USW-TMC Radiological Control Technician (RCT) Training Program For Hanford Area Tribes







United Steelworkers / Tony Mazzocchi Center Radiological Control Technician (RCT) Academics Program

- Trains workers to monitor for radiation and radioactive contamination
- Class meets the criteria as outlined by DOE





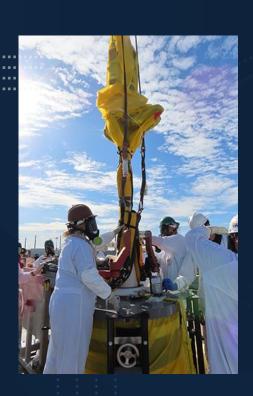




Hanford DOE Facility

South-Eastern Washington North-Eastern Oregon

- Contaminated solids
- Groundwater spillage
- Toxic plumes
- Radioactive soil
- Transport of contaminated materials

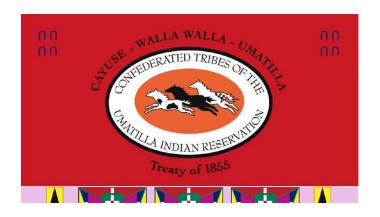






USW partnering with "TERO's" Tribal Employment Rights Office

- Surveys tribal members
- Recruits
- Monitors
- Mentors
- Workforce Development
- Allocation of recourses
- Partnership with unions, employers













Recruitment Phase

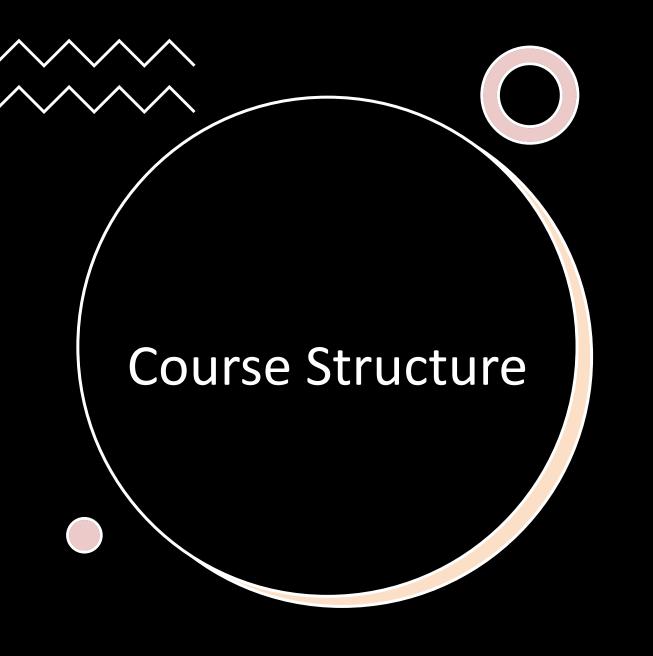
- Mentors
- Youth
- TERO Staff
- Tribal Fire Depts
- Environment Depts
- Archeological Cultural Depts
- Health & Safety Trainers











- At a minimum of 240 hours.
- 120 hours "core" training in math, science, physics.
- 120 hours "site-specific",
 Alarms, monitor types,
 evacuation protocols

Curriculum Outline (1)



Proposed RCT Training Schedule for Tribes 2023

| Hours | Day | Time | Date | Class |
|-------|-----------|---|-----------|-----------------------------------|
| 5 | Monday | 7 AM – 12 PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM – 10 PM | 13-Mar-23 | Module 1.01 Math |
| 5 | Tuesday | 7 AM – 12 PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM – 10 PM | 14-Mar-23 | Module 1.01 Math |
| 5 | Wednesday | 7 AM – 12 PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM – 10 PM | 15-Mar-23 | Module 1.02 – Unit Conversion |
| 5 | Thursday | 7 AM – 12 PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM – 10 PM | 16-Mar-23 | Module 1.02 – Unit Conversion |
| 5 | Monday | 7 AM – 12 PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM – 10 PM | 20-Mar-23 | Unit Quiz 1.01 & 1.02 – Review |
| 5 | Tuesday | 7 AM – 12 PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM – 10 PM | 21-Mar-23 | OSHA 10-Hour |
| 5 | Wednesday | 7 AM – 12 PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM – 10 PM | 22-Mar-23 | OSHA 10-Hour |
| 5 | Thursday | 7 AM – 12 PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM – 10 PM | 23-Mar-23 | Module 1.03 Physical Science |
| 5 | Monday | 7 AM – 12 PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM – 10 PM | 27-Mar-23 | Module 1.03 Physical Science |
| 5 | Tuesday | 7 AM – 12 PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM – 10 PM | 28-Mar-23 | Module 1.04 Nuclear Physics |
| 5 | Wednesday | 7 AM – 12 PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM – 10 PM | 29-Mar-23 | Module 1.04 Nuclear Physics |

Curriculum Outline (2)



| Hours | Day | Time | Curriculum |
|-------|-----------|------------------------------------|---|
| 5 | Thursday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Unit Quiz 1.03 & 1.04 – Review |
| 5 | Monday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Module 1.05 Sources of Radiation |
| 5 | Tuesday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Module 1.5 Sources of Radiation |
| 5 | Wednesday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Module 1.06 Radioactive Decay |
| 5 | Thursday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Module 1.06 Radioactive Decay |
| 5 | Monday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Unit Quiz 1.05 & 1.06 – Review |
| 5 | Tuesday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | 1 st Half Midterm – Module 1.07 Interaction |
| 5 | Wednesday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Module 1.07 Interaction |
| 5 | Thursday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Module 1.08 Biological Effects |
| 5 | Monday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Module 1.08 Biological Effects |
| 5 | Tuesday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Unit Quiz 1.07 & 1.08 – Review |
| 5 | Wednesday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Module 1.09 Rad Protection Standards |
| 5 | Thursday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Module 1.09 Rad Protection Standards |

Curriculum Outline (3)



| Hours | Day | Time | Curriculum |
|-------|-----------|------------------------------------|---|
| 5 | Wednesday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Module 1.11/12 External/Internal Control |
| 5 | Thursday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Module 1.12 Internal Exposure Control |
| 5 | Monday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Unit Quiz 1.09-1.12 – Review |
| 5 | Tuesday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Module 1.13 Detector Theory |
| 5 | Wednesday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Module 1.13 Detector Theory |
| 5 | Thursday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Unit Quiz 1.13 – Review Day/Preparation for Final Exam |
| 5 | Monday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | FINAL EXAM – FUNDAMENTALS |
| 5 | Tuesday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | Review if needed with students – 2 nd attempt |
| 5 | Wednesday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | HAZWOPER 40-hour |
| 5 | Thursday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | HAZWOPER 40-hour |
| 5 | Monday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | HAZWOPER 40-hour |
| 5 | Tuesday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | HAZWOPER 40-hour |
| 5 | Wednesday | PM, 1 PM – 6 PM, 4 PM – 9 PM, 5 PM | HAZWOPER 40-hour |
| 5 | Thursday | 5:00 PM | Graduation/Presentation of Certificates |

Next Steps

- Establishing a course structure, end goal and MOU
- Adaptation of course material
 - Identification of trainers
- Participant selection (up to 25)
- Offer course the course through TERO's
- Graduation
- Pathway to employment





Challenges, Barriers, Strategies

- Geographic distances
- Enrollment attrition / retention
- Pre-Test (work keys)
- Recruiting instructors
- Job Track possibilities