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# Line Clearance Tree Trimming Exposure

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# Energy/Electrical Technologies Program Overview

**Oakland Schools Technical Campuses**  
Southeast - Royal Oak  
Northwest - Clarkston



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# Energy/ Electrical Program Overview

**DTE**



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- Explore energy generation, transmission and distribution needed to power and maintain a secure and reliable electrical grid.
  - Learn to wire and energizing residential and commercial projects.
  - Conduct hands-on activities with both renewable and non-renewable energy sources
  - Licenses/Certifications Available
    - OSHA 10
    - Energy Industry Fundamentals
    - Red Cross CPR and First Aid
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# Energy/ Electrical Program Overview

**DTE**



## OSTC ENERGY/ELECTRICAL TECHNOLOGIES HIGHLIGHTS

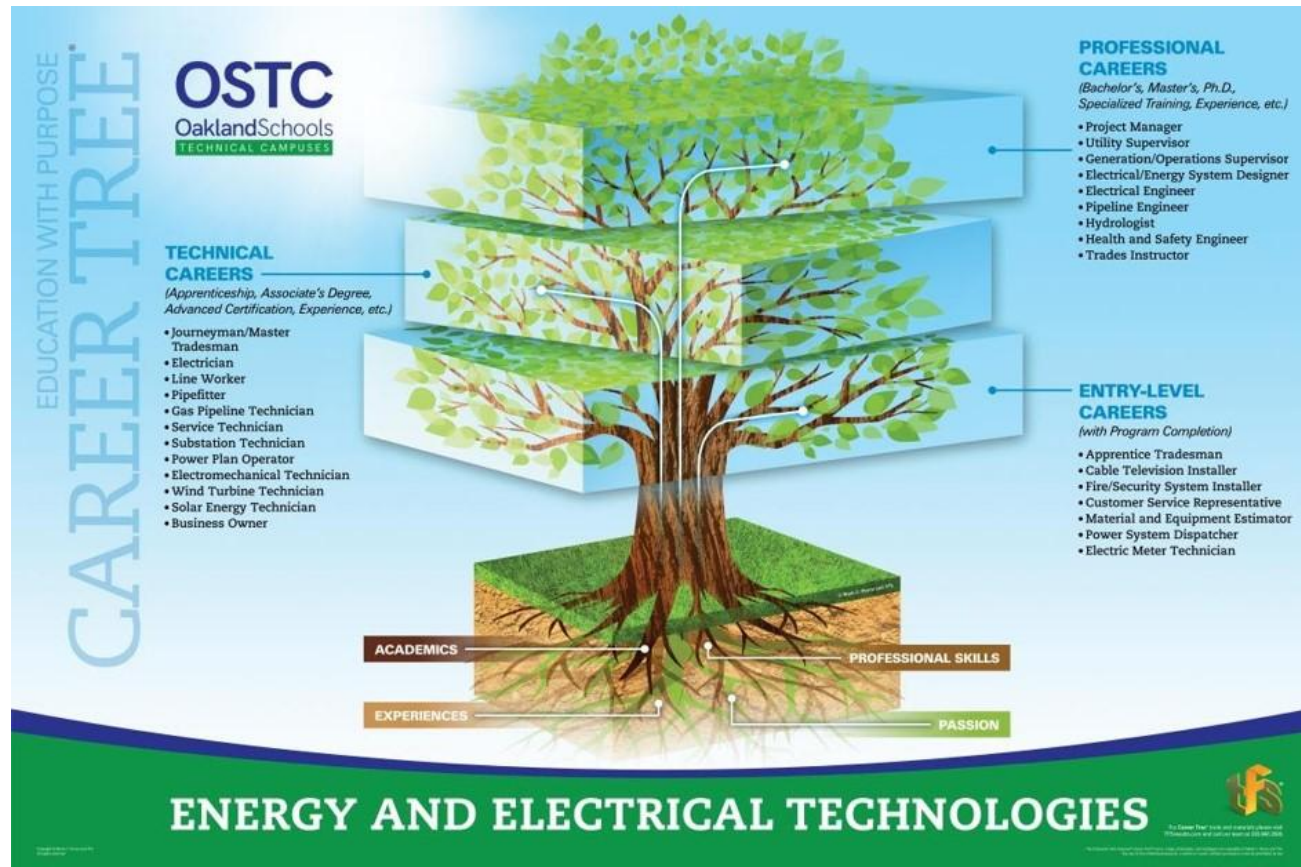
Two Year Energy/Electrical Program of Study



	SEMESTER ONE			SEMESTER TWO		
YEAR ONE	Energy/Electrical Fundamentals	Energy Generation	Residential Wiring	Energy Transmission	Energy Distribution	Commercial Wiring
	<ul style="list-style-type: none"> <li>Industry Overview</li> <li>Safety</li> <li>Tools &amp; Materials</li> <li>Print Reading</li> <li>Energy/Electrical Careers</li> <li>Applied Math</li> <li>Communication &amp; Employability Skills</li> <li>OSHA 10</li> </ul>	<ul style="list-style-type: none"> <li>Conventional Energy Generation</li> <li>Generation Fuel Sources</li> <li>Alternative Energy Generation</li> <li>Photovoltaic Systems</li> <li>Hydroelectric Generation</li> <li>Geothermal Energy</li> </ul>	<ul style="list-style-type: none"> <li>Electrical Theory</li> <li>Ohm's Law</li> <li>AC/DC</li> <li>Wiring Diagrams</li> <li>National Electric Code (NEC)</li> <li>Electrical Devices</li> <li>Electrical Circuits</li> <li>Fuses &amp; Circuit Breakers</li> <li>Grounding</li> </ul>	<ul style="list-style-type: none"> <li>Power Grids</li> <li>Substations</li> <li>Transformers</li> <li>Transmission Lines</li> <li>Conductors &amp; Insulators</li> <li>Transmission Governance</li> </ul>	<ul style="list-style-type: none"> <li>Distribution Substations</li> <li>Primary Circuits</li> <li>Distribution Poles</li> <li>Ground Wire</li> <li>Natural Gas Distribution</li> </ul>	<ul style="list-style-type: none"> <li>Service Entrance</li> <li>Electrical Meters</li> <li>Special Purpose Circuits</li> <li>Conduits &amp; Raceways</li> </ul>
YEAR TWO	Energy/Electrical Safety Review	Energy Skill Development	Electrical Skill Development	Work-Based Opportunities Energy/Electrical Technologies		
	<ul style="list-style-type: none"> <li>Scaffolds &amp; Ladders</li> <li>Personal Protective Equipment (PPE)</li> <li>Tool Safety</li> <li>Hazardous Materials</li> <li>OSHA 10</li> </ul>	<ul style="list-style-type: none"> <li>Energy Generation</li> <li>Energy Transmission</li> <li>Energy Distribution</li> <li>Energy Industry Fundamentals (EIF) Certification</li> </ul>	<ul style="list-style-type: none"> <li>Multi-Circuit Electrical Wiring</li> <li>Branch Loads</li> <li>Breaker Panel Wiring</li> <li>Masonry Installations</li> </ul>	<p><u>Work-Based Learning</u> On the Job Training or Field Experience</p> <p><u>Dual Enrollment</u> <u>Apprenticeship Training Center</u></p>		
	Work-Based Opportunities Work-Based Learning • Dual Enrollment			Classroom-Based Skill Building		

# Career Tree

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# Tree Trimming Partners

- DTE Energy Workforce Development
- IBEW Local 17
- Oakland Schools Technical Campuses SE & NW Energy/Electrical Technologies CTE programs

**DTE**



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# Desired Outcomes of Program

- Demonstrate and utilize proper PPE and safety protocols associated with line clearance tree trim
  - Introduce students to the necessary tools and equipment required for line clearance tree trim
  - Increase student awareness of line clearance tree trim career opportunities
  - Build upon student learning from EIF curriculum through Segment Q experience
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# Program Schedule

## OSTC - Southeast:

- Monday, 4/25/2022, 7:50 to 10:20 AM: AM students
- Monday, 4/25/2022, 12:00 to 2:30 PM: PM students
- Tuesday, 4/26/2022, 7:50 to 10:20 AM: AM students
- Tuesday, 4/26/2022, 12:00 to 2:30 PM: PM students

## OSTC - Northwest:

- Wednesday, 4/27/2022, 7:45 to 10:15 AM: AM students
  - Wednesday, 4/27/2022, 11:20 AM to 1:50 PM: PM students
  - Thursday, 4/28/2022, 7:45 to 10:15 AM: AM students
  - Thursday, 4/28/2022, 11:20 AM to 1:50 PM: PM students
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# Program Pictures: In-Class Overview

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# Program Pictures: Leaf/Tree Identification



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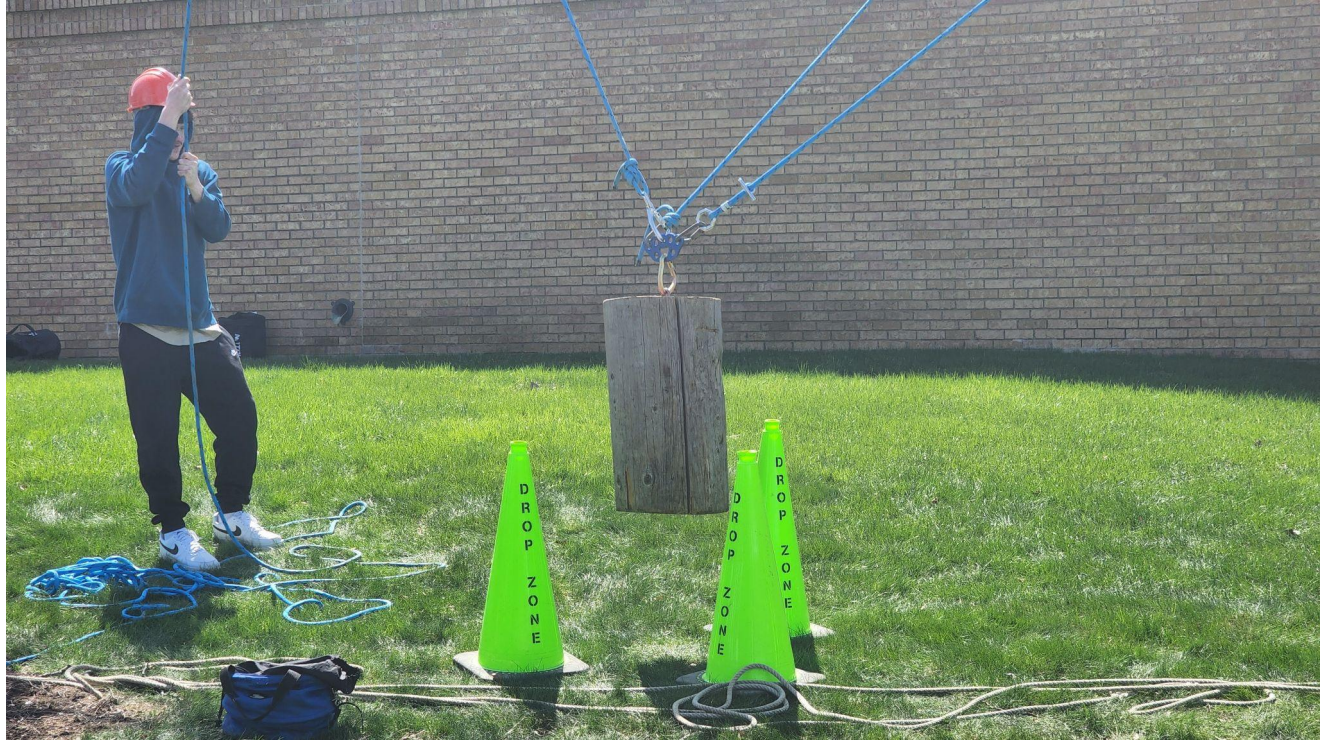




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# Program Pictures: Log Placement Challenge

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# Program Pictures: Harnesses

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# Program Pictures: Tree Climbing



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# Program Pictures: Ring Toss



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# Program Pictures: Pulleys and Leverage

**DTE**



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# Thank You!

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