

Energy Pathways - Career Connected Learning Course Syllabus

	DAILY SCHEDULE	CURRICULUM	CONNECTED CAREERS
Week 1	Day 1 – Introduction	Program syllabus Ground rules Safety discussion, expectations, and PPE Grading, Participation, Employability Homework/assignments	Electrical Engineers Civil Engineers Mechanical Engineers Operators: Hydro, Thermal, Bio PCM Relay Technicians Substation Electricians Structural Mechanics Project Managers Drafters
	Module 1: Generation	Section 1: Energy Industry History Section 2: Energy resources (types of gen) Section 3: Lab - Renewable Energy Source	Environmental Safety Compliance Supply Chain Warehouseman
	Day 2 - Module 1: Generation	Section 4: Electricity Basics Section 5: Environmental Section 6: Lab – Build a Generator Homework – Kill-a-Watt home study Discussion – Job outlook, different career paths	
	Day 3 - Module 1: Generation	Safety Briefing Section 7: Tour: Post Street, Upper Falls	
	Day 4 - Module 2: Transmission & Distribution	Review of Module 1 Section 1: Defining T&D Section 2: Ohm’s Law Demonstration Section 3: Substation Hazard Awareness Section 4: System Protection Section 5: Substation Tour – 9 th & Central	Electrical Engineer (Protection, Substation, Distribution, Transmission) Civil Engineer System Operations Dispatchers PCM Relay Technicians Substation Electricians Structural Mechanics Lineman Drafters Cablemen
Day 5 - Module 2: Transmission & Distribution	Review Section 6: Lab - Gonzaga Power Lab	Communication Tech	
Week 2	Day 1 – Module 2: Transmission & Distribution	Section 7: Trouble Section 8: Smart Circuits and Equipment Section 9: EOP Discussion – Job outlook, different career paths	
	Day 2 – Module 3: Design/Install Electric Service	Review of Module 2 Section 1: Lab - Designing a Residential Service Safety Briefing/ Training (Tools) Section 2: Basics Equipment and Tools	Lineman Construction Project Coordinator Meterman GIS Editor
	Day 3 – Module 3: Design/Install Electric Service	Tailboard/ Safe Working Practices Section 3: Rigging Trigonometry Section 4: Lab – Transformer Rigging	

	DAILY SCHEDULE	CURRICULUM	CONNECTED CAREERS
Week 2	Day 4 – Module 3: Design/Install Electric Service	Tailboard/ Safe Working Practices Section 5: Lab – Install a Residential Service	Lineman Construction Project Coordinator Meterman GIS Editor
	Day 5 –	Utility Structure - Tour Mission Campus Discussion – Job outlook, different career paths	
Week 3	Day 1 – Module 4: Design/Install Gas Service	Section 1: Fundamentals of Natural Gas Section 2: Natural Gas Delivery Section 3: Lab – Pipe Joining	Engineers CPC Gas Serviceman Gas Meterman Gas Controlman
	Day 2 – Module 4: Design/Install Gas Service	Safety Briefing/ Training (Tools) Section 4: Residential Gas Meter Sets Section 5 : Requirements for Service Installation Section 6: Lab - Designing a Residential Service	
	Day 3 – Module 4: Design/Install Gas Service	Tailboard/ Safe Working Practices Section 7: Lab – Install a Residential Service Discussion – Job outlook, different career paths	
	Day 4 – Module 5: Energy Use & Efficiency	Section 1: Evolution of the Meter Section 2: Meter Shop Purpose Section 3: Meter Safety Section 4: Meter Construction Section 5: Metering Math Section 6: Lab – Meter Stations	Metering Automation Engineer Demand Side Management (DSM) Electric Meterman Account Executive
	Day 5 – Module 5: Energy Use & Efficiency	Section 7: Kill-a-Watt Review Section 8: Energy Checklist Section 9: EF Kits Instructions and prep for job shadows	
Week 4	Day 1 – Full Day Job Shadow	Student choice	
	Day 2 – Full Day Job Shadow	Student choice	
	Day 3 – Full Day Job Shadow	Student choice	
	Day 4 – Next Steps Day	Job Shadow Discuss and Share Career Progression – Plan beyond the next step Follow up program overview Mock Interviews	
	Day 5 – Graduation Day	Final day of the program	