



OZARKS TECHNICAL COMMUNITY COLLEGE

Electrical Distribution Systems Program (EDS)

Program Overview

Mission Statement: The mission of the Electrical Distribution Systems Technology program is to prepare students for entry employment at any utility offering an apprenticeship program. The Electrical Distribution Systems Technology program strives to provide high quality, occupationally-oriented courses with an emphasis on safety and critical thinking skills.

Ozarks Technical Community College offers the Electrical Distribution Systems (Lineworker) associate degree at the Lebanon Education Center and Richwood Valley and has been running EDS classes since the fall of 2018. Electric utility line technicians install and repair poles, conductors, cables, and operate and maintain equipment used in electrical power and distribution systems. Students in this program will learn to climb wood pole structures, build and maintain electrical distribution systems, and operate various equipment related to the power distribution field. An emphasis on safe work practices and critical thinking skills will be a part of all coursework.

The EDS program is considered a pre-apprenticeship program, though some utility providers do take our program as the first year or two years of their apprenticeship to become a Journeyman Lineworker. You are advised to inquire with the utility provider you are hoping to work for directly to see how our program fits into their apprenticeship structure.

By the end of the EDS program, students will be able to:

1. Demonstrate and perform appropriate pole-climbing procedures and techniques in the field.
2. Demonstrate a working knowledge of basic safety as it applies to profession.
3. Apply working knowledge of REA line code & standards.
4. Demonstrate safe and responsible use and operation of all line-worker equipment.
5. Comply with requirements to earn required certifications, to include CPR, OSHA 10, CDL, hurt-man rescue, and flagger.
6. Analyzing a situation, identify all relevant components, and apply critical-thinking skills in creating an appropriate plan when repairing power lines (troubleshooting).
7. Personify behaviors associated with teamwork, professionalism, and customer-service in the field.

8. Demonstrate a working knowledge of the care and procedures associated with gloving energized power lines.
9. Apply knowledge and safety procedures for working on underground power-line construction.
10. Explain the principles of and demonstrate proper installation and repair of transformer banks.
11. Apply basic math, physics, and electrical principles in the field.
12. Understand the changing environmental and government regulations impacting the line-worker field.

Program enrollment is limited to 42 students between the two locations each fall with alternates selected in the application process that will fill any spots that may open up between the close of the application window and the start of the fall semester. Alternates who are not cycled into the EDS class the year they apply are guaranteed a spot in the following year's class, barring any disqualifying event that would prevent them from attending OTC or getting their Class A CDL without restriction.

If you plan to apply to for a spot in the EDS program, please send your first and last name, preferred email, and a good contact number to EDS@otc.edu to be added to the contact list, receive a complete set of the current application items including the points list and a document that explains how to get each set of points for the application process, and receive important updates/reminders about the application process. Applications are accepted from January 1st to June 1st each year.

All questions about the program should be directed to EDS@otc.edu or you may call 417-447-8146 to speak with the program director, Keith Dinwiddie.

Frequently Asked Questions

Abbreviations use in this document

- OTC – Ozarks Technical Community College
- EDS – Electrical Distribution Systems
- FAFSA – Free Application for Federal Student Aid
- AAS – Associates of Applied Science
- CLEP – College Level Examination Program
- CDL – Certified Driver's License
- DOT – Department of Transportation
- DMV – Department of motor vehicles

Does this degree count as part of the Lineperson Apprenticeship?

- This degree is considered a pre-apprenticeship program. Some electrical providers have stated they would consider this degree as the first year or two of the apprenticeship, so it is best if you have a specific place in mind to visit with them about how they view the degree.

- Many electrical providers have gone to a policy of requiring applicants to have a degree related to the field before they will consider interviewing an applicant. This degree meets that requirement and prepares students to hit the ground running as a useful member of the team ready to fine tune their base skills.
- OTC is an approved educational facility under the Department of Labor apprenticeship guidelines.

Does OTC help students with internships and job placement?

- We do all we can to help students find internships, but we do not have reserved slots with various electrical providers at this time. Students who get into the program are strongly encouraged to reach out to electrical service providers in their area or ones they would like to work for early in the fall to see if they have any openings for internships.
- To this point, students have had great success in finding internships and all the reports of such have been positive. Students should work up a resume and be prepared to interview when searching for an internship and class time will be devoted to helping with this endeavor.
- We have a career employment services sector that helps all OTC students and alumni track down jobs. We also have an active advisory committee and we are working on other avenues to keep up with job openings and opportunities there may be out there for students. We had our first graduates in spring 2020 so this is developing area of the program. The projected need for this field is over 6000 openings in the next few years and we have had some students find jobs in the field while still taking classes.

When do classes start?

- Each class group or cohort begins in the Fall semester. Those wanting to get into the program are advised to work on the general education classes related to the degree and we offer the two CDL classes in the spring semester for those that are interested.

How long are the classes?

- Classes will be semester-long, 16 weeks each for fall and spring. There will be one required summer session (internship) during the program and the length may vary. Year one students will attend on Tuesday and Thursday, year two students will attend on Monday and Wednesday.
- The first semester, those taking the two CDL classes, EDS 151 and 152, will be required to attend one extra day a week to learn at the vendor's site. This schedule will be worked out during the summer around the time of the equipment fitting dates. The days for this will either be a Monday, Wednesday, or Friday. There are no weekend options at this time.

Are the classes during the day or in the evening?

- Currently the EDS classes start as early as 7 am, but most start between 8 and 8:30 am and may run as late as 5:30 or 6:00pm. If the student takes their general education after the EDS classes on the same days, they may be here as late as 8:00 or 9:00pm. Appropriate general education classes will be offered for students after their EDS classes, but can be taken at a different time or location as the student desires. Year one students will attend on Tuesday and Thursday, year two students will attend on Monday and Wednesday.
- Students will observe the OTC holiday and semester schedule in relation to the EDS 151 and 152 courses and may need to start earlier than 8am for these courses, where they will work to get their class A CDL with no restrictions (other than age). The CDL training will require one extra day each week during the first fall semester. Currently the extra day must be completed either Monday, Wednesday, or Friday and a schedule will be worked out before the start of the fall semester.
- Clement Truck Driving School, who administers the EDS 151 and 152 courses in Lebanon, is open Monday through Friday from 7:00am to 3:30pm.
- We are currently working out the details for the the CDL school utilized for Richwood Valley.

Will some courses be online?

- All general education courses are available online as well as seated.
- EDS courses will not be offered online.

Where are classes held?

- The Electrical Distribution Systems (EDS) program classes will be taught by OTC instructors at the OTC Lebanon Education Center or the Richwood Valley Campus. General education courses are available at any OTC campus or online.
- Clement Truck Driving Academy will teach driver training classes (EDS 151 and 152) for Lebanon at their facility, 920 Alexis Ave., Lebanon, MO 65536, 417-589-2351.

Are there any special admission requirements for this major?

- After a student applies to OTC, several special items are needed:
- This is a selective admission program based on a points system. The top scoring students will be accepted into the program first, with ties being broken by a committee's review of the applicants' one-page essay, letters of recommendation, and resume or attendance record. (see application packet for more information)
- A valid driver's license from any state is required.

- Students must be able to maintain a driving record that is *eligible* for Missouri Class A commercial driver's license (CDL) without restriction. The CDL licensing requires a DOT physical examination and a state certified birth certificate or valid passport. Additional fees for CDL licensure will apply.
- Students must be able to climb, work at heights, and lift/carry 30 pounds or greater. In addition, walking, standing, some pulling, pushing, stooping, kneeling and reaching are required. There is also exposure to oil, dirt, water and weather extremes.
- Student must be able to properly utilize the safety equipment used for climbing the poles and keep said equipment in good working order throughout the course. Training on how to use the safety equipment is provided in the course. The safety equipment is rated for a maximum weight of 350 pounds, which includes the work tools as well as the student's weight.
- There will be a safety equipment fitting day and possible one or two other special meetings that students in the program will be required to attend. If students are unable to make the required meeting(s), they will be responsible for certain tasks on their own time or risk removal from the program if they do not complete these in a timely manner.
- If a student is accepted to the program and must back out for any reason, they need to notify the program director immediately. Failure to do so will make a student ineligible for reapplication to the program.

What are the lab components?

- Course fees will cover consumable costs associated with fuel, equipment operation, maintenance, and demonstration/simulation activities.
- EDS 151 & 152 Course fees will cover the exam for a Missouri Class A CDL. The CDL licensing requires a DOT physical examination, a drug screen, and a state certified birth certificate or valid passport. The cost of the DOT physical (varies), drug screen (varies), CDL driving permit (\$41.00), and CDL license fee (\$77.00) are not covered in the course fees. The lab fees for the CDL courses total \$3712 and there will be tuition and other normal OTC fees for the EDS 151 & 152 CDL courses.
- You can get the physical and drug screening at a local location or you may work with Direct Primary Care in Lebanon, MO, and the examine is good for 2 years. Direct Primary Care is located at 1000 H. Alexis Ave, Lebanon, MO 65536, and can be reached at 417-531-0410. They charge 10\$ for the drug screen and 65\$ for the exam.
- The urine analysis given in the DOT physical is not a drug screen, you must ask for the drug screen as an additional test which will have an additional fee.

What if I already hold a valid Missouri Class A Commercial Driver's License?

- Students who already have a valid Missouri Class A CDL will not need to enroll in the CDL lecture or lab courses (EDS 151 & EDS 152). Any course fees related to EDS 151 & EDS 152 will not be applicable. Persons with this credential will need to provide evidence of this on their program application materials. The states of Illinois, Maryland and South Carolina will not accept a Missouri CDL to be transferred back to that state. If a student has a valid license from another state, it will work in Missouri for employment.
- The current procedure is to provide a copy of your current Class A CDL with no restrictions and a copy of a passed drug screen that is no more than 1 year old to get credit for prior learning for the EDS 151 & 152 class.

Do students begin lineworker activities immediately after enrolling in the EDS program?

- Yes! Full-time students will be outside climbing utility poles, operating trucks and equipment, and practicing safety and prevention methods in the first few weeks of classes. OTC wants students to begin training as soon as possible so they can complete their degree in two years.

What degree will a student complete?

- This degree will be an Associate of Applied Science (A.A.S.) in Electrical Distribution Systems Technology.

How long does the entire degree take?

- In order to earn this degree, students must earn 69 credits. Students who are able to take 16-18 credit hours per semester and are available for one summer semester course can complete the degree in two years.

What do I need to do besides apply to OTC?

- The EDS program is a selective admission program, so after applying and being accepted by OTC, you will need to submit additional application items for consideration to join the program. This is because the EDS program is a high demand program with limited seats available. Due to the nature of the program there is no path for a student to start mid way through, thus if a student drops out early on there is no way to fill that spot. The admission process is a point based system that assigns points to items we have found to foster student success. In the case of a tie the students' one page essay, resume or attendance record, and any letters of reference submitted will be used to determine who gets the position.
- You should start by sending your name, phone number, and an email address you monitor to eds@otc.edu to get a copy of the current application packet and added to the contact list for the cohort you wish to apply for.
- You will need to get a DOT physical and separate Drug screen *or* provide a copy of your Class A CDL without restriction as a part of your application. This is a key point of the

application and a disqualifier if not present in your application. If you have trouble getting a DOT physical due to your age, email eds@otc.edu and we will discuss solutions.

- Submit a copy of your driving record as part of your application. This is another verification to make sure there are no issues with getting or keeping your Class A CDL. DUI, DWI, and speeding tickets in excess of 15 mph over the speed limit are items that cause issues, to name a few.
- Fully and carefully read through both this document, the FAQs, and the Application document to make sure there are no issues you need to inquire about. If you run into anything that you think might be a problem, please email eds@otc.edu or call 417-447-8146.
- Gather the required documentation on as many items as you can from the points list and submit them to eds@otc.edu or drop them by the Lebanon OTC Center. We often receive more applications than we have positions for, so there is a fair amount of competition for spots in the program each year. With this in mind, don't leave easy points out of your application and make sure you receive a verification of receipt email for everything you send in. It is recommended to turn everything in at one time to reduce the likelihood of items getting lost, but it is not required. For everything emailed in you will receive a confirmation email. If you do not receive the confirmation email, you are responsible for double checking that the submitted item(s) were received.
- While you are waiting to get into the program, it is highly recommended to work on general education classes related to the degree and consider taking the two CDL classes, EDS 151 and 152, in the spring before the fall group you are applying for. If you are taking classes outside of OTC, please provide a copy of your unofficial transcript with your application. If you are a highschool student taking dual credit, make sure in some way to note which classes we need to examine on your transcript. We have found each school lists these differently on the high school transcript and it is very easy to overlook these items.
- **Monitor your OTC email!** All official communications will go to your OTC account such as, financial aid items, any changes to classes, and your acceptance to the program if selected at the end of the application process. Failure to reply in a timely manner to an OTC email could cost you your position in the program or result in the loss of financial aid.

What would be grounds for dismissal from the EDS program?

- Dishonesty in any part of the application process and throughout the student's tenure in the program to include academic dishonesty.

- Engaging in harassment, hazing, and/or sexual misconduct of fellow students or OTC employees.
- Violation of the Police 5.15-Standards of Student Conduct found here: <https://about.otc.edu/policies/article-v-student-services/5-15-standards-of-student-conduct/>
- Any act which compromises the safety of the student or their peers.
- Testing positive on the drug screen, or failing to acquire a Class A CDL with no restrictions (other than age based).
- Engaging in unsafe acts during the internship portion that puts the student or their coworkers at risk.
- Multiple failures to show up to internship on time and in a condition to work or excessive cell phone use that results in early termination of an internship
- Failure to adhere to the agreed upon readmission action plan as defined under ‘Can I drop out and come back later?’ section below.
- Smoking, vaping, chewing, or any other use of tobacco in either the lab area or classroom environment

Can I drop out and come back later?

- If you begin the program and decide to leave OTC or change to another program, it is highly recommended to finish the semester you are currently enrolled in to prevent issues with financial aid and other such matters involved with course completion. Often student who change their minds are deep enough into the semester there will be no refund of tuition, so you might as well get the most you can for your money.
- If you want to have the option of returning, you need to meet with the program director to find out what will be entailed in re-entering the program and the best way to exit the program so as to be eligible for return.
- For those that leave the program and return, you will have to work out a readmission action plan with the program director. The purpose of this plan is to make sure there is a clear graduation strategy and there are no barriers to completion.
- Students who leave the program are ***NOT*** guaranteed a spot to return to nor is acceptance back into the program guaranteed. Students who have been out of the program from more than a semester may be required to resubmit their application packet, compete for a

spot in the program same as the new students coming in, complete some actions first, and/or similar tasks to ensure success.

- Students dismissed from the program may not be eligible to return, depending on the dismissal reason. Students dismissed for safety violations or inability to earn a CDL are considered ineligible for readmittance to the EDS program.

What type of gear or supplies will I need?

- **Equipment Kit:** The equipment kit typically runs around \$3000 with taxes and can be charged through the OTC bookstore. The kit contains:
 - **Climbing Tools in Kit:** Equipment Bag, EZ Rider Lineman Belt, Patriot Fall Protection System, Aluminum Climbers, Climber Pads, 5 Pocket Tool Holster, Nut & Bolt Bag, Full Brim Hard Hat, Handline Carrier, Secondary Rope Lanyard, and Magnetic Gaff Guards
 - **Hand Tools in Kit:** Fiberglass Rip Hammer, Adjustable Wrench 10", 2 Piece SAE Ratcheting Wrench Set, Demolition Screwdriver, Fiberglass Folding Ruler, Skinning Knife, Lineman Pliers, 5-in-1 Lineworker Wrench, Clear Safety Glasses, Tinted Safety Glasses, and Pump Pliers.
- **Climbing Tools NOT in Kit:** Leather gloves and deep heel climbing boots with a steel shank in the sole. Students will need to purchase these separately and you may purchase a climbing boot through RedWing and charge it to your student account.
- **Fitting Day:** There will be a required attendance equipment fitting day in June to get fitted for your climbing belt and select your size for the climbing shirt and rain gear. Those purchasing their equipment through the bookstore will make their order that day, but no payment is required at that time.
- **If you have your equipment already:** Those that have their equipment already will need to bring it to the fitting day for instructor approval to use it in the course. If your equipment deemed unsafe, you will need to replace the faulty items.

Supplies available through the bookstore or other entities

What is the total cost of the degree?

- Students will be charged the normal OTC Tier II tuition rate for classes, which is currently \$120 per credit hour for in-district students for the 2020-2021 school year. This figure does not include general OTC fees which vary based on the semester and total hours taken.
- The lab fees for the commercial driver's license instruction are \$3,716. This is the total for the lab portion of the program. These fees are comparable to most driver training schools.

- The equipment kit typically runs round \$3000 with tax and can be charged through the OTC bookstore.

Please see [Program Costs Tab](#) for cost of program each semester:

- These fees are all inclusive assuming a student completes the lab components in the average amount of time needed by students. If a student is unable to complete the lab portion of the commercial driver's license course within the scheduled hours then the student would be charged for additional training time at the listed hourly rate. The CDL licensing requires a DOT physical examination and a state certified birth certificate or valid passport. Additional fees for CDL licensure will apply.

Can students use Financial Aid, A+ Scholarships, or Veterans benefits?

- The program is financial aid eligible. Students are eligible for all state and federal aid, foundation, and institutional scholarships. Keep in mind all grant, loan and scholarships will have dollar limits.
- Students who are qualified A+ scholarship recipients will be eligible to use those fund benefits toward the cost of the program. These dollars are applied to the tuition and common course fees. This scholarship does ***not*** cover lab and equipment fees.
- We have been able to use part of a student's loan amount for the second semester in the first semester. Students who wish to do this will need to enroll in the EDSA 151 and 152 and then email Anne Gill, Coordinator of Federal Financial Aid Programs, at gilla@otc.edu with their Name, ID Number, total amount this wish to borrow for the year, and how they want it broken up over Fall, spring, and summer semesters.
- To learn more about loans, please visit <https://studentaid.ed.gov/sa/types/loans/subsidized-unsubsidized#eligibility-time-limit>

What college credit can transfer?

- OTC will work with our four year partner universities to develop a possible transferable degree option. This is still a work in progress.
- The following general education courses will transfer to any public college or university in the State of Missouri under the CORE 42 statewide general education transfer program:
 - o English Composition I (ENG 101); substitutions allowed include ENG 100/100A, ENG 102 and ENG 150
 - o Public Speaking (COM 105)
 - o American Government and Politics (PLS 101)
 - o TEC 108 or higher Math
 - o TES 140 or equivalent science with lab
 - o Any of the allowable substitutions on page two of the EDS AAS Block Diagram

Can students test out of any courses?

- Students may also take the CLEP exam to test out of ENG 101, MTH 130, HST 120/130. For more information, please visit:
http://academics.otc.edu/media/uploads/sites/26/2015/12/CLEP_Equivalences_at_OTC.pdf
- Students may also ask to apply any eligible credit earned through dual credit courses by providing a transcript showing the course name and grade. These will be evaluated and applied on a case by case basis.

Can a students take EDS classes at other campuses besides Lebanon or Richwood Valley?

- All EDS courses will only be offered at the OTC Lebanon Center or Richwood Valley Campus, but the General Education courses are offered at other campuses and online.

How many people are in each class?

- Seated lecture and lab courses taught by OTC faculty for the EDS program are capped at 24 students per location. Please keep in mind that while we ramp up the Richwood Valley Campus program the intial intake will be reduced. For fall 2021 we are planning to start with 18 at Richwood Valley.

Do students need their own computers?

- Although it is possible to be successful without a personal computer, computers and the Internet are used. Computers are available at all OTC locations for student use. Computer costs will not be covered by financial aid up front, but any refund given from financial aid can be used in the purchase of the item (if there is a refund).
- All necessary equipment, excluding textbooks and the personal student tools and safety gear, will be provided through the course fee.

What is the preferred course sequence?

		Credit Hours	Lab Fee
Semester One			
EDS 100	Intro to Electrical Distribution & Transmission	3	
EDS 120	Safety & Prevention Methods (<i>includes OSHA 10, CPR/First Aid, Flagger</i>)	4	Varies
EDS 160	Pole Climbing Skills	4	\$100.00
EDS 151	Commercial Driver License	3	
EDS 152	Commercial Driver License Lab	3	\$3,506.00
		17	
Semester Two			
EDS 150	Equipment Operation	4	\$75.00
EDS 170	Overhead Power Distribution	4	\$75.00
EDS 237	Transformer Theory	4	\$75.00
PLS 101	American Government & Politics (<i>allow HST 120 or HST 130 as substitution</i>)	3	
TEC 108	Applied Technical Mathematics (<i>allow MTH 130 as substitution</i>)	3	
		18	
Semester Three (Summer)			
EDS 290	Co-Operative Ed/Internship (1-3)	3	
		3	
Semester Four			
EDS 200	Electrical Distribution & Transmission II	4	\$75.00
EDS 246	Service Installation & Metering	3	
EDS 250	Gloving & Intro to Live Line Procedures	3	
	Social Science Elective	3	
ENG 101	English Composition I (<i>allow ENG 100/100A, ENG 102 and ENG 150 as substitutions</i>)	3	
		16	
Semester Five			
EDS 270	Underground Power Distribution	3	\$75.00
EDS 260	Distribution Systems Maintenance	4	\$100.00
COM 105	Public Speaking	3	
TES 140	Technical Physics (<i>allow PHY 105 as substitution</i>)	4	\$75.00
		14	
	PROGRAM TOTAL	68	
	Technical Education Course Hours	50	

Please complete this page and return a signed copy if you are applying for the Electrical Distribution Systems (EDS) program. You can drop this by the Lebanon Center office or email a scanned copy to eds@otc.edu . If you have any questions, please feel free to email Keith Dinwiddie at eds@otc.edu or call 417-447-8146

I _____ have read the frequently asked questions about the Electrical Distribution Systems program. I understand that I am responsible for knowing the content of this document and asking any additional questions I may have.

Signed,

Printed Name _____