transfr

Product Catalog

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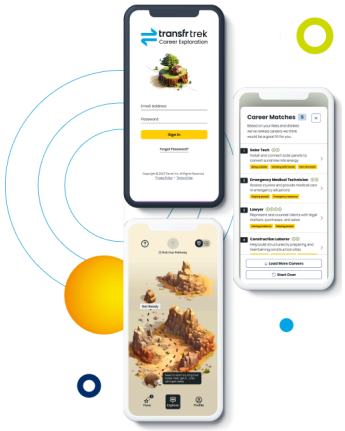
Transfr Trek



Transfr Trek is an immersive, multi-modal career exploration solution with interactive assessments, VR simulations, and easy career planning tools making career exploration more accessible and engaging for learners. It is built to prepare both youth and adult learners to navigate career details, adapt to the evolving job market, and get on a pathway to upward mobility.

Career Occupation Matching

In Transfr Trek's mobile experience, learners are matched to high-growth, high-demand occupations across all 16 career clusters based on their interests and can review localized career data including outlook, salary, and skills needed. Regional programs and recommended courses give learners guidance into available pathways to plan their career journey. For the complete list of occupations in Trek, visit the Appendix.

Transfr Trek Career Simulations

All career exploration simulations last less than 10 minutes and are available with closed captioning and in Spanish.

Agriculture, Food & Natural Resources	
Career	**Simulation**
Diesel Farm Equipment Mechanic	**Repair Diesel Farm Equipment** Diagnose and fix a combine harvester diesel engine.
Veterinary Technician	**Care for a Dog with an Ear Infection** Assist with treating a dog with ticks and an ear infection.

Arts & Audio/Video Technology & Communication	
Career	**Simulation**
Graphic Designer	**Redesign a Restaurant Brand Kit** Learn different graphic design concepts and apply them while using an image editing program to fix problems with a restaurant's brand kit.

Architecture & Construction	
Career	**Simulation**
Broadband Tower Construction	**Rebuild a Destroyed Communication Tower** Attach a new segment to rebuild a damaged communication tower.
Broadband Utility Construction	**Drill an Underground System** Use a horizontal directional drill to install underground conduit for fiber optic cable.
Broadband Fiber Installers and Repairer	**Repair Fiber Internet for a City Block** Repair a broken fiber optic cable to restore internet service.
Carpenter	**Rebuild a Historic Bakery Roof** Finish constructing and installing a roof truss assembly as part of a major repair to a historic building.
Construction Laborer	**Demolish an Overpass** Safely demolish an old overpass using power tools and explosives.
Distribution Line Worker	**Restore Power to a Neighborhood** Replace a transformer to fix a power outage in a neighborhood.

Electricians	**Fix Power Outage at a Hospital** Replace a faulty relay to restore power to a hospital.
Plumber, Pipefitter, and Steamfitter	**Prepare a Pipe for a Commercial Building** Perform the required safety precautions and procedures for cutting a pipe and preparing ends for welding.
Solar Technician	**Install a Solar Panel on a Home** Install a solar panel and connect the wires in the breaker box.
Transmission Line Worker	**Restore Power to an Entire Town** Change an insulator on a high voltage power line to restore electricity to a town.
HVAC Technician - NEW!	**Repair a Rooftop HVAC Unit** Investigate, repair, and perform routine maintenance on a commercial rooftop HVAC unit.

Health Sciences

Diagnostic Services Pathways	
Career	**Simulation & Description**
Radiologic Technologist (RT) (⚠️Content warning: blood)	**Capture an X-Ray of a Leg Wound** Assist with preparing a patient and radiologic equipment for capturing x-ray images of a penetrating wound with a foreign object in place.
Therapeutic Services Pathways	
Career	**Simulation & Description**
Certified Nursing Assistant (CNA) - NEW!	**Help Family Members Connect** Help a resident at a long-term care facility find their hearing aid and connect with their son.
Emergency Medical Technician (EMT)	**Help at a Car Crash** Assist with cervical spine precautions and applying a splint at the scene of a car crash.
Medical Assistant (MA)	**Assist with an Electrocardiogram (EKG)** Assist with a 12-lead electrocardiogram by applying and removing electrocardiograph leads on a patient in a medical facility.
Pharmacy Technician (PhT)	**Prepare an Intravenous (IV) Infusion** Assist with preparing and sending an intravenous (IV) infusion for an emergency room patient.
Surgical Technologist (ST) (⚠️Content warning: blood)	**Assist with Knee Surgery** Pass instruments to the surgeon and use a bone saw during surgery in an operating room.
Registered Nurse (RN)	**Help an Emergency Patient** Obtain a blood pressure measurement and start an intravenous line and infusion on a patient in the emergency room.

Finance

Career	**Simulation**
Financial Analyst	**Make an Investment Plan** Assess a foundation's investments and create a new plan to increase their earnings.

Hospitality & Tourism

Career	**Simulation**
Chef	**Prepare and Plate a Signature Dish** Help prepare the ingredients for an abalone risotto dish and plate the entree at a Korean-themed, fine dining restaurant.
Restaurant Manager	**Improve the Dining Experience at a Restaurant** Listen to customer complaints and resolve problems related to food quality around the restaurant.

Information Technology

Career	Simulation
Network Technician	**Fix an App Service Outage** Make and install a CAT6e cable to fix an offline app.

Law, Public Safety, Corrections & Security

Career	Simulation
Emergency Medical Technician (EMT)	**Help at a Car Crash** Assist with cervical spine precautions and applying a splint at the scene of a car crash.

Manufacturing

Career	Simulation
EV Battery Manufacturing Technician	**Assemble Components of an EV Battery** Assemble and test components of an electrical vehicle battery.
Industrial Maintenance Technician	**Repair an Industrial Cooker** Repair a broken industrial cooker to restart the production line in a food manufacturing plant.
Robotics Specialist	**Repair a Mobile Picker Bot** Repair a malfunctioning mobile picker robot so it can safely return to its automated tasks at a large fulfillment center.
Semiconductor Manufacturing Technician	**Find the Contaminated Microchips** Use a metrology tool to find which microchip is contaminated with particles.
Welders	**Fix a Broken Assembly Line** Weld a broken joint to repair a conveyor belt.

Transportation, Distribution & Logistics

Career	Simulation
A&P Technician	**Service a Commercial Airplane** Inspect a jet engine fan and repair a damaged tire to make an airplane safe for flight.
Electric Vehicle Service Technician	**Replace an EV Battery** Replace the EV battery in an electric vehicle.
Automotive Services Technician	**Change the Oil in an Automobile** Change the oil and the oil filter in an automobile.
CDL Truck Driver	**Prepare for a Trucking Route** Explore the features of a semi-truck and prepare for the final leg of a delivery.

Science, Technology, Engineering & Mathematics

Career	Simulation
Electrical Engineer - NEW!	**Design an Electrical System for a Hospital** Design an electrical system for a hospital that contains backup power sources and failsafes.

Career Training

Virtual Training Facility

The Transfr Virtual Training Facility's interactive VR learning experiences empower job seekers to build foundational skills and get on pathways to well-paying jobs in high-growth industries.

Automotive

Immersive virtual training environments give trainees a risk-free setting where they can practice and polish fundamental skills in automotive maintenance and light repair (MLR) and collision repair & refinish (CRR) to obtain entry-level employment as an automotive service or auto body technician.

Module: Automotive Fundamentals (Closed Captioning)

Simulation	Description	Duration
Controls Tutorial: Automotive	Learn and demonstrate basic use of the VR controllers in Automotive Fundamentals.	3 mins
Engine Oil Change	Learn and demonstrate how to perform an oil and filter change.	10 mins
Battery Safety and Service	Learn and demonstrate how to safely remove, replace, clean, test, and charge batteries.	18 mins
Starting and Charging Fundamentals	Learn and demonstrate how to identify and test for basic starting and charging system components (DTAC).	19 mins
Jacks, Jack Stands, and Lift Safety	Learn and demonstrate how to safely and properly place jacks, jack stands, and lifts.	22 mins
Automotive Safety Awareness: Airbag, ABS, ADAS and HV Batteries	Learn and demonstrate how to disable and handle air bags.	15 mins
Disc Brake Pad Replacement	Learn and demonstrate how to identify, inspect, remove, and replace disc brake components, including brake pads.	13 mins
Drum Brake Shoe Replacement	Learn and demonstrate how to identify, inspect, remove, and replace drum brake components, including brake shoes.	15 mins
Suspension System Types	Learn to identify various types of suspension system designs.	14 mins
Fuel System Fundamentals	Learn to identify air induction and fuel system components.	15 mins
Fuel System Safety	Learn and demonstrate how to perform a fuel system bleeding procedure.	17 mins
Engine Cylinder Compression Test	Learn and demonstrate how to perform a cylinder compression test.	18 mins
Steering System Types	Learn to identify various types of steering system designs.	16 mins

Module: Auto Body / Collision Repair (Closed Captioning)

Simulation	Description	Duration
Hand Tools Used in Auto Body	Learn and demonstrate knowledge of common auto body hand tools.	20 mins
Power Tools Used in Auto Body	Learn and demonstrate how to inspect and safely use power tools used in auto body.	14 mins

Basic Auto Body Straighten Fundamentals - Hammer & Dolly	Learn and demonstrate how to use a hammer and dolly for basic dent repair.	9 mins
Basic Auto Body Straighten Fundamentals - Weld-on pulling	Learn and demonstrate how to use weld-on pulling equipment for basic dent repair.	26 mins
Basic Auto Body Filler: Prep	Learn and demonstrate how to prepare a workpiece to receive body filler.	13 mins
Basic Auto Body Filler: Application	Learn and demonstrate how to efficiently apply filler, keeping imperfections to a minimum so the need for extra sanding can be mitigated.	12 mins
Basic Auto Body Filler: Sanding	Learn and demonstrate how to sand and contour filler using both power tools and hand sanding.	17 mins
Masking for Priming	Learn and demonstrate how to use tape and plastic to mask parts of the car prior to priming and painting.	15 mins
Paint Gun: Inspect and Clean	Learn and demonstrate how to inspect, clean, and disassemble a paint gun.	14 mins
Paint Gun: Set up and Spray Patterns	Learn and demonstrate how to properly set up and adjust spray patterns for a paint gun.	14 mins
Priming Panels	Learn and demonstrate how to test primer and apply a single-stage topcoat to a workpiece.	20 mins
Primer Prep for Painting	Learn and demonstrate how to prepare a workpiece for painting, including dry-block sanding and applying a guide coat.	16 mins
Paint Selection and Mixing	Learn and demonstrate how to measure and mix different paint colors.	15 mins
Basic Painting	Learn and demonstrate the basics of paint spraying.	19 mins
Advanced Painting	Learn and demonstrate how to test paint spray and apply a basecoat and clearcoat.	20 mins
Basic Electrical Tools: Test Light	Learn and demonstrate how to use a test light to check fuses, relays, and wires for ground and continuity.	6 mins
Electrical Repair: Connectors, Terminals, and Splicing	Learn and demonstrate construction, splicing, repair, and use of connectors and terminals.	15 mins
Bead Blasting	Learn and demonstrate how to remove paint and rust using high pressure blasting tools without damaging the part's surface.	15 mins
Powder Coating	Learn and demonstrate how to apply electrostatically-charged powder coating to the part's surface.	28 mins

Module: Precision Measurement (Closed Captioning)

Simulation	Description	Duration
Intro to Simon	Introduction to the virtual coach.	1 mins
Controls Tutorial: Picking Up Objects	Learn and demonstrate basic use of the VR controllers.	2 mins
Fractional Inch Rule	Learn to take measurements with a fractional inch rule.	7 mins
Decimal Inch Rule	Learn to take measurements with a decimal inch rule.	7 mins
Metric Rule	Learn to take measurements with a metric rule.	6 mins
Controls Tutorial: Calipers	Learn and demonstrate how to use the caliper controls.	2 mins
Outside Caliper	Learn and demonstrate how to use an outside caliper to take a transfer measurement with a fractional inch rule.	5 mins
Inside Caliper	Learn and demonstrate how to use an inside caliper to take a transfer measurement with a fractional inch rule.	5 mins
Controls Tutorial: Calipers II	Learn and demonstrate how to use the dial inch and digital caliper controls.	2 mins
Dial Inch Caliper	Learn and demonstrate how to use a dial inch caliper to take inside, outside, and depth measurements.	8 mins
Digital Caliper	Learn and demonstrate how to use a digital caliper to take inside, outside, and depth measurements.	5 mins

Controls Tutorial: Micrometer	Learn and demonstrate how to use the micrometer control.	2 mins
Micrometer	Learn and demonstrate how to measure using an analog micrometer.	10 mins
Digital Micrometer	Learn and demonstrate how to measure using a digital micrometer.	5 mins
Calibration and Zeroing	Learn and demonstrate how to check the calibration of precision tools and how to zero digital calipers and micrometers.	9 mins
Simplify Fractions: Halves	Learn to recognize and simplify fractions with a denominator of 2.	8 mins
Simplify Fractions: Quarters	Learn to recognize and simplify fractions with a denominator of 4.	8 mins
Simplify Fractions: 8ths	Learn to recognize and simplify fractions with a denominator of 8.	10 mins
Simplify Fractions: 16ths and Compound Fractions	Learn to recognize and simplify fractions with a denominator of 16. They'll also learn to recognize compound fractions and convert them to whole numbers.	10 mins
Simplifying Fractions: 32nds, 64ths, and the Scale Rule	Learn to recognize and simplify fractions with denominators of 32 and 64. They'll also learn and demonstrate how to take measurements using a scale rule.	10 mins
Rounding Decimals	Learn and demonstrate how to round measurements to the nearest 10th, 100th, and 1000th decimal places.	12 mins

Module: Electrical Fundamentals (Closed Captioning)

Simulation	Description	Duration
Electrical Fundamentals: Circuits & Ohm's Law	Learn and demonstrate knowledge of electrical/electronic series, parallel, and series-parallel circuits using principles of electricity (Ohm's Law).	25 mins
Electrical Test Equipment - Multimeter: Voltage	Learn and demonstrate how to use a multimeter to measure the voltages in specified devices—from line to neutral and neutral to ground—including setting it properly for expected readings and safely using probes to place the meter in parallel with the circuit.	28 mins
Electrical Fundamentals: Electrical Repair - Basic Soldering	Learn and demonstrate basic soldering skills.	16 mins

Module: Plant Safety (Closed Captioning)

Simulation	Description	Duration
Intro to Simon, Accidents and Injury Prevention	Learn and demonstrate accident and injury prevention awareness, including identifying fire hazards; safe lifting; basic lockout-tagout procedures; and workplace hazards.	18 mins
Protective Equipment: Eye, Hearing, Hand, and Foot Protection and Hearing Conservation	Learn and demonstrate personal protective equipment (PPE) usage.	12 mins
Hand Tools: Inspecting and Identifying Correctly	Learn and demonstrate how to identify and inspect the following common hand tools: slip-joint pliers, Phillips head screwdriver, sheet metal shears, torque wrench, utility knife, and wrench.	7 mins
Hand Tools: Using Hand Tools Correctly	Learn and demonstrate how to use the following common hand tools: slip-joint pliers, Phillips head screwdriver, sheet metal shears, torque wrench, utility knife, and wrench.	15 mins
Materials Handling: Situational Awareness	Learn and demonstrate situational awareness in a warehouse environment.	6 mins
Materials Handling: Receiving and Storage Safety	Learn and demonstrate safe receiving and storage techniques.	11 mins
Materials Handling: Manual Lifting	Learn and demonstrate safe manual lifting techniques.	8 mins
Materials Handling: Metal/Glass Sheets and Cylindrical Objects	Learn and demonstrate how to safely lift and handle metal/glass sheets and cylindrical objects.	7 mins
Materials Handling: Hoists & Cranes	Learn and demonstrate basic safety practices for working with and around hoists and cranes.	22 mins

Energy Related Hazards (Electrical Safety, GFCI, and Electric Shock)	Learn and demonstrate awareness of energy-related hazards and the techniques to avoid or mitigate them.	10 mins
Lockout & Tagout	Learn and demonstrate a lockout-tagout procedure.	7 mins
Robotic Safety	Learn and demonstrate awareness of robotic work cell safety.	10 mins
Ladder Safety: A-Frame Stepladders	Learn and demonstrate how to inspect, safely set up, and properly use an A-frame stepladder.	10 mins
Ladder Safety: Straight Ladders	Learn and demonstrate how to inspect, safely set up, and properly use a straight ladder.	12 mins
Fire Extinguisher Safety	Learn and demonstrate knowledge of the types of fire extinguishers and how to safely operate them.	8 mins
Safety Data Sheets	Learn and demonstrate how to use Safety Data Sheets to identify chemical-related hazards, first aid measures, and personal protective equipment.	10 mins
Bloodborne Pathogens	Learn and demonstrate knowledge of the types of bloodborne pathogens, as well as how to protect themselves with personal protective equipment and safety procedures.	8 mins
Power Tools/Electrical Safety: Pneumatic Wrenches and Screwdrivers	Learn and demonstrate how to inspect and safely use pneumatic wrenches and screwdrivers.	14 mins
Power Tools/Electrical Safety: Electric Drill	Learn and demonstrate how to inspect and safely use an electric drill.	11 mins
Power Tools/Electrical Safety: Circular Saw	Learn and demonstrate how to inspect and safely use a circular saw.	15 mins
Power Tools/Electrical Safety: Miter Saw	Learn and demonstrate how to inspect and safely use a miter saw.	9 mins
Power Tools/Electrical Safety: Bench and Pedestal Grinders	Learn and demonstrate how to inspect and safely use a pedestal grinder.	15 mins
Power Tools/Electrical Safety: Handheld Grinders	Learn and demonstrate how to inspect and safely use a handheld grinder.	13 mins
Power Tools/Electrical Safety: Nibblers	Learn and demonstrate how to inspect and safely use a nibbler.	10 mins
Welding Safety: Burn Safety	Learn and demonstrate knowledge of the types of burn risks associated with welding arcs, as well as how to protect themselves with personal protective equipment and safety procedures.	8 mins
Welding Safety: Spot Welding Safety	Learn and demonstrate how to safely use resistance welding equipment.	9 mins
Welding Safety: MIG Welding Safety	Learn and demonstrate how to safely use MIG welding equipment.	12 mins
Welding Safety: Oxy-Acetylene Safety	Learn and demonstrate how to safely use oxy-acetylene welding equipment.	14 mins

Aviation Maintenance

Aviation maintenance training from Transfr gives students simulated practice and preparation in FAA Aviation Mechanics (FAA-AMT). Over 60 simulations help prepare trainees and job seekers with the skills they need to obtain entry-level employment as an aircraft mechanic and service technician.

Module: General Skills		
Simulation	**Description**	
Ground Operations: Moving and Securing	Move and secure an aircraft on a ramp.	18 mins
Ground Operations: Fueling Preparation	Learn and demonstrate how to fuel and service a parked aircraft.	16 mins
Ground Operations: Starting and Running	Learn and demonstrate how to start and run an aircraft.	17 mins
Ground Operations: Taxiing and Shutdown	Learn and demonstrate how to taxi and shutdown an aircraft.	17 mins
Aircraft Weight and Balance	Calculate an aircraft's empty weight and empty weight center of gravity, and adjust calculations following a component change.	19 mins
Precision Measurements: Dial Indicator	Learn and demonstrate how to set up and use a dial indicator to determine the amount of runout or bend in a circular component.	12 mins
Precision Measurements: Hole Gauge	Use T-bore hole gauges and digital calipers to determine a hole size.	8 mins
Aircraft Cleaning and Corrosion Treatment: Metal Structure	Inspect metal structures for corrosion and remove the damage, then clean and prepare the structures for corrosion prevention and painting.	13 mins
Preparation for Applying N-number - Composite Structure	Prepare composite structures for painting and apply registration markings.	17 mins
Non-Destructive Testing: Dye Penetrant	Demonstrate the basics of dye penetrant testing, including preparing for and performing the test and interpreting results.	15 mins
Non-Destructive Testing: Eddy Current	Demonstrate the basics of eddy current testing, including preparing for and performing the test and interpreting results.	20 mins
Non-Destructive Testing: Ultrasonic	Demonstrate the basics of ultrasonic testing, including preparing for and performing the test and interpreting results.	13 mins
Non-Destructive Testing: Magnetic Particle	Demonstrate the basics of magnetic particle testing, including preparing for and performing the test and interpreting results.	19 mins
Non-Destructive Testing: Tap Test	Demonstrate the basics of tap testing, including preparing for and performing the test and interpreting results.	6 mins
Fabrication of Rigid Fluid Lines	Cut, bend, and flare rigid lines, and install proper fittings.	14 mins
Fabrication of Flexible Fluid Lines	Cut, bend, and flare flexible lines, and install proper fittings.	15 mins

Module: Airframe Skills

Simulation	Description	Duration
Sheet Metal Fabrication	Fabricate a sheet metal doubler plate for an antenna installation, including cutting sheet metal to proper dimensions and determining proper rivet layout.	15 mins
Sheet Metal Repair	Install a flush patch for a damaged sheet metal skin, including riveting the patch to the aircraft skin.	18 mins
Composite Repair	Cut out and repair the damaged area of a composite surface on a Lear 35.	15 mins
Plastic Repair	Learn how to repair a cracked acrylic window using two different methods.	16 mins
Rudder Balance and Cable Terminal End Swaging	Check the balance of the rudder, then swage the cable terminal end to the specified dimension.	15 mins
Aileron Rigging	Confirm the following are rigged to specification and adjust as needed: bellcrank stop bushing position, carry-through cable tension, aileron flushness with adjacent flap, and aileron travel.	16 mins
LG Maintenance: Shock Struts	Remove, rebuild, replace, and service shock struts.	18 mins
LG Maintenance: Brake Bleeding	Service a brake system with hydraulic fluid, including performing gravity brake bleeding and pressure brake bleeding.	18 mins
LG Maintenance: Brake Lining Replacement	Perform brake system maintenance, including replacing the brake lining.	20 mins
LG Maintenance: Wheel Bearings	Remove the wheel and remove, inspect, pack, and reinstall wheel bearings.	15 mins
LG Maintenance: Wheel and Tire Replacement	Disassemble the wheel, remove the tire from the wheel and inspect it, and then reassemble the wheel.	15 mins
LG Maintenance: Retraction Test	Perform a retraction test, including swinging the landing gear, and a position indication system check.	13 mins
LG Maintenance: Wheel Alignment	Check landing gear alignment for camber and toe-in/out.	13 mins
Hydraulic and Pneumatic System Maintenance: Component R&R	Remove and replace the hydraulic accumulator and the hydraulic system filter.	17 mins
Hydraulic and Pneumatic System Maintenance: Component Servicing	Service a hydraulic reservoir and accumulator.	15 mins
Static and Pitot Leak Checks	Perform leakage checks on the static and pitot systems.	15 mins
ELT Inspection	Inspect and install an emergency locator transmitter.	12 mins
Antenna Installation	Install a GPS antenna on an aircraft, including setting proper antenna placement, measuring and marking for the antenna, and attaching the antenna to the aircraft.	22 mins
Fuel System Maintenance: Inspect & Service	Inspect, check, and service a fuel system on a Cessna 172.	15 mins
Fuel System Component: Remove & Replace	Remove and replace the fuel quantity transmitter and selector valve, then prime the aircraft fuel system.	15 mins
AC Electrical System Troubleshooting	Troubleshoot electrical shorts in the alternator system and remove the alternator.	18 mins
DC Electrical System Troubleshooting	Troubleshoot a DC electrical system and repair a broken circuit wire.	13 mins
Inspect and Check Anti-Ice Systems	Engage, inspect, and troubleshoot anti-ice systems on a Cessna 172 aircraft.	15 mins

Module: Powerplant Skills

Simulation	Description	Duration
Reciprocating Engine: Cylinder and Piston Assembly	Assemble the piston and cylinder assemblies and install them on the engine.	16 mins

Reciprocating Engine: Cylinder Compression Test	Perform an engine cylinder compression test.	15 mins
Reciprocating Engine: Baffling Repair	Repair the baffling on a reciprocating engine.	16 mins
Reciprocating Engine: Induction Filter Change	Replace the induction air filter and inspect the carburetor airbox.	15 mins
Reciprocating Engine: Exhaust Inspection	Inspect, and perform a pressure test on, the exhaust system of a reciprocating engine.	17 mins
Reciprocating Engine: Starter System Inspection and Replacement	Inspect the starter system and replace the starter.	15 mins
Reciprocating Engine: Carburetor System Maintenance	Install and adjust the carburetor fuel metering system.	15 mins
Reciprocating Engine: Fuel Injection System Maintenance	Remove, inspect, install, and adjust the (continuous flow) fuel injection system, including the fuel nozzle.	15 mins
Reciprocating Engine Ignition: Internal Magneto Timing	Determine the internal timing of a magneto.	15 mins
Reciprocating Engine Ignition: Magneto to Engine Timing	Determine magneto-to-engine timing.	15 mins
Reciprocating Engine: Oil System Inspection	Remove, inspect, and replace engine oil filter and adjust oil pressure relief valve.	23 mins
Reciprocating Engine: Oil Pressure Gauge Troubleshooting	Troubleshoot the oil pressure system and replace a faulty gauge.	15 mins
Propeller: Inspection and Repair	Measure the blade angle, perform static tracking, and file out a nick.	15 mins
Reciprocating Engine: Operational Check	Perform an engine operation check to ensure instruments and systems are functional.	15 mins
Turbine Engine: Compressor Inspection	Remove components to access the compressor and inspect it for damage.	14 mins
Turbine Engine: Combustion Liner Inspection	Remove the combustion liner and inspect it for defects.	12 mins
Turbine Engine: Oil System Inspection	Inspect and service the oil system.	24 mins
Turbine Engine: EGT Inspection	Inspect the turbine engine exhaust gas temperature thermocouple.	15 mins
Turbine Engine: Ignition System Inspection	Inspect and repair the ignition/starting components on a turbine engine, including igniters.	19 mins
Turbine Engine: Fuel Injection System Maintenance Part 1	Inspect the fuel injection system, including removing components and checking the fuel nozzle spray pattern.	20 mins
Turbine Engine: Fuel Injection System Maintenance Part 2	Inspect the fuel injection system, including removing and replacing components and checking the fuel filter flow rate.	12 mins
Turbine Engine: Induction System Inspection	Inspect the turbine engine anti-icing and bleed air valves.	18 mins
Turbine Engine: Generator Inspection	Inspect the turbine engine starter/generator.	14 mins

Module: Precision Measurement (Closed Captioning)

Simulation	Description	Duration
Intro to Simon	Introduction to the virtual coach.	1 mins

Controls Tutorial: Picking Up Objects	Learn and demonstrate basic use of the VR controllers.	2 mins
Fractional Inch Rule	Learn to take measurements with a fractional inch rule.	7 mins
Decimal Inch Rule	Learn to take measurements with a decimal inch rule.	7 mins
Metric Rule	Learn to take measurements with a metric rule.	6 mins
Controls Tutorial: Calipers	Learn and demonstrate how to use the caliper controls.	2 mins
Outside Caliper	Learn and demonstrate how to use an outside caliper to take a transfer measurement with a fractional inch rule.	5 mins
Inside Caliper	Learn and demonstrate how to use an inside caliper to take a transfer measurement with a fractional inch rule.	5 mins
Controls Tutorial: Calipers II	Learn and demonstrate how to use the dial inch and digital caliper controls.	2 mins
Dial Inch Caliper	Learn and demonstrate how to use a dial inch caliper to take inside, outside, and depth measurements.	8 mins
Digital Caliper	Learn and demonstrate how to use a digital caliper to take inside, outside, and depth measurements.	5 mins
Controls Tutorial: Micrometer	Learn and demonstrate how to use the micrometer control.	2 mins
Micrometer	Learn and demonstrate how to measure using an analog micrometer.	10 mins
Digital Micrometer	Learn and demonstrate how to measure using a digital micrometer.	5 mins
Calibration and Zeroing	Learn and demonstrate how to check the calibration of precision tools and how to zero digital calipers and micrometers.	9 mins
Simplify Fractions: Halves	Learn to recognize and simplify fractions with a denominator of 2.	8 mins
Simplify Fractions: Quarters	Learn to recognize and simplify fractions with a denominator of 4.	8 mins
Simplify Fractions: 8ths	Learn to recognize and simplify fractions with a denominator of 8.	10 mins
Simplify Fractions: 16ths and Compound Fractions	Learn to recognize and simplify fractions with a denominator of 16. They'll also learn to recognize compound fractions and convert them to whole numbers.	10 mins
Simplifying Fractions: 32nds, 64ths, and the Scale Rule	Learn to recognize and simplify fractions with denominators of 32 and 64. They'll also learn and demonstrate how to take measurements using a scale rule.	10 mins
Rounding Decimals	Learn and demonstrate how to round measurements to the nearest 10th, 100th, and 1000th decimal places.	12 mins

Module: Electrical Fundamentals (Closed Captioning)

Simulation	Description	Duration
Electrical Fundamentals: Circuits & Ohm's Law	Learn and demonstrate knowledge of electrical/electronic series, parallel, and series-parallel circuits using principles of electricity (Ohm's Law).	25 mins
Electrical Test Equipment - Multimeter: Voltage	Learn and demonstrate how to use a multimeter to measure the voltages in specified devices—from line to neutral and neutral to ground—including setting it properly for expected readings and safely using probes to place the meter in parallel with the circuit.	28 mins
Electrical Fundamentals: Electrical Repair - Basic Soldering	Learn and demonstrate basic soldering skills.	16 mins

Diesel Technology

Comprehensive, task-based VR simulations give trainees and job-seekers simulated, virtual experience to build basic knowledge and skills in truck maintenance and diesel technology for entry-level employment as a bus/truck mechanic, farm equipment mechanic and service technician, or heavy equipment mechanic.

Module: Diesel Vehicle Maintenance		
Simulation	**Description**	**Duration**
Lifting Devices	Trainee will properly place jack stands and lift a diesel truck.	16 mins
Tire Inspection	Inspect and service a tire on a commercial dual-tire fitment.	17 mins
Tire Replacement	Remove and replace two tires in a diesel vehicle.	21 mins
Oil and Filter Service	Perform an oil and filter service on both Cummins X15 and Detroit DD15 engines.	23 mins
Fuel System Service	Replace a fuel filter, as well as prime and bleed the fuel systems for Cummins X15 and Detroit DD15 engines.	20 mins
Fundamental Analysis: Air Compressor Replacement	Identify the brake system components and configurations of air S-cam brakes, as well as operate and replace an air compressor.	20 mins
Fundamental Analysis: Air Distribution System	Remove and replace the air governor, dryer, and reservoir.	17 mins
Fundamental Analysis: Air Valve Arrangement	Identify and replace air supply and service system components.	19 mins
Drum Brake Inspection and Repair	Remove, clean, and inspect a drum brake.	15 mins
Parking Brakes Analysis and Repair	Cage and uncage the spring brakes, identify and inspect slack adjusters, and replace the spring brake chamber.	22 mins
CAM Brake Replacement	Perform an S-cam brake replacement, including removing the drum brake and shoes, assembling replacement shoes, and adjusting and uncaging the brakes.	19 mins
Wheel Ends	Disassemble and assemble a wheel-end assembly, including lubricating, chocking, and replacing and adjusting wheel bearings and races/cups, as well as inspecting spindles/tubes and other hardware. Trainee will also check the hub assembly fluid level and condition and verify end play using the dial indicator method.	31 mins
Steering Gearbox Replacement	Remove and replace a power steering gearbox. Trainee will complete the post installation inspection.	20 mins
Tie Rod End Replacement	Replace tie rods and ball joints.	19 mins
Remove & Replace Steering Linkages	Remove and replace steering linkage components including: drag link, Pitman arm, and steering shaft.	20 mins
Kingpin Assembly Inspection	Inspect parts of the lower steering system including the kingpin assembly and tie rod ends.	16 mins
Kingpin Replacement	Replace the kingpin.	26 mins
Shock Absorber Replacement	Replace shock absorbers, bushings, brackets, and mounts in a diesel truck.	10 mins
Leaf Spring Replacement	Replace leaf springs, center bolts, pins, bushings, shackles, and U-bolts in a diesel truck.	19 mins
Drivetrain Inspection	Lubricate the clutch and U-joints, and service both the transmission and rear axles of a diesel truck.	20 mins
Battery Replacement	Diagnose, remove, and replace a battery in a diesel truck.	19 mins
Starter Replacement	Diagnose, remove, and replace a starter motor in a diesel truck.	13 mins
Engine Analysis	Diagnose and test engine oil, DEF, and engine coolant in a diesel truck.	18 mins

Module: Diesel Engine Overhaul

Simulation	Description	Duration
Exhaust System Removal	Remove the turbocharger, exhaust manifold, and thermostat housing.	26 mins
Air Intake, EGR, and Crankcase Ventilation Removal	Remove the air intake, EGR, and crankcase ventilation.	20 mins
Fuel Supply System and Cam Gear Removal	Remove the external engine fuel system components and camshaft gears.	15 mins
Cylinder Head Overhaul	Disassemble the valve cover, valve train, camshafts, and injectors, then remove the cylinder head.	21 mins
Cylinder Head Analysis	Inspect the surface of a cylinder head for damage using two non-destructive tests.	16 mins
Cylinder Head Integrity Process	Measure and assess cylinder head warpage.	17 mins
Cylinder Head Disassembly and Assembly	Disassemble and reassemble the cylinder head valves and injectors.	15 mins
Cylinder Liner and Head Valve Protrusion Tests	Perform cylinder liner and head valve protrusion tests using a dial indicator.	19 mins
Cylinder Head Installation	Install the cylinder head, valve bridge, and engine injectors.	16 mins
Dual Overhead Cam and Valve Train Installation	Install the dual overhead camshaft and valve train.	15 mins
Fuel Supply System Installation	Install the fuel supply system.	15 mins
Air Intake, EGR, and Crankcase Ventilation Assembly	Assemble the air intake, EGR, and crankcase ventilation.	15 mins
Exhaust System Installation	Assemble and install the turbocharger, exhaust manifold, and thermostat housing.	20 mins
Valve and Injector Adjustments	Adjust valve bridges, valve clearances, and injector settings.	18 mins
Timing and Backlash Procedure: Part 1	Learn to inspect and install the timing gear train.	6 mins
Timing and Backlash Procedure: Part 2	Inspect and install the timing gear train and adjust gear backlash.	27 mins
Crankshaft Removal	Prepare the engine and remove the crankshaft.	16 mins
Piston and Connecting Rod Removal	Remove the piston cooling jets, and the piston and connecting rod assembly.	15 mins
Cylinder Liner Removal and Reinstallation	Remove and reinstall the cylinder liners and seals.	13 mins
Main Bearing Replacement	Replace main bearings and thrust bearings.	14 mins
Crankshaft End Play Measurement	Check and correct crankshaft end play.	13 mins
Piston Assembly and Measurement	Measure clearances, install piston rings, and put together the assembly.	18 mins
Piston and Bearing Installation	Install a piston, connecting rod, and bearings into a cylinder liner.	16 mins

Module: Precision Measurement (Closed Captioning)

Simulation	Description	Duration
Intro to Simon	Introduction to the virtual coach.	1 mins
Controls Tutorial: Picking Up Objects	Learn and demonstrate basic use of the VR controllers.	2 mins
Fractional Inch Rule	Learn to take measurements with a fractional inch rule.	7 mins
Decimal Inch Rule	Learn to take measurements with a decimal inch rule.	7 mins

Metric Rule	Learn to take measurements with a metric rule.	6 mins
Controls Tutorial: Calipers	Learn and demonstrate how to use the caliper controls.	2 mins
Outside Caliper	Learn and demonstrate how to use an outside caliper to take a transfer measurement with a fractional inch rule.	5 mins
Inside Caliper	Learn and demonstrate how to use an inside caliper to take a transfer measurement with a fractional inch rule.	5 mins
Controls Tutorial: Calipers II	Learn and demonstrate how to use the dial inch and digital caliper controls.	2 mins
Dial Inch Caliper	Learn and demonstrate how to use a dial inch caliper to take inside, outside, and depth measurements.	8 mins
Digital Caliper	Learn and demonstrate how to use a digital caliper to take inside, outside, and depth measurements.	5 mins
Controls Tutorial: Micrometer	Learn and demonstrate how to use the micrometer control.	2 mins
Micrometer	Learn and demonstrate how to measure using an analog micrometer.	10 mins
Digital Micrometer	Learn and demonstrate how to measure using a digital micrometer.	5 mins
Calibration and Zeroing	Learn and demonstrate how to check the calibration of precision tools and how to zero digital calipers and micrometers.	9 mins
Simplify Fractions: Halves	Learn to recognize and simplify fractions with a denominator of 2.	8 mins
Simplify Fractions: Quarters	Learn to recognize and simplify fractions with a denominator of 4.	8 mins
Simplify Fractions: 8ths	Learn to recognize and simplify fractions with a denominator of 8.	10 mins
Simplify Fractions: 16ths and Compound Fractions	Learn to recognize and simplify fractions with a denominator of 16. They'll also learn to recognize compound fractions and convert them to whole numbers.	10 mins
Simplifying Fractions: 32nds, 64ths, and the Scale Rule	Learn to recognize and simplify fractions with denominators of 32 and 64. They'll also learn and demonstrate how to take measurements using a scale rule.	10 mins
Rounding Decimals	Learn and demonstrate how to round measurements to the nearest 10th, 100th, and 1000th decimal places.	12 mins

Module: Electrical Fundamentals (Closed Captioning)

Simulation	Description	Duration
Electrical Fundamentals: Circuits & Ohm's Law	Learn and demonstrate knowledge of electrical/electronic series, parallel, and series-parallel circuits using principles of electricity (Ohm's Law).	25 mins
Electrical Test Equipment - Multimeter: Voltage	Learn and demonstrate how to use a multimeter to measure the voltages in specified devices—from line to neutral and neutral to ground—including setting it properly for expected readings and safely using probes to place the meter in parallel with the circuit.	28 mins
Electrical Fundamentals: Electrical Repair - Basic Soldering	Learn and demonstrate basic soldering skills.	16 mins

Electrical Construction

Transfr's Electrical Construction curriculum helps organizations efficiently prepare learners for entry-level electrical construction roles without the costs of consumables or safety concerns. Thirty engaging NCCER-aligned simulations give trainees opportunities to develop knowledge and skills in commercial electrical construction like conduit bending and install, wire pulling, installing prefabs and boxes.

Module: Electrical Construction		
Simulation	**Description**	**Duration**
Conduit Bending: Introduction to 90-Degree Stub-Ups	Introduction to 90-degree stub-ups and will learn and demonstrate how to measure, mark, and bend them.	25 mins
Conduit Bending: Calculating and Performing 90-Degree Bends	Demonstrate how to take measurements, then calculate and perform a 90-degree bend.	27 mins
Conduit Bending: Introduction to Offsets	Introduction to offsets, then learn and demonstrate how to bend and evaluate them.	30 mins
Conduit Bending: Preparing and Performing Offsets	Learn and demonstrate how to evaluate and measure obstacles, then bend offsets around them.	30 mins
Conduit Bending: Calculating and Evaluating Offsets	Learn and demonstrate how to calculate and convert measurements interpreted from a job site, then lay out and evaluate offset bends according to specifications.	23 mins
Single MC Prefab Assembly	Learn and demonstrate how to assemble, then install, a prefab device for a single MC.	18 mins
Single Conduit Prefab Assembly	Learn and demonstrate how to build a single conduit box bracket prefab device.	17 mins
Assessment 1	Assemble and install a prefab device for a single MC installation, prepare an EMT, bend a 90-degree stub-up, and bend and evaluate an offset.	20 mins
Single MC 1	Learn and demonstrate how to complete a single MC installation without an HR box present.	20 mins
Single MC 2	Complete a single MC installation with an overhead box present.	22 mins
Single MC 3	Learn and demonstrate how to complete a single MC installation with an obstruction.	14 mins
Single MC 4	Learn and demonstrate how to complete a single MC installation when extra vertical and horizontal supports are required.	22 mins
Assessment 2	Assess the jobsite to determine correct measurements and calculations for 90-degree conduit and offset bends, and complete a single MC installation in an OH box.	20 mins
Horizontal MC 1	Learn and demonstrate how to run a horizontal MC between boxes of the same height, with a focus on taking measurements and punching holes in studs.	30 mins
Horizontal MC 2	Learn and demonstrate how to run a horizontal MC between boxes of different heights.	24 mins
Horizontal MC 3	Learn and demonstrate how to run a horizontal MC between boxes with obstructions.	20 mins
Horizontal Conduit 1	Learn and demonstrate how to run conduit between boxes of the same height, with a focus on taking measurements and punching holes in studs.	30 mins
Horizontal Conduit 2	Learn and demonstrate how to run conduit between boxes of different heights.	29 mins
Horizontal Conduit 3	Learn and demonstrate how to run conduit between boxes with obstructions.	32 mins
Single Conduit Install 1	Install single conduit that must be trimmed to meet elevation requirements and connect to an HR box present.	32 mins
Single Conduit Install 2	Learn and demonstrate how to install a single conduit that must have a 90-degree stub bent to fit a predetermined elevation and that may have an HR box present.	35 mins

Single Conduit Install 3	Learn and demonstrate how to install a single conduit that must be extended in length to meet the predetermined elevation.	34 mins
Single Conduit Install 4	Determine elevation and alter a prefab conduit with 90-degree stubs to proper elevation when an OH box is present.	32 mins
Supporting Boxes and Racks Overhead	Learn and demonstrate how to install overhead supports for use in concrete and steel, including wedge anchors, actuated fasteners, and beam clamps.	25 mins
Assessment 3	Install a wedge anchor for an HR box, prepare and install horizontal conduit between two wall device boxes, and install single conduit between a wall box and the HR box.	24 mins
Installing HR & OH 2100 Boxes	Learn and demonstrate how to mark locations for ceiling fasteners, as well as safely install HR and OH 2100 boxes using actuated fasteners, wedge anchors, and beam clamps.	29 mins
Overhead MC Install 1	Learn and demonstrate how to install an overhead MC, with a focus on installing the MC.	20 mins
Overhead MC Install 2	Learn and demonstrate how to install and support an overhead MC, with a focus on supporting the MC.	24 mins
Overhead MC Install 3	Learn and demonstrate how to install an overhead MC when there is insufficient room to support the MC above the box.	21 mins
Wall Wire Pulling	Learn and demonstrate how to prepare for, label, and safely pull wire from wall boxes to an overhead box.	17 mins
Overhead Branch Conduit 1	Learn and demonstrate how to install EMT conduit that includes overhead supports and couplings, per specifications.	20 mins
Overhead Branch Conduit 2	Learn and demonstrate how to install EMT conduit that includes overhead supports, couplings, and type-C conduit bodies, per specifications.	19 mins
Overhead Branch Conduit 3	Learn and demonstrate how to calculate, bend, and install EMT conduit that includes overhead supports, couplings, and type-C conduit bodies, per specifications.	20 mins
Assessment 4	Prepare and install horizontal conduit between two wall device boxes, install single MC, install an OH 2100 box, and run branch conduit with a 30-degree offset.	20 mins

Module: Construction Safety (Closed Captioning)

Simulation	Description	Duration
Job Site Safety: Situational Awareness	Learn and demonstrate job site situational awareness.	18 mins
Personal Protective Equipment: Respirators	Learn and demonstrate awareness of respiratory hazards and how to use a respirator.	13 mins
Extension Ladder Safety	Properly inspect, set up, and use an extension ladder.	12 mins
Scaffolds	Learn and demonstrate how to safely use scaffolds.	14 mins
Layout Tools: Squares, Plumb Bobs, and Levels	Identify and use levels, squares, and a plumb bob.	12 mins
Hand Tools: Hand Saws	Learn and demonstrate how to inspect and safely use a hand saw.	16 mins
Hand Tools: Hack Saws	Learn and demonstrate how to inspect and safely use a hacksaw.	16 mins
Power Tools: Impact Wrenches	Learn and demonstrate how to inspect and safely use an impact wrench.	15 mins
Power Tools: Hammer Drill	Inspect and safely use a hammer drill.	12 mins
Power Tools: Reciprocating Saw	Learn and demonstrate how to inspect and safely use a reciprocating saw.	14 mins
Power Tools: Portable Band Saw	Learn and demonstrate how to inspect and safely use a portable band saw.	16 mins
Power Tools: Cutoff Saw	Inspect and safely use a cutoff saw.	12 mins
Construction Drawings 1	Learn and demonstrate how to identify various types of construction drawings, as well as interpret their purpose and fundamental components.	16 mins
Construction Drawings 2	Read construction drawings and measure dimensions with an architect's scale.	12 mins
Materials Handling: Safety Concepts and Precautions	Learn and demonstrate knowledge of common material handling safety precautions.	16 mins

Materials Handling: Placards	Learn and demonstrate how to identify and understand common hazardous materials placards.	15 mins
Materials Handling: Non-Motorized Equipment	Learn and demonstrate how to plan a safe route when using a pallet jack.	16 mins
Materials Handling: Motorized Equipment	Learn and demonstrate how to identify and safely be around motorized material handling equipment.	19 mins
Intro to Rigging Equipment	Learn about different types of slings and shackles commonly used in rigging.	19 mins
Intro to Rigging Hitches	Learn basic concepts and safety practices for bridle and double choker hitches.	18 mins

Additional construction-related skills can be found in the following simulations from Plant Safety:

- Intro to Simon, and Accidents and Injury Prevention
- Personal Protective Equipment
- Energy Related Hazards
- Lockout Tagout
- Safety Data Sheets
- Hand Tools: Inspecting and Identifying Correctly
- Hand Tools: Using Hand Tools Correctly
- Power Tools: Pneumatic Wrenches and Screwdrivers
- Power Tools: Handheld Grinder
- Power Tools: Stationary Grinder
- Materials Handling: Situational Awareness
- Materials Handling: Manual Lifting
- Materials Handling: Receiving and Storage Safety

Module: Electrical Fundamentals (Closed Captioning)

Simulation	Description	Duration
Electrical Fundamentals: Circuits & Ohm's Law	Learn and demonstrate knowledge of electrical/electronic series, parallel, and series-parallel circuits using principles of electricity (Ohm's Law).	25 mins
Electrical Test Equipment - Multimeter: Voltage	Learn and demonstrate how to use a multimeter to measure the voltages in specified devices—from line to neutral and neutral to ground—including setting it properly for expected readings and safely using probes to place the meter in parallel with the circuit.	28 mins
Electrical Fundamentals: Electrical Repair - Basic Soldering	Learn and demonstrate basic soldering skills.	16 mins

Module: Mechatronics (Closed Captioning)

Simulation	Description	Duration
Variable Speed Motor: Assembly	Learn and demonstrate how to assemble an AC variable speed motor with keyed shaft, pillow-block bearings, assorted gears, couplings, and standoffs.	18 mins
Variable Speed Motor: Wiring	Learn and demonstrate how to interpret wiring diagrams to make proper connections, energize, and verify rotational direction on a variable speed motor.	14 mins
Variable Speed Motor: Measurements	Learn and demonstrate how to use a multimeter to measure current, voltage, and resistance.	18 mins
Robotic Safety	Learn and demonstrate how to work safely with and in proximity to robotic arms, work cells, and systems, as well as recognize hazards, emergency procedures, functions, work cell limits, and emergency stops.	10 mins

Module: Blueprint Reading (Closed Captioning)

Simulation	Description	Duration
Intro to Construction and Technical Drawings	Learn how to interpret "The Language of Lines," and use it in architectural and technical drawings.	13 mins
Interpreting Technical Drawings	Learn and demonstrate how to use "The Language of Lines" to interpret technical drawings.	15 mins
Technical Drawings: Dimensioning	Learn and demonstrate accepted dimensioning techniques used in technical drawing.	20 mins

Technical Drawings: General Standard Symbols, Screw Callouts, and Thread Symbols	Learn to identify common dimensioning symbols, interpret screw callouts, and examine thread symbols within a technical drawing.	21 mins
Technical Drawings: Finishing Surfaces and Symbols	Learn and demonstrate how to interpret surface finish symbols for use on technical drawings as part of the manufacturing process.	25 mins
Technical Drawings: Terminology of Machined Slots	Learn and demonstrate knowledge of terminology, common configurations, and features of the following machined parts and slots: chamfer, dovetails, keys and keyways, mortise and tenon, slotted holes, and T-grooves.	20 mins
Technical Drawings: Intro to Title Blocks & Assembly Drawings	Introduction to the practice of using information from title blocks and assembly drawings to correctly identify machined parts.	20 mins
Technical Drawings: Using Title Blocks & Assembly Drawings	Learn and demonstrate how to use information from title blocks and assembly drawings to correctly identify machined parts.	15 mins
Technical Drawings: Visualization & Views	Learn and demonstrate how to communicate and verify the relationship between technical drawings and machined parts using visualization and interpretation.	20 mins
Technical Drawings: Section & Auxiliary Views	Learn and demonstrate how to select and verify machined parts by interpreting sectional and auxiliary views.	25 mins
Technical Drawings: Assembly and Tolerance	Learn and demonstrate how to identify the features of an assembly drawing and a matching drawing, as well as practice reading tolerances by defining a part's range of variation.	15 mins

Module: Precision Measurement (Closed Captioning)

Simulation	Description	Duration
Intro to Simon	Introduction to the virtual coach.	1 mins
Controls Tutorial: Picking Up Objects	Learn and demonstrate basic use of the VR controllers.	2 mins
Fractional Inch Rule	Learn to take measurements with a fractional inch rule.	7 mins
Decimal Inch Rule	Learn to take measurements with a decimal inch rule.	7 mins
Metric Rule	Learn to take measurements with a metric rule.	6 mins
Controls Tutorial: Calipers	Learn and demonstrate how to use the caliper controls.	2 mins
Outside Caliper	Learn and demonstrate how to use an outside caliper to take a transfer measurement with a fractional inch rule.	5 mins
Inside Caliper	Learn and demonstrate how to use an inside caliper to take a transfer measurement with a fractional inch rule.	5 mins
Controls Tutorial: Calipers II	Learn and demonstrate how to use the dial inch and digital caliper controls.	2 mins
Dial Inch Caliper	Learn and demonstrate how to use a dial inch caliper to take inside, outside, and depth measurements.	8 mins
Digital Caliper	Learn and demonstrate how to use a digital caliper to take inside, outside, and depth measurements.	5 mins
Controls Tutorial: Micrometer	Learn and demonstrate how to use the micrometer control.	2 mins
Micrometer	Learn and demonstrate how to measure using an analog micrometer.	10 mins
Digital Micrometer	Learn and demonstrate how to measure using a digital micrometer.	5 mins
Calibration and Zeroing	Learn and demonstrate how to check the calibration of precision tools and how to zero digital calipers and micrometers.	9 mins
Simplify Fractions: Halves	Learn to recognize and simplify fractions with a denominator of 2.	8 mins
Simplify Fractions: Quarters	Learn to recognize and simplify fractions with a denominator of 4.	8 mins
Simplify Fractions: 8ths	Learn to recognize and simplify fractions with a denominator of 8.	10 mins
Simplify Fractions: 16ths and Compound Fractions	Learn to recognize and simplify fractions with a denominator of 16. They'll also learn to recognize compound fractions and convert them to whole numbers.	10 mins
Simplifying Fractions: 32nds, 64ths, and the Scale Rule	Learn to recognize and simplify fractions with denominators of 32 and 64. They'll also learn and demonstrate how to take measurements using a scale rule.	10 mins

Rounding Decimals	Learn and demonstrate how to round measurements to the nearest 10th, 100th, and 1000th decimal places.	12 mins

Module: Plant Safety (Closed Captioning)

Simulation	Description	Duration
Intro to Simon, Accidents and Injury Prevention	Learn and demonstrate accident and injury prevention awareness, including identifying fire hazards; safe lifting; basic lockout-tagout procedures; and workplace hazards.	18 mins
Protective Equipment: Eye, Hearing, Hand, and Foot Protection and Hearing Conservation	Learn and demonstrate personal protective equipment (PPE) usage.	12 mins
Hand Tools: Inspecting and Identifying Correctly	Learn and demonstrate how to identify and inspect the following common hand tools: slip-joint pliers, Phillips head screwdriver, sheet metal shears, torque wrench, utility knife, and wrench.	7 mins
Hand Tools: Using Hand Tools Correctly	Learn and demonstrate how to use the following common hand tools: slip-joint pliers, Phillips head screwdriver, sheet metal shears, torque wrench, utility knife, and wrench.	15 mins
Materials Handling: Situational Awareness	Learn and demonstrate situational awareness in a warehouse environment.	6 mins
Materials Handling: Receiving and Storage Safety	Learn and demonstrate safe receiving and storage techniques.	11 mins
Materials Handling: Manual Lifting	Learn and demonstrate safe manual lifting techniques.	8 mins
Materials Handling: Metal/Glass Sheets and Cylindrical Objects	Learn and demonstrate how to safely lift and handle metal/glass sheets and cylindrical objects.	7 mins
Materials Handling: Hoists & Cranes	Learn and demonstrate basic safety practices for working with and around hoists and cranes.	22 mins
Energy Related Hazards (Electrical Safety, GFCI, and Electric Shock)	Learn and demonstrate awareness of energy-related hazards and the techniques to avoid or mitigate them.	10 mins
Lockout & Tagout	Learn and demonstrate a lockout-tagout procedure.	7 mins
Robotic Safety	Learn and demonstrate awareness of robotic work cell safety.	10 mins
Ladder Safety: A-Frame Stepladders	Learn and demonstrate how to inspect, safely set up, and properly use an A-frame stepladder.	10 mins
Ladder Safety: Straight Ladders	Learn and demonstrate how to inspect, safely set up, and properly use a straight ladder.	12 mins
Fire Extinguisher Safety	Learn and demonstrate knowledge of the types of fire extinguishers and how to safely operate them.	8 mins
Safety Data Sheets	Learn and demonstrate how to use Safety Data Sheets to identify chemical-related hazards, first aid measures, and personal protective equipment.	10 mins
Bloodborne Pathogens	Learn and demonstrate knowledge of the types of bloodborne pathogens, as well as how to protect themselves with personal protective equipment and safety procedures.	8 mins
Power Tools/Electrical Safety: Pneumatic Wrenches and Screwdrivers	Learn and demonstrate how to inspect and safely use pneumatic wrenches and screwdrivers.	14 mins
Power Tools/Electrical Safety: Electric Drill	Learn and demonstrate how to inspect and safely use an electric drill.	11 mins
Power Tools/Electrical Safety: Circular Saw	Learn and demonstrate how to inspect and safely use a circular saw.	15 mins
Power Tools/Electrical Safety: Miter Saw	Learn and demonstrate how to inspect and safely use a miter saw.	9 mins
Power Tools/Electrical Safety: Bench and Pedestal Grinders	Learn and demonstrate how to inspect and safely use a pedestal grinder.	15 mins

Power Tools/Electrical Safety: Handheld Grinders	Learn and demonstrate how to inspect and safely use a handheld grinder.	13 mins
Power Tools/Electrical Safety: Nibblers	Learn and demonstrate how to inspect and safely use a nibbler.	10 mins
Welding Safety: Burn Safety	Learn and demonstrate knowledge of the types of burn risks associated with welding arcs, as well as how to protect themselves with personal protective equipment and safety procedures.	8 mins
Welding Safety: Spot Welding Safety	Learn and demonstrate how to safely use resistance welding equipment.	9 mins
Welding Safety: MIG Welding Safety	Learn and demonstrate how to safely use MIG welding equipment.	12 mins
Welding Safety: Oxy-Acetylene Safety	Learn and demonstrate how to safely use oxy-acetylene welding equipment.	14 mins

Hospitality and Tourism

Help learners develop foundational culinary and baking skills needed to be familiar with commercial kitchen operations. Trainees will also practice and refine professionalism and soft skills for entry-level employment in Hospitality & Tourism occupations.

Module: Hospitality Soft Skills (Closed Captioning)

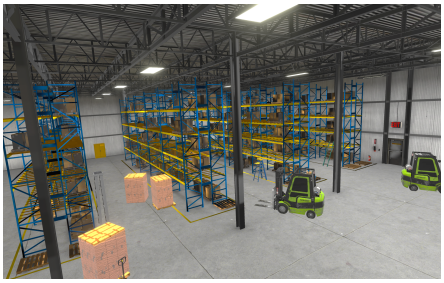
Simulation	Description	Duration
Introduction	Introduction to the virtual coach and will learn and demonstrate basic use of the VR controllers in Hospitality Soft Skills.	5 mins
First Impressions: Receiving a 5-Star Experience	Trainee will go through the 5-star hotel guest check-in experience. Learn the importance of using soft skills for guest interactions and the hallmarks of professionalism, including hygiene, dress, and coming to work prepared.	11 mins
First Impressions: Providing a 5 Star Experience	Learn and demonstrate how to welcome guests, make a connection, and ensure guest needs are met with guidance from their virtual coach.	12 mins

Module: Culinary: Intro to Culinary Arts and Basic Baking

Simulation	Description	Duration
Identifying Tools & Equipment	Learn and demonstrate how to identify and utilize common culinary tools and equipment.	20 mins
Professional Uniform	Learn and demonstrate how to select and properly wear a professional culinary uniform.	14 mins
Knife Skills 1	Learn and demonstrate basic knife safety and skills, including peeling a potato, squaring it off, and performing dice and batonnet cuts.	12 mins
Knife Skills 2	Learn and demonstrate how to peel a carrot, perform rondelle, bias, paysanne, and lozenge cuts, peel and dice an onion, and chiffonade herbs.	13 mins
Measuring Dry/Wet Ingredients	Properly measure wet and dry ingredients using the appropriate tools.	20 mins
Stocks	Make both white and brown stocks.	20 mins
Soups and Sauces	Learn and demonstrate how to make a velouté sauce (one of the mother sauces) and a cream-based soup.	22 mins
Eggs	Learn and demonstrate how to make basic egg dishes, including sunny-side up eggs, an omelette, and a crepe.	21 mins
Quick Breads	Make quick breads using the biscuit mixing and muffin mixing methods.	20 mins
Yeast Breads	Make straight bread dough.	19 mins
Enriched Yeast Breads	Make enriched yeast doughs using the straight dough and enriched dough methods.	17 mins
Cookies and Brownies	Make drop cookies and sheet bar cookies.	17 mins
Pies and Tarts	Prepare pie dough, form a pie crust, and assemble a fruit tart.	14 mins
Cakes	Make cake batter using the creaming, two-stage, and sponge cake methods.	16 mins

Manufacturing and Construction: The Skilled Trades

Give learners and job seekers the skills they need to secure positions related to the manufacturing of vehicles, foodstuffs, household goods, and other products. Learners also develop fundamental skills related to construction of buildings and homes, roads, and other infrastructure.



Module: Plant Safety (Closed Captioning)		
Simulation	**Description**	**Duration**
Intro to Simon, Accidents and Injury Prevention	Learn and demonstrate accident and injury prevention awareness, including identifying fire hazards; safe lifting; basic lockout-tagout procedures; and workplace hazards.	18 mins
Protective Equipment: Eye, Hearing, Hand, and Foot Protection and Hearing Conservation	Learn and demonstrate personal protective equipment (PPE) usage.	12 mins
Hand Tools: Inspecting and Identifying Correctly	Learn and demonstrate how to identify and inspect the following common hand tools: slip-joint pliers, Phillips head screwdriver, sheet metal shears, torque wrench, utility knife, and wrench.	7 mins
Hand Tools: Using Hand Tools Correctly	Learn and demonstrate how to use the following common hand tools: slip-joint pliers, Phillips head screwdriver, sheet metal shears, torque wrench, utility knife, and wrench.	15 mins
Materials Handling: Situational Awareness	Learn and demonstrate situational awareness in a warehouse environment.	6 mins
Materials Handling: Receiving and Storage Safety	Learn and demonstrate safe receiving and storage techniques.	11 mins
Materials Handling: Manual Lifting	Learn and demonstrate safe manual lifting techniques.	8 mins
Materials Handling: Metal/Glass Sheets and Cylindrical Objects	Learn and demonstrate how to safely lift and handle metal/glass sheets and cylindrical objects.	7 mins
Materials Handling: Hoists & Cranes	Learn and demonstrate basic safety practices for working with and around hoists and cranes.	22 mins
Energy Related Hazards (Electrical Safety, GFCI, and Electric Shock)	Learn and demonstrate awareness of energy-related hazards and the techniques to avoid or mitigate them.	10 mins
Lockout & Tagout	Learn and demonstrate a lockout-tagout procedure.	7 mins
Robotic Safety	Learn and demonstrate awareness of robotic work cell safety.	10 mins
Ladder Safety: A-Frame Stepladders	Learn and demonstrate how to inspect, safely set up, and properly use an A-frame stepladder.	10 mins
Ladder Safety: Straight Ladders	Learn and demonstrate how to inspect, safely set up, and properly use a straight ladder.	12 mins
Fire Extinguisher Safety	Learn and demonstrate knowledge of the types of fire extinguishers and how to safely operate them.	8 mins
Safety Data Sheets	Learn and demonstrate how to use Safety Data Sheets to identify chemical-related hazards, first aid measures, and personal protective equipment.	10 mins
Bloodborne Pathogens	Learn and demonstrate knowledge of the types of bloodborne pathogens, as well as how to protect themselves with personal protective equipment and safety procedures.	8 mins
Power Tools/Electrical Safety:	Learn and demonstrate how to inspect and safely use pneumatic wrenches and screwdrivers.	14 mins

Pneumatic Wrenches and Screwdrivers		
Power Tools/Electrical Safety: Electric Drill	Learn and demonstrate how to inspect and safely use an electric drill.	11 mins
Power Tools/Electrical Safety: Circular Saw	Learn and demonstrate how to inspect and safely use a circular saw.	15 mins
Power Tools/Electrical Safety: Miter Saw	Learn and demonstrate how to inspect and safely use a miter saw.	9 mins
Power Tools/Electrical Safety: Bench and Pedestal Grinders	Learn and demonstrate how to inspect and safely use a pedestal grinder.	15 mins
Power Tools/Electrical Safety: Handheld Grinders	Learn and demonstrate how to inspect and safely use a handheld grinder.	13 mins
Power Tools/Electrical Safety: Nibblers	Learn and demonstrate how to inspect and safely use a nibbler.	10 mins
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Welding Safety: Spot Welding Safety	Learn and demonstrate how to safely use resistance welding equipment.	9 mins
Welding Safety: MIG Welding Safety	Learn and demonstrate how to safely use MIG welding equipment.	12 mins
Welding Safety: Oxy-Acetylene Safety	Learn and demonstrate how to safely use oxy-acetylene welding equipment.	14 mins

Module: Construction Safety (Closed Captioning)

Simulation	Description	Duration
Intro to Simon, Accidents and Injury Prevention	Learn and demonstrate accident and injury prevention awareness, including identifying fire hazards; safe lifting; basic lockout-tagout procedures; and workplace hazards.	18 mins
Job Site Safety: Situational Awareness	Learn and demonstrate job site situational awareness.	18 mins
Protective Equipment	Learn and demonstrate personal protective equipment (PPE) usage.	12 mins
Personal Protective Equipment: Respirators	Learn and demonstrate awareness of respiratory hazards and how to use a respirator.	13 mins
Extension Ladder Safety	Properly inspect, set up, and use an extension ladder.	12 mins
Scaffolds	Learn and demonstrate how to safely use scaffolds.	14 mins
Layout Tools: Squares, Plumb Bobs, and Levels	Identify and use levels, squares, and a plumb bob.	12 mins
Hand Tools: Hand Saws	Learn and demonstrate how to inspect and safely use a hand saw.	16 mins
Hand Tools: Hack Saws	Learn and demonstrate how to inspect and safely use a hacksaw.	16 mins
Power Tools: Impact Wrenches	Learn and demonstrate how to inspect and safely use an impact wrench.	15 mins
Power Tools: Hammer Drill	Inspect and safely use a hammer drill.	12 mins
Power Tools: Reciprocating Saw	Learn and demonstrate how to inspect and safely use a reciprocating saw.	14 mins
Power Tools: Portable Band Saw	Learn and demonstrate how to inspect and safely use a portable band saw.	16 mins
Power Tools: Cutoff Saw	Inspect and safely use a cutoff saw.	12 mins
Construction Drawings 1	Learn and demonstrate how to identify various types of construction drawings, as well as interpret their purpose and fundamental components.	16 mins
Construction Drawings 2	Read construction drawings and measure dimensions with an architect's scale.	12 mins

Materials Handling: Safety Concepts and Precautions	Learn and demonstrate knowledge of common material handling safety precautions.	16 mins
Materials Handling: Placards	Learn and demonstrate how to identify and understand common hazardous materials placards.	15 mins
Materials Handling: Non-Motorized Equipment	Learn and demonstrate how to plan a safe route when using a pallet jack.	16 mins
Materials Handling: Motorized Equipment	Learn and demonstrate how to identify and safely be around motorized material handling equipment.	19 mins
Intro to Rigging Equipment	Learn about different types of slings and shackles commonly used in rigging.	19 mins
Intro to Rigging Hitches	Learn basic concepts and safety practices for bridle and double choker hitches.	18 mins

Additional construction-related skills can be found in the following simulations from Plant Safety:

- Intro to Simon, and Accidents and Injury Prevention
- Personal Protective Equipment
- Energy Related Hazards
- Lockout Tagout
- Safety Data Sheets
- Hand Tools: Inspecting and Identifying Correctly
- Hand Tools: Using Hand Tools Correctly
- Power Tools: Pneumatic Wrenches and Screwdrivers
- Power Tools: Handheld Grinder
- Power Tools: Stationary Grinder
- Materials Handling: Situational Awareness
- Materials Handling: Manual Lifting
- Materials Handling: Receiving and Storage Safety

Additional construction-related skills can be found in the following simulations for Precision Measurement

- Fractional Inch Rule
- Decimal Inch Rule
- Metric Rule

Module: Precision Measurement (Closed Captioning)

Simulation	Description	Duration
Intro to Simon	Introduction to the virtual coach.	1 mins
Controls Tutorial: Picking Up Objects	Learn and demonstrate basic use of the VR controllers.	2 mins
Fractional Inch Rule	Learn to take measurements with a fractional inch rule.	7 mins
Decimal Inch Rule	Learn to take measurements with a decimal inch rule.	7 mins
Metric Rule	Learn to take measurements with a metric rule.	6 mins
Controls Tutorial: Calipers	Learn and demonstrate how to use the caliper controls.	2 mins
Outside Caliper	Learn and demonstrate how to use an outside caliper to take a transfer measurement with a fractional inch rule.	5 mins
Inside Caliper	Learn and demonstrate how to use an inside caliper to take a transfer measurement with a fractional inch rule.	5 mins
Controls Tutorial: Calipers II	Learn and demonstrate how to use the dial inch and digital caliper controls.	2 mins
Dial Inch Caliper	Learn and demonstrate how to use a dial inch caliper to take inside, outside, and depth measurements.	8 mins
Digital Caliper	Learn and demonstrate how to use a digital caliper to take inside, outside, and depth measurements.	5 mins
Controls Tutorial: Micrometer	Learn and demonstrate how to use the micrometer control.	2 mins
Micrometer	Learn and demonstrate how to measure using an analog micrometer.	10 mins
Digital Micrometer	Learn and demonstrate how to measure using a digital micrometer.	5 mins
Calibration and Zeroing	Learn and demonstrate how to check the calibration of precision tools and how to zero digital calipers and micrometers.	9 mins
Simplify Fractions: Halves	Learn to recognize and simplify fractions with a denominator of 2.	8 mins
Simplify Fractions: Quarters	Learn to recognize and simplify fractions with a denominator of 4.	8 mins

Simplify Fractions: 8ths	Learn to recognize and simplify fractions with a denominator of 8.	10 mins
Simplify Fractions: 16ths and Compound Fractions	Learn to recognize and simplify fractions with a denominator of 16. They'll also learn to recognize compound fractions and convert them to whole numbers.	10 mins
Simplifying Fractions: 32nds, 64ths, and the Scale Rule	Learn to recognize and simplify fractions with denominators of 32 and 64. They'll also learn and demonstrate how to take measurements using a scale rule.	10 mins
Rounding Decimals	Learn and demonstrate how to round measurements to the nearest 10th, 100th, and 1000th decimal places.	12 mins

Module: Blueprint Reading (Closed Captioning)

Simulation	Description	Duration
Intro to Construction and Technical Drawings	Learn how to interpret "The Language of Lines," and use it in architectural and technical drawings.	13 mins
Interpreting Technical Drawings	Learn and demonstrate how to use "The Language of Lines" to interpret technical drawings.	15 mins
Technical Drawings: Dimensioning	Learn and demonstrate accepted dimensioning techniques used in technical drawing.	20 mins
Technical Drawings: General Standard Symbols, Screw Callouts, and Thread Symbols	Learn to identify common dimensioning symbols, interpret screw callouts, and examine thread symbols within a technical drawing.	21 mins
Technical Drawings: Finishing Surfaces and Symbols	Learn and demonstrate how to interpret surface finish symbols for use on technical drawings as part of the manufacturing process.	25 mins
Technical Drawings: Terminology of Machined Slots	Learn and demonstrate knowledge of terminology, common configurations, and features of the following machined parts and slots: chamfer, dovetails, keys and keyways, mortise and tenon, slotted holes, and T-grooves.	20 mins
Technical Drawings: Intro to Title Blocks & Assembly Drawings	Introduction to the practice of using information from title blocks and assembly drawings to correctly identify machined parts.	20 mins
Technical Drawings: Using Title Blocks & Assembly Drawings	Learn and demonstrate how to use information from title blocks and assembly drawings to correctly identify machined parts.	15 mins
Technical Drawings: Visualization & Views	Learn and demonstrate how to communicate and verify the relationship between technical drawings and machined parts using visualization and interpretation.	20 mins
Technical Drawings: Section & Auxiliary Views	Learn and demonstrate how to select and verify machined parts by interpreting sectional and auxiliary views.	25 mins
Technical Drawings: Assembly and Tolerance	Learn and demonstrate how to identify the features of an assembly drawing and a matching drawing, as well as practice reading tolerances by defining a part's range of variation.	15 mins

Module: Mechatronics (Closed Captioning)

Simulation	Description	Duration
Variable Speed Motor: Assembly	Learn and demonstrate how to assemble an AC variable speed motor with keyed shaft, pillow-block bearings, assorted gears, couplings, and standoffs.	18 mins
Variable Speed Motor: Wiring	Learn and demonstrate how to interpret wiring diagrams to make proper connections, energize, and verify rotational direction on a variable speed motor.	14 mins
Variable Speed Motor: Measurements	Learn and demonstrate how to use a multimeter to measure current, voltage, and resistance.	18 mins
Robotic Safety	Learn and demonstrate how to work safely with and in proximity to robotic arms, work cells, and systems, as well as recognize hazards, emergency procedures, functions, work cell limits, and emergency stops.	10 mins

Module: Paint Robot Troubleshooting (Closed Captioning)

Simulation	Description	Duration
Intro to Simon and Tools	Introduction to the virtual coach and will learn and demonstrate basic use of the VR controllers in Paint Robot Troubleshooting.	5 mins
Intro to the Virtual Paint Robot	Learn the components of the paint robot.	11 mins
Paint Booth Safety Procedures	Learn and demonstrate key safety procedures, like positioning the robot for maintenance; locking out process air; completing lockout-tagout procedures; cleaning out and super purging; and wearing proper PPE.	11 mins
Before Entering the Booth	Learn and demonstrate how to complete a safety checklist before entering the paint booth. Trainee will also be introduced to the supply and return valves within the booth.	3 mins
Bell Cup: Paint Spit Visible on Part	Learn and demonstrate how to identify the cause of paint spit/drips, as well as how to address it.	11 mins
Applicator: Signs of Moisture on the Shroud	Learn and demonstrate how to identify the cause of moisture, as well as how to address it.	12 mins
Troubleshooting Assessment 1	Troubleshooting 1: Trainee will be presented with a scenario and use their troubleshooting skills to identify and address the issue.	20 mins
Applicator: Leak at Quick Disconnect	Learn and demonstrate how to identify and assess the cause of moisture at the applicator quick disconnect, as well as how to address it.	13 mins
Isolation Line Leakage	Learn and demonstrate how to identify an isolation line pinhole leak, as well as how to address it.	8 mins
Paint Valve Troubleshooting	Learn and demonstrate how to identify and assess the cause of a leaking paint valve, as well as how to address it.	15 mins
Troubleshooting Assessment 2	Troubleshooting 2: Trainee will be presented with a scenario and use their troubleshooting skills to identify and address the issue.	20 mins

Module: Electrical Fundamentals (Closed Captioning)

Simulation	Description	Duration
Electrical Fundamentals: Circuits & Ohm's Law	Learn and demonstrate knowledge of electrical/electronic series, parallel, and series-parallel circuits using principles of electricity (Ohm's Law).	25 mins
Electrical Test Equipment - Multimeter: Voltage	Learn and demonstrate how to use a multimeter to measure the voltages in specified devices—from line to neutral and neutral to ground—including setting it properly for expected readings and safely using probes to place the meter in parallel with the circuit.	28 mins
Electrical Fundamentals: Electrical Repair - Basic Soldering	Learn and demonstrate basic soldering skills.	16 mins

Virtual Healthcare Clinic

Transfr's Virtual Healthcare Clinic simulates the type of training that takes place in a healthcare facility. With one-to-one training from a virtual coach who adapts to learner performance, Transfr's simulations focus on developing a pipeline of healthcare professionals for jobs that are going unfilled, working with educators, employers, and workforce development departments while reducing cost and risk for employers.

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Health Sciences

Transfr's Health Sciences Patient Care Foundations modules give current and future healthcare personnel the skills to begin and progress on a career pathway. Learners build the foundational knowledge and skills required to provide safe, effective care that meets patients' needs and improves health outcomes for communities and populations.

Module: Regulatory Requirements		
Technical Skills		
Simulation	**Description**	**Duration**
Applying and Removing Fabric Physical Patient Restraints	Demonstrate evidence-based techniques for safe application and removal of fabric physical restraints during patient care.	30 mins

Module: Safety Practices		
Infection Prevention and Control		
Simulation	**Description**	**Duration**
Standard Precautions: Donning and Doffing Gloves	Apply best-practice techniques to safely don and doff gloves.	15 mins
Standard Precautions: Donning and Doffing Gown, Mask, and Eye Protection	Apply best-practice techniques to safely don and doff gowns, masks, and eye protection.	25 mins
Standard Precautions: Hand Hygiene	Apply standard precautions to properly wash hands and use alcohol-based hand sanitizer.	25 mins
Transmission-Based Precautions: Airborne and Droplet	Apply evidence-based practice techniques for airborne and droplet-based isolation precautions.	20 mins
Transmission-Based Precautions: Contact	Apply evidence-based practice techniques for contact-based isolation precautions.	20 mins
Technical Skills		
Simulation	**Description**	**Duration**
Oxygen Use and Safety Measures	Integrate evidence-based practice techniques to safely use and store oxygen.	22 mins

Module: Technical Skills

Activities of Daily Living (ADLs)

Simulation	Description	Duration
Assist Person with Female Genitalia During Bedpan, Perineal, and Urinary Catheter Care ⚠️Content Warning: Nudity	Use evidence-based techniques to assist a person with female genitalia during use of a bedpan for bowel elimination and perform subsequent perineal and indwelling (foley) urinary catheter care.	60 mins
Assist Person with Male Genitalia During Perineal and Urinary Catheter Care ⚠️Content Warning: Nudity	Use evidence-based techniques to perform perineal care and indwelling (foley) catheter care on a person with male genitalia.	50 mins
Assist with Dressing	Demonstrate evidence-based techniques for assisting with dressing a patient.	25 mins
Assist with Feeding	Prepare for and assist with feeding a patient, then record the oral food intake.	35 mins
Assist with Hand, Foot, and Nail Care	Demonstrate evidence-based techniques for assisting patients with hand, foot, and nail care.	60 mins
Assist with Mouth, Teeth, and Denture Care	Demonstrate evidence-based techniques for assisting the patient with oral and denture care.	55 mins
Make an Occupied Bed (⚠️Content Warning: Nudity)	Demonstrate evidence-based techniques for changing the linens on an occupied bed.	38 mins
Position in Bed (⚠️Content Warning: Nudity)	Demonstrate evidence-based practice techniques to assist a patient to reposition in bed and obtain a side-lying position.	35 mins
Provide Hair Care, Shave, and Give Back Rub	Demonstrate best-practice techniques to provide hair care, shave a patient's face, and give a back rub.	40 mins
Transfer from Bed to Wheelchair with Gait Belt	Apply best-practice techniques for transferring a patient from bed to wheelchair while reducing risk for injury to self and to patient.	25 mins
Reduce Risk for Venous Thromboembolism (VTE)	Demonstrate evidence-based techniques to reduce a patient's risk of developing venous thromboembolism (VTE).	35 mins

Data Collection

Simulation	Description	Duration
Measuring and Recording Intake	Accurately measure and record oral liquid intake.	15 mins
Measuring and Recording Output	Accurately measure and record urinary output.	30 mins
Obtaining Height and Weight	Obtain and record height and weight for an ambulatory and non-ambulatory patient.	35 mins
Vital Signs: Blood Pressure	Manually measure and chart brachial blood pressure.	20 mins
Vital Signs: Heart Rate	Correctly measure and document a patient's heart rate.	20 mins
Vital Signs: Respirations and Pain	Investigate the presence of a patient's pain and potential interventions prior to measuring and documenting the patient's respiratory rate.	16 mins
Vital Signs: Temperature	Correctly measure and document patient temperature.	25 mins

Appendix

The Transfr Trek full occupation list:

Agriculture, Food & Natural Resources
Veterinary Technician
Agricultural Engineer
Diesel Technician
Food Scientist
Veterinarian
Farm Manager

Architecture & Construction
Construction Manager
Construction Laborer
Operating Engineer
Solar Technician
HVAC Technician
Civil Engineer
Steelworker
Electrician
Pipefitter
Millwright
Lineworker
Carpenter
Architect
Plumber

Arts, Audio/Video Technology & Communications
Broadcast Technician
Graphic Designer
Film Director

Business Management & Administration
Customer Service Representative
Government Affairs Manager
Human Resource Specialist
Executive Assistant
Operations Manager
Event Planner

Education & Training
Educational Administrator
Instructional Designer
Teaching Assistant
School Counselor
Teacher

Finance
Investment Specialist
Financial Analyst
Financial Advisor
Insurance Agent
Accountant
Actuary

Government & Public Administration
Emergency Management Director
Property Appraiser
City Planner

Health Sciences
Clinical Laboratory Technologist
Licensed Practical Nurse
Radiologic Technologist
Patient Care Technician
Surgical Technologist
Respiratory Therapist
Pharmacy Technician
Physical Therapist
Medical Assistant
Registered Nurse
Home Health Aide
Dental Assistant
Phlebotomist
Physician

Hospitality & Tourism
Hotel Front Desk Agent
Restaurant Manager
Hotel Manager
Travel Agent
Server
Chef

Human Services
Rehabilitation Counselor
Resident Assistant
Social Worker
Cosmetologist
Therapist
Counselor

Law, Public Safety, Corrections & Security
Paralegal or Legal Assistant
Emergency Medical Technician
Private Investigator
Correctional Officer
Probation Officer
Police Officer
Lawyer

Manufacturing
Installation Maintenance and Repair Worker
Semiconductor Manufacturing Technician
Mechanical Engineering Technologist
EV Battery Manufacturing Technician
Chemical Plant and Systems Operator
Industrial Maintenance Technician
Quality Control Inspector
Broadband Technician
Robotics Specialist
Welder

Marketing
Public Relations Specialist
Advertising Executive
Sales Representative
Marketing Manager
Real Estate Broker
Retail Manager

Science, Technology, Engineering & Mathematics
Environmental Scientist
Transportation Planner
Manufacturing Engineer
Process Technologist
Mechanical Engineer
Biomedical Engineer
Chemical Engineers
Computer Scientist
Electrical Engineer
Mathematician
Astrophysicist
Policy Analyst
Data Scientist

Transportation, Distribution & Logistics
Captain, Mate, or Pilot of Water Vessels
Airframe and Powerplant Technician
Automotive Services Technician
Electrical Vehicle Technician
Avionic Technicians
Logistics Manager
Truck Driver
Pilot