UTAH SYSTEM OF HIGHER EDUCATION

Utah System of Higher Education
Inside Wireman Apprenticeship
FY2027 / 24 Credits (720 Clock-Hours)

Foundational Courses

Foundational

TEEW 1005 Inside Wireman Apprentice I-A **3 Credits / 90 Clock-Hours**

This course covers introductory topics such as safety, proper job conduct, DC theory, electrical tools, and GFCI functions, as well as electrical math and topics related to fall safety, wire, conduit bending, conductors, and code devices. Students taking this course will obtain their American Red Cross CPR/First Aid Certification.

Objectives
· Complete OSHA 10 Certification
· Understand electrical safety and trade tools
· Describe conduit types
· Demonstrate basic hand bending

TEEW 1015 Inside Wireman Apprentice I-B **3 Credits / 90 Clock-Hours**

This course teaches topics including DC Theory, Ohm's Law, circuits, resistance, voltage, and test instruments, as well as residential blueprint reading and electrical symbols.

Objectives
· Calculate current, voltage, and resistance
· Demonstrate basic wiring

TEEW 1025 Inside Wireman Apprentice II-A **3 Credits / 90 Clock-Hours**

This course covers AC theory, test instruments, sine waves circuit calculations, vectors, and resistance, as well as combinations, RLC circuits, filters, and power factor.

Objectives
· Understand basic AC systems
· Demonstrate basic conduit threading

TEEW 1035 Inside Wireman Apprentice II-B **3 Credits / 90 Clock-Hours**

This course teaches topics related to test instruments, blueprint reading skills, codeology, conduit bending, transformers, code practices, wiring methods, specification skills and National Electrical Code (NEC) reading.

Objectives
· Understand fire alarm systems
· Interpret basic blueprints

TEEW 1045 Inside Wireman Apprentice III-A **3 Credits / 90 Clock-Hours**

This course covers GFCI, fuse brakes, over current devices, electrical safety work practices, grounding and bonding, the National Electrical Code (NEC), ground faults, short circuits on GFCI's, and lightning protection.

Objectives
· Demonstrate safe rigging and hoisting practices
· Understand transformers maintenance and troubleshooting

TEEW 1055 Inside Wireman Apprentice III-B **3 Credits / 90 Clock-Hours**

This course teaches topics related to semiconductors, residential blueprint reading, rectifiers, transistors, amplifiers, SCR testing, LED fiber optics, transformer set installations, current protection, and code calculations.

Objectives
· Understand semiconductors
· Understand transformers and overcurrent protections

TEEW 1065 Inside Wireman Apprentice IV-A **3 Credits / 90 Clock-Hours**

This course teaches lightning protection, motors, motor controls, and hands-on motor training.

Objectives
· Understand lightning protection
· Explain motor controls

TEEW 1075 Inside Wireman Apprentice IV-B **3 Credits / 90 Clock-Hours**

This course trains the apprentice in motors, digital electronics, programmable logic controllers (PLC), building automation, code practices, and hazardous locations.

Objectives
· Understand programable logic controllers
· Describe hazardous location requirements and safety