OER Starting Points for the Trades



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"Finding OER for the Trades & More" slides

TCC Library's Faculty/Staff Guide to OER · OER Subject Guides

Section shortcuts

- OER sites for trades
- OER sites with trade collections
- OER guides that include trades
- College/univ. collections that include trades
- Additional OER repositories to share trades
- WA OER sites/resources
- OER meta-search tools
- Index of trades

OER sites for trades

SkillsCommons

- **Summary**: Free and open learning materials and program support materials for **job-driven workforce development**, funded by U.S. Department of Labor's Trade Adjustment Assistance Community College and Career Training (TAACCCT) program, all shared under a CC BY license.
- Search tips & notes:
 - Use the <u>Advanced Search</u> for keyword searching and filters for NAICS Industry, material types, skill level, credential or credit type, and more; or try the Browsing options by <u>Industry</u> or by <u>Occupation</u>
 - Many resources in this depository are ancillary materials (e.g. assignments, course packs, slides, etc.) for courses that use a copyrighted textbook.
 - o There is not a preview option for most resources; download and review materials as needed.
- Includes industry and occupational collections for:
 - Accommodation and Food Services
 - Ambulatory Health Care Services
 - Architectural, Engineering, and Related Services
 - o Automotive Repair and Maintenance
 - Commercial and Industrial Machinery and Equipment
 - Computer Operating Systems
 (Programming), Digital Forensics,
 Cyber Security, Network Security, IT
 Security
 - o <u>Construction</u>

- <u>Electric Power Generation</u>,
 <u>Transmission and Distribution</u>
- o Machinery Manufacturing
- o Manufacturing
- Mining, Quarrying, and Oil and Gas Extraction
- o Offices of Dentists
- Truck Transportation
- Warehousing and Storage
- Water, Sewage and Other Systems

OER sites with trade collections

BC Open Collection

- **Summary**: Collection of OER course materials, including textbooks and course packs, curated and reviewed by educators in British Columbia (Canada). **Includes an extensive** "Trades" category!
- **Search tips**: Keep an eye out for tags that indicate when a resource has a *faculty peer review*, an *accessibility review*, and/or *supplemental materials*.
- Includes titles & collections for:
 - Art & Design (incl. Film Production and Graphic Design)
 - o <u>Dentistry</u>
 - o <u>Electrical</u> & <u>Electrical Engineering</u>
 - Hairstyling
 - Plumbing
 - o Professional Cook

- Hospitality & Tourism
- o HVAC
- Massage Therapy
- Open Pedagogy in the Trades
- o Sheet Metal
- o Trades General

LibreTexts collections

- **Summary**: Collection of OER textbooks and platform for customization of OER. Non-commercial open textbook organization initiated at the University of California-Davis, and initially funded by U.S. Dept. of Education's Open Textbooks Pilot Program. **Includes an extensive** "Workforce" collection!
- **Search Tip**: On the home page, hover over the "Explore the Libraries" menu at the top >> Select a collection >> Choose "Bookshelves" option
- Includes collections for:
 - o Aerospace Engineering
 - Arts, Audio/Visual Technology, and <u>Communications</u> (incl. design)
 - Construction
 - Drafting and Design Technology
 - <u>Electronics Technology</u> & <u>Electricity</u> <u>and Magnetism</u>
 - Food Production, Service, and Culinary Arts & Food Science

- Hospitality
- HVAC and Power Plant Operations
- Manufacturing & Industrial and Systems Engineering
- o Safety and Emergency Management
- o Theater and Film
- Veterinary Medicine
- o Water Systems Technology

Open Textbook Library:

- **Summary**: Repository for OER textbooks, supported by Univ. of Minnesota's Center for Open Education
- Search tips: Browse Subjects, which include Business, Computer Science, Engineering, and more
- Subjects and samples include:
 - Engineering textbook samples (includes textbooks on Aviation, Architecture, Mechanics, Materials Science, and Welding):
 - Basic Concepts of Structural Design for Architecture Students (CC BY NC)
 - Airplane Flying Handbook (CC0)
 - Design textbook samples:
 - Graphic Design and Print Production Fundamentals (CC BY)
 - Business Information Systems: Design an App for That (CC BY NC SA)
 - Veterinary science textbook samples:
 - Veterinary Histology (CC BY NC)
 - <u>Veterinary Preventive Medicine</u> (CC BY NC)

MERLOT Disciplines & Community Portals

• **Summary**: Begun in 1997 by the California State University Center for Distributed Learning, MERLOT is one of the biggest and most well-known repositories of OER, open access, and freely available

educational content contributed and used by an international education community. **Includes a Workforce Development collection!**

- **Search tips**: Within disciplines or collections, use filters on the left-hand side to further narrow down by material type, audience, and other filters (including CC licensed materials).
- Includes resources for:
 - Aerospace and Aeronautical Engineering
 - Construction, Utilities, & Facilities
 Operations
 - o Electrical Engineering
 - o Fire Safety

- o <u>Hospitality & Tourism</u> (incl. Culinary)
- o IT Security and Risk Management
- Manufacturing
- o Mining, Oil, Gas Operations
- Transportation, Distribution and Logistics

OER guides that include trades

OER by Discipline Directory - BCcampus:

- Aviation & Aerospace Engineering
- Construction
- Dentistry
- Design
- <u>Electricity</u> & <u>Electrical Engineering</u>
- Film and Video
- Graphics and Animation
- Hairdressing
- Hospitality & Tourism section

- Manufacturing & Industrial Engineering
- Mechanics
- Mining
- Professional Cook
- Publishing
- <u>Trades</u> (general)
- Urban Planning
- Veterinary Medicine

OER by Discipline Guide: McMaster University:

Automotive & Automotive & Vehicle
 Engineering Technology

- Electrical & Computer Engineering
- Mechanical Engineering

College/university collections that include trades

MIT Open Courseware

- **Summary**: Begun in 2001, a free and open collection of MIT course materials, including undergraduate courses. Please note that many courses use copyrighted texts, but all course *materials* (assignments, lesson plans, handouts, etc.) are openly licensed under a CC BY NC SA license.
- **Search tips**: Site has been recently updated! Use filters on the left-hand side to narrow down by level, topic, and/or feature (type of material).
- Includes courses & resources for:
 - o Aeronautics and Astronautics
 - Architectural Design & Architectural Engineering
 - Digital Media
 - o <u>Electrical Engineering</u>

- o Film and Video
- o Game Design
- o Graphic Design
- Hydrology & Water Resources
- o Urban Studies & Planning

Open Learning Initiative (OLI) - Carnegie Mellon's Open & Free courses (all CC BY NC SA)

- "Composites Technology" course for machining, manufacturing, aviation, and marine industries
- "Electric Vehicle Technology" course
- "Environmental Technology" course, includes safety & water quality
- "Mechatronics Technology" course

- "Media Programming" course
- "Visual Design" course

College of the Canyons ZTC Textbooks (all CC BY licensed):

- Land surveying textbooks:
 - SURV-101 Introduction to Land Surveying
- Water technology textbook samples:
 - WATER-120 Introduction to Water Systems Technology
 - o WATER-132 Water Supply
 - o WATER-140 Water Distribution Operator I
 - o WATER-150 Water Treatment Plant Operation Processes I
 - o WATER-160 Wastewater Treatment and Disposal I

Open Oregon Pressbooks Catalog:

Includes textbooks in Welding, Architecture, and more, including:

- "Basic Blueprint Reading" textbook for welding (CC BY)
- "Digital Foundations: Introduction to Media Design with the Adobe Creative Cloud" (CC BY NC SA)
- "Interpretation of Metal Fab Drawings" textbook (CC BY)
- "Introduction to Architecture" textbook (CC BY NC)
- "Manufacturing Processes 4-5" textbook (CC BY)

Additional OER repositories to share trades

OER Commons:

Well-known and extensive OER repository site, which includes filters for Education Level (e.g., "Community College / Lower Division"). Includes an authoring platform, where educators can share their projects, such as:

- Lecture PPTs for the course Mechatronics, shared by Dr. Priyamvada Singh
- Mechatronic System Design (course)

Pressbooks Directory:

Repository for creators using Pressbooks; authors can choose not to make their projects publicly viewable. Use search filters on the left, including searching for related subjects, including:

Architecture

Construction

Aviation

Dentistry

WA OER sites/resources

Washington 100 Hub

A hub in OER Commons specifically for WA CTC educators to share OER they've either created or use

- Dental Hygiene hub
- Guidelines for How to Contribute (and Expand!) WA 100

Open Washington Pressbooks Catalog -- more under development!

• "HDR Panorama" textbook from Lake Washington Institute of Technology, photography tools for gaming and animation (CC BY)

WA Open ProfTech textbook initiative

SBCTC funding in areas of Criminal Justice, Health, and Welding, tinyurl.com/WAProfTechCall

Innovative CTC OER projects, such as:

• LWTech's OER initiatives in Dental Hygiene and Electronics Technology and three Welding Technology

OER meta-search tools

OASIS:

Maintained by SUNY, includes:

- BC Campus
- College of the Canyons
- LibreTexts
- MIT OpenCourseware

- OLI
- Open Oregon
- Open Textbook Library
- ...and more!

Mason OER Metafinder (MOM):

Maintained by George Mason University Libraries, includes:

- Everything indexed in OASIS!
- MERLOT

- OER Commons
- ...and more!

Index of Trades

- Architecture & architectural engineering: <u>SkillsCommons</u>, <u>LibreTexts</u>, <u>MIT</u>, <u>Open Oregon</u>, Pressbooks Directory
- Automotive: SkillsCommons, McMaster OER Guide
- Aviation, Avionics, & Aerospace: SkillsCommons, LibreTexts, MERLOT, MIT, BCcampus OER Guide, McMaster OER Guide, Pressbooks Directory
- Construction: SkillsCommons, BC Open, LibreTexts, MERLOT, BCcampus OER Guide, Pressbooks Directory
- Cosmetology: <u>BC Open</u>, <u>BCcampus OER Guide</u>
- Culinary Arts: SkillsCommons, BC Open, LibreTexts, BCcampus OER Guide
- Cybersecurity: <u>SkillsCommons</u>, <u>MERLOT</u>
- Dental Assistant: SkillsCommons, BC Open, BCcampus OER Guide, Pressbooks Directory, WA 100, LWTech OER
- Digital Entertainment & Media: <u>BC Open</u>, <u>LibreTexts</u>, <u>BCcampus OER Guide</u>, <u>MIT</u>, <u>OpenWA Pressbooks</u>
- **Electrical**: SkillsCommons, BC Open, LibreTexts, MERLOT, MIT, BCcampus OER Guide, McMaster OER Guide
- Graphic design: BC Open, LibreTexts, BCcampus OER Guide, MIT, Open Oregon
- Heating & AC: SkillsCommons, LibreTexts
- Hospitality & Tourism: SkillsCommons, BC Open, LibreTexts, MERLOT, BCcampus OER Guide
- Land Surveying: College of the Canyons
- Manufacturing: <u>SkillsCommons</u>, <u>BC Open</u>, <u>LibreTexts</u>, <u>MERLOT</u>, <u>BCcampus OER Guide</u>, <u>Open</u> Oregon
- Massage Therapy: <u>BC Open</u>
- Mechanics: SkillsCommons, McMaster OER Guide
- Mechatronics: SkillsCommons, MIT, OLI, OER Commons
- Mining: SkillsCommons, MERLOT, BCcampus OER Guide
- Plumbing: <u>SkillsCommons</u>, <u>BC Open</u>
- Publishing: <u>BCcampus OER Guide</u>
- Safety & Emergency Management: <u>SkillsCommons</u>, <u>LibreTexts</u>, <u>MERLOT</u>
- Transportation & Distributions: SkillsCommons, MERLOT
- Urban Planning: MIT, BCcampus OER Guide
- Veterinary Medicine: LibreTexts, BCcampus OER Guide
- Water Technology: SkillsCommons, LibreTexts, MIT, College of the Canyons
- Welding: Open Oregon, WA Open ProfTech, LWTech OER