates in workplace safety activities |   |   |   |   |   | x |   |   |   |   |   |   |   |
| 2.E: Utilizes personal protective devices and safety equipment properly and consistently (body harness, lanyard, anchor sling, etc.) |   | x |   |   |   |   |   |   |   |   |   |   |   |
| 2.F: Utilizes positioning devices and equipment properly (gaff, body belt, pole-choker, secondary lanyard, etc.) |   | x |   |   |   |   |   |   |   |   |   |   |   |
| 3.A: Frames and sets power poles properly |   |   |   |   | x |   |   |   |   |   |   |   |   |
| 3.B: Installs pole guys and anchors; attachments; breakers/rods; etc. |   |   |   |   | x |   |   |   |   |   |   |   |   |
| 3.C: Installs and assembles steel structures |   |   |   |   |   |   |   |   |   |   |   | x |   |
| 3.D: Installs steel structure guy wires and anchors |   |   |   |   |   |   |   |   |   |   |   | x |   |
| 4.A: (Overhead) Strings overhead conductors properly and safely |   |   |   |   |   |   |   |   |   |   |   |   | x |
| 4.B: (Overhead) Sags overhead conductors |   |   |   |   |   |   |   |   |   |   |   |   | x |
| 4.C: (Overhead) Ties in overhead conductors |   |   |   |   |   |   |   |   | x |   |   |   |   |
| 4.D: (Overhead) Splices overhead conductors | x |   |   |   |   |   |   |   |   |   |   |   |   |
| 4.E: (Underground) Digs trenches appropriately, using correct equipment and safety precautions – direct buried cables, ducted method, surface troughs, deep bore tunnels, cut and cover tunnels |   |   |   |   |   |   |   |   |   |   |   | x |   |
| 4.F: (Underground) Selects appropriate components, cable sealants and compounds, joint bays, top joints, water cooling systems (if applicable), using correct methods for insulating components and wires |   |   |   |   |   |   |   |   |   |   |   | x |   |
| 4.G: (Underground) Identifies environmental hazards and barriers and plans/carries out appropriate mitigation strategies |   |   |   |   |   |   |   |   |   | x |   |   |   |
| 4.H: (Underground) Identifies and mitigates land use restrictions |   |   |   |   |   |   |   |   |   |   |   | x |   |
| 4.I: (Underground) Inspects, replaces, and maintains cables and cable insulation at appropriate intervals and using correct materials and procedures |   |   |   |   |   |   |   |   |   |   |   | x |   |
| 5.A: Operates overhead and/or underground transmission systems |   |   |   |   |   |   |   |   |   |   |   | x |   |
| 5.B: Operates overhead and/or underground distribution systems |   |   |   |   | x |   |   |   |   |   |   |   |   |
| 5.C: Performs station switching | x |   |   |   |   |   |   |   |   |   |   |   |   |
| 5.D: Inspects distribution and transmission systems | x |   |   |   |   |   |   |   |   |   |   |   |   |
| 5.E: Maintains poles and steel structures |   |   | x |   |   |   |   |   |   |   |   |   |   |
| 5.F: Maintains system components |   |   |   |   |   |   |   |   |   |   |   |   | x |
| 5.G: Identifies and mitigates environmental hazards (i.e. tree trimming, rodent infestations, erosion, etc.) |   |   |   |   |   |   |   |   |   | x |   |   |   |
| 5.H: Repairs overhead and/or underground distribution systems |   |   |   |   |   |   |   |   | x |   |   |   |   |
| 5.I: Repairs overhead and/or underground transmission systems including components (cross arms, conductors, poles, and insulators), switches, terminations, and other devices |   |   |   |   |   |   |   |   | x |   |   |   |   |
| 6.A: Uses appropriate personal and environmental protective devices and techniques to secure the work area and protect human safety |   |   |   |   |   | x |   |   |   |   |   |   |   |
| 6.B: Identifies and reviews appropriate repair manuals or policies and procedures based on observed or reported fault |   |   |   |   |   |   |   |   |   |   | x |   |   |
| 6.C: Applies diagnostic tools and skills to identify and repair sources of fault; installs updated equipment or components; or performs preventative maintenance |   |   |   |   |   |   |   |   |   |   | x |   |   |
| 6.D: Confirms power restoration after repairs |   |   |   | x |   |   |   |   |   |   |   |   |   |
| 6.E: Communicates effectively with first responders, dispatchers, and members of the public to coordinate activities appropriately |   |   |   |   |   |   | x |   |   |   |   |   |   |
| 6.F: Accurately documents work performed, equipment or parts used, and notes deferred maintenance needs |   |   |   |   |   |   | x |   |   |   |   |   |   |