OER by Discipline Directory

OER by Discipline Directory

A reference of OER listed by subject area and discipline

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BCCAMPUS
VICTORIA, B.C.

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Disclaimer

The purpose of this directory is to highlight as many open educational resources as possible and organize them by discipline and subject area. In order to accomplish this goal in the most expedient manner possible, materials added to this directory are added "as is." It is the responsibility of the individual using these OER to evaluate them for quality, accuracy, and relevancy.

Accessibility Statement

BCcampus Open Education believes that education must be available to everyone which means supporting the creation of free, open, and accessible educational resources. We are actively committed to increasing the accessibility and usability of the textbooks and support resources we produce.

Accessibility features of the web version of this resource

The [web version of the *OER By Discipline Directory*](#) has been designed with accessibility in mind by incorporating the following features:

- All content can be navigated using a keyboard
- It has been optimized for people who use screen-reader technology.
    - links and headings are formatted to work with screen readers
    - images have alt tags or are described in surrounding text
- Information is not conveyed by colour alone.
- There is an option to increase font size (see tab on top right of screen)

Other file formats available

In addition to the web version, additional files are available in a number of file formats including PDF, EPUB (for eReaders), MOBI (for Kindles), upon request made to [BCcampus Support](#).

Known accessibility issues and areas for improvement

While we strive to ensure that this resource is as accessible and usable as possible, we might not always get it right. Any issues we identify will be listed below.

While there are currently no known accessibility issues in this directory, we do link to external resources throughout this directory, and we cannot guarantee that the resources we are linking to conform to accessibility guidelines.

Accessibility standards

The web version of this resource has been designed to meet [Web Content Accessibility Guidelines 2.0](#), level AA. In addition, it follows all guidelines in [Appendix A: Checklist for Accessibility](#).

Let us know if you are having problems accessing this directory

We are always looking for ways to make our resources more accessible. If you have problems accessing this resource, please contact us to let us know so we can fix the issue.

Please include the following information:

- The location of the problem by providing a web address or page description

- A description of the problem

- The computer, software, browser, and any assistive technology you are using that can help us diagnose and solve your issue

  - e.g., Windows 10, Google Chrome (Version 65.0.3325.181), NVDA screen reader

You can contact us through the following webform:

- Web form: [Report an Error](#)

This statement was last updated on February 5, 2021.

About This Directory

This is one of many support resources from BCcampus Open Education.
Also see the *Information Directory* and *Post-Secondary Directory*.

Welcome to the BCcampus Open Education *OER by Discipline Directory.* This support resource lists a broad range of open educational resources (OER) organized by discipline. OER are teaching, learning, and research resources that, through permissions granted by the copyright holder, allow others to use, distribute, keep, or make changes to them.

This is an **ongoing resource** to which information will be updated as needed. Each chapter includes a "Last update" posted at the top of the page and, because it is changed frequently, ISBNs are not provided for this guide in accordance with the ISBNs' User Manual.

Purpose

This directory was developed to highlight as many OER as possible — case studies, courses, games, repositories, simulations, textbooks, videos, and more — and organize them so faculty can easily locate resources in their subject area.

This directory acts as a supplement to the B.C. Open Collection as it contains OER that doesn't meet the specific requirements of the collection. This directory contains links pointing people to the B.C. Open Collection, but very few resources in the collection are listed in this directory.

Note: Materials added to this directory are added "as is." See the Disclaimer statement for more information.

Key

	The B.C. Map icon is used to mark a resource written by a British Columbia author and/or its subject area concerns B.C.
	The Canada Map icon is used to mark a resource written by a Canadian author and/or its subject area concerns Canada.

About BCcampus Open Education

BCcampus Open Education began in 2012 as the B.C. Open Textbook Project with the goal of making post-secondary education in British Columbia more accessible by reducing students' costs through the use of open textbooks and other OER. BCcampus supports the post-secondary institutions of British Columbia as they adapt and evolve their teaching and learning practices to enable powerful learning opportunities for the students of B.C. BCcampus Open Education is funded by the British Columbia Ministry of Post-Secondary Education and Future Skills, and the Hewlett Foundation.

Open educational resources (OER) are defined as teaching, learning, and research resources that, through permissions granted by the copyright holder, allow others to use, distribute, keep, or make changes to them. We consider this publication — along with our guides, slide decks, and other support materials — as a type of OER that informs faculty, staff, and students during their production or usage of open textbooks or other open educational resources.

This directory would not be what it is without those who contributed to the "Anthology of (non-textbook) OERs, organized by discipline" do-a-thon project that took place at OpenCon in Berlin, Germany, in November 2017. Roughly a dozen people collaborated on compiling lists of OER material and collections, and that list was used as a starting point for developing this directory. We would like to send out a heartfelt thank you to all who were able to contribute to that project.

For more information about open education in British Columbia, please visit the BCcampus Open Education website.

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How to Use This Directory

This directory contains all sorts of open resources from all sorts of disciplines. It acts as a referratory—we provide the name of the resource, a link to where it can be accessed, its licence, and then a short description. There is no advanced search option for this directory, but here are some strategies that may help find what you are looking for.

Understanding the structure of this directory

Discipline-specific collections

This directory is broken up into multiple parts organized alphabetically. Each part represents a specific subject area (e.g., Fine Arts, Trades, Social Sciences). Within each part, there are multiple chapters representing specific disciplines, which are also organized alphabetically. Within each chapter, resources are organized by type (e.g., Textbooks, Courses, Videos, PowerPoints). If there are resources that don't quite fit in any discipline—or maybe fit in multiple disciplines—those are put in the "General" chapter within each subject area (e.g., Humanities – General, Science – General).

General collections

In addition to the discipline-specific areas of the directory, there are a number of resources and repositories that span multiple disciplines and therefore don't fit into any one chapter. The first part in this directory (General Collections) is for collections that house resources on all sorts of topics. The chapters in this part are organized by resource type: General OER, Books/Textbooks, Courses, and Multimedia (i.e., images and videos). If you are looking for a type of open resource (e.g., images, courses, or videos) rather than a resource for a specific topic, you may want to start here.

Start specific and go general

We have tried to organize this directory from general to specific, but you may want to start with the specific and then expand out to the general. So start with the chapters that deal with the subject area and discipline that you need resources for, and if you don't find what you need, then look through the more general collections highlighted in the General Collections part.

Look through similar subject areas

Sometimes a resource is multidisciplinary and hard to categorize, sometimes a resource could be used in different ways in different classes, and sometimes we don't always know the whether a resource is meant for people studying to be electricians or electrical engineers. So if you don't find what you're

looking for in a particular subject area, look through chapters on similar topics and see if there are other materials there that fit your needs. And if you find a resource that has been miscategorized, let us know.

Use the search function

The Pressbooks webbook has a search function that allows you to search for keywords in the entire book. However, the Pressbooks search does not compare to Google, so keep your search terms simple and short unless you know exactly what you're looking for.

The Pressbooks search results are limited in what they show you. The below image shows an example of what you may see when searching in Pressbooks. When Pressbooks searches, it will give you a list of chapters that contain the word(s) that you searched for, but it won't take you to the exact spot where those words appear. Instead, you will have to open the chapter and use the find function in your browser to search again for the keyword you're using.

SEARCH RESULTS FOR: HEALTH

Mental Health, Dementia

Books Dementia: Advances and Treatment (CC BY-NC-ND) Courses Living Well with Dementia

Health and Medical – General

Case Studies Health Case Studies Journals Emerging Infectious Diseases, U.S. Government publication (public domain) Environmental Health Perspectives, U.S. Government publication (public domain) Preventing Chronic Disease, U.S. Government publication (public domain) Open Textbooks Health & Nursing Textbooks (Licences vary) A collection of open textbooks related to the health sciences. Medical LibreTexts Library (CC BY-NC-SA) A collection of open Read more »

Health, Medical, and Social Work

Book/Textbook Collections

Book Collections IntechOpen (Various CC licences) A collection over over 3,700 peer-reviewed open access books in

Pressbooks search results for "health" in the OER by Discipline Directory

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- Health Search screenshot © BCcampus Open Education is licensed under a CC BY (Attribution) license

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General Collections

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Subjects and Disciplines

This section includes:

- [General OER Repositories](#)
- [Book/Textbook/Journal/Monograph Collections and Publishers](#)
- [Course Collections](#)
- [Multimedia Collections](#)

See the *[Information Directory](#)* for:

- [Organizations and Projects](#)
- [Conferences and Events](#)
- [Frameworks and Tools](#)

</div>

1.

General OER Repositories

Last update: Oct 27/23

[Appropedia](#) (CC BY-SA)

Explore solutions for [sustainability](#), [appropriate technology](#), [poverty reduction](#), and [permaculture](#).

[B.C. Open Collection](#)

- [Pressbooks Catalogue of BCcampus published open textbooks](#)

[BCIT Open Educational Resources](#)

A collection of open educational resources created and adapted at the British Columbia Institute of Technology.

[BK Books (TU Delft Open)](#) – (CC BY)

An open press dedicated to open access book publications authored, edited and published by staff members of TU Delft's Faculty of Architecture and the Built Environment, or its predecessors: Faculty of Architecture // OTB Research Institute for the Built Environment // Berlage Institute. The Dutch name for the faculty is Bouwkunde (literally: Building Knowledge).

[Canadian CC Commons](#) (Various CC licences)

[Catalogue of H5P Content](#) (Various CC licences)

From eCampusOntario.

[CCCOER: OER by Subject](#) (Various CC licences)

These lists and links are harvested from the [Community College Consortium for Open Educational Resources](#) list serve conversations and a few other sources. This is a work in progress and will grow as more suggestions come in.

[cIRcle UBC](#) (Various CC licences)

cIRcle is an open access digital repository for published and unpublished material created by the UBC community and its partners. Its aim is to showcase and preserve UBC's unique intellectual output by making content freely available to anyone, anywhere via the web. Through cIRcle you can find articles, conference and workshop papers, theses and dissertations, technical reports and working papers, books, datasets, learning objects, multimedia and audio-visual materials including podcasts, webcasts and more. cIRcle features both peer-reviewed and non peer-reviewed content making it a valuable resource for interdisciplinary research and inquiry.

[Colorado's Top 40: OER Curation Guides](#) (Various CC licences)

Made possible by a grant from the Colorado Department of Higher Education, this guide are discipline expert-reviewed, librarian-curated OER guides for the most popular courses in Colorado. These materials have been curated from a variety of sources by librarians and vetting for content and alignment by subject matter experts. Material included may include open courses, open textbooks, and/or sections of open content that is mapped to specific outcomes/competencies or items in the topical outline found in Colorado's Common Course Numbering System. For background on this initiative, watch [Why Colorado's Top 40?](#) video.

[Commonwealth of Learning – OAsis OER](#) (Various CC licences)

A collection of open educational resources in the following topics: Education, engineering, health sciences, languages, livelihoods, math, natural sciences, skills and trades, social sciences, and technology.

[CTE Online](#) (CC BY-NC-SA)

A collection of lesson plans, projects, and course outlines in various subjects.

[eCampus Ontario Open Library](#) (Various CC licences)

A collection of open textbooks and other open resources curated by eCampus Ontario. The curated collection aligns with top subject areas in post-secondary education and features reviews from experts and educators across Canada.

[Edinburgh's OERs](#) (Various CC licences)

An OER collection from the University of Edinburgh.

[Galileo Open Learning Materials](#) (Various CC licences)

GALILEO Open Learning Materials brings together open educational resources throughout the University System of Georgia, including open textbooks and ancillary materials.

[#GoOpenVA](#) (Various CC licences)

A collection of open educational resources at all educational levels compiled by Virginia educators.

[Intech Open Books](#) (Various CC licences)

A collection where academia and industry create content with global impact. We subscribe to the [Budapest Initiative](#) and are members of many Open Access publishing organizations.

[Internet Archive Scholar](#) ([Royalty-free right to use content](#); some items marked with a CC or other licence)

This fulltext search index includes over 25 million research articles and other scholarly documents preserved in the Internet Archive. The collection spans from digitized copies of eighteenth century journals through the latest Open Access conference proceedings and pre-prints crawled from the World Wide Web.

[Learning Activities: Remix, Reuse, Reshare](#) (Various CC licences)

This resource contains an extensive bank of activities (learning designs, if you will) providing instructions that you can adapt to your own discipline and context. It has been designed to be searchable by field category, as well as tags. Activities are assigned fields according to the type of interaction in the activity, structure, discipline, learning taxonomy, activity type and creative commons license. Each comes with a brief description, as well as the full text of the activity.

[Library of Congress – Open Access Books](#) (Various CC licences)

This is a growing collection of contemporary open access e-books. The books in this collection cover a wide range of subjects, including history, music, poetry, technology, and works of fiction. Most of the books in this collection were published in English, but there are some titles in other languages. All of the books in this collection were published under open access licenses and may be read online or downloaded as a PDF or as an EPUB.

[LOUISiana OER repository](#) (Various CC licences)

The Affordable Learning LOUISiana OER repository is a digital library of open educational resources.

[Mason OER Metafinder (MOM)](#) (Various CC licences)

The OER Metafinder is a search tool that launches a real-time, simultaneous search across 21 different sources of open educational materials.

[Merlot II](#) (Various CC licences)

A curated collection of free and open online teaching, learning, and faculty development services contributed to and used by an international education community.

[Maryland Open Source Textbook (M.O.S.T) Commons](#) (Various CC licences)

A digital library of open educational resources.

[Milne Open Textbooks](#) (Various CC licences)

Milne Library Publishing at SUNY Geneseo manages and maintains Milne Open Textbooks, a catalog of open textbooks authored and peer-reviewed by SUNY (State University of New York) faculty and staff.

[MIT Open Courseware](#) (CC BY-NC-SA)

MIT OpenCourseWare (OCW) is a web-based publication of virtually all MIT course content. OCW is open and available to the world and is a permanent MIT activity.

[National Science Digital Library](#) (Various CC licences)

The National Science Digital Library provides high quality online educational resources for teaching and learning, with current emphasis on the sciences, technology, engineering, and mathematics (STEM) disciplines. The NSDL collection links to web-based educational resources held on other sites by their providers.

[NCLOR: Open Educational Resources](#) (Various CC licences)

A list of links to various open educational resources curated by North Carolina Learning Object Repository staff.

[OASIS](#) (Various CC licences)

Openly Available Sources Integrated Search (OASIS) is a search tool that aims to make the discovery of open content easier. OASIS currently searches open content from 64 different sources and contains 160,546 records.

[OER Commons](#) (Various CC licences)

A public digital library of open educational resources.

[OERSI](#) – Open Educational Resources Search Index (Various CC licences)

A search index for Open Educational Resources (OER) in higher education.

OERTX Repository (Various CC licences)

This digital repository of open educational resources (OER) is designed for Texas students and educational institutions and is provided through a partnership between the Coordinating Board and the Institute for the Study of Knowledge Management in Education (ISKME) and is made possible by an appropriation from the Texas Legislature.

[OEW Library](#) (Various CC licences)

This library from OE Global can be searched using filters by year, open tags (e.g., OER type and course level), and language.

[OhioLink](#) (Various CC licences)

A collection of OER compiled by Ohio educators at all educational levels.

[Open Knowledge Repository](#) (Various CC licences)

The World Bank is the largest single source of development knowledge. The World Bank Open Knowledge Repository (OKR) is the World Bank's official open-access repository for its research outputs and knowledge products.

[Open Research Library](#) (Various CC licences)

The Open Research Library will include all Open Access scholarly book content worldwide on one platform for user-friendly discovery, offering a seamless experience navigating more than 20,000 Open Access books.

[Open Syllabus Explorer](#) (Various CC licences)

The Open Syllabus Project (OSP) is an effort to create the first large-scale online database of university course syllabi as a platform for the development of new research, teaching, and administrative tools. The project is based at The American Assembly at Columbia University.

[Open Textbooks for Hong Kong](#) (CC BY-SA except where otherwise noted)

This project aims to establish a sustainable system which provides quality open textbooks for adoption and adaptation at minimal cost for education for all. The system will serve students and teachers at primary, secondary and tertiary levels.

[OpenALG](#) (Various CC licences)

With iterative texts, powerful annotation tools, rich media support, and robust community dialogue, Affordable Learning Georgia's OpenALG transforms static open textbooks into living digital works.

[Pressbooks Directory](#) (Various CC licences)

This directory provides an index of thousands of open textbooks published across dozens of Pressbooks networks. Search and filter books by keyword, subject matter, license, and more.

[Project Muse](#) (Various CC licences)

[PubMed Central (PMC)](#) – public domain

Open access content from John Hopkins University Press.

The following PMC journals are U.S. Government publications:

- [Addiction Science & Clinical Practice](#) (vol. 1 through vol. 6)
- [Emerging Infectious Diseases](#)
- [Environmental Health Perspectives](#)
- [Journal of Research of NIST](#)
- [Preventing Chronic Disease](#)

Articles published in these journals are in the public domain and may be used and reproduced without special permission. However, anyone using the material is requested to properly cite and acknowledge the source. Please note these journals may still contain photographs or illustrations copyrighted by other commercial organizations or individuals that may not be used without obtaining prior approval from the holder of the copyright.

SOL*R (Various CC licences)

Sharable Online Learning Resources is a BCcampus collection that provides guest access for browsing and downloading its Creative Commons Licensed resources.

Skills Commons (CC BY)

An online library called SkillsCommons containing free and open learning materials and program support materials for job-driven workforce development.

Sun West Resource Bank (Various CC licences)

Created for learners and educators of all ages, the Sun West Resource Bank is a massive library of curated and current educational resources that brings Saskatchewan Curriculum to life.

UBC Open Case Studies (CC BY)

These case studies offer a student-centred approach to learning that asks students to identify, explore, and provide solutions to real-world problems by focusing on case-specific examples. This approach simulates real-life practice in sustainability education in that it illuminates the ongoing complexity of the problems being addressed.

University of North Dakota Open Educational Resources (CC BY-NC-SA)

ViVET: Global Hub for Vocational Education Training (CC BY-NC-SA)

A learning platform that provides videos, courses, training, and topics related to Vacation and Education Training (VET).

WAC Clearinghouse (Various CC licences)

An open-access publishing collaborative that is supported by the efforts of more than 170 scholars who serve in various editorial roles, including as journal and book series editors, editorial staff, reviewers, and editorial board members.

WISC-Online (Various CC licences)

Quality learning management systems, innovative instructional design, and concise learning application development. Contributing instructors are in the fields of health, science, mathematics, technology, industry, and general education create study aides that are proven to help users earn higher test scores and better grades.

WorldCat – select "Open access" option (Various CC licences)

A comprehensive database of information about library collections. It's where you can locate a book, video, or other item of interest and discover which libraries near you own the item. Individual member libraries in your community and elsewhere provide access to the items represented in WorldCat.

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2.

Book/Textbook/Journal/Monograph Collections and Publishers

Book Collections

Books@atla Open Press (CC BY-NC)

The open access monograph publishing program was conceived in 2014 as a means of publishing open access books that were relevant to the study and practice of theological librarianship. Currently the mission of the program is publication of open access works on subjects at the intersection of librarianship and religious and theological studies that potentially impact libraries.

Atla (American Theological Library Association) is a membership association of librarians and information professionals, and a producer of research tools, committed to advancing the study of religion and theology.

Canadiana Online Monographs (Licences vary, see the copyright notice)

A multilingual collection of Canadian historical monographs hosted by Canadiana.

Cornell Open (CC BY-NC-ND)

An open access portal for both new and classic out-of-print titles from the distinguished catalog of Cornell University Press. Cornell Open offers open access to key titles in the fields of anthropology, classics, political science, literary criticism and theory, German studies, and Slavic studies.

Directory of Open Access Books (Various CC licences)

A collection of over 19,000 academic peer-reviewed books and chapters.

IntechOpen (Various CC licences)

A collection of over 3,700 peer-reviewed open access books in physical sciences, engineering, technology, life sciences, health sciences, social sciences, and humanities available for download as PDFs.

Iowa State University Digital Press: Open Textbooks (Various CC licences)

The Iowa State University Digital Press, a unit of the Iowa State University Library, aims to publish high quality scholarship in areas reflected in Iowa State's curricular and research offerings, tell stories of Iowa and the Midwest, and diversify the voices in the scholarly record.

[JSTOR – Open Access Books](#) (Various CC and other licences)

More than 6,500 Open Access ebooks from [85+ publishers](#), including Brill, Cornell University Press, De Gruyter, and University of California Press, are now available at no cost to libraries or users.

[Kansas State University Open Access Textbooks](#) (Various CC licences)

This collection contains about two dozen open access textbooks. These items are currently being used to support higher education at Kansas State University (KSU).

[OAPEN](#) (Various CC licences)

The OAPEN Library contains freely accessible academic books, mainly in the area of humanities and social sciences.

[Open Books](#) (CC BY)

This collection is compiled from readers' orders for scans, principally in black and white and some in colour. They highlight the range of resources at The University of Edinburgh's Centre for Research Collections, from Herschel's music manuscripts, to 'An Essay on the Character and Cerebral Development of Robert Burns,' to Charles Lyell's handwritten notes.

[Open Square](#) (CC BY-NC-SA)

Open Square is NYU Press's platform for publishing and reading open access books. A browser-based reading platform, Open Square enables us to increase the impact of scholarly work by making it freely available in a digital format.

[Open Research Library](#) (Various CC licences)

A library designed to host all open access book content worldwide.

[Project Gutenburg](#) (Public domain)

A collection of over 54,000 eBooks that are all in the public domain.

[Project Gutenburg Canada](#) (Public domain)

A collection of eBooks that are in the public domain in Canada.

[Standard Ebooks](#) (Public domain)

Standard Ebooks is a volunteer driven, not-for-profit project that produces new editions of public domain ebooks that are lovingly formatted, open source, and free.

[ZTC Textbooks](#) (Various CC licences)

A collection of open textbooks from the College of the Canyons (Santa Clarita, CA).

[Wikibooks](#) (CC BY-SA)

A collection of Wikibooks organized by subject.

Journals

[Journal of Open Educational Resources in Higher Education](#) (CC BY)

JOERHE is a Diamond Open Access, open peer-reviewed journal that features OER, Open Pedagogy, Open Access, Open Data, and similar topics focusing specifically within the context of Higher Education in the United States and Canada.
[Journal of Research of NIST](#) ([Public domain](#))

Volumes from the Journal of Research of the National Institute of Standards and Technology going back to 1989.

Monographs

[Open Monographs](#) (Various CC licences)

From the University of Minnesota.

Publishers

[Athabasca University Press](#) (CC BY-NC-ND)

Canada's first open-access scholarly press publishing journals and monographs.

[Cornell Open](#) (CC BY-NC-ND)

Cornell Open is a global open-access portal for both new and classic out-of-print titles from the catalog of Cornell University Press.

[Ecampus OER – Oregon State University](#)

A list of links to open textbooks written by Oregon State faculty.

[Grand Valley State University Open Textbooks](#)

Open textbooks published by faculty at Grand Valley State University.

[MIT Press Open](#)

MIT's open-access journal publications.

[New Prairie Press – Kansas State University Open Access Textbooks](#) (Various CC licences)

[Open Book Publishers](#) (Various CC licences)

An open access publisher in the UK publishing open monographs and textbooks in all subject areas.

[Open SUNY Textbooks](#) (CC BY-NC-SA)

Open SUNY Textbooks is an open textbook publishing initiative established by State University of New York libraries and supported by SUNY Innovative Instruction Technology Grants and SUNY Geneseo.

[OpenStax](#) (CC BY)

OpenStax is a nonprofit educational initiative based at Rice University that publishes high-quality, peer-reviewed, openly licensed college textbooks that are absolutely free online and low cost in print.

[PDXOpen](#) (CC BY-NC)

PDXOpen is an open access textbook publishing initiative to support Portland State faculty developing open access textbooks.

[Penn State University Press Unlocked](#) (CC BY-NC-ND)

Penn State's open access journals and books.

[Publishers of OA Books](#)

A wiki with a list of over 200 open-access publishers.

[Saylor Academy Open Textbooks](#) (CC BY-NC)

The open textbooks on this page include several titles published through Saylor Academy's Open Textbook Challenge and a collection of titles re-published by Saylor Academy in 2012.

[SFU Library Digital Publishing](#) (Various CC licences)

SFU Library Digital Publishing is an initiative of the Simon Fraser University Library and the Public Knowledge Project. We help researchers and students publish open access books, journals, and other educational projects using PKP's free, open source software.

[TU Delft Open](#) (CC BY)

Open textbooks and open monographs published by Delft University of Technology.

[unglue.it](#) (Various CC licences)

At Unglue.it, you can reward creators that have set their books free, via [Creative Commons](#) licenses. You can buy books that WANT to be free, but need funding to get there. You can pledge toward creating free ebooks from print books.

[University of Minnesota Libraries](#) (Various CC licences)

Open textbooks and open monographs published by the University of Minnesota Libraries Publishing.

[University of Toronto Press](#) (Various CC licences)

Open access books from the University of Toronto Press.

[University of Wisconsin-Madison Pressbooks Catalogue](#) (Various CC licences)

Open textbooks published in Pressbooks by UW-Madison.

[University System of Georgia Open Textbooks](#) (Various CC licences)

Open textbooks produced by the University System of Georgia.

[Virginia Tech](#) (Various CC licences)

Open textbooks published by Virginia Tech Libraries' Open Education Initiative.

Textbook Collections

[B.C. Open Collection](#) (Various CC licences)

A collection of open textbooks and other open educational resources covering multiple subject areas. This collection is curated by BCcampus Open Education in British Columbia, Canada.

[eCampusOntario Open Library](#) (Various CC licences)

A collection of open textbooks and other open resources curated by eCampusOntario. The curated collection aligns with top subject areas in post-secondary education and features reviews from experts and educators across Canada.

[LibreTexts](#) (Various CC licences)

A collection of subject-specific libraries containing various open textbooks and resources.

[MIT OpenCourseWare Online Textbooks](#) (Licences vary)

An index to the online textbooks in MIT OpenCourseWare. Each link below goes to a course or resource page that contains the textbook files. Some of these online textbooks are open-licensed electronic versions of print books. Others are self-published online books, or course notes which are so thorough that they serve as an alternative to a conventional textbook.

[Open Educational Resources Textbook List [PDF]](#)

A list of open textbooks organized by subject with citation and links. The list was curated by Sacred Heart University in 2016.

[Open Textbook Library](#) (Licences vary)

The Open Textbook Library (maintained by the Open Education Network) provides a growing catalogue of free, peer-reviewed, and openly-licensed textbooks.

[List of Pressbooks Catalogues](#) (Licences vary)

A list of post-secondary institutions in Canada and the U.S. that have established their own instances of Pressbooks. Many instances host a catalogue of open textbooks and other OER that they have published in Pressbooks.

Vendors

[Amazon – OpenLearn](#) (CC BY-NC-SA)

Free Kindle files for [OpenLearn courses](#) from the Open University.

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3.

Course Collections

Last update: Jun 27/22

B.C. Open Collection (see High-Quality Open Online Courses)

A collection of open educational resources curated by BCcampus. This collection includes open course packs created by instructors from British Columbia, Canada.

Oregon guidelines on sharing open courses from the LMS (CC BY)

These guidelines are recommendations that identify barriers and suggest solutions in order to encourage widely sharing openly licensed courses that are created in an LMS.

Achieving the Dream: Lumen Learning (CC BY)

This catalogue contains openly licensed course materials developed for the Open Educational Resources (OER) Degree Initiative, led by Achieving the Dream. Lumen maintains this content in the same condition it was provided to us by participating faculty and institutions.

ASCCC OER Initiative (CC BY-NC)

Open online courses by discipline from the Academic Senate for California Community Colleges.

Canvas Commons (Various CC licences)

Commons is a learning object repository that enables educators to find, import, and share resources with other users as well as import learning resources into a Canvas course. The above link is a filtered view of open textbooks for undergraduate and graduate level courses.

OER Courseware Africa (Various CC licences)

OER Africa aims to provide a home for all African OER courseware. Over the years our focus has been on Agriculture, Foundation Skills, Health and Teacher education where we have a wealth of OER course materials that have been developed for the African context.

OERu (CC BY)

Take university-level courses online for free and submit assessments when you are ready to have your learning recognized for formal academic credit.

[Open Course Library](#) (CC BY)

A collection of high quality, free-to-use courses that you can download and use for teaching. All content is stored in Google docs making it easy to access, browse and download.

[OpenLearn](#) (CC BY-NC-SA)

A collection of free and open courses from the Open University covering a wide variety of topics.

[Open Learning Initiative](#) (CC BY-NC-SA)

A collection of free and open courses on multiple topics. There is a mix of free and for-cost courses.

[MIT Open Courseware](#) (CC BY-NC-SA)

MIT OpenCourseWare (OCW) is a web-based publication of virtually all MIT course content. OCW is open and available to the world and is a permanent MIT activity.

[Saylor Academy](#) (CC BY)

Saylor Academy is a nonprofit initiative working since 2008 that offers nearly 100 full-length courses at the college and professional levels. Courses are immediately available, self-paced, and free.

[Skills Commons](#) (CC BY)

An open digital library of Workforce Training Materials.

[TU Delft OpenCourseWare](#) (CC BY-NC-SA)

TU Delft OpenCourseWare provides free and open educational resources of high quality university-level, organised as courses. You may download, revise, remix and re distribute the resources published at TU Delft OpenCourseWare, as long as you adhere to the Creative Commons conditions.

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4.

Multimedia and Tool Collections

General Multimedia

HippoCampus (Various CC licences)

HippoCampus.org is a free, core academic website that delivers rich multimedia content—videos, animations, and simulations—on general education subjects to middle-school and high-school teachers and college professors, and their students, free of charge.

Last update: Oct 6/23

OpenSimon Tools (Various licences)

The mission of the Simon Initiative, through it's OpenSimon Toolkit release, is to create and grow a community of educators who use and expand on the Learning Engineering toolkit and the larger Simon Initiative ecosystem to improve learning outcomes for individual learners, while collectively advancing our larger understanding of human learning.

PhET Interactive Simulations (CC BY)

Free, interactive math and science simulations. PhET sims are based on extensive education research and engage students through an intuitive, game-like environment where students learn through exploration and discovery.

Videvo (Various CC and other licences)

Thousands of free stock videos, motion graphics, music tracks and sound effects.

Audio

Bach's ooGoldberg Variations (CC0)

The Open Goldberg Variations (Johann Sebastian Bach, BWV 988), played by Kimiko Ishizaka on a Bösendorfer 290 Imperial piano, are free to download and share.

Free Sound (Various CC licences)

A collection of searchable audio clips uploaded by users.

Images

[AllGo Plus Size](#) (Public domain)

A photo collection featuring plus-size people doing normal, everyday things.

[American Education: Images of Teachers and Students in Action](#) (CC BY-NC)

A photo collection featuring students and teachers from preschool to high school, including pictures focusing on trades, COVID, science, language, art, and more.

[Creative Commons Search](#) (Various CC licences)

A search tool developed by Creative Commons that searches more than 300 million open images.

[Disabled and Here](#) (CC BY)

This collection is a disability-led effort to provide free and inclusive stock photos featuring disabled BIPOC (Black, Indigenous, People of Colour) across the Pacific Northwest.

[Flickr](#) (CC search filter)

The Flickr Creative Commons Search allows you to search all of image sources for items that are either CC-licensed or public domain.

[The Gender Spectrum Collection](#) (CC BY-NC-ND)

A stock photo library featuring images of trans and non-binary models that go beyond the clichés. This collection aims to help media better represent members of these communities as people not necessarily defined by their gender identities—people with careers, relationships, talents, passions, and home lives.

[Google Images](#) (CC search filter)

Google Images will allow you to filter results to only show openly licensed images. Under "Tools" set "Usage Rights" to be "Labelled for Reuse."

[Human Development Institute](#) (Public domain)

Photos that represent all people with disabilities in all aspects of society.

[Images of Empowerment](#) (CC BY-NC)

A library of images celebrating women's lives and their work in 11 countries around the world.

[Indigenous Stock Images](#) (Free to use with attribution)

CIRA's Indigenous stock photo library is a free-to-use resource created with the purpose of honouring Indigenous entrepreneurship and addressing the Indigenous representation gap in most online stock images.

Nappy (CC0)

Nappy is a collection of free photos of Black and Brown people spanning exercise/physical activity; food; work; and the nouns, people, places, and things.

The Noun Project (Various CC licences)

A catalogue of symbols that are created and uploaded by graphic designers under a CC-license.

Open-i (Various CC and other licences)

A service of the National Library of Medicine enables search and retrieval of abstracts and images (including charts, graphs, clinical images, etc.) from the open source literature, and biomedical image collections. Searching may be done using text queries as well as query images. Open-i provides access to over 3.7 million images from about 1.2 million PubMed Central® articles; 7,470 chest x-rays with 3,955 radiology reports; 67,517 images from NLM History of Medicine collection; and 2,064 orthopedic illustrations.

Open Peeps (CC0)

A hand-drawn illustration library that works like building blocks made of vector arms, legs, and emotions. You can mix these elements to create different Peeps.

Pexels (CC0)

A collection of free stock photos without copyright restrictions.

PICNOI (CC BY)

A collection of free stock photos featuring people of colour.

Queer in Tech (CC BY)

A photo collection to promote the visibility of queer and gender-nonconforming (GNC) people in technology, who are often under-represented as workers powering the creative, technical, and business leadership of groundbreaking tech companies and products.

Smithsonian Open Access (Various CC licences)

Download, share, and reuse millions of the Smithsonian's images—2D and 3D digital items from its collections—with many more to come. This includes images and data from across the Smithsonian's 19 museums, nine research centers, libraries, archives, and the National Zoo.

StockSnap.io (CC0)

High quality stock photos for just about any use you can think of – including commercial usage – for free.

Stock photos focused around diversity, equity, and inclusion (Various CC licences)

[UBC's Aggregated List of Image Sources](#) (Various CC licences)

A comprehensive list of image collections that are either in the Public Domain or Creative Commons licenced. The list includes multidisciplinary collections, as well as those specific to the humanities and sciences.

[UKBlackTech](#) (CC BY)

A collection of stock photos featuring BAME (Black, Asian, and minority ethnic) adults and children work with tech.

[Unsplash](#) ([free to use and change](#))

A collection of free high-resolution photographs that do not have any copyright restrictions.

[U.S. Government Photos and Images](#) (Public domain)

A vast collection of photos and images from the U.S. Government, many of which are in the public domain and free to use.

[Wikimedia Commons](#) (Various CC licences)

Wikimedia Commons contains over 20 million freely usable image, sound, and video files.

[WOCinTechChat](#) (CC BY)

A collection of stock photos featuring women of colour working in tech.

Videos

[BLOSSOMS Video Library](#) (CC BY-NC-SA)

BLOSSOMS Video Library contains over 100 math and science lessons, all freely available to teachers as streaming video and Internet downloads and as DVDs and videotapes.

[Pexels Videos](#) (CC0)

A collection of free stock videos without copyright restrictions.

[TED Talks](#) (CC BY-NC-ND)

TED's videos are all Creative Commons licensed, unless otherwise indicated.

[University of California at Berkeley Lectures](#) (CC BY)

A collection of 20,000 college lectures published by UCBerkeley.

[Vimeo](#) (CC search feature)

A video hosting platform. People posting videos have the option of adding a CC licence to the video.

YouTube (CC search feature)

A large video hosting platform. People posting videos have the option of adding a CC licence to the video.

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II

Academic/Career Success

Subjects and Disciplines
This section includes: • Academic Success

Also see Academic/Career Success in the "Books under consideration" section of this directory. Books open for review and Books scheduled to be added to the collection may also contain resources.

5.

Academic Success

Courses

[Reading Texts: An Interactive Workshop](#) (CC BY-NC-SA)

Reading Texts: An Interactive Workshop guides you through a series of videos and exercises to help you read efficiently and purposefully. The workshop as a part of the Academic Skills Workshop series developed by the KPU Learning Centres.

Supplemental Materials

[Independent Research Guide](#) (CC BY-NC-SA)

This guide to independent research is intended to help students and scholars who lack institutional support, or anyone who might otherwise be looking for some guidance into how to conduct research. It is aimed primarily at philosophers, although several of the points outlined below may be more broadly applicable. The guide is split into three main sections: Finding academic material, critically engaging with texts, and presenting your research.

Textbooks

[Bridges: United States Academia for First-Generation and International College Students](#) (CC BY)

Bridges introduces students to a wide range of concepts, institutions, histories, and artifacts of United States college and university life. After discussing these items in easy-to-scan, concise, nuance-free prose, this textbook then offers useful lists, templates for writing and speaking in different discourses and situations, thought-provoking questions and activities for self-study and for classroom work, and pertinent hyperlinks for further information. *Bridges* is designed to help first-generation, first-year, English language learners, and/or culturally unfamiliarized students more fully and successfully explore their educational environments.

[Choosing & Using Sources: A Guide to Academic Research](#) (CC BY)

Engaging graphics, compelling examples, and easy-to-understand explanations make Choosing and

Using Sources: A Guide to Academic Research, your most valuable, open access resource for completing research-based writing assignments and projects.

[College Success Reading and Learning Objectives](#) (CC BY)

Students first discover what they want from their education, then build a plan to get there. This content takes students through the steps to successfully navigate their journey in higher education. Topics include planning for success, choosing a career path, setting and attaining goals, understanding financial management, developing critical thinking skills, making healthy choices, using effective communication, managing time, developing learning strategies, developing meaningful relationships.

[A Different Road to College: A Guide For Transitioning To College For Non-traditional Students](#) (CC BY)

This book is designed to introduce students to the contextual issues of college in the United States. Non-traditional students have an ever-growing presence on college campuses, especially community colleges. This open educational resource is designed to engage students in seeing themselves as college students and understanding the complexity of what that means to their lives.

[Library Skills for 2nd Year Biological Sciences](#) (CC BY)

This tutorial covers the library skills required for students in 200-level Biological Sciences courses with these objectives:

- Understand the difference between popular and scholarly sources and know the different types of scholarly sources
- Know how to read a scholarly article
- Learn how to effectively search for articles and access library material from home
- Know how to properly cite sources and avoid plagiarism

[No Limits: Foundations and Strategies for College Success](#) (CC BY)

This textbook is used in courses that teach new students academic success skills to aid their transition to college. The goal is to help students identify their individual needs, determine what resources are appropriate, recognize the faculty role in their development, and formulate a plan for an actively engaged and enriched experience from campus to career.

Videos

[In Your Own Words – Avoid Plagiarism](#) (CC BY)

Learn to avoid plagiarism pitfalls in this video co-created by staff and students of the University of Edinburgh.

[University Skills Video Series](#) (CC BY)

The KPU Learning Centre's YouTube channel with video collections on writing skills, time management, reading skills, and critical thinking.als

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III

Agriculture

Subjects and Disciplines
This section includes: • [Agriculture – General](#) • [Permaculture](#) • [Plant Breeding](#)

Also see [Agriculture](#) in the "Books under consideration" section of this directory .[Books open for review](#) and [Books scheduled to be added to the collection](#) may also contain resources.

6.

Agriculture - General

Also see [Botany](#), and soil related OER in the [Geology](#) chapter.

Last update: Jun 22/23

Textbooks

[Crop Genetics](#) (CC BY-NC)

This book provides an introduction to the genetic concepts of reproductive systems, recombination, mutation, segregation and linkage analysis, inbreeding, quantitative inheritance, fertility regulation, population genetics and polyploidy.

[Crop Improvement](#) (CC BY-NC)

This book covers basic principles in the genetic improvement of crop plants. Emphasis is on methods of cultivar development in self-pollinating, cross-pollinating and asexually propagating crops. Relevant examples of crop improvement research in Africa are utilized to cover factors affecting cultivar release, multiplication, and distribution of high-quality seed.

[History and Science of Cultivated Plants](#) (CC BY-NC)

This textbook narrates how humans transitioned from foragers to farmers and have arrived at present-day industrial agriculture-based civilization. It entails myths, historical accounts, and scientific concepts to describe how human efforts have shaped and produced easier to grow, larger, tastier, and more nutritious fruits, vegetables, and grains from wild plants. Using examples of various economically and socially important crops central to human civilization, the book describes the origin of crop plants, the evolution of agricultural practices, fundamental concepts of natural selection vs. domestication, experimental and methodical plant breeding, and plant biotechnology.

7.

Permaculture

Textbooks

Introduction to Permaculture (CC BY-NC)

This free introduction to permaculture is meant for the novice and the professional alike, with no prior experience necessary. For the person new to permaculture design and land stewardship, this book will provide a foundation from which to build upon with subsequent training, and introduce a new perspective that can be applied in many careers and facets of life.

Permaculture Design: Tools for Climate Resilience (CC BY-NC)

This book is predominantly about climate, and the macro influences of climate and climate change on design. Topics include climate assessment, which covers climate classification systems and climate change projections, and design strategies for climate resilience to weather events such as drought, heat, erratic rainfall, wildfire, tropical cyclones, and sea level rise.

8.

Plant Breeding

Textbooks

[Crop Genetics](#) (CC BY-NC)

This book provides an introduction to the genetic concepts of reproductive systems, recombination, mutation, segregation and linkage analysis, inbreeding, quantitative inheritance, fertility regulation, population genetics and polyploidy.

[Molecular Plant Breeding](#) (CC BY-NC)

This book focuses on genomics and plant biotechnology approaches used in plant breeding, the analysis of genomic data, and their application in quality control measures. The application of alternative genomic technologies to enhance conventional breeding strategies is also presented.

IV

Business

Subjects and Disciplines

The section includes:

- [Business – General](#)
- [Accounting](#)
- [Business Communications](#)
- [Business Ethics](#)
- [Business Law](#)
- [Economics](#)
- [Finance](#)
- [Human Resources](#)
- [Management](#)
- [Marketing](#)
- [Project Management](#)

Also see [Business](#) in the "Books under consideration" section of this directory. [Books open for review](#) and [Books scheduled to be added to the collection](#) may also contain resources.

9.

Business - General

Courses

[OpenLearn: Money and Business](#) (Various CC Licences)

A collection of open courses and accompanying resources in the areas of business and money.

Journals

[Journal of Business Case Studies](#) (CC BY)

The Journal of Business Case Studies (JBCS) welcomes case studies designed for use in business and economics courses and articles related to the use of case studies in the classroom.

Software

[Apache OpenOffice Draw](#) (Apache License)

This software provides the tools to communicate with graphics and diagrams with a maximum page size of 300cm by 300cm.

Textbooks

[Business LibreTexts Library](#) (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources relating to topics in business.

[Business Math I](#) (CC By-NC-SA)

This book is aimed at university business students as an introduction to the mathematics required for the field of business. This textbook covers the fundamentals of business precalculus, finance, as well as the applications to general business management, human resources and the economy, marketing and accounting.

[Business Writing Style Guide](#) (CC BY-NC-SA)

The goals of this book are to help students: apply basic concepts for effective and concise business writing; compile a well written report acceptable within a business context; follow a writing process designed for business students; demonstrate critical thinking, reasoning, and persuasion; communicate in writing using a business model; apply resources for improving business writing skills.

[Customer Centric Strategy](#) (CC BY-NC-SA)

Customer centricity is about organizational transformation making the customer the focus for business decisions, processes, product development, services, and procedures. Some companies purport to be customer centric but they fall short in connecting this concept throughout all functional areas of the business. While it is important to offer superb customer service, being customer centric is far more than that. It's about mapping the customer journey to discover customer needs and wants, what's working and what is not, then taking action to improve the customer experience. Customer loyalty is built through providing exceptional customer experiences. This in turn increases revenues through positive company image, referrals, and increased customer lifetime value. Most organizations today realize that they must focus on the customer to remain competitive.

[Fundamentals of Business, 3rd edition](#) (CC BY-NC-SA)

The book covers the following topics in business: Teamwork; economics; ethics; entrepreneurship; business ownership, management, and leadership; organizational structures and operations management; human resources and motivating employees; managing in labor union contexts; marketing and pricing strategy; hospitality and tourism, accounting and finance, and personal finances.

[Introduction to Entrepreneurship](#) (CC BY-NC-SA)

Learn about entrepreneurship and what makes entrepreneurs successful, all while developing your entrepreneurial skills.

[Responsible Innovation: Ethics, Safety and Technology- 2nd Edition](#) (CC BY-NC-SA)

This textbook is based on the MOOC Responsible Innovation offered by the TU Delft. It provides a framework to reflect on the ethics and risks of new technologies. How can we make sure that innovations do justice to social and ethical values? How can we minimize (unknown) risks? The book explains: The concept and importance of responsible innovation for society; Key ethical concepts and considerations to analyse the risks of new technologies; Different types of innovation (e.g. radical, niche, incremental, frugal); Roadmap for Responsible Innovation by Industry; The concept of Value Sensitive Design (VSD); and it includes a link to all the web lectures as well as case studies ranging from care robots and nuclear energy to Artificial Intelligence and self-driving vehicles.

[Workplace Psychology: Issues and Application](#) (CC BY-NC-SA)

A compilation of open content for students of Psychology 104: Workplace Psychology at Chemeketa Community College.

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10.

Accounting

Textbooks

[Accounting Principles: A Business Perspective](#) (CC BY)

Last update: Jun 27/22

Accounting Principles: A Business Perspective uses annual reports of real companies to illustrate many of the accounting concepts in use in business today. Gaining an understanding of accounting terminology and concepts, however, is not enough to ensure your success. You also need to be able to find information on the Internet, analyze various business situations, work effectively as a member of a team, and communicate your ideas clearly. This text was developed to help you develop these skills.

[Principles of Financial Accounting](#) (CC BY-SA)

This peer-reviewed textbook on financial accounting features over 100 charts and graphs, both in-text and Excel instructional exercises, and resources for student professional development. Topics include the accounting cycle for the service business on a cash basis and an accrual basis; accounting cycle for a merchandising business; assets, liabilities, and stockholders' equity in detail; and capstone experiences. Instructor resources can be requested from the publisher at the source link.

[Principles of Managerial Accounting](#) (CC BY-SA)

This peer-reviewed textbook on managerial accounting features over 100 charts and graphs, both in-text and Excel instructional exercises, and resources for student professional development. Topics include managerial accounting concepts; job order, process, and activity-based costing; cost volume profit analysis; variable costing analysis; budgeting; variance analysis; and differential analysis.

11.

Business Communications

Courses

[Business Communications](#) (CC BY)

Students will learn how to analyze context and audience, determine purpose, message content, visual design and media in order to create written workplace messages that can be received, understood, used and retrieved with speed and accuracy.

[Business Communications 2](#) (CC BY)

This course explores the many strategies and methods one might employ to ensure important messages are communicated in a professional manner. This course establishes business communication fundamentals such as delivering bad news, writing informational reports, creating persuading messages, designing and delivering professional presentations, and preparing for employment searches.

Textbooks

[Business Communication for Success](#) (CC BY-NC-SA)

Business Communication for Success provides a comprehensive, integrated approach to the study and application of written and oral business communication. The text includes learning objectives, exercises, real-world examples, key terms, and post-chapter assessments. Each chapter is self-contained, allowing for mix-and-match flexibility and custom or course-specific design. The first three chapters form the core foundation for the study of oral and written business communication. The next sequence of chapters focuses on the process of writing, then oral performance with an emphasis on results. The final sequence of chapters focuses on contexts where business communication occurs, from interpersonal to intercultural and from groups to leadership.

[Open Technical Communication](#) (CC BY)

This technical communication textbook developed under a [Round 3 Textbook Transformation Grant](#) and updated through several follow-up grants in later rounds of grants offered by [Affordable Learning Georgia](#). It is a remix of the open-sourced *Online Technical Communication* textbook by David

McMurrey, and it has been known under its original title, *Sexy Technical Communication* as well as its current title: *Open Technical Communication*.

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12.

Business Ethics

Textbooks

[Business Ethics (OpenStax)](CC BY) (CC BY)

Business Ethics is designed to meet the scope and sequence requirements of the single-semester business ethics course. This title includes innovative features designed to enhance student learning, including case studies, application scenarios, and links to video interviews with executives, all of which help instill in students a sense of ethical awareness and responsibility.

Last updated: June 13/22

[The Business Ethics Workshop](CC BY-NC-SA) (CC BY-NC-SA)

Ethics is about determining value; it's deciding what's worth doing and what doesn't matter so much. Business ethics is the way we decide what kind of career to pursue, what choices we make on the job, which companies we want to work with, and what kind of economic world we want to live in and then leave behind for those coming after. There are no perfect answers to these questions, but there's a difference between thinking them through and winging it. The Business Ethics Workshop provides a framework for identifying, analyzing, and resolving ethical dilemmas encountered through working life.

13.

Business Law

Textbooks

[Business Law I: Essentials – OpenStax](#) (CC BY)

Last update: May 12/20

Business Law I Essentials is a brief introductory textbook designed to meet the scope and sequence requirements of courses on Business Law or the Legal Environment of Business. The concepts are presented in a streamlined manner, and cover the key concepts necessary to establish a strong foundation in the subject. The textbook follows a traditional approach to the study of business law. Each chapter contains learning objectives, explanatory narrative and concepts, references for further reading, and end-of-chapter questions.

[Fundamentals of Business Law](#) (CC BY)

An undergraduate business law textbook written by Melissa Randall and Community College of Denver Students in collaboration with lawyers and business professionals for use in a required 200-level business law courses in the United States. This book is a introductory survey of the legal topics required in undergraduate business law classes.

14.

Economics

Case Studies

Last update: May 3/23

[Canada's Pacific Groundfish Trawl Fishery: Ecosystem Conflicts](#) (CC BY)

An open case study by the University of British Columbia that looks at conflicts between British Columbia's commercial fishing industry and environmental NGOs.

Collections

[World Bank Open Knowledge Repository](#) (Various CC licences)

This repository is the largest single source of knowledge on economic development around the world.

Courses

[Lectures in Quantitative Economics](#) (CC BY-ND)

This website presents a series of lectures on quantitative economic modelling. It provides a hands-on instruction manual, with all code written in modern, open source programming languages. Topics include algorithms and numerical methods for studying economic problems, related mathematical and statistical concepts, and basics of coding skills and software engineering. The intended audience is upper level undergraduate students and graduate students and researchers in economics, finance and related fields. There are two versions of the website, a Python version and a Julia version.

[Open Learning Campus (OLC)](#) (Check individual resources for permissions)

Inspired by the success and credibility of proven approaches to online learning, the OLC is a learning

ecosystem that is open, interactive and networked. It leverages the vast knowledge of the World Bank Group (WBG) and its partners and converts it into actionable learning for effective development.

Textbooks

CORE: The Economy (CC BY-NC-ND)

This introductory economics textbook is available in English, French, Italian, Spanish, Finnish, Portuguese, and German. The text focuses on evidence and case studies on the economy, from around the world, and from history. It is motivated by questions—how can we explain what we see? The method is to ask interesting questions first and then to introduce models that help to answer them. Standard tools such as constrained optimization are taught by showing how they give insight into real-world problems.

CORE: Economy, Society, and Public Policy (CC BY-NC-ND)

An economics text that has been specifically designed for students from social science, public policy, business and management, engineering, biology, and other disciplines, who are not economics majors. The book is also being used successfully in courses for economics, business, and public policy majors, as well as in economics modules for Philosophy, Politics and Economics (PPE), and masters' courses in Public Policy.

Economics for Life: Real-World Financial Literacy (CC BY-NC)

America has evolved into an ownership society. Home-buying decisions, resource allocation, debt exposure, and financial planning for the future are now left to individuals, many of whom may lack the financial understanding to evaluate and make sound decisions. Economics, with its insistence on quantifying ideas and putting specific quantitative values on all manner of phenomena, can help sort through the questions. *Economics for Life: Real-World Financial Literacy* is designed to help soon-to-be college graduates start their "real lives" with a better understanding of how to analyze the financial decisions that they will soon have to make. Written in an easy-to-read, conversational style, this textbook will help students learn how to make decisions on saving and investing for retirement, buying a car, buying a home, as well as how to safely navigate the use of debit and credit cards.

The Economics of Food and Agricultural Markets (CC BY-NC)

This book showcases the power of economic principles to explain and predict issues and current events in the food, agricultural, agribusiness, international trade, labor markets, and natural resource sectors. Readers will benefit from a large number of real-world examples and applications of the economic concepts under discussion. The book succinctly introduces economic principles, providing students and instructors with a clear and straightforward approach to learning how a market-based economy functions, and how to use simple economic principles for improved decision making. The principles are applied to timely real-world issues through words, graphs, and simple algebra and calculus. This book is intended for students who study agricultural economics, microeconomics, rural development and/or environmental policy.

Intermediate Microeconomics with Excel (CC BY-SA)

This book is based on the idea that there is a particular framework used by economists to interpret observed reality. This framework has been called the economic way of thinking, the economic approach, and the method of economics.

[Models in Microeconomic Theory](#) (CC BY-NC-ND)

Models in Microeconomic Theory covers basic models in current microeconomic theory. Part I (Chapters 1–7) presents models of an economic agent, discussing abstract models of preferences, choice, and decision making under uncertainty, before turning to models of the consumer, the producer, and monopoly. Part II (Chapters 8–14) introduces the concept of equilibrium, beginning, unconventionally, with the models of the jungle and an economy with indivisible goods, and continuing with models of an exchange economy, equilibrium with rational expectations, and an economy with asymmetric information. Part III (Chapters 15–16) provides an introduction to game theory, covering strategic and extensive games and the concepts of Nash equilibrium and subgame perfect equilibrium. Part IV (Chapters 17–20) gives a taste of the topics of mechanism design, matching, the axiomatic analysis of economic systems, and social choice.

The book focuses on the concepts of model and equilibrium. It states models and results precisely, and provides proofs for all results. It uses only elementary mathematics (with almost no calculus), although many of the proofs involve sustained logical arguments. It includes about 150 exercises.

With its formal but accessible style, this textbook is designed for undergraduate students of microeconomics at intermediate and advanced levels.

[Principles of Macroeconomic Literacy](#) (CC BY-SA)

Principles of Macroeconomic Literacy emphasizes basic economic concepts such as value and cost in developing macroeconomic ideas. Students learn concepts involving credit markets, economic planning, and money through short fictional stories in which characters interact in an attempt to make themselves better off. Where many texts put the student in the position of an imagined macroeconomic policy dictator, Principles of Macroeconomic Literacy attempts to make macroeconomics comprehensible to students who live everyday.

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15.

Finance

Also see [Finance OER](#) in development.

Textbooks

Last update: Sep 9/22

[Financial Management for Small Businesses: Financial Statements & Present Value Models](#) (CC BY)

This book is for those whose financial management focus is on small businesses. For you, we adapt the traditional financial management themes emphasized in corporate financial management courses to meet the needs of small businesses.

[Financial Strategy for Public Managers](#) (CC BY)

A new generation textbook for financial management in the public sector. It offers a thorough, applied, and concise introduction to the essential financial concepts and analytical tools that today's effective public servants need to know.

[Liquidity, Markets and Trading in Action: An Interdisciplinary Perspective](#) (CC BY)

This book addresses four standard business school subjects: microeconomics, nance, macroeconomics, and information systems as they relate to trading, liquid- ity, transaction costs, and market structure.

16.

Human Resources

Last update: Aug 18/23

Textbooks

[People Learning and Development: Transforming people and organizations through learning](#) (CC BY-NC)

This guide serves as an interactive resource for HR/business management students, HR professionals, and anyone involved in employee development at work. Developing a skilled workforce is top of mind for today's organizations. The world as we know it is changing and so are our workplaces.

[Workplace Role Play Scenarios](#) (CC BY-NC)

This book has been designed to provide a range of workplace scenarios that can be utilised for experiential learning covering difficult conversations, negotiation and mediation. The scenarios provide learners with the opportunity to engage in different role-plays and provide learners with the opportunity to reflect on their experience with reflective questions.

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17.

Management

Case Studies

[MIT Management Sloan School: LearningEdge](#) (CC BY-NC-ND)

These business case studies fall under the headings of entrepreneurship, leadership/ethics, operations management, strategy, sustainability, and system dynamics. They are narratives that facilitate class discussion about a particular business or management issue.

Last update: Jun 27/22

Courses

[Evidence-based Practice in Management and Consulting](#) (CC BY-NC-SA)

Help you and your organization to make better decisions by learning how to distinguish science from folklore; data from assertions; and evidence from beliefs, anecdotes, or personal opinion.

[Introduction to Management](#) (CC BY)

This course was developed to address two primary gaps present in many introductory management courses: A focus on high level theory without immediate application for students. Examples and cases focusing on large Fortune 500 businesses with hundreds or thousands of employees, where most students in decision-making roles need to make smart decisions on a much smaller scale.

Textbooks

[Developing Organizational Managerial Wisdom](#) (CC BY-NC-SA)

This book presents the results of novel research into the dynamics of values, rationality, and power in organizations. Through this understanding, readers will gain insights and frameworks with which to understand the actions of others within their environment.

[Emergence of a Strategic Leader](#) (CC BY-SA)

Supplemental reading for LD823 MS in Leadership Course at Granite State College, NH.

[Organizational Behavior](#) (CC BY-NC-SA)

Text for MGMT805 in MS for Management at Granite State College, NH (USA).

[Principles of Management for Leadership Communication](#) (CC BY-NC-SA)

This textbook from the University of Arkansas teaches management principles to tomorrow's business leaders by weaving three threads through every chapter: strategy, entrepreneurship and active leadership.

[Problem Solving in Teams and Groups](#) (CC BY)

This textbook covers content relevant to COMS342 Problem Solving in Teams and Groups at the University of Kansas.

[Strategic Discoveries: Case Studies in Strategic Leadership Development](#) (CC BY-NC-ND)

A collection of case studies on Strategic Leadership written by graduate students in a Strategic Leadership course. Each leader comes from a different area of the strategic leadership spectrum: education, health care, business, non-profit, and Christian ministry. As such, these case studies explore strategic leadership from a wide range of disciplinary backgrounds and experiences.

[Strategic Management](#) (CC BY-NC-SA)

An introduction to the key topics and themes of strategic management. The authors draw on examples of familiar companies and personalities to illustrate the different strategies used by today's firms—and how they go about implementing those strategies. Students will learn how to conduct a case analysis, measure organizational performance, and conduct external and internal analyses.

[Mastering Strategic Management](#) (CC BY-NC-SA)

Teaching the strategic management course can be a challenge for many professors. In most business schools, strategic management is a "capstone" course that requires students to draw on insights from various functional courses they have completed (such as marketing, finance, and accounting) in order to understand how top executives make the strategic decisions that drive whether organizations succeed or fail. Although students have taken these functional courses, many students have very little experience with major organizational choices. It is this inexperience that can undermine many students' engagement in the course. For questions about this textbook please contact textbookuse@umn.edu.

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18.

Marketing

Courses

[Introduction to Marketing](#) (CC BY)

Throughout this course, you will work on a business idea that you will generate based upon your interests. To do so, you must think about what you can do or sell to make extra money. You must follow these basic restrictions for your idea. Throughout this course, you will be referring to this business but you will not have to actually create this business. When your business idea is mentioned throughout your course, treat it as a mock business.

Textbooks

[Be Credible](#) (CC BY-NC)

This book teaches college-level journalism and strategic communication students to become information experts.

[Customer Insights, Second Edition](#) (CC BY-NC)

This textbook is based on materials sourced from different practitioners from the world of research design, data collection, analysis, and interpretation. The author and her collaborators have also added materials to supplement the available literature.

[The Evolving World of Public Relations](#) (CC BY)

From Nova Scotia Community College, for PREL 2166 course.

[Global Marketing in a Digital World](#) (CC BY-NC-SA)

Global Marketing in A Digital World offers students the principles and framework that firms use when selling their products and services around the world. In a technologically advanced world, digital marketing becomes a crucial part in the success of companies going global. Topics include an introduction to global marketing; the economic, political, social, and cultural environment; global market planning; competing in a global marketplace; global market entry modes; global products; global pricing; global distribution; global promotion; the global marketing plan; creating a global brand; introduction to e-commerce; and emerging technology. PowerPoint slides are available for each chapter in this book.

[Indigenous Businesses in the BC Interior: Case Studies in Marketing](#) (CC BY-NC)

This compilation of Indigenous Business Case Studies, focusing on the BC Interior, explores marketing challenges and approaches of a variety of indigenous-owned businesses. The authors had the opportunity to have conversations with the business owners and feel honoured to have been trusted with information and data to put this collection together. Within this collection, we present case studies that can be used in various marketing and management courses.

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19.

Project Management

Last update: May 26/21

Textbooks

[Project Management for Instructional Designers – First Canadian Edition](#) (CC BY-NC-SA)

A textbook about project management tailored specifically for instructional designers, intended for use in graduate programs in educational technology. This book is based on a pre-existing openly licensed textbook donated to the commons by a benefactor who desires to remain anonymous. It has been collaboratively revised and updated by students and faculty at the University of Saskatchewan.

[Technical Project Management in Living and Geometric Order – Third Edition](#) (CC BY)

This book is the result of a collaboration among the instructors responsible for Technical Project Management, one of the ten required classes in the Master of Engineering Management (MEM) program at the University of Wisconsin-Madison. This class is designed to help students build on their past experiences and develop effective strategies for managing complex technical projects, with an emphasis on applying project management concepts to real-world problems.

20.

Property Management

Last update: Jun 13/23

Textbooks

[Sustainable Property Management](#) (CC BY-NC-SA)

A 150-page, peer-reviewed open textbook intended for students majoring in property management and real estate at both the undergraduate and graduate levels. It can be incorporated into an existing property management operations course or used for a stand-alone course focused on sustainable property management. Although sustainability, as used in the real estate context, is about preserving the environment, it is about more than that. In sustainable property management, sustainability encompasses three spheres—environmental, social, and economic. Sustainable property management is about reconciling these three spheres throughout the operations and maintenance phases of the building lifecycle in such a way that a balance is achieved between economic development and the protection of environmental and social resources.

V

Communications and Media

Subjects and disciplines
This section includes: • [Communications](#) • [Copyright](#) • [Information and Communications Technology (ICT)](#) • [Journalism](#) • [Media and Social Media](#) • [Presentations and Public Speaking](#) • [Publishing](#)

Also see Communications and Media in the "Books under consideration" section of this directory. Books open for review and Books scheduled to be added to the collection may also contain resources.

21.

Communications

Also see [Communications OER](#) in development.

Courses

Last update: Jun 27/22

[Business Communications](#) (CC BY)

Students will learn how to analyze context and audience, determine purpose, message content, visual design and media in order to create written workplace messages that can be received, understood, used and retrieved with speed and accuracy.

[Business Communications 2](#) (CC BY)

This course explores the many strategies and methods one might employ to ensure important messages are communicated in a professional manner. This course establishes business communication fundamentals such as delivering bad news, writing informational reports, creating persuading messages, designing and delivering professional presentations, and preparing for employment searches.

[STEM Foundations](#) (CC BY-NC-SA)

This course offers practice using workplace communication, with activities designed to strengthen skills in preparation for entering a college program in a STEM career.

Supplemental Materials

[A Guide to Academic Podcasting](#) (CC BY-NC-ND)

Academic podcasting is the communication of scholarly knowledge through the digital medium of podcasting. Podcasting can take on many forms, including interviews, audio documentary, fiction, or experimental sound forms.

[WISC-Online Communication Learning Objects](#) (CC BY-NC)

A collection of learning objects on various communication topics.

Textbooks

[Communication in the Real World: An Introduction to Communication Studies](#) (CC BY-NC-SA)

This book overviews the time-tested conceptual foundations of the field, while incorporating the latest research and cutting-edge applications of these basics. Each chapter will include timely, concrete, and real-life examples of communication concepts in action.

[Communication Theory](#) (CC BY-SA)

This Wikibook is an introduction to communication theory — the theory of how humans share, encode, and decode what they know, what they need, and what they expect from each other.

[Digital Photography for Graphic Communications](#) (CC BY)

The purpose of this book is to serve as a reference for a one-semester course in digital photography for graphic communications. Since digital cameras have mostly replaced colour scanners, graphic communicators need to capture images for use in magazines, catalogs, brochures, packages, signs, banners—all forms of printed materials—and also for eBooks, web sites, and apps. It is based on a 2009 print book by the authors that was called *Digital Photography for Print* and published by the Printing Industries of America (PIA) Press.

[A Guide to Technical Communications: Strategies & Applications](#) (CC BY-NC)

This open textbook was designed for Engineering Technical Communications courses at The Ohio State University. This textbook focuses on developing both technical and professional communication skills and will help readers practice strategies for critically analyzing audiences and contexts, real-world applications of rhetorical principles, and skills for producing documents (reports, proposals, instructions), presentations, videos, and wide variety of other professional communications.

[Information Strategies for Communicators](#) (CC BY)

Written by two nationally recognized experts in information strategy, this book leads students step-by-step through the information search and evaluation process for news and strategic communication message production. The book includes a conceptual model of the information strategy process, case studies to illustrate the process in action, and links to current examples throughout.

[Interpersonal Communication: A Mindful Approach to Relationships](#) (CC BY-BC-SA)

This book helps readers examine their own one-on-one communicative interactions using a mindfulness lens and incorporating the latest communication theory and research to help students navigate everyday interpersonal interactions. The book cover topics typically taught in an undergraduate interpersonal communication course: family interactions, interpersonal dynamics, language, listening, nonverbal communication, and romantic relationships, as well as exploring emerging areas such as self-compassion, body positivity, friendships, and "the dark side".

[Key Concepts in Surveillance Studies](#) (CC BY-NC-SA)

A student-authored glossary highlighting twenty-six key concepts in Surveillance Studies. For each concept, the student provided a concise definition of the concept that makes its connection to surveillance studies clear and provided an example.

[Management Communication](#) (CC BY-SA)

From the Marriott School of Business at Brigham Young University, this open textbook addresses business communication which is concise, direct, clear, and compelling.Communication is the heart of business. Short emails, complex reports, private chats, impassioned pitches, formal presentations, and team meetings move information and ideas around an organization, define strategy, and drive decisions

[Organizational Communication](#) (CC BY-SA)

This textbooks helps students demonstrate an understanding of key topics and concepts, including communication networks, media management, organizational culture and climate, intercultural communication, meetings management, ethical communication, assessing communication quality, and crisis communication – and the impact of social technologies.

[Write Like a PR Pro](#) (CC BY-NC)

Write Like a PR Pro covers how to write and develop messages in different formats from professionals with expertise in different areas of communication. It was written by an instructor who teaches at The Ohio State University.

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22.

Copyright

Websites

Opening Up Copyright Instructional Modules (CC BY)

A suite of instructional modules on understanding copyright. The instructional modules have the following characteristics: The modules have five levels of instruction from basic to advanced meeting the needs of a wide variety of learners; The modules are interactive featuring popups, links, and test questions through use of H5P.

Underlying materials to make (and edit the modules) including scripts and PowerPoint slides are available.

Media Attributions

23.

Information and Communications Technology (ICT)

Textbooks

[Critical Perspectives on Technology and the Family](#) (CC BY-NC)

Last update: Nov 22/22

As Information and Communications Technology (ICT) evolve families and the professionals who work with them are best armed with tools that enable their intentional use. This comprehensive text offers a balanced perspective of family life, member development and relationships, and professional use through contemporary research, learning activities and more.

24.

Journalism

Last update: June 13/22

Textbooks

[Be Credible](#) (CC BY-NC)

This book teaches college-level journalism and strategic communication students to become information experts.

25.

Media and Social Media

Also see [Public Relations OER](#) in development.

Courses

Last update: Jul 31/23

[Media Programming](#) (CC BY-NC-SA)

The Media Programming course contextualizes the task of programming by focusing on media, such as images, audio, and interactive systems. By doing so, we hope to put programming in a relevant context. For example, iteration is a programming concept that is essential to creating negative and grayscale images. You will learn algorithms for blending two images together and how hierarchical relationships are used to organize elements of a user interface.

Monographs

[Public Service Media Initiatives in the Global South](#) (CC BY-NC-ND)

This book makes an important and timely contribution to an increasingly global discourse on the meanings, values and roles of public service in media provision today. While acknowledging the significant contributions of the public service broadcasting heritage in the Global North in efforts to establish such provision in the Global South, the contributors explain why simple imitation is unlikely to ever work well enough across such a diverse range of countries and regions with crucial differences in their histories, languages, cultures and experiences.

Supplemental Materials

[Social Media & the Self](#) (CC BY-NC)

Social Media & the Self is a course reader intended to serve students enrolled in media and communication courses. The readings, all of them previously published, were selected to address key themes in accessible prose. In a nod to the posed and theatrical context of social media, the collection is divided into five "acts," followed by a handful of "encore" readings that speculate on the shareable

future. Topics include the self in the age of Zoom; the social self; the performing self; calculated authenticity; the business of sharing; social (media) identities; and alternative futures.

Textbooks

[Foundations in Visual Media Production](#) (CC BY-SA)

This textbook is designed as an introduction to the *process* of producing visual media. It is intended to be an open textbook for COMM 505 at Granite State College in Concord, New Hampshire, United States. Topics include best practices for visual media production and client relations.

[Humans R Social Media](#) (CC BY)

Social media and humans exist in a world of mutual influence, and humans play central roles in how this influence is mediated and transferred. Originally created by University of Arizona Information scholar Diana Daly, this Third Edition of the book Humans R Social Media uses plain language and features contributions by students to help readers understand how we as humans shape social media, and how social media shapes our world in turn.

[Social Data Analysis](#) (CC BY-NC-SA)

This book is divided into four parts: 1. conducting quantitative data analysis, 2. conducting qualitative data analysis, 3. a practical section on conducting quantitative data analysis using SPSS and 4. a practical section on conducting qualitative data analysis using Dedoose. Each part can be used separately by those interested in developing the relevant skills

[The Social Media Reader](#) (CC BY-NC-SA)

This book covers a wide-ranging topical terrain, much like the internet itself, with particular emphasis on collaboration and sharing, the politics of social media and social networking, Free Culture and copyright politics, and labour and ownership. Theorizing new models of collaboration, identity, commerce, copyright, ownership, and labor, these essays outline possibilities for cultural democracy that arise when the formerly passive audience becomes active cultural creators, while warning of the dystopian potential of new forms of surveillance and control.

[Trends in Digital and Social Media](#) (CC BY-SA)

Social media and other digital devices have entered our collective bloodstream. This e-book touches upon the human experience of contemporary trends that affect how we perceive ourselves, others, and society.

[Visual Communication](#) (CC BY-NC-SA)

A general education textbook for the study of visual rhetoric and the use of visual media as a means for conveying information to an audience. In particular, we will limit our attention to the use of still imagery because of the vast, openly available repositories of visual media and the simplicity of manipulating them.

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26.

Presentations and Public Speaking

Supplemental Materials

[Presenter Toolkit: Creating and Facilitating an Accessible Presentation](#) (CC BY)

This toolkit was created to support presenters in creating accessible and inclusive online and in-person presentations.

Textbooks

[Advanced Public Speaking (BETA)](#) (CC BY)

This advanced public speaking textbook is designed to encourage you as a speaker and to help you sharpen your skills. It is written to feel like you are sitting with a trusted mentor over coffee as you receive practical advice on speaking.

[Exploring Public Speaking, 4th Edition](#) (CC BY-NC-SA)

Exploring Public Speaking is a textbook for basic public speaking courses or courses that include basic public speaking skills as one of their primary learning outcomes. Standout features include coverage of PowerPoint, audience analysis and responsiveness, ethics in public speaking, persuasion, special occasion speeches, and structure of speeches. Because it was written by communication professors with decades of experience in the classroom, Exploring Public Speaking is made to fit the needs of basic public speaking students.

Videos

[Public Speaking with an Interpreter](#) (CC BY)

A video and transcript guide on public speaking with an interpreter created by Rev. Clement Wen, PhD candidate and Tutor at the University of Edinburgh in the area of Systematic Theology. Drawing primarily from sermons given by Clement in which the languages used were English and Chinese, much of the guidances are transferable to many different bilingual public speaking occasions, situations, and engagements.

Websites

[The Public Speaking Project](#) (CC BY-NC-ND)

An archive copy of a website that offers an assortment of virtual tools to help users improve their public speaking skills. A variety of speech professionals who are dedicated to providing free and low cost instructional materials contributed their original work. Here is where you can access [The Virtual Text](#).

27.

Publishing

Also see [Publishing OER](#) in development.

Collections

Last update: Feb 8, 2023

[The Structure of the Book Publishing Industry in Canada](#) (CC BY-NC-ND)

This journal is a collection of student writing for The Structure of the Book Publishing Industry in Canada course offered in the Fall of 2017 for Publishing 391 at Simon Fraser University. All papers have been peer reviewed by the students, received instructor feedback, and revised for publication.

Guides and Toolkits

[A Guide To Academic Podcasting](#) (CC BY-NC-ND)

This guidebook is a resource for anyone interested in how to approach academic podcasting. We hope you'll find this guidebook useful in the classroom, in the studio, and even at home, alongside your cup of morning coffee. Think of this as an invitation into the world of academic podcasting that you can return to time and time again throughout the development of your podcast.

[Antiracism Toolkit for Allies [PDF]](#) (CC BY-NC-SA)

This toolkit provides analyses of white advantage and information about how to disrupt racism and create work communities within the scholarly communication industry where everyone thrives. We wrote a guide specifically for white people because white supremacy grants unearned advantages to whites. The work of recognizing these advantages and actively resisting racism is the most crucial work that white people can embrace in order to create meaningful change.

[Antiracism Toolkit for Organizations](#) (CC BY-NC-SA)

This toolkit, written by a multiracial group of industry professionals, is intended to help individuals at all levels within scholarly publishing organizations implement inclusive policies, procedures, and norms.

[Antiracism Toolkit for Black, Indigenous, and People of Color](#) (CC BY-NC-SA)

A toolkit that looks at how Black, Indigenous, and people of color navigate the academic publishing industry. The contributors of this toolkit, BIPOC-identifying publishing professionals of all levels from across the United States and Canada, envision it to be a conversation between us, as well as a resource for future generations of BIPOC workers who will enter the academic publishing industry. Note that although access to this toolkit is not limited, it has been created by BIPOC in publishing, and is intended to be a resource primarily for BIPOC.

[Guidelines on Inclusive Language and Images in Scholarly Communication](#) (CC BY-NC-SA)

These guidelines emerged out of a growing need for more comprehensive and global guidelines to help authors, editors, and reviewers recognize the use of language and images that are inclusive and culturally sensitive.

Software

[Scribus](#) (GNU GPL)

This is open source publishing software, and page layout program for Linux, FreeBSD, PC-BSD, NetBSD, OpenBSD, Solaris, OpenIndiana, Debian GNU/Hurd, Mac OS X, OS/2 Warp 4, eComStation, Haiku and Windows. It supports professional publishing features, such as CMYK colors, spot colors, ICC color management and versatile PDF creation.

Textbooks

[The Web, Publishing, and Ourselves](#) (CC BY)

This book is a guide to thinking about the relationship between technology and the publishing industry, but in doing so, it offers a critical examination of the ways in which technologies are shaping our personal lives and the way we structure our society. For how can we understand the intersection of technologies and publishing without first exploring the role of technology and technology companies, in shaping our values, our psychology, our way of interacting and relating to one another?

Videos

[Centre for the History of the Book](#) (CC BY)

A series of videos designed to introduce key skills for Book Historians. The videos provide guidance on how to handle rare books, how to tell a quarto from an octavo, how paper is made and where watermarks come from, how to read and write a collation, how to use a scholarly edition and more. These videos offer a useful resource for mastering research techniques that can be difficult to learn from a book.

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VI

Computer Science

Subjects and Disciplines
This section includes: • [Computer Science – General](#) • [Artificial Intelligence](#) • [History – Computer Science](#) • [Information Systems](#) • [Programming](#) • [Software and Hardware](#)

Also see [Computer Science](#) in the "Books under consideration" section of this directory. [Books open for review](#) and [Books scheduled to be added to the collection](#) may also contain resources.

28.

Computer Science - General

Also see Computer Science OER in development.

Last update: Jun 27/22

Collections

IntechOpen: Physical Sciences, Engineering and Technology (CC BY)

A collection of peer-reviewed open access textbooks on topics related to the physical sciences, engineering, and technology.

Courses

Cyber Technology (CC BY-NC-SA)

Learn about PC hardware, software, and networking, as well as core skills for computing professionals. Cyber students are prepared for entry-level positions across the computing industry and in government, and have an opportunity to sit for nationally recognized certifications from Cisco and CompTIA.

Supplemental Materials

WISC-Online Computer Science (CC BY-NC)

A collection of learning objects on different topics in computer science.

Textbooks

[Computer Science 20](#) (CC BY-SA)

This textbook was written to support the teaching of Computer Science 20 in Saskatchewan. It is meant to provide students with an interactive experience as they learn to program. They can read the text, watch videos, and write and execute Python code.

[A Primer for Computational Biology](#) (CC BY-NC-SA)

This book aims to teach these basics of scientific computing: skills that even in fields such as computer science are often gained informally over a long period of time. This book is intended for readers who have passing familiarity with computing. While these concepts will likely be useful to researchers in many fields, I frame most of the discussion and examples in the analysis of biological data, and thus assume some basic biological knowledge, including concepts such as genes, genomes, and proteins.

[Social Issues and Professional Practice in IT and Computing](#) (CC BY-NC-SA)

The course introduces important considerations relating to ethical and professional issues. It introduces students to ethical issues such as property rights, freedom of expression and privacy, and concepts such as free and open source software, ICT for Development, and Professional Codes of Conduct. It also equips students with tools for critical reasoning in order to construct and analyse ICT policy arguments and evaluate the ethical components in ICT case studies.

[The Nature of Code](#) (CC BY-NC, GNU)

Learn the basics of programming (variables, conditionals, loops, objects, arrays) as well as a survey of applications related to making interactive projects (images, pixels, computer vision, networking, data, 3D).

Workbooks

[Introduction to Technology Stewardship for Agricultural Extension and Advisory Services: Course Workbook](#) (CC BY-NC-SA)

Technology stewardship is a leadership role that almost any practitioner can assume. In this role, a technology steward is someone who works with a community of practice (COP) to encourage the adoption and use of digital technologies for communications, training, and knowledge transfer. This workbook is designed to introduce you to a leadership strategy that will help you understand and assume the role of a technology steward with your COP.

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29.

Artificial Intelligence

Courses

[Artificial Intelligence Planning](#) (CC BY-NC)

Last update: Dec 13/18

This course introduces artificial intelligence planning techniques and their applications. It comprises a 5-week course with up to 10 hours of lecture material. It is accessible at several levels of engagement from an "Awareness Level", through the core "Foundation Level", to a more involved Performance Level" requiring programming and other assignments. Course materials include YouTube videos, weekly slides, quizzes, supplements, assignments, exams, and a Second Life virtual learning space and group.

30.

History - Computer Science

Textbooks

[Computer Graphics and Computer Animation: A Retrospective Overview](#) (CC BY-NC-ND)

An open textbook chronicling the many important historical developments of the short life of the computer graphics world.

Last update: June 14/22

31.

Information Systems

Also see Information Systems OER in development.

Supplemental Materials

Last update: Jan 10/22

A Tale of Two Systems (CC BY-NC-SA)

This text is meant as a case study and companion text to many
Systems Analysis & Design textbooks used in undergraduate Management Information Systems (MIS), Business Information Systems (BIS) and Computer Information Systems (CIS) programs.

Textbooks

Information Systems: A Manager's Guide to Harnessing Technology (CC BY-NC-SA)

This textbook is intended for use in undergraduate and/or graduate courses in Management Information Systems and Information Technology.

IT Fundamentals (CC BY-SA)

IT Fundamentals introduces computer hardware, computer software, databases, networking, security, and software development. This course comprises 15 lessons covering IT fundamentals. Each lesson includes a combination of Wikipedia readings, YouTube videos, and hands-on learning activities. The course also assists learners in preparing for CompTIA IT Fundamentals certification.

Information Systems (CC BY)

Students need to understand systems and the systems concept, and they need to understand the role of ICT in enabling systems. Students will learn the characteristics of good systems (e.g., intuitive, likable, error-resistant, fast, flexible, and the like). Knowing the characteristics of good systems will permit students to demand well designed systems and to suggest how existing systems should be changed. Students need to understand the affordances, directions, and limits of hardware, software, and networks in both personal and organizational dimensions. They also need to appreciate that, as technical capabilities change and new ones arise, more opportunities to apply ICT for efficiency, effectiveness,

and innovation are afforded. They need to understand the process for developing and implementing new or improved systems and the activities of IS professionals in this process.

32.

Programming

Courses

Advanced Android Development (Google Developers Training Team) (CC BY)

Last update: Oct 24/21

This is the *concepts reference* for Advanced Android Development, a
training course created by the Google Developers Training team. This course builds on the skills you learned in the Android Developer Fundamentals course. This course is intended to be taught in a classroom, but all the materials are available online for individual study.

Principles of Computation with Python (CC BY-NC-SA)

This course provides an introduction to Python and elementary principles of computing, including iteration, recursion, and binary representation of data. Additional topics on cellular automata, encryption, and the limits of computation are also introduced. The main goal of this course is to teach the fundamental principles used in computer science to a general audience so that they understand how computer scientists use these principles to solve complex problems to improve their daily lives.

Supplemental Materials

Guided Inquiry Activities for Programming Language Concepts (CC BY-SA)

This collection of activities is intended to support the use of POGIL in intermediate-level undergraduate computer science courses on functional programming and the implementation of programming languages.

Learn to Program: Intro Java with interactive graphics, via Processing (CC BY-NC-SA)

This collection of free notes is aimed at helping the complete beginner learn the basics of computer programming using Processing, a free and easy to use program available for many platforms. With Processing, students start with making graphics, and skip much of the ugly, memorization-based syntax of beginner Java. Unlike other guides, this focuses on learning programming, not the features of Processing.

Python Practice Assignments for Computer Science I (CC BY)

The assignments use the Python coding language and the repl.it coding platform and cover the following topics: Modules, Functions, Selections, Loops, Strings, Lists, Files, Dictionaries.

[R Tutorials](#) (CC BY)

R is a programming language and free software environment for statistical computing and graphics supported by the R Foundation for Statistical Computing. The R language is widely used among statisticians and data miners for developing statistical software and data analysis. R Conversations are a series of six videos created to teach R at a distance to online MSc students.

Textbooks

[Eloquent Javascript – 3rd edition](#) (CC BY-NC)

This is a book about JavaScript, programming, and the wonders of the digital. Translations of this book are also available:

Third Edition	Second Edition
• [فارسی (Persian)](#)	• [عَرَبِيّ (Arabic)](#) • [Български (Bulgarian)](#) • [Русский (Russian)](#)

[How to Design Programs, 2nd Edition](#) (CC BY-ND-ND)

Many professions require some form of programming. Accountants program spreadsheets; musicians program synthesizers; authors program word processors; and web designers program style sheets. This book approaches the creation of software that relies on systematic thought, planning, and understanding from the very beginning, at every stage, and for every step. To emphasize this point, we speak of systematic program design and systematically designed programs.

[Linear Regression Using R: An Introduction to Data Modeling](#) (CC BY-NC)

This book presents one of the fundamental data modeling techniques in an informal tutorial style. Learn how to predict system outputs from measured data using a detailed step-by-step process to develop, train, and test reliable regression models. Key modeling and programming concepts are intuitively described using the R programming language. All of the necessary resources are freely available online.

[The Nature of Code](#) (CC BY-NC, GNU)

Learn the basics of programming (variables, conditionals, loops, objects, arrays) as well as a survey of applications related to making interactive projects (images, pixels, computer vision, networking, data, 3D).

[Programming Fundamentals](#) (CC BY-SA)

The goal for this textbook is to make it programming-language neutral, so that it may serve as an

introductory programming textbook for students using any of a variety of programming languages, including C++, C#, Java, JavaScript, Python, and Swift.

[R @ R(D)SVS](#) (CC0)

This open textbook, created by [Dr Jill Mackay](#), Lecturer (Veterinary Medical Education) at the Royal (Dick) School of Veterinary Studies, is designed to help staff and students get to grips with with R. The book includes everything you need to get started and includes code blocks and plain English explanations of what the code is doing.

[Runestone Interactive Library of Books](#) (CC BY)

A collection of open textbooks covering various programing and computer science topics.

Videos

[Code Yourself! An Introduction to Programming](#) (CC BY-NC)

A collection of 16 videos introducing different topics in programming.

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33.

Software and Hardware

Collections

[FLOSS Manuals](#) (CC BY-SA)

Openly licensed booklets, course materials, and manuals for free software. The site is also available in [Dutch](#), [Farsi](#), and [French](#).

Last update: Jul 13/21

Courses

[PC Hardware](#) (CC BY-NC-SA)

PC Hardware is a study of the basic assembly, maintenance, and repair of microcomputer systems. Divided into eight (8) units, these hardware-oriented topics include subcomponents, such as system board, video, memory, storage, multimedia, networking, and printers. This course provides 25 content modules and simulated exercises aligned with the current version of CompTIA A+ Hardware Exam 220-901.

[PC Software](#) (CC BY-NC-SA)

PC Software is a study of Windows operating systems, security and mobile devices, and troubleshooting theory and application. Divided into seven (7) units, topics include installation and maintenance of Windows operating systems; implementation of security features on microcomputer systems and mobile devices; installation and configuration of PC operating systems; and configuration and troubleshooting techniques for mobile operating systems Android and Apple iOS. This course provides 26 content modules and simulated exercises aligned with the current version of CompTIA A+ Software Exam 220-902.

VII

Earth and Ocean Sciences

34.

VIRTUAL LABS and SCIENCE RESOURCES

For labs and related resources, see [Earth Science](#) and [Environmental Science](#) in the *Virtual Lab and Science Resource Directory.*

35.

Earth and Ocean Sciences - General

Also see [Earth and Ocean Sciences OER](#) in development.

Collections

Last updated: June 14/22

[SERC (Science Education Resource Center)](#) (CC BY-NC-SA)

SERC is a grant-funded office at Carleton College in Minnesota, founded to improve education in the Earth sciences and beyond. Today we are a team of 14 educators, researchers and technical specialists who have worked with over 100 [award winning](#) education projects across the STEM disciplines and allied fields. Engaging participants from more than 1,000 institutions of higher education, as well as K-12 curriculum developers and teachers, we have created one of the world's largest collections of pedagogic resources.

Courses

[Earth Analytics Python Course](#) (CC BY-NC-ND)

Earth analytics is an intermediate, multidisciplinary course that addresses major questions in Earth science and teaches students to use the analytical tools necessary to undertake exploration of heterogeneous 'big scientific data'. This course is designed for graduate students.

Miscellaneous

[Earth Exploration Toolbook](#) (CC BY-NC-SA)

Developed by teams of scientists and educators, the *Earth Exploration Toolbook* (EET) is a collection of online Earth system science activities. Each activity, or chapter, introduces one or more scientific data sets and analysis tools that enables users to explore some aspect of the Earth system.

Textbooks

[ABE Fundamental Level Science Modules](#) (CC BY)

A collection of 5 modules designed for Adult Basic Education (ABE) fundamental level science. The five modules cover astronomy, ecology, biology, physics, and water. While they contain specific content, each book emphasizes a particular type of scientific thinking. The books are designed to be consumable student workbooks.

[Geosciences LibreTexts Library](#) (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources on the subject of geosciences.

[Image Acquisition for 3-D Mapping with DJI Phantom 3 Pro](#) (CC BY-NC)

A comprehensive manual describing the process of preparing the DJI Phantom 3 Professional for photogrammetric image capture using a pre-programmed mission plan.

[Introduction to Ocean Science](#) (CC BY-NC-ND)

This textbook provides an introduction to topics in ocean science, including water, coasts, ocean ecosystems, the ocean floor, tides, life in the ocean, human impact on the ocean, and more.

[Processing UAS Photogrammetric Images in Agisoft Photoscan Professional](#) (CC BY-NC)

A comprehensive manual describing the process of preparing the DJI Phantom 3 Professional for photogrammetric image capture using a pre-programmed mission plan.

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36.

Climate Change

Collections

[Climate Education](#) (CC BY-NC-SA)

This Hub is designed to be a library of educational resources about climate change and intersectional topics. They are available under a copyright license that allows for free sharing and customization – providing more equitable access to students and heavily impacted communities around the world, as well as unlocking the power of educators to add cultural relevancy and local context – ultimately allowing more people to more deeply interact and collaborate with the material and issues we face.

[MIT Climate](#) (CC BY-SA)

A collection of posts, podcasts, courses, interviews, and other resources relating to climate and climate change. MIT Climate is MIT's central portal to all the work happening across MIT on climate change, and a place for worldwide discussion and learning.

Courses

[Climate Change Adaptation Fundamentals](#) (CC BY)

This is an open online course whose materials have been published in Pressbooks. This course has been designed to help professionals working across multiple disciplines bring a climate change adaptation lens to their current and future projects. This 4-week course covers what the current climate change situation is, including the latest science and scenarios; why climate change matters to professionals and planners, in terms of risk and impact; what we can do about it, through examples and methods of adaptation; and how to bring adaptation tools, data, and processes into your work, with a practice project. This course is part of a project by the Adaptation Learning Network.

[Climatic & Ecological Modelling for Adaptive Forest Applications](#) (CC BY-NC-ND)

This is an open course whose materials have been published in Pressbooks. This online course will introduce various climatic and ecological modelling tools and guide the students to practical applications of scale-free climate models and niche-based ecological models in forest and ecological (e.g., birds, fish, and animals) resource management to increase the resilience and viability of forest ecosystems. By the end of the course, students will master skills and techniques to use climatic models to generate spatial climate data; understand niche-based ecological models; and interpret and

apply model output to forest management practice. This course is part of a project by the Adaptation Learning Network.

[Ecosystems for the Future](#) (CC BY)

This is an open course whose materials have been published in Pressbooks. This course will bring into focus the practice of restoration of ecosystems at the local and regional level in British Columbia through a series of presentations delivered by faculty from UVic's School of Environmental Studies, First Nations speakers and Elders, and professionals whose work intersects with ecology in diverse ways. Topics covered include how local ecosystems are changing, basic ecological restoration principles, the biodiversity of British Columbia, what drives change in ecosystems and the challenges created in different types of ecosystems, climate change models, and how ecological restoration principles can be applied across different disciplines. This course is part of a project by the Adaptation Learning Network.

[Financial Impact of Climate Change](#) (CC BY)

This is an open course whose materials have been published in Pressbooks. This course introduces participants to the financial risks and impacts associated with climate change. Participants will explore a range of risk pathways that link climate and economic systems, including physical risks related to direct exposure to climate hazards in the value chain; transition risks arising from abrupt transitions to a low-carbon economy; systemic risks transmitted throughout the economy; and extreme risks arising from the complex dynamic nature of climate-economy systems. This course is part of a project by the Adaptation Learning Network.

[Food & Water Security](#) (CC BY)

This is an open course whose materials have been published in Pressbooks. Drawing upon food security literature and current events, this survey course will encourage learners to build a new understanding of food security, water shortages in agricultural production, and climate change challenges in agriculture. We will introduce policy tools and case studies illustrating the effects that climate change has on agriculture. Modules include food security and insecurity, water security, climate change and food security in the future, and analysis and solutions for these problems. This course is part of a project by the Adaptation Learning Network.

[Green Infrastructure in Urban Centres: Policy, Design and Practice](#) (CC BY)

This is an open course whose materials have been published in Pressbooks. Green infrastructure and related nature-based solutions are gaining widespread support as effective components of healthy city building as well as climate adaptation strategies. The course provides an overview of how GI systems work, the ecosystem services they can provide, and how they can be employed effectively. The course has four parts that together provide a substantive overview of the current green infrastructure policy, design, and practice and the associated challenges and opportunities. This course is part of a project by the Adaptation Learning Network.

[Indigenous Knowledges and Perspectives on Climate Adaptation](#) (CC BY-NC)

This is a self-study course whose materials have been published in Pressbooks. This course invites learners into deeper thinking, reflection and content pertaining to Indigenous perspectives in climate adaptation and mitigation. Ultimately, this course provides a space for you to consider how and where Indigenous leadership can not only restore better practice across social and political landscapes, but also heal relationships with our shared planet for future generations to come. Topics covered in this course include climate adaptation science and practice literacy, working together in climate adaptation, and understanding the climate adaptation challenge. This course is part of a project by the Adaptation Learning Network.

[Intro to Climate Policy for Climate Adaptation Professionals](#) (CC BY)

This is an open course whose materials have been published in Pressbooks. This course will inform participants about climate adaptation policy in Canada and B.C. It will allow them to consider how climate policy from international to local levels informs their professional functions and day to day activities on the job. Modules 1 and 2 focus on what climate change adaptation policy is, why we need it, available tools, and and important actors. Module 3 offers opportunities to learn and apply policy in specific settings, depending on your role. Module 4 is a capstone learning activity for the whole class, in which you can think about how you will use this information in the future. This course is part of a project by the Adaptation Learning Network.

[Natural Asset Management Fundamentals](#) (CC BY)

This is an open course whose materials have been published in Pressbooks. This course is designed to help government, professionals in multiple disciplines, and community organizations understand the fast-emerging field of natural asset management. Topics include what natural asset management is, why it matters, and what conditions enable or hinder it; how natural asset management is relevant in your own disciplines or community contexts; what you may be able to do differently as a result of knowing more about natural asset management; and where you can get additional information on natural asset management. This course is part of a project by the Adaptation Learning Network.

[Project Management for a Changing Climate](#) (CC BY)

This is an open course whose materials have been published in Pressbooks. This course is designed to help professionals who have project management responsibilities to add a climate change lens to their projects. The four modules of this course explore perspectives that are key to developing a climate change lens for project management; teach students how to engage team members and those affected by climate change; teach how to plan for climate change throughout the project life; and provide the opportunity to practice applying a climate change lens to a real project. This course is part of a project by the Adaptation Learning Network.

[Strategic Dialogue and Engagement for Climate Adaptation](#) (CC BY-NC)

This is an open course whose materials have been published in Pressbooks. In this course, you'll learn how to lead or participate in community engagement without triggering fear and overwhelming others; practice critical self-awareness and self-reflection; and consider equity-based and

decolonizing approaches. This course is designed for professionals looking to advance the intersecting work of climate action and adaptation, including planners, engineers, elected officials and community leaders. This course is part of a project by the Adaptation Learning Network.

Monographs

[Arcticness](#) (CC BY)

Climate change and globalisation are opening up the Arctic for exploitation by the world – or so we are told. But what about the views, interests and needs of the peoples who live in the region? This volume explores the opportunities and limitations in engaging with the Arctic under change, and the Arctic peoples experiencing the changes, socially and physically.

Supplemental Materials

[The Sea-Level Story](#) (CC BY-SA)

This resource explores how and why sea levels have varied over the last tens of thousands of years, and the effects this had both at the time and today.

Textbooks

[Climate Justice in Your Classroom](#) (CC BY-NC-SA)

As the inequitable impacts of climate change become more evident and destructive, it is essential for climate and environmental justice, as well as methods of civic engagement, to be taught at a high-level to college-level students. This book provides real examples of how professors at the University of Washington integrated these critical issues into their teachings, both in targeted lessons and as throughlines across an entire course. These samples of how environmental and climate justice have been successfully integrated into higher-level education can serve as both a record of the UW's progress towards centering JEDI at the heart of all students, and as a model for future instructors to use as they work to incorporate more aspects of justice and engagement into their own material.

[Climate Toolkit: A Resource Manual for Science and Action](#) (CC BY-NC)

A resource manual designed to help the reader navigate the complex and perplexing issue of climate change by providing tools and strategies to explore the underlying science. It contains a collection of activities that make use of readily available on-line resources developed by research groups and public agencies including web-based climate models, climate data archives, interactive atlases, policy papers, and "solution" catalogs.

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37.

Environmental Studies

Also see [Environmental Studies OER](#) in development.

[Environmental Science with Lab](#): This document maps OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/competencies or items for this course (ENV 101, Colorado).

Courses

Last update: Jun 22/23

[Environmental Technology](#) (CC BY-NC-SA)

Learn about environmental technology in the contexts of HazMat, Safety, and Water Quality. Environmental students have the opportunity to earn nationally recognized federal certificates from the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) and are prepared for positions focusing on environmental issues, laboratory and field tests, and workplace safety.

[To Bee or not to Bee](#) (CC BY)

A series of workshops that aims to express the importance of bees to our planet by teaching about pollination, bee diversity, and the adaptions that honey bees have made in their hives to allow them to be efficient in their jobs. There are three detailed lesson plans based on the following topics: pollination, bee diversity, and hexagons in the beehive.

Monographs

[Quantitative Ecology](#) (CC BY-NC)

Textbooks

[American Environmental History](#) (CC BY-NC-SA)

This text surveys findings of the new field of Environmental History about how the environment of the Americas influenced the actions of people here and how people affected their environments, from prehistory to the present.

[Chemistry and the Environment: A Chemistry Perspective for discussion of Environmental Issues](#) (CC BY)

This textbook designed to accompany a one-semester course in chemistry-based discussions of important environmental issues such as air pollution, the ozone layer, climate change and water quality. Chemical principles are introduced, followed by environmental 'focus' sections to base discussions on the scientific principles and societal intricacies of the individual topics. The book also includes the following ancillary resources:

- [Student Workbook](#)
- [Instructor Slides](#)

[The Environment in the Age of the Internet](#) (CC BY)

How do we talk about the environment? Does this communication reveal and construct meaning? Is the environment expressed and foregrounded in the new landscape of digital media? An interdisciplinary collection that draws together research and answers from media and communication studies, social sciences, modern history, and folklore studies.

[Environmental ScienceBites](#) (CC BY-NC)

This book was written by undergraduate students at The Ohio State University (OSU) who were enrolled in the class Introduction to Environmental Science. The chapters describe some of Earth's major environmental challenges and discuss ways that humans are using cutting-edge science and engineering to provide sustainable solutions to these problems.

[Environmental ScienceBites: Volume 2](#) (CC BY-NC)

The second volume of the Environmental ScienceBites book was authored by 30 unique undergraduate students enrolled in the course Introduction to Environmental Science at OSU. The book highlights both articles and posters describing critical environmental issues important to the first-time authors.

[Forests and Food: Addressing Hunger and Nutrition Across Sustainable Landscapes](#) (CC BY)

This volume provides evidence and insights about the potential of forests to reducing global hunger and malnutrition, exploring the different roles of landscapes, and the governance approaches that are required for the equitable delivery of these benefits.

[Future Energy: Opportunities & Challenges](#) (CC BY)

How can we produce enough sustainable energy while avoiding unacceptable environmental consequences? To evaluate the various energy options, we must understand the science of each potential energy source and energy use technology. This book presents the science in an easy-to-understand way to enable readers to make informed decisions about what is possible and practical, and to choose lifestyle options to implement in their personal lives.

[Geosciences LibreTexts Library](#) (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources on the subject of geosciences.

[Introduction to Environmental Sciences and Sustainability](#) (CC BY)

This textbook is a college-level Open Educational Resource (OER) that focuses on the most relevant environmental science issues and addresses ways to incorporate sustainable practices. This resource is targeted at environmental science students.

[Monitoring Animal Populations and Their Habitats: A Practitioner's Guide](#) (CC BY-NC-SA)

Although there are books that deal with sampling design and the quantitative analysis of population data, there are few that provide practical advice covering the entire evolution of a monitoring plan from incorporating stakeholder input to data collection to data management and analysis to reporting. This book strives to present an overview of this process.

[What Works in Conservation 2018](#) (CC BY)

This book provides an assessment of the effectiveness of 1277 conservation interventions based on summarized scientific evidence.

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38.

Forestry

Case Studies

[UBC Open Case Studies](#) (CC BY)

Click on "Forestry" in the top toolbar. These case studies offer a student-centred approach to learning that asks students to identify, explore, and provide solutions to real-world problems by focusing on case-specific examples. This approach simulates real-life practice in sustainability education in that it illuminates the ongoing complexity of the problems being addressed.

Courses

[Sustainable Forest Management Open Courses](#) (CC BY)

A series of self-directed courses on sustainable forest management (SFM) for the Asian-Pacific region. The courses are intended to enable senior forestry students, young faculty and mid-career professionals to improve their knowledge of SFM flexibly. Specific courses include: Sustainable Forest Management in a Changing World; Forest Governance, Public Relations, and Community Development; International Dialogue on Forestry Issues; Restoration of Degraded Forest Ecosystems and Forest Plantation Development; Sustainable Use of Forest Ecosystem Services; and Forest Resource Management and Protection.

Guides

[Buds, Branches and Bark: A Guide to Winter ID in the Pacific Northwest](#) (CC BY-NC-SA)

A guidebook for identifying shrubs and trees in the winter. In most guidebooks, leaves are usually the preferred characteristic for identification, as they are plentiful and highly visible. In winter there are still many other traits we can observe, we just need to take the time to look for them and practice developing our "eye" for detail.

Textbooks

[Strategic Marketing in the Global Forest Industries](#) (CC BY-NC)

From Oregon State University.

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39.

Geography

Also see [Geography OER](#) in development.

[World Regional Geography](#): This document maps OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/competencies or items for this course (GEO 105, Colorado).

Maps

Last update: Jun 27/22

[OpenStreetMap](#) (ODbL/CC BY-SA)

OpenStreetMap is built by a community of mappers that contribute and maintain data about roads, trails, cafés, railway stations, and much more, all over the world.

[United States Map Gallery](#) (CC BY-NC-SA)

The maps in this collection draw from data from the U.S. Census Bureau and reveal much about the settlement and subsequent migrations of many groups in the United States. These maps also show the socio-economic picture for much of the country, at least through the lens of topics like education, poverty, life expectancy, and household size. Developed primarily for use in my American Ethnic Geography course (GEO 200), this map collection demonstrates that diversity and regionalism are alive and well in the United States.

[Worldmapper](#) (CC BY-NC-SA)

Worldmapper is a collection of world maps called cartograms, where territories are re-sized on each map according to the subject of interest.

Supplemental Materials

[Geospatial Technology Learning Resources](#) (Various CC licences)

A collection of resources relating to geospatial technology.

[Open Geography Education](#) (CC BY)

This website is dedicated to providing free or open curriculum and resources to anybody who is interested in our geographic world. It includes links to open textbooks, map assignments, and online resources.

[The Western World: Daily Readings on Geography](#) (CC BY-NC-SA)

In essay format, this textbook considers examples of various sub-categories of Geography in combination with five regions of the Western World.

Textbooks

[Geosciences LibreTexts Library](#) (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources on the subject of geosciences.

[Introduction to Geomatics](#) (CC BY-SA)

This textbook was developed as a supplement to Introduction to Geomatics (GEOG 222) at the University of Saskatchewan. The content is a mix of original content (95% to 100% of the text and most of the images) created by Professor Scott Bell while other material comes from attributed sources (attribution is included at the beginning of a chapter or section, or for the note taking guide, on each slide or at the culmination of a series of slides).

[Introduction to Human Geography](#) (CC BY-SA)

This textbook includes chapters on Population and Migration, Cultural Geography, Political Geography, Sustainable Development, Food, Water, & Agriculture, Urban Geography, Environmental Issues, and Living with Disasters.

[Laboratory Manual for Introduction to Physical Geography, First British Columbia Edition](#) (CC BY-NC-SA)

This lab manual is a cross-institutional project from British Columbia (BC), Canada that provides 22 labs to be implemented within first year post-secondary physical geography courses. The labs have been developed to be easily adapted for various course structures, durations, and differing laboratory learning objectives set out by instructors. Instructor notes are provided for each lab that outline the instructional intent of the lab author, along with some suggestions for modification. The first edition of this lab manual is intended as a beta test of the lab manual for the 2020/21 academic year.

[Mapping, Society, and Technology](#) (CC BY-NC)

Learn how to read, use, and create maps and along the way explore how maps reflect the relationship between society and technology. Mapping is an essential form of scientific and artistic inquiry as well as

a trillion dollar business. People, companies, and governments use and misuse maps and map technology to tell stories, save lives, rig elections, and spy on you.

National Disaster and Human Impacts (CC BY-SA)

This textbook includes chapters on natural disasters, plate tectonics, earthquakes, volcanoes, mass wasting, tsunamis, weather hazards, severe weather, hurricanes, climatic disasters, wildfires, climate change, impacts, and extinctions.

The Physical Environment: An Introduction to Physical Geography (CC BY-SA)

Physical Geography (Various CC licences)

An open textbook published by Lumen Learning on Physical Geography. It includes chapters on planet Earth; plate tectonics; tectonic forces; weathering, erosion, and deposition; Earth's fresh water; oceans and coastal environments; the atmosphere; weather processes and systems.

The Western World: Daily Readings on Geography (CC BY-NC-SA)

In essay format, this textbook considers examples of various sub-categories of Geography in combination with five regions of the Western World.

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40.

Geology

Also see [Geology OER](#) in development.

[Physical Geology with Lab](#): This document maps OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/competencies or items for this course (GEY 111, Colorado).

Maps

Last update: Oct 7/22

[U.S. Geological Survey](#) (Public domain)

Real-time or near real-time data and information on current conditions and earth observations.

Supplemental Materials

[Soil and Water Conservation: An Annotated Bibliography](#) (CC BY)

Online resources covering various aspects of soil and water conservation, and is designed to be a resource for conservation students and practitioners. The thirteen chapters in the annotated bibliography are grouped into four sections, including History and Fundamentals, Conservation Practices, Conservation Implementation, and Careers.

[Volcanic Eruptions: An Interdisciplinary Approach](#) (CC BY)

This resource includes four lessons and makes use of a variety of educational approaches to introduce learners to volcanoes and various aspects of geology.

Textbooks and Lab Manuals

[Geological Structures: A Practical Introduction](#) (CC BY-NC)

This manual is about structures that occur within the Earth's crust. Structures are the features that allow geologists to figure out how parts of the Earth have changed position, orientation, size and shape over time.

[Geosciences LibreTexts Library](#) (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources on the subject of geosciences.

[Groundwater](#) (CC BY-NC-ND)

This book is designed for introductory groundwater courses taught in undergraduate geology, geological engineering, or civil engineering curricula. It provides a broad coverage of groundwater topics in a manner that will enable course instructors to use selected chapters or chapter segments as a framework for a semester-length treatment. The remaining material can serve as a basis for a follow-up undergraduate course with more specialization or as source material for an introductory course at the graduate level. This book was written by Allan Freeze and John Cherry in 1979 and was originally published by Pearson Education Inc. all of which provided permission to post this textbook on the [Hydrogeologists Without Borders](#) website.

[An Introduction to Geological Field Trips: Case Study Avonlea Badlands, Saskatchewan](#) (CC BY-SA)

This book teaches students how to prepare for geology field trips so that they can make the most of the experience. Topics covered include what to wear on a field trip, what information should be gathered before venturing into the field, what tools to bring, and how to effectively collect data in the field. This book uses a field trip to the Avonlea Badlands in the province of Saskatchewan as a case study. Figures such as graphs and text boxes containing key takeaways and learning checkpoints augment the material.

[Introduction to Geology](#) (CC BY-NC-SA)

An open textbook for introductory geology courses created by instructors at Salt Lake Community College.

[Introductory Physical Geology Laboratory Manual – First Canadian Edition](#) (CC BY-SA)

This is an adaptation designed for students at the University of Saskatchewan.

[Laboratory Manual for Introductory Geology](#) (CC BY-SA)

Introduction to Geology is a textbook designed to ease new students into the often complex topics of Geology and the study of our planet and its makeup. The book assists readers through the beginning

topics and nomenclature of Geology to familiarize them with Geology's version of the scientific methods.

[Living with Earthquakes in the Pacific Northwest: A Survivor's Guide](#) (CC BY-NC)

From Oregon State University.

[A Practical Guide to Introductory Geology](#) (CC BY)

A comprehensive laboratory manual covering the physical aspects of geology, including rocks and minerals, plate tectonics, streams, structural geology, and much more. This manual has a strong emphasis on examples from western Canada, especially Alberta and British Columbia, and includes a diverse set of exercises.

[Soils Laboratory Manual – K-State Edition](#) (CC BY)

Designed for students in undergraduate, introductory soil science courses, and highlights the many aspects of soil science, including: soil genesis and classification, soil physical properties, soil-water interaction, soil biology, soil chemistry, and soil fertility. The lab manual includes 15 different laboratories, each one starting with an introduction and pre-lab assignment, followed by in-lab activities, and complimented by post-lab assignment. In-lab activities involve field trips, experiments, observation stations, or problem sets. Post-lab assignments include online quizzes, problem sets, or laboratory summary reports.

[The Story of Earth: An Observational Guide](#) (CC BY-NC-SA)

This book is a global tour of geology. The book has a casual and conversational tone with exercises honing students'observational skills to tell stories about the Earth. Exercises and examples use localities from all over the world, including the Andes Mountains, Alaska, Great Britain, Brazil, Morocco, the Himalayas, Denmark, Australia, New Zealand, Russia, and Canada in addition to the traditional U.S.-centric locations like the Grand Canyon, Appalachians, Texas, and Rocky Mountains. For more information, [see this article](#).

Websites

[SoilWeb200](#) (CC BY-NC-SA)

SoilWeb200 provides students with online, interactive, graphical, video and text-based information to assist them in understanding fundamental soil science concepts. It also relates these concepts to various soil management issues.

[SOILx](#) (CC BY)

An information service for soil types and soil sites across Canada. SOILx enables you to search spatially its database of soil sites and view detailed information on each one.

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41.

Meteorology

Last update: Sep 16/20

Textbooks

[Fundamentals of Atmospheric Science](#) (CC BY-NC-SA)

This text prepares students by laying a solid foundation in the application of physical, chemical, and mathematical principles to a broad range of atmospheric phenomena. It gives non-Meteorology students a comprehensive understanding of atmospheric science and quantitative analytical tools to apply atmospheric science to their own disciplines.

42.

Oceanography

Monographs

[Aquaculture Perspective of Multi-Use Sites in the Open Ocean](#) (CC BY)

This volume addresses the potential for combining large-scale marine aquaculture of macroalgae, molluscs, crustaceans, and finfish, with offshore structures, primarily those associated with energy production, such as wind turbines and oil-drilling platforms. The volume offers a comprehensive overview and includes chapters on policy, science, engineering, and economic aspects to make this concept a reality. The compilation of chapters authored by internationally recognized researchers across the globe addresses the theoretical and practical aspects of multi-use, and presents case studies of research, development, and demonstration-scale installations in the US and EU.

Textbooks

[All Things Flow: Fluid Mechanics for Natural Science](#) (CC BY-NC)

This book began as lecture notes for an Oregon State University course in fluid mechanics, designed for beginning graduate students in physical oceanography. Because of its fundamental nature, this course is often taken by students outside physical oceanography, e.g., atmospheric science, civil engineering, physics and mathematics. This text concerns phenomena that we have all been familiar with since childhood: flows you see in sinks and bathtubs, in rivers, and at the beach.We develop the mathematical techniques and scientific reasoning skills needed for higher-level courses and professional research. Prerequisites are few: basic linear algebra, differential and integral calculus and Newton's laws of motion. As we go along we discover the need for the more advanced tools of tensor analysis.

[Evolution of Physical Oceanography](#) (CC BY-NC-SA)

Evolution of Physical Oceanography was created to mark the career of Henry M. Stommel, the leading physical oceanographer of the 20th Century and a longtime MIT faculty member. The authors of the different chapters were asked to describe the evolution of their subject over the history of physical oceanography, and to provide a survey of the state-of-the-art of their subject as of 1980. Many of the chapters in this textbook are still up-to-date descriptions of active scientific fields, and all of them are important historical records.

[Introduction to Ocean Science – 4th Edition](#) (CC BY-NC-ND)

This text explores the fundamental physical, chemical, geological and biological features and processes of the oceans and review how humans have studied the oceans. This text includes instructor access to an instructor's manual, full test bank, and power point presentations.

[Introduction to Physical Oceanography](#) (Permission to share and reproduce for non-commercial purposes, not openly licensed)

This textbook covers physical-oceanographic processes, theories, data, and measurements, targeted at upper-division undergraduates and graduate students in oceanography, meteorology, and ocean engineering. In addition to the classical topics, the author includes discussions of heat fluxes, the role of the ocean in climate, the deep circulation, equatorial processes including El Nino, data bases used by oceanographers, the role of satellites and data from space, ship-based measurements, and the importance of vorticity in understanding oceanic flows. Students should have studied differential equations and introductory college physics, although math is de-emphasized.

[Marine Law and Policy for Scientists and Managers](#) (CC BY-NC)

This book is designed for use by undergraduate and graduate ocean science, natural resource, fisheries and wildlife, and environmental policy students.

[Oceanography (LibreTexts)](#) (CC BY-NC-SA)

A collection of online readings that look at the ocean and cover a wide range of topics, including marine organisms and ecosystem dynamics; ocean currents, waves, and geophysical fluid dynamics; plate tectonics and the geology of the sea floor; and fluxes of various chemical substances and physical properties within the ocean and across its boundaries.

VIII

Education

Subjects and Disciplines
This section includes: • Education – General • Digital Education • Disabilities • Early Childhood Education • Educational Technology • K-12 • Learning • Open Education and Open Pedagogy • Pedagogy and Instructional Design

Also see Education in the "Books under consideration" section of this directory. Books open for review and Books scheduled to be added to the collection may also contain resources.

43.

Education - General

Also see [Education OER](#) in development.

Case Studies

Last update: Aug 9/22

[SDG Toolkit for Canadian Colleges and Institutes](#) (CC BY-NC-SA)

This guide identifies emerging practices in post-secondary settings across Canada that integrate the SDGs explicitly and curates a selection of these into an Open Educational Resource (OER) toolkit and guide to the SDGs for Canadian colleges and institutes.

[UBC Open Case Studies](#) (CC BY)

Click on "Education" in the top toolbar. These case studies offer a student-centred approach to learning that asks students to identify, explore, and provide solutions to real-world problems by focusing on case-specific examples. This approach simulates real-life practice in sustainability education in that it illuminates the ongoing complexity of the problems being addressed.

Collections

[IRIS Center](#) (CC BY-NC-ND)

Offers a wide variety of resources and services to suit a diverse set of instructional needs and circumstances. [In this section](#), you will learn more about those services and resources, including how they are created and disseminated to IRIS users and educational programs in the United States and around the world.

Guides

[Good Practices Guide](#) (CC BY-NC-SA)

Pubished by the American Philosophical Association (APA), this document, over 90 pages long,

contains sections on interviewing and hiring, teaching and supervising students, professional development of faculty and students, communication, social events, bias and discrimination, and mental health.

Textbooks

[Academic Integrity](#) (CC BY-NC-SA)

An interactive approach to conveying the values of academic integrity, clarifying the meaning of plagiarism, and introducing the basics of citations, quoting and paraphrasing.

[Embracing the Challenges of Personalisation in Mass Higher Education](#) (CC BY-SA)

This book is designed to challenge your thinking about current and future practices of personalization in mass higher education. The OER is embedded in the context of digital futures for learning.

[The Evolution of Affordable Content Efforts in Higher Education Environments: Programs, Case Studies, and Examples](#) (CC BY)

This book provides both inspiration and guidance for those beginning work on affordable content and evidence of the growth that has occurred in this arena over the last decade.

[Inclusive Pedagogies](#) (CC BY-NC-SA)

Building on the principles explored in Foundations of Intercultural Teaching, this resource introduces educators to educational strategies that can foster more inclusive, equitable, and just classroom environments.

[Interculturalizing the Curriculum](#) (CC BY-NC-SA)

This book is the third in a series of educator development resources on interculturality. Developed for the KPU Intercultural Teaching Program, this short book engages educators in two main strands of interculturalizing the curriculum: (1) revising curriculum to reflect intercultural learning outcomes, and diverse content from multiple perspectives, and (2) supporting student interculturality development.

[Introduction to Education (BETA)](#) (CC BY-SA)

This book was written to provide students with an introduction to the field of education. The book is broken into chapters that focus on questions students may have about education in general. Although some chapters may go into more depth than others, this is created as an introductory text.

[On Assessment: An Exploration of Emerging Approaches](#) (CC BY-NC)

This textbook was written for the elective course–*Special Topics in Assessment*–that explores the "why" of assessments and how to make them more meaningful for students and teachers. It is based upon five foundational — and assessment-related — concepts. These are: **being curious** (demonstrated by working through critical pedagogy), **embracing the open** (achieved through an

exploration of open pedagogy), **exercising choice** (exercised through inquiry-based learning), **being brave** (harnessing what Amy Collier and Jen Ross (2015) have described as the concept of "not-yetness") and **awareness** (expressed through the process of critical reflection).

[Trauma-Informed School Practices](#) (CC BY-NC-SA)

This text assists educators in the development of trauma-informed competencies required to transition to a trauma-informed educational environment. The principles informing Trauma-Informed School Practices (TISP) are detailed in Section I, "Foundational Principles." It begins with an overview of the struggles facing students and educators, grounded in the reality that many students experience unmitigated stress and trauma, and this has undermined their ability to be successful in the school environment.

[Tutor Handbook](#) (CC BY-NC-SA)

This handbook guides readers through the foundational skills and theory needed to be an effective peer tutor. Informed by the College Reading and Learning Association's guidelines for tutor training, this handbook is a perfect accompaniment to the Association's Level I peer tutor certification course. Each chapter covers a foundational topic in peer tutoring, providing real-world examples, prompts for reflection, and exercises for practice.

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44.

Digital Education

Also see Educational Technology in this directory.

Collections

Last update: Feb 24/22

Digital Futures for Learning

During the Digital Futures for Learning course in 2017/18, participants created Open Educational Resources (OERs), taking the three course themes as a starting point. A selection of these OERs are available.

Courses

23 Things for Digital Knowledge (CC BY)

An award-winning, open, and self-paced course for digital and online skills. 23 Things for Digital Knowledge provides a structured way for staff and students to set aside that time to build up skills and experiment with new digital tools.

Textbooks

The Asynchronous Cookbook (CC BY-NC-SA)

Whether you're teaching mostly in person but looking for some regular, asynchronous activities to add to your course, or teaching a fully online course, this resource is for you. The activities in this cookbook draw on research and good practice in online course design to provide recipes – concise and specific instructions and examples – for adding asynchronous activities to a course. Meaningful interaction between students and instructors is a key ingredient in all of these recipes.

Ethical Use of Technology in Digital Learning Environments: Graduate Student Perspectives (CC BY)

This book is the result of a co-design project in a class in the Masters of Education program at

the University of Calgary. The course, and the resulting book, focus primarily on the safe and ethical use of technology in digital learning environments. The course was organized according to four topics based on Farrow's (2016) Framework for the Ethics of Open Education.

[Foundational Practices of Online Writing Instruction](#) (CC BY-NC-ND)

This book addresses the questions and decisions that administrators and instructors most need to consider when developing online writing programs and courses. The authors address issues of inclusive and accessible writing instruction (based upon physical and mental disability, linguistic ability, and socioeconomic challenges) in technology enhanced settings.

[Guide to Blended Learning](#) (CC BY-SA)

This is an introduction using technology and distance education teaching strategies with traditional, face-to-face classroom activities. This Guide has been designed to assist teachers adopt blended learning strategies through a step-by-step approach taking constructivist and design-based approach and reflecting on decisions taken to provide authentic learning experience in their own contexts. This book is from the [Commonwealth of Learning](#).

[Liberated Learners](#) (CC BY-NC)

Following in the footsteps of the Ontario Extend: Empowered Educator program is its predecessor, Ontario Extend: Liberated Learners. The original program worked to prepare educators to be better able to teach in a digital realm. The Liberated Learner seeks to do the same for the learners themselves. As such, the project has four modules: The Learner, The Navigator, The Collaborator, and The Technologist. Taken together, the modules aim to enable a well-rounded and ready-for-almost-anything post-secondary learner.

[Teaching with Rich Media: A Guide for Online Instructors](#) (CC BY-SA)

Online instructors need a framework for "teaching beyond text" using rich media as instructional resources. This book defines rich media, its affordances, and its value in conveying information. The book offers a model for pedagogical strategies, a set of instructor competencies, and two models for assessment for use in professional development.

Videos

[Near Future Teaching](#) (CC BY)

A collection of videos featuring students and staff talking about what changes they predict, or would like to see, in teaching over the coming decades, as technology, social trends, patterns of mobility, new methods and new media continue to shift.

Websites

[Education and the Blockchain](#) (CC BY-SA)

The blockchain is considered by some people to be The Next Big Thing in higher education. For example, it is claimed that it will "reinvent higher education" (Tapscott & Tapscott, 2017), that it might "hasten the dissolution of universities as institutions" (Matthews, 2017). In this OER, we'll learn more about these claims, why they may or may not be justified, and how we might become better equipped to analyse potential blockchain projects in higher education from a critical perspective.

[Radical Digital Literacy](#) (CC BY)

This resource is based on the idea that current approaches to digital literacy in most Higher Education institutions are simplistic and fail to take into account that technology is not a neutral entity. This OER provides a number of resources to read and watch with the aim of providing a springboard to discuss and share ideas of how to integrate a more radical approach to digital literacy into an undergraduate curriculum.

[Serendipity in a Digital World](#) (CC BY)

This resource explores the concept of Serendipity in a Digital World. Looking at the rise of algorithms, control online and how this can affect experiences of serendipity and exploration, open and closed spaces online, and how to balance, maintain, and encourage connections. The resource has been created primarily for education professionals and Masters-level students working in fields such as digital education, learning technology, digital futures, and e-learning.

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45.

Disabilities

Last update: Nov 22/22

Textbooks

[Deaf Education](#) (Public Domain)

This is a pilot project to explore the efficacy of Pressbooks toward the creation of e-books to deaf learners. The research project undertakes several strands of inquiry in order to develop a proposed theoretical framework that would guide the creation of e-books with the Pressbooks platform.

[The Roles and Responsibilities of the Special Educator](#) (CC BY-NC-SA)

The details of this book, are relevant to most education professionals who are working with children with disabilities and their families. The text has been modified to focus on the role of the special educator. As you read through this eBook you will see many references to the Individuals with Disabilities Education Act (IDEA). In the U.S., the Individuals with Disabilities Education Act (IDEA) is a **special education law** that mandates regulation for students with disabilities in order to protect their rights as students and the rights of their parents.

[Understanding and Supporting Learners with Disabilities](#) (CC BY-NC-SA)

This book was developed to support the Granite State College introductory courses EDU 617 and 717, Students with Disabilities. Chapters 1-11 are developed to align with the disability summary assignments. Each of these concise chapters explains the corresponding section of the disability summary template. Chapters 12-23 provide an introduction to each of the 13 IDEA disabilities.

46.

Early Childhood Education

Collections

[ECE textbook collection (English and Spanish)](#) (CC BY)

[Open educational resources in Early Childhood Education](#)

Last update: Mar 16/23

Courses

[Child Development and Early Childhood Education](#) (CC BY-NC)

From the ASCCC OER Initiative (Academic Senate for California Community Colleges).

Textbooks

[Child, Family, and Community – Spring 2021 version](#) (CC BY)

This textbook is a presentation of how and why children grow, develop, and learn including how we change physically over time from conception through adolescence.

[Child Family Community: The Socialization of Diverse Children](#) (CC BY-NC-SA)

This text is a guide and resource in building awareness, knowledge, and skills for current or future educators. The chapters are organized with learning objectives, embedded terms and definitions, critical reflection, and practical application of the content and topics. Topics include introduction to socialization and theories; why culture is important; what is a family; community; school; building collaborative relationships with families; welcoming and supporting families; and contemporary issues for children and families.

[EDU 109 – Music for the Young Child](#) (CC BY-NC-SA)

From Hostos Community College, this book takes a holistic approach to the study of music, drawing from diverse fields such as music education, ethnomusicology, sociology, and cognitive sciences. The book takes into account many different perspectives on a child's development rather than approaching it by focusing on only one subject.

[The ELC – An Early Childhood Learning Community at Work](#) (CC BY-NC)

The ELC professional development model was designed to improve the quality of teacher candidates' Practicum field placements and align teaching in field placements with Learning Standards used in the teacher education program.

[Infant and Toddler Care and Development](#) (CC BY-NC-SA)

This comprehensive textbook covers a wide range of topics related to infant and toddler care and development. Each section is intended to stand on its own, in order to encourage remixing. Topics covered include an introduction to infants and toddlers; physical, brain, motor, sensory and perceptual, cognitive, language, emotional, and social development; infant and toddler mental health; language acquisition; attachment and reciprocal relationships; temperament; licensing and regulations; caregiving practices; indoor and outdoor environment; an introduction to observation; and curriculum, assessment, and documentation.

[Infant and Toddler Education and Care](#) (CC BY-NC-SA)

This textbook covers several topics in infant and toddler education and care. Topics include toddler development; development influences, including culture, nutrition, health, socio-economic status, and engaging families; professional resources and organizations; scheduling and overall design considerations when creating environments; and information about creating environments to enhance social and emotional development, physical health and well-being, language and communication, and cognitive development.

[Introduction to Careers in Child Development](#) (CC BY-NC-SA)

This book contains academic and career information in the field of early childhood education and child development. It can be used as a textbook for child development and related courses.

[Introduction to Childhood Studies](#) (CC BY-NC-SA)

Introduction to key concepts in the study of childhood from multidisciplinary perspectives. It examines the historical and socio-cultural constructions of "the child" and childhood, exploring topics such as child development, cultural notions of adolescence, children as social agents, children's rights and challenges facing children in both local and global contexts.

[Introduction to Curriculum for Early Childhood Education](#) (CC BY)

Learn how to effectively plan curriculum for young children.

[Observation and Assessment in Early Childhood Education](#) (CC BY)

A textbook that discusses observation and assessment in the context of early childhood education.

[Parenting and Family Diversity Issues](#) (CC BY-NC-SA)

This book has been created for students and all individuals who work with children and families (e.g., educators, parents, caregivers, direct support workers, etc.) in diverse contexts. It is imperative to understand how and what factors may influence child outcomes across the lifespan. Therefore, key concepts related to parenting, child-rearing, care-giving, and parenting education are outlined

in this textbook to provide historical, theoretical, and practical perspectives across vast settings and developmental domains.

[Principles and Practices of Teaching Young Children](#) – Early Release (CC BY)

[The Role of Equity and Diversity on Early Childhood Education](#) (CC BY)

A textbook that discusses equity and diversity in the context of early childhood education.

[The Whole Child: Development in the Early Years](#) (CC BY-NC-SA)

This book was written for the emerging child psychology student or early childhood educator. It gives an overview of development, beginning in the mother's womb through about the age of eight. It starts with a look at perspectives of early childhood, including how children have been viewed historically as well as cross-culturally. There is a complete overview of the important theorists that have helped to deepen and bring clarity to how children develop including psychodynamic, behavioral, social cognitive theory, cognitive theory, humanistic, multiple intelligence, growth mindset, and Bloom's taxonomy.

47.

Educational Technology

Also see [Digital Education](#) in this directory.

Websites

Last update: Dec 13/18

[The Future of Writing](#) (CC BY-SA)

This resource aims to encourage thought about the ways in which we
take notes and how this is changing with technology. Aimed at educators, it's goal is to try and answer
the question: should we change how we teach and encourage students to write? The resource is provided
as a WordPress blog which leads the learner through a series of discussions and though prompts. And a
Padlet discussion board.

[Virtual Reality in Education. A future toolkit for educators?](#) (CC BY-NC-SA)

This resource is designed to promote thinking around virtual reality (VR) in education. After exploring
each theme participants are encouraged to share their thoughts, ideas, and response to key questions in
the comments section. The aim of this OER is to provoke thought and discussion around VR and the
potential future it has in education.

48.

K-12

Collections

[Global Digital Library](#) (Various CC licences)

The goal of the [Global Book Alliance](#) is therefore to provide access to free, high-quality, early grade reading resources in languages that children use and understand. As a flagship activity within the Global Book Alliance, the Global Digital Library (GDL) has been developed to increase the availability of high-quality reading resources in underserved languages worldwide.

[StoryWeaver](#) (Various CC licences)

A digital repository of multilingual stories for children from Pratham Books so every child can have access to an endless stream of stories in her mother tongue to read and enjoy.

Textbooks

[Arts Integration in Elementary Curriculum, 2nd Edition](#) (CC BY-NC-SA)

This open textbook explores the topic of various fine arts integrations within elementary curricula. Topics include: Music, Visual Arts, Literary Arts, Performing Arts, and Physical Education and Movement.

[Astronomy for Educators](#) (CC BY-SA)

This book provides new and accomplished K-12 instructors with concepts and projects for low-cost, high-impact STEM classroom instruction that is built around the National Academies National Research Council's K-12 Framework for Science Education.

[Climate Science for the Classroom](#) (CC BY-NC-SA)

Each chapter focuses on a different current climate change topic, strong emphasis on using data to explore global, regional, and societal issues. An archive of climate-science focused labs and games for middle and high school teachers and their students. Includes links to blog posts written by graduate student lesson developers that point to expertise from education scientists and K-12 educators that contributed to development of the lessons.

[Elementary Earth and Space Science Methods](#) (CC BY-NC-SA)

This book is designed to help science teachers better understand science and feel confident in teaching this topic. This book is divided into five parts: Physics, Space Science, Earth Science, Climate Science, Course Materials and Pedagogy. Each part is broken down into smaller chapters which include: written explanations, video links, glossary terms, key takeaways, and practice quizzes.

[Language Learning in K-12 Schools: Theories, Methodologies, and Best Practices](#) (CC BY-NC-ND)

This user-friendly resource text will help educators gain professional knowledge about language teaching methodologies and best practices for learning an additional language in K-12 school settings. Learning modules include an overview of language-teaching methodologies; theories that have transformed language education; program models and proficiency levels; instructional planning in language education; instructional strategies for listening and speaking, as well as reading and writing; differentiated instruction for a range of needs; and culturally responsive teaching.

[Methods of Teaching Early Literacy](#) (CC BY)

Theories, teaching strategies, and instructional materials pertinent to teaching reading and writing in grades PK-3, with an emphasis on integrating reading, writing, speaking, and listening, as well as integration across content areas while addressing diversity and inclusion.

[Teaching Math for Emergent Bilinguals: Building on Culture, Language, and Identity](#) (CC BY-NC-SA)

This book is designed for pre-service/in-service teachers and others who will work or work with K–12 students who have linguistically and culturally diverse backgrounds, especially students of other languages (English language learners/Emergent bilingual/multilingual).

49.

Learning

Workbooks

Three peer tutoring workbooks from Kwantlen Polytechnic University (CC BY-NC-SA)

Last update: Aug 19/20

- [Level One Peer Tutoring Fundamentals and Integration Workbook](#)
- [Level Two Peer Tutoring Fundamentals and Integration Workbook](#)
- [Level Three Peer Tutoring Fundamentals and Integration Workbook](#)

Workshops

[Shift/Work](#) (CC BY-NC-SA)

A series of performative paragogy workshops. The workshops use open engagements with practice (work) as a means of generating and transferring new knowledge (shift), to encourage players to recalibrate artistic learning. 'Shift/Work' has been designed to be an iterative process, a rolling workshop that can be continually re-performed like a musical score. There are four workshops, which include multiple scores

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50.

Open Education and Open Pedagogy

Also see Pedagogy and Instructional Design and Copyright in this directory.

See Open Education OER in development.

Articles and Blogs

Last update: May 8/23

Does Open Pedagogy Require OER? (CC BY)

A post by Clint Lalonde discussing whether open licences are necessary for something to be considered open pedagogy.

Quick Thoughts on Open Pedagogy (CC BY)

David Wiley expanding his thinking on open pedagogy.

What is Open? History and Open Education Resources (CC BY-ND)

An article describing the creation of an open seminar book for Canadian history survey classes.

What is Open Pedagogy? [PDF] (CC BY)

Professors describing what open pedagogy means to them and how they view the future of open pedagogy.

Collections

CCCOER Helpful Resources (Various CC licences)

A collection of resources curated by the Community College Consortium for Open Educational

Resources that cover topics relating to OER including advocacy, open pedagogy, policy, adoption, authoring, accessibility, and more.

[Using Open Content to Create a Culturally Relevant Classroom: Resources and Links [Google Docs]](#) (CC BY)

A collection of links to books, online publications, and videos/webinars on culturally responsive teaching practices and resources. It also highlights a number of OER examples.

Examples

[Butte Biology: Learning Through Creation](#) (CC BY)

This site presents the steps for designing a course where students collaboratively write a textbook. The site also presents strategies for using steps independently or in sequence to simplify course design. Each individual page also discusses educational research related to each individual strategy.

[OER-Enabled Pedagogy](#) (CC BY)

A description and examples of a set of teaching and learning practices that are only practical in the context of the 5R permissions characteristic of open educational resources.

[Open Pedagogy Examples](#) (CC BY)

A collection of examples of open pedagogy that was generated after a BCcampus webinar on open pedagogy.

Guides

[Affordable Instructional Materials (AIM) Instructional Designer Handbook](#) (CC BY-SA)

This handbook is designed to facilitate a dialogue between an instructional designer and the contents of AIM.

[A Guide to Making Open Textbooks with Students](#) (CC BY)

A handbook for faculty interested in practicing open pedagogy by involving students in the making of open textbooks, ancillary materials, or other Open Educational Resources.

[Making Ripples: A Guidebook to Challenge Status Quo in OER Creation](#) (CC BY)

Making Ripples: A Guidebook to Challenge Status Quo in OER Creation is a short resource designed to expand your understanding of inequities in the educational systems through breaking down the work into smaller pieces with opportunities for you to reflect, identify strategies for action, and locate resources and community members to connect with. The purpose of this guide is to explore strategies for you as OER creators to incorporate equitable practices into your workflows.

[Marking Open and Affordable Courses](#) (CC BY)

This collaboratively authored guide helps institutions navigate the uncharted waters of tagging course material as open educational resources or under a low-cost threshold by summarizing relevant state legislation, providing tips for working with stakeholders, and analyzing technological and process considerations. The first half of the book provides high-level analysis of the technology, legislation, and cultural change needed to operationalize course markings. The second half features case studie.

[The Rebus Guide to Publishing Open Textbooks (So Far)](#) (CC BY)

The Rebus Guide to Publishing Open Textbooks (So Far) is a living repository of collective knowledge, written to equip all those who want to publish open textbooks with the resources they need. Representing two years of collaboration, innumerable conversations and exchanges, and a wide range of collective knowledge and experience, the Guide is a book-in-progress and will evolve and grow over time.

[Zero Textbook Cost Degree Toolkit](#) (CC BY)

A resource that provides an introduction of how to create a zero-textbook-cost (ZTC) program in Canada.

Monographs

[The Evolution of Affordable Content Efforts in the Higher Education Environment: Programs, Case Studies, and Examples](#) (CC BY)

This book provides both inspiration and guidance for those beginning work on affordable content and evidence of the growth that has occurred in this arena over the last decade.

[Contextualised open educational practices: Towards student agency and self-directed learning](#) (CC BY)

This book covers original research on the implementation of open educational practices through the use of open educational resources at the university level. The emphasis on open education in this book is on contextualising resources, supporting student agency and fostering self-directed learning specifically within a South African milieu. The envisaged chapters cover conceptual and review research and empirical work focusing on open educational practices and the use of renewable assessments. The work starts off with an overview of an institutional-wide open education project that prompted the research followed by research on open education in terms of various modules in the health science, music education, law, philosophy, dietetics, anthropology, French language learning, journalism and political science. There is a clear gap in the literature on open education in terms of open educational practices, specifically in terms of contextualising resources, supporting student agency and fostering self-directed learning in a South African context. Despite the existence of some general works on open education in terms of policy, social justice and open textbooks, this book will be unique in exploring the intersections of openness, specifically with contextualisation, student agency and self-directedness.

[Open Pedagogy Approaches](#) (CC BY)

An anthology of case studies discussing different approaches to open pedagogy. Each case study is an example of how faculty, library staff, and students can work together to put into action the philosophy of open pedagogy. This book is meant to serve educators with varying levels of "open" experience and knowledge, whether one is starting small with a single assignment, radically revamping one's course design, or simply interested in learning about new pedagogical approaches. The OER case studies bring together different approaches to open pedagogy, and as such, each chapter is quite different from the next.

[Open: The Philosophy and Practices that are Revolutionizing Education and Science](#) (CC BY)

A book edited by Rajiv Jhangiani and Robert Biswas-Diener on all topics related to open education and open science. This book shares the stories, motives, insights, and practical tips from global leaders in the open movement, including a number of chapters that specifically focus on open pedagogy.

[Using Open Educational Resources to Promote Social Justice](#) (CC BY-NC)

This book explores the opportunities and challenges of moving the discussion about open educational resources (OER) beyond affordability to address structural inequities found throughout academia and scholarly publishing. OER have the potential to celebrate research done by marginalized populations in the context of their own communities, to amplify the voices of those who have the knowledge but have been excluded from formal prestige networks, and to engage students as co-creators of learning content that is relevant and respectful of their cultural contexts. This book takes a multidisciplinary approach and is filled with examples of the ways OER and open pedagogy can be used to support social justice in education. It covers a wide range of topics from theoretical critiques to multidisciplinary examples of OER development in practice to examinations of institutional support for OER development. The five sections of this book talk about theory and problematizing; open praxis; decolonizing learning in the Global South; scaling up with institutional policies (approaches); and building and decolonizing OER platforms. This book has print copies available for purchase, as well as a free digital edition.

Presentations/Slides

[Lorna Campbell's Slideshare](#) (CC BY)

A collection of 85 presentations and talks created by Lorna Campbell (who has twenty years experience working in education technology and leads the OER Service within Information Services at the University of Edinburgh) about her work in open education technology, policy, and practice.

Supplemental Materials

[Open Learning Experience Bingo 2.0](#) (CC BY)

Learning experience bingo is a game invented to offer a way for people to consider how learning experiences — like activities, assignments, modules, or courses — might be "opened" in various ways.

For example, a learning experience might be opened by enabling wider access to more people, more agency for people involved, or more possibilities in its materials, tools, goals, outcomes, and/or design.

Textbooks

[The Grim Educator](#) (CC BY-NC)

For educators (and anyone else) who may be interested in the ways that death and evil shape how we interact with others and shape our world.By engaging with the ideas of Hannah Arendt and Ernest Becker, as well as borrowing from terror management theory (TMT) in social psychology, we hope to provoke thinking about how our conscious and unconscious approaches to evil and death impact education (and our lives).

[OERigins Stories](#) (CC BY-SA)

Six women of color, leaders in the Open Education Movement, share their stories and thoughts on Open Education and higher education.

[An Open Education Reader](#) (CC BY)

A collection of readings on open education with commentary by David Wiley.

[Open at the Margins: Critical Perspectives on Education Education](#) (CC BY-SA)

This book represents a starting point towards curating and centering marginal voices and non-dominant epistemic stances in open education. It includes the work of 43 diverse authors whose perspectives challenge the dominant hegemony.

[Open Pedagogy Approaches](#) (CC BY)

This collection is attentive to the relationship between teachers and librarians, and the interstitial space between colleges and libraries as one place that supports open.

[Open Textbook Toolkit](#) (CC BY)

This toolkit is a living document designed to support university and college faculty in Ontario who would like to create their first open textbook. Key sections in this toolkit are organized in an FAQ format and include information related to stakeholders, technology, copyright, accessibility, and more general production and classroom-use workflows of an open textbook.

Videos and Webinars

[How to Create Inclusive and Accessible OER](#) (CC BY)

This webinar looks at how to design OER so they are more inclusive and accessible for all students. This includes an overview of the technical considerations of digital accessibility. For

example, what are the minimum technical requirements that ensure students with print disabilities can access and navigate through the resource? We will also look at how inclusive design practices can help us create educational materials that are more versatile and useful for students. For example, what does an accessible resource look like for a student with no personal computer? Or a student with a learning disability that makes reading difficult? Ultimately, students can be very different from each other, and what may work for one student may not work for another. But by designing for those differences, we can create educational materials that are more useful, powerful, and accessible to all.

[Introduction to Canadian Copyright and Open Licensing for OER](#) (CC BY)

What do you need to know about copyright and open licensing when using or building OER? For example, what exactly can you do with existing OER? When do librarians and instructors need to ask permission to use someone else's images, text, or video in new OER? Where does fair dealing "fit" in the OER landscape?

[Making Open Textbooks: A Video Guide](#) (CC BY)

A video series created by the Rebus Community about publishing open textbooks, with collaboration at the heart of a collective, open process of creation.

[Open Education Support Models](#) (CC BY)

Based on a comprehensive environmental scan of Canadian institutional and regional open education initiatives, this webinar introduces participants to the post-secondary landscape. Through an analysis of support models, services, technologies, and success stories presented by academic institutions or discussed in the literature, participants will gain an understanding of the state of open education in Canada and its regional variations. They will be in a better position to describe the strengths and weaknesses of current approaches, and identify gaps and opportunities.

[Open Pedagogy](#) (CC BY)

An archived webinar by Open Oregon (January 2017) on the subject of open pedagogy.

[Supporting Open Education Practices from the Library](#) (CC BY)

Higher education promises to be a vehicle for economic and social mobility; however, this promise increasingly goes begging as our institutions are subtly structured to reinforce existing inequalities, with engagement, persistence, and achievement still closely tied to affordability. The oft-heard institutional claim to be student-centered is similarly hypocritical, as it is usually faculty, accreditation requirements, and budgetary constraints that dictate both the structure and content of the learning experience. It is against the backdrop of these paradoxes that open education practices have emerged as a transformational force in higher education. Open educational practices (OEP) encompass the creation, adaptation, and adoption of open educational resources as well as a range of open pedagogies through which students are empowered as co-creators of knowledge. This presentation will draw on a diverse set of examples to make a case for why the shift away from traditional (closed) practices is not only desirable but also inevitable, and how supporting OEP from the library supports both social justice and pedagogical innovation.

Websites

[Innovating with Open Knowledge](#) (CC BY-SA)

A series of resources and case studies created by the University of Edinburgh that will help you develop the knowledge and skills to find and access free content, data and research produced by the university sector.

[Open Professional Education Network](#) (CC BY)

A collection of support resources designed to support the use of the following: Open Educational Resources (OER) practices & policies; Creative Commons (CC) licensing; Universal Design for Learning (UDL) and accessibility; evidence-based online technology use; effective course and learning design; and help finding existing OER.

51.

Pedagogy and Instructional Design

Also see [Open Education and Open Pedagogy](#) and [Indigenous Studies](#) in this directory.

Blogs

Last update: Aug 10/23

[Educatus – University of Saskatchewan](#) (Not openly licensed)

A collection of posts by instructors on topics of open pedagogy and teaching and learning practices.

Courses

[Embracing Complexity in Education](#) (CC BY-SA)

This OER is a mini-course or workshop for postgraduate level education professionals. It is relevant to any group of teachers, researchers, policy-makers, curriculum-developers, designers, etc., who approach their work with an academic focus. Through a collaborative and exploratory approach, the course provides participants with the opportunity to reflect on their practice through the lens of complexity and consider implications for their work. Participants explore complexity not only through the resources, but also through the design and methodology of the course itself.

[Equity, Diversity and Inclusion in Pedagogy and Practice](#) (CC BY-NC)

A collection of modules designed to introduce you to concepts of equity, diversity and inclusion. Topics include Power, Privilege & Bias; Conversations on Decolonization; Navigating Difficult Conversations; Inclusive & Responsive Teaching; and Universal Design for Learning. The modules offer, frameworks, self-reflective exercises, informative activities, videos and other resources to help you explore the application of equity, diversity and inclusion in your teaching pedagogy.

[Supporting Students with Disabilities Course Website](#) (CC BY)

This course is designed for post-secondary faculty and staff who interact with students with disabilities, especially in the trades school context. If you have a role in supporting students with disabilities at your institution, this course is for you. The practical information and knowledge presented in this course will help us better understand how to create an inclusive campus and support all students in their learning and paths to success.

Guides

[Accessibility Handbook for Teaching and Learning](#) (CC BY-NC-SA)

This resource is intended as a reference for educators and support staff to understand digital accessibility, create accessible documents, and ensure everyone can access digital material.

[Course Renewal in a Kit (Cricket)](#) (CC BY)

Cricket provides resources that educators need to design or re-envision their courses and serves as a repository of openly licensed activities and assessments. Created and maintained by Thompson Rivers University.

[Experiential Learning Toolkit](#) (CC BY)

A website that provides information, examples, and templates for designing, delivering, facilitating, and evaluating experiential learning (EL) in post-secondary education.

[Focus on Formative Feedback for Teaching Development [PDF]](#) (CC BY-NC)

This guide is for anyone who teaches in higher education, or who is preparing to teach. The focus of this guide is on how formative feedback can be used to improve both the learning experiences of students and the teaching experiences of instructors.

[Inclusive Design for Learning: Creating Flexible and Adaptable Content with Learners](#) (CC BY-SA)

Inclusive Design for Learning provides a means to address this crisis of exclusion of persons with identified and unidentified disabilities, which may be permanent or episodic. This Knowledge Series paper introduces the dimensions of inclusive design as it applies to learning and focuses on the design of diverse learning experiences to help optimise learning opportunities for all learners.

[Universal Design for Learning (UDL) for Inclusion, Diversity, Equity, and Accessibility (IDEA)](#) (CC BY)

This) project was a collaboration between 10 universities and colleges across Ontario to develop a 6-module open educational resource for post-secondary educators to help them understand their responsibilities under the Accessibility for Ontarians with Disabilities Act (AODA). It will help instructors and others to incorporate principles of UDL and considerations of EDI and Indigenisation in their learning environments.

[Inclusive Learning Design Handbook](#) (CC BY)

The Floe Inclusive Learning Design Handbook created by the Inclusive Design Research Centre at OCAD University is designed to assist teachers, content creators, Web developers, and others in creating adaptable and personalizable educational resources that can accommodate a diversity of learning preferences and individual needs.

[Indigenous Ways of Knowing and Learning in Education](#) (CC BY-NC)

A website to broaden the perspectives of your face-to-face or blended/online classroom. An exploration of re-connection through a balance of ancient and modern practices.

[Pedagogies of Care: Open Resources for Student-Centered & Adaptive Strategies](#) (CC BY-NC-ND)

Pedagogies of Care: Open Resources for Student-Centered & Adaptive Strategies in the New Higher-Ed Landscape offers a practical and engaging advice about what "next" should look like across higher education in a multimedia format, from sixteen current and forthcoming authors in the Teaching and Learning in Higher Education book series from West Virginia University Press.

[SNOW: Inclusive Learning and Education](#) (CC BY)

SNOW is a branch of the Inclusive Design Research Centre at OCAD University that focuses on technologies for learning and promotes understanding of inclusive learning practices. Their goal is to provide information and training about technologies and inclusive practices both in and outside the classroom. SNOW is for educators, parents, guardians and students and our resources are free whenever possible. SNOW is committed to providing open source tools that can be adapted and used freely.

[The Open Faculty Patchbook](#) (CC BY)

Fleming College faculty and our peers around the world are building a community patchwork of chapters into a quasi-textbook about pedagogy for teaching & learning in higher education. Each patch of the quilt/chapter of the book focuses on one pedagogical skill and is completed and published by different individual faculty members from any institution wanting to join in.

[UDL in Campus: Universal Design for Learning in Higher Education](#) (CC BY-SA)

A guide to how UDL can be applied in higher education.

[Universal Design for Learning: One Small Step](#) (CC BY-NC-SA)

This modular book aims to provide educators with strategies and resources to use Universal Design for Learning (UDL) to support greater accessibility and inclusion in higher education at the University of Saskatchewan. It is built upon the teaching philosophy that even taking one small step (that is, making a single pointed change in your course) to provide an additional method of access, option for assessment, or strategy for engagement, is going to make a positive impact upon the learning experience, and move your course towards greater inclusivity and accessibility. This book includes activities, web resources, and opportunities for reflection. Chapters include an introduction to UDL, assessment and UDL, and UDL and best practices for technology-enabled learning.

[Universal Design for Learning: A Practical Guide [PDF]](#) (CC BY-NC-SA)

This guide provides the Universal Design for Learning (UDL) framework and multiple ways of entering that framework and getting started on UDL.

[University Pedagogical Support](#) (CC BY-SA)

A learning platform for university pedagogical studies. Everyone is welcome to study the modules independently. The aim of the modules is to support university teachers by giving keys to reflect their thoughts and conceptions of teaching and learning in higher education.

Monographs

[Applications of LinkedIn Learning in Ontario's Post-Secondary Institutions](#) (CC BY-NC-SA)

Each of the cases in this book reflect a range of approaches and perspectives of using video-based resources to increase learner engagement. The authors, through their work, encourage the reader to contemplate the impact of technology on the learner and the educator. The goal of this collection is to generate ideas for your own implementation, to promote inquiry, and to grow the community's knowledge.

[Dissident Knowledge in Higher Education](#) (CC BY-NC-ND)

This collection includes some of the leading authorities in the field, including Marie Battiste, Noam Chomsky, Yvonna S. Lincoln, and Linda Tuhiwai Smith. It is geared towards courses that focus on methodology, colonialism, Indigenous research and knowledge, and theories of change.

[Innovative Learning and Teaching: Experiments Across the Disciplines](#) (CC BY-NC)

This book is about teachers who care about students' learning and are motivated to take risks and actively reflect on how to best facilitate that learning.

[An Urgency of Teachers: The Word of Critical Digital Pedagogy](#) (CC BY-NC)

This collection of essays explores the authors' work in, inquiry into, and critique of online learning, educational technology, and the trends, techniques, hopes, fears, and possibilities of digital pedagogy.

[Sharing Our Knowledge: Best Practices for Supporting English-Language Learners in Schools](#) (CC BY)

A collection of final papers submitted by practicing teachers who are working toward a Post-Degree Certificate in EAL Education at the University of Saskatchewan. The overall goal of the OER collection is to provide PreK-12 educators (classroom teachers, administrators, EAL coordinators, language consultants, specialists, and others) with a source of current best practices and research.

[Student-Centered Learning: Subversive Teachers and Standardized Worlds](#) (CC BY-NC-SA)

The essays in this volume deal with the problems and prospects of fostering student-centred learning in a standards-based world through subversive teaching.

Research

[Inclusive Spectrums: Preliminary Research Exhibition](#) (CC BY)

This exhibition presents the preliminary major research project ideas of OCAD University's Inclusive Design 2019/2021 cohort. These projects explore a spectrum of themes, ranging from healthcare, to sensory experiences, to storytelling and services for cultural communities, to neurodiversity, and finally, to design practices and processes themselves.

Textbooks

[Comprehensive Individualized Curriculum and Instructional Design](#) (CC BY-NC)

This online textbook addresses the population of individuals with disabilities that experience complex lifelong needs across multiple areas in their lives. Drs. Sennott and Loman drafted this book (along with the help from some friends) with the hope of providing pertinent, practical, and current resources to future special educators who plan to serve individuals with complex disabilities.

[Flipped Through Design](#) (CC BY-NC-ND)

The "Flipped Classroom" model of instruction has generated discussion around the world of education. Numerous articles have been written documenting experiences surrounding this method of teaching. The one piece that has been missing from this discussion is a sound framework to design a "Flipped" course using proven design principles. Instructional Design provides a proven framework to design all types of instruction and these principles can be used to design a "Flipped" course.

[Instructional Methods, Strategies and Technologies to Meet the Needs of All Learners](#) (CC BY-NC-SA)

This book explores the different aspects of learning and the different ways that students learn. Topics include key pedagogical practices in instruction and student learning; surface and deep learning; motivation; direct instruction; problem-based learning; project-based learning; cooperative learning; Bloom's taxonomy; questioning; feedback; scaffolding; differentiated instruction; Universal Design for Learning; assessment for learning; teacher-made assessment strategies; standardized and other formal assessments; assessing learning using technology; understanding by design; classroom-centred practices in mathematics; math interventions and strategies; learning with digital tools; and selection of educational technology.

[Introduction to Design Equity](#) (CC BY)

Why do affluent, liberal, and design-rich cities like Minneapolis have some of the biggest racial disparities in the country? How can designers help to create more equitable communities? Introduction

to Design Equity, an open access book for students and professionals, maps design processes and products against equity research to highlight the pitfalls and potentials of design as a tool for building social justice.

[The Science Education Initiative Handbook](#) (CC BY-NC-SA)

A practical guide to fostering change in university courses and faculty by embedding discipline-based education specialists within departments.

Videos

[Cultural Diversity: Dr. Geneva Gay](#) (CC BY-NC)

Dr. Geneva Gay from the University of Washington, Seattle answers the question "Why is it important for faculty to employ culturally responsive teaching practices?" (5 minutes)

IX

Engineering

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Subjects and Disciplines

This section includes:

- [Engineering – General](#)
- [Aerospace Engineering](#)
- [Biosystems Engineering](#)
- [Chemical Engineering](#)
- [Civil Engineering](#)
- [Computer Engineering](#)
- [Electrical Engineering](#)
- [Industrial Engineering](#)
- [Materials Science](#)
- [Mechanical Engineering](#)
- [Thermodynamics/Thermal Power Plant](#)

</div>

Also see [Engineering](#) in the "Books under consideration" section of this directory. [Books open for review](#) and [Books scheduled to be added to the collection](#) may also contain resources.

52.

VIRTUAL LABS and SCIENCE RESOURCES

For labs and related resources, see [Engineering](#) in the *Virtual Lab and Science Resource Directory.*

53.

Engineering - General

Collections

[IntechOpen: Physical Sciences, Engineering and Technology](#) (CC BY)

[National Science Digital Library](#) (Various CC and other licences)

A collection of high quality online educational resources for teaching and learning with emphasis on the sciences, technology, engineering, and mathematics.

Last update: Jan 27/23

Courses

[Engineering Statistics](#) (CC BY-NC-SA)

This Engineering Statics course contains many interactive elements, spread throughout, to promote conceptual understanding and problem-solving skills. These include simulations, some with adjustable parameters controlled by the student, to help visualize concepts; "walk-throughs" that integrate voice and graphics to explain an example of the procedure or a difficult concept; and, most prominently, interactive exercises in which students practice problem solving, while receiving hints and feedback.

[Mechatronics Technology Program](#) (CC BY-NC-SA)

Created through a collaboration with the OPEN Platform+ program, the National STEM Consortium academic certificate in Mechatronics Technology is built on a 30-semester-credit model and is mapped to the Siemens Mechatronic Systems Level 1 certification. The skills taught include electrical, mechanical, and computer technologies. Graduates are prepared for entry-level Mechatronics positions in almost every industry.

[Public Policy Analysis for Engineers](#) (CC BY-NC-SA)

This course will introduce students to the interrelationship of engineering and public policy, how to conduct neutral policy analysis, and then apply that knowledge in case studies to practice the skills they have learned. The modules take a flipped classroom/active learning approach by using short videos to educate students, activities to practice the skills taught and incorporates real-world examples such as hydraulic fracturing, drones, and 3D printing.

Data

[Edinburgh DataShort: College of Science & Engineering](#) (Various CC licences)

A digital repository of research data produced at the University of Edinburgh by the College of Science and Engineering.

Simulations

[Engineering Technology](#) (CC BY)

This website consists of a series of 3D simulations on engineering technology.

Supplemental Materials

[Engineering Technology Simulations](#) (CC BY)

A collection of open simulations covering automation and robotics, electrical & motor control, process control or renewable energy.

Textbooks

[Basic Engineering Data Collection and Analysis](#) (CC BY-NC-SA)

This textbook stresses the practical over the theoretical. Step by step, students get real engineering data and scenario examples along with chapter-long case studies that illustrate concepts in realistic, thoroughly detailed situations. This approach encourages students to work through the material by carrying out data collection and analysis projects from problem formulation through the preparation of professional technical reports—just as if they were on the job.

[Beyond Lean: Simulation in Practice](#) (CC BY-NC-SA)

The fundamental goal of this text is to show how discrete event simulation can be used in addition to lean thinking to achieve greater benefits in system improvement than with lean alone. Realizing this goal requires learning the problems that simulation solves as well as the methods required to solve them. The problems that simulation solves are captured in a collection of case studies. These studies serve as metaphors for industrial problems that are commonly addressed using lean and simulation.

[Engineering: An Introduction for High School](#) (CC BY-NC)

An online textbook written for students in high school. The text was collaboratively written by university engineering and education faculty members at Arizona State University. The text currently has four content chapters that cover the nature of engineering, engineering and society, engineering design, and the connection between engineering, science, and mathematics.

[Engineering LibreTexts Library](#) (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources related to engineering.

[Introduction to Linear, Time-Invariant, Dynamic Systems for Students of Engineering](#) (CC BY-NC)

This text covers the ODEs and behaviors of first-order and second-order dynamic systems; the ODEs and behaviors of mechanical systems having two degrees of freedom, i.e., fourth-order systems; classical feedback control; the basic features of proportional, integral, and derivative types of classical control; and methods for analyzing the stability of classical control systems.

[Linear Algebra: A Course for Physicists and Engineers](#) (CC BY-NC-ND)

This open textbook is meant for courses on space and atmospheric science, remote sensing, geographic information systems, meteorology, climate and satellite communications at UN-affiliated regional centres, various applications of the formal theory are discussed as well. These include differential equations, statistics, optimization and some engineering-motivated problems in physics.

[Notes on Diffy Qs: Differential Equations for Engineers](#) (CC BY-NC-SA)

A first course on differential equations, aimed at engineering students. The prerequisite for the course is the basic calculus sequence.

[Structural Analysis](#) (CC BY-NC-ND)

This textbook is designed for upper-level undergraduates studying civil engineering, construction engineering and management, and architecture. It is also useful for construction professionals seeking licensure in their field of practice.

[Technical Project Management in Living and Geometric Order – Third Edition](#) (CC BY)

This book is the result of a collaboration among the instructors responsible for Technical Project Management, one of the ten required classes in the Master of Engineering Management (MEM) program at the University of Wisconsin-Madison. This class is designed to help students build on their past experiences and develop effective strategies for managing complex technical projects, with an emphasis on applying project management concepts to real-world problems.

Videos

[Practical Engineering Videos](#) (CC YouTube Licence)

A collection of engineering videos created by Grady Hillhouse, a professional civil engineer. His goal for Practical Engineering is to increase exposure and interest in the field of engineering through the use of practical examples.

[Engineering Technology Simulation Learning Videos](#) (CC YouTube Licence)

Over 100+ quick microlearning videos on various Engineering Technology topics including automation,

electrical, motor control, process control, fluid power, industrial robotics and more! The videos are short and are meant to be used in various classroom learning situations.

54.

Aerospace Engineering

Textbooks

[Aerodynamics and Aircraft Performance, 3rd edition](#) (CC BY)

Intended for undergraduates, this text provides "stand alone" coverage of basic, subsonic, aircraft performance preceded by an introduction to the basics of aerodynamics that will provide a background sufficient to the understanding of the subjects to be studied in aircraft performance.

[Aerospace Structures](#) (CC BY-NC-SA)

This 600+ page text and reference book for junior, senior, and graduate-level aerospace engineering students. The text begins with a discussion of the aerodynamic and inertia loads acting on aircraft in symmetric flight and presents a linear theory for the statics and dynamic response of thin-walled straight bars with closed and open cross-sections. Isotropic and fiber-reinforced polymer (FRP) composite materials including temperature effects are modeled with Hooke's law. Methods of analyses are by differential equations, Castigliano's theorems, the direct stiffness method, the finite element method, and Lagrange's equations. There are numerous examples for the response of axial bars, beams, coplanar trusses, coplanar frames, and coplanar curved bars. Failure initiation by the von Mises yield criterion, buckling, wing divergence, fracture, and by Puck's criterion for FRP composites are presented in the examples.

55.

Biosystems Engineering

Also see [Biosystems Engineering OER](#) in development.

Textbooks

Last update: Feb 24/21

[Bio-Inspired Sensory System](#) (CC BY-NC-SA)

Using natural sensory system concepts to develop and improve
sensory systems will continue to thrive for many years to come. Technology advances rapidly (Moore's Law) as does our understanding of biological principles and designs. These trends fuel the fertile grounds of bio-inspired sensory systems, a topic that is inherently multidisciplinary. This book will serve well as either an academic text on the subject or an introduction to the variety of proven bio-inspired designs. The focus is on sensory systems that interpret environmental stimuli. It introduces natural photo-, mechano-, and chemo-sensory systems across the animal kingdom and also summarizes various novel engineering ideas that glean ideas from these natural sensory systems.

[Introduction to Biosystems Engineering](#) (CC BY)

This book can be used as a customizable text for university-level introductory courses in Biosystems Engineering. Written by an international team of authors, the book is divided into six sections aligned with technical communities within Biosystems Engineering: Energy Systems; Information Technology, Sensors, and Control Systems; Machinery Systems; Natural Resources and Environmental Systems; Plant, Animal, and Facility Systems; and Processing Systems. Within the sections, individual chapters focus on discrete topics that can be covered in one week of class. Each chapter contains the expected learning outcomes, key concepts, applications of the concepts, and worked examples.

56.

Chemical Engineering

Supplemental Materials

[Chemical Engineering Separations: A Handbook for Students](#) (CC BY-NC)

This handbook is intended for use by undergraduate students who are taking a course in chemical engineering separations. It assumes that students have taken one or two semesters of chemical engineering thermodynamics, one semester of heat and mass transfer, and one semester of computational methods for chemical engineering.

Textbooks

[Inorganic Chemistry for Chemical Engineers](#) (CC BY)

This textbook has been specifically adapted for CHEM 250, an interdisciplinary inorganic chemistry course at UBC-V, for Chemical Engineering students. The main objective of this book is to introduce students to the basic principles of inorganic chemistry and link them with current applications relevant to a chemical engineer.

Media Attributions

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57.

Civil Engineering

Case Studies

[UBC Farm through a Sustainable Lens](#) (CC BY)

Last update: Oct 18/21

This page will use the University of British Columbia Farm as a case study to demonstrate sustainable design approaches, measures, and practices. The building industry currently contributes about 40% of greenhouse gases to the atmosphere globally. The ecosystem approach to sustainable design will be explored, using the Farm as the ecosystem in question.

Websites

[Engineering at Alberta Courses](#) (CC BY-NC-SA)

This website was born to provide a platform for educators to publish their open educational resources to help our students and all engineering students around the world in their pursuit of knowledge. The website is arranged in books. Each book presents a set of open educational resources designed for a particular engineering course. The resources could include text, videos, interactive examples, or downloadable content such as code snippets.

Media Attributions

58.

Computer Engineering

Courses

[EIC225 Programmable Controllers](#) (CC BY)

This course studies the use of solid-state control equipment, primarily the programmable controller and associated solid-state sensors to control equipment, machinery or complete processes. Includes concepts of solid-state logic, characteristics of solid-state sensors; conversions of relay logic control systems to programmable control systems; and microprocessor-based systems and remote control of processes. Enables the student to design, implement and test control systems in the laboratory to meet specifically-assigned control problems. Emphasizes accuracy, safety and National Electrical Code requirements.

[Programmable Controllers](#) (CC BY)

This is an upper level course in programmable logic controllers (PLC). The course includes the following topics: PLC overview, the input/output section, processor unit, programming the devices, memory organization, ladder diagrams, numbering systems, relay instructions, beginning programming, and professionalism

Simulations

[Engineering Technology Simulations: Programmable Logic Controllers](#) (CC BY)

A series of 3D simulations on Programmable Logic Controllers.

Videos

[This History of Ladder Logic](#) (CC YouTube Licence)

Ladder Logic is the language used to program PLCs. This video gives a little background about how ladder logic came to be and gives a brief overview of how to use it.

59.

Electrical Engineering

Also see [Electricity](#) in this directory.

Collections

[Electromechanical Technology Series](#) (Public domain)

TERC, of Cambridge, Massachusetts, developed a two-year (four-semester) instructional program designed to prepare technicians for the emerging electromechanical occupations in industry. The project was was completed in August 1973, and was supported by grant funds provided by the U. S. Department of Health, Education, and Welfare. This collection includes all 16 student manuals, which are all now in the public domain and free for reuse and redistribution. Each book's materials are presented in an action-oriented format combining many of the features normally found in a textbook with those usually associated with a laboratory manual.

Courses

[Concepts of Direct Current](#) (CC BY-NC-SA)

This course provides a study of basic concepts and application of direct current (DC). Specific topics include but are not limited to: an introduction to electrical theory, units of electrical measurement, DC electrical components, and constructing various types of DC circuits. Students gain hands-on experience through various laboratory problems. Emphasis is placed on the use of scientific calculators and the operation of common test equipment used to analyze and troubleshoot DC circuits and to prove the theories taught during classroom instruction.

[Electric Motor Controls](#) (CC BY)

This course is an introduction to motor controls, including a study of the various control devices and wiring used in industrial processes. It addresses the following topics: Motor Controls, Control Devices, Wiring, Industrial Processes, Electric Motors, Relay Logic, Control Devices, Electricity, Electrical Circuit, Alternating Current, and Direct Current.

[Electric Vehicle Technology Program](#) (CC BY-NC-SA)

Learn about electric vehicle development and maintenance. Electric Vehicle students are prepared for product development positions in the automotive, communications, solar, wind turbine, and smart grid industries and service positions in the automotive industry.

[Electronics-Avionics](#) (CC BY)

This program prepares students for a career in electronics with a focus on aerospace avionics. Learn to design, build, repair, calibrate, and modify electrical components, circuitry, controls, and machinery such as industrial controls, transmitters, and antennas for aircraft.

[Introduction to Electricity/Electronics](#) (CC BY)

This course provides an introduction to fundamental concepts of the nature, production, and usage of electricity. A study of circuits with an emphasis on problem solving and component identification is also discussed. Please note that all course materials and content are provided in the IMS Common Cartridge (IMSCC) format.

[Introduction to Electronic Principles](#) (CC BY)

This introductory course is a survey of selected electrical and electronic concepts and lays the groundwork for future study in electronics. No previous electronics background is necessary, but adequate reading and writing skills are necessary and some knowledge of algebra is helpful. Topics to be covered include electrical units and quantities, electronic laws and circuit analysis, components and their function and the use of selected test equipment.

Simulations

[Engineering Technology: Electrical Motor Control Simulations](#) (CC BY)

A collection of 3-D simulations demonstrating electrical motor control.

Supplemental Materials

[Modular Electronics Learning (ModEL) project](#) (CC BY)

A collection of tutorials on topics in electricity and electronics.

[Practice Problem Worksheets](#) (CC BY)

A collection of worksheets and exams on mathematics, basic science, electricity and electronics, and instrumentation and process control.

[Worksheets](#) (CC BY)

A large collection of worksheets on the following topics: Basic Electricity, DC Electric Circuits, AC

Electric Circuits, Network Analysis Techniques, Discrete Semiconductor Devices and Circuits, Analog Integrated Circuits, Digital Circuits, and Mathematics for Electronics.

Textbooks

All About Circuits (Design Science License)

This free electrical engineering textbook provides a series of volumes covering electricity and electronics. The information provided is great for students, makers, and professionals who are looking to refresh or expand their knowledge in this field.

Continuous-Time Signals and Systems (CC BY-NC-ND)

This textbook covers continuous-time signals and systems at an introductory level appropriate for undergraduate students. This textbook has been used by the author at the University of Victoria to teach a number of undergraduate courses on continuous-time signals and systems. This text includes accompanying lecture slides.

Digital Circuit Projects: An Overview of Digital Circuits Through Implementing Integrated Circuits (CC BY)

Digital circuits, often called Integrated Circuits or ICs, are the central building blocks of a Central Processing Unit (CPU). To understand how a computer works, it is essential to understand the digital circuits which make up the CPU. This text introduces the most important of these digital circuits; adders, decoders, multiplexers, D flip-flops, and simple state machines.

Electrical Engineering (CC BY-NC-SA)

On online electrical engineering textbook make available by LibreTexts.

Exploring Microcontrollers (CC BY-NC-SA)

A website looking at microcontrollers.

Public domain books relating to Instrumentation (Public domain)

Although these textbooks are quite old, and some of the techniques described therein obsolete, these texts hold much practical value to the modern technician and engineer of instrumentation.

Signals and Systems: A Fresh Look (Not openly licensed, but free to use and share)

The following are widely recognized:

- There is a gap between what is taught at universities and what is used in industry.
- It is more important to teach how to learn than what to learn.

These were the guiding principles in developing this book. It gives an overview of the subject area

of signals and systems, discussing the role of signals in designing systems and various mathematical descriptions for the small class of systems studied. It then focuses on topics which are most relevant and useful in practice. It also gives reasons for not stressing many conventional topics. Its presentation strives to cultivate readers' ability to think critically and to develop ideas logically.

Videos

[Electronics](#) (CC BY-NC)

A collection of interactive learning objects that focus on concepts that cover a broad-based electromechanical program. Resouces are divided into the following categories: AC Electronics, Automation, DC Electronics, Digital, Generators / Distribution, Hydraulics, Ladder / PLCs, Mechanical Drives, Mechanical Linkages, Electric Motors, Pneumatics, Process Control, Safety, Sensors, Solid State, Information and Communications Technologies, and Variable Speed Drives.

[Types of Electric Motors](#) (CC YouTube Licence)

A video describing the characteristics and advantages/disadvantages of several different types of motors. Although this video does not exhaustively cover all types of motor, it covers many of the most commonly encountered motors in industry and in home use.

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60.

Industrial Engineering

Courses

Last update: Jan 1/23

[Certified Manufacturing Technologist Program](#) (CC BY)

Course documentation for Mo Manufacturing program, Certified Manufacturing Technologist which includes the classes: Manufacturing Processes, Introduction to Robotics, and Manufacturing Management.

[History of Industrial Design](#) (CC BY)

Course materials covering industrial design topics from 1750 to mid-twentieth century in areas including: collaborations between art and industry; mass production; changing patterns of consumption; advances in material processes; the social and/or technological impact of industrial design; the social and/or technological impact of industrial design on various fields including transportation, health care; consumer goods; domestic space, and the workplace.

[Materials Handling Technology](#) (CC BY)

Course materials providing an introduction to materials handling technology including modules covering the following topics: introduction to materials handling technology, materials movement, hoisting equipment, industrial robots, and integrated materials handling.

Simulations

[Industrial Automation Simulations](#) (CC BY-NC)

A collection of industrial automation simulations and videos available through Wisc-Online by Fox Valley Technical College.

Textbooks

[Classical Topics in Inventory Control [PDF]](#) (CC BY-ND)

This book is the outcome of teaching a course titled "Inventory planning and control" for several years to B.S. students. The book covers the classic topics in inventory control as well as some demand forecasting methods

[Introduction to Industrial Engineering](#) (CC BY-SA)

An introduction to industrial engineering textbook available online and as a PDF.

[Reliability Engineering: Theory and Practice [PDF]](#) (CC BY-ND)

This book, whose Persian version is written by the same author, is the outcome of teaching a course on reliability for several years to graduate students. The
main prerequisite for understanding the materials of the book is probability. The book introduces readers to reliability and availability of products.

[Simulation Modeling and Arena](#) (CC BY-NC-ND)

Discrete-event simulation is an important tool for the modeling of complex systems and is used to represent manufacturing, transportation, and service systems in a computer program to perform experiments on a computer. Simulation modeling involves elements of system modeling, computer programming, probability and statistics, and engineering design. This is an introductory textbook for a first course in discrete-event simulation modeling and analysis for upper-level undergraduate students as well as entering graduate students. The text is focused on engineering students (primarily industrial engineering); however, the text is also appropriate for advanced business majors, computer science majors, and other disciplines where simulation is practiced.

[Statistical Methods in Quality Control [PDF]](#) (CC BY-ND)

This book is the outcome of more than 30 years teaching a course titled "Statistical Quality Control" to B.S. students. The book is divided into fourteen chapters that cover the topics on statistical quality control needed for a one-semester course. Due to the importance of control charts and Acceptance Sampling Standards, most chapters of the book deal with the control charts and Standard Sampling Tables.

61.

Materials Science

Collections

[Materials Science – LibreTexts](#) (CC BY-NC-SA)

Materials science is the design and discovery of new materials. Materials scientists emphasize understanding how the processing of a material influences its properties and performance.

Courses

[Applied Statics and Strengths of Materials](#) (CC BY)

A hybrid course providing an algebra-based investigation of concepts in statics and strengths of materials. Topics include a study of fundamental mechanical properties of materials, single planar forces, properties of sections, and two-dimensional free body, shear, and bending moment diagrams.

[Engineering Materials](#) (CC BY)

This course cartridge contains material for Engineering Materials which investigates the physical and mechanical properties of engineering materials used within industry. This course will also include the study of ferrous and nonferrous metals, polymers (plastics), woods, ceramics, composites, and other advanced materials.

[Fundamentals of Materials Science](#) (CC BY-NC-SA)

This course focuses on the fundamentals of structure, energetics, and bonding that underpin materials science. It is the introductory lecture class for students in Materials Science and Engineering. Topics include: an introduction to thermodynamic functions and laws governing equilibrium properties, relating macroscopic behavior to atomistic and molecular models of materials; the role of electronic bonding in determining the energy, structure, and stability of materials; quantum mechanical descriptions of interacting electrons and atoms; materials phenomena, such as heat capacities, phase transformations, and multiphase equilibria to chemical reactions and magnetism; symmetry properties of molecules and solids; structure of complex, disordered, and amorphous materials; tensors and constraints on physical properties imposed by symmetry; and determination of structure through diffraction. Real-world applications include engineered alloys, electronic and magnetic materials, ionic and network solids, polymers, and biomaterials.

[Introduction to Polymers](#)

This course examines the use of polymers and demonstrates how their properties are controlled by their molecular structure. Students will learn how this structure determines which polymer to use for a particular product. The course also explores the manufacturing techniques used and how the use of polymerisation can be used to control the structure of polymers.

[Materials in Today's World](#) (CC BY-NC-SA)

A course that demonstrates how and why certain materials are selected for different applications, and how processing, structure, properties, and performance of materials are intrinsically linked to each other. This course introduces students, at a level accessible for a non-science student, to the basic science and technology of materials and how that knowledge can be used to understand modern materials and leads to the development of new materials.

[Materials of Engineering](#) (CC BY)

This Materials of Engineering course is a combination lecture/laboratory course deals with basic properties of metals and non-metals, including the properties and behavior that govern their selection and design. Materials covered include ferrous and non-ferrous metals, composites, plastics, ceramics, glass, wood, rubber and adhesives.

[Mechanical Behavior of Plastics](#) (CC BY-NC-SA)

This course is aimed at presenting the concepts underlying the response of polymeric materials to applied loads. These will include both the molecular mechanisms involved and the mathematical description of the relevant continuum mechanics. It is dominantly an "engineering" subject, but with an atomistic flavor. It covers the influence of processing and structure on mechanical properties of synthetic and natural polymers: Hookean and entropic elastic deformation, linear viscoelasticity, composite materials and laminates, yield and fracture.

[Mechanics & Materials](#) (CC BY-NC-SA)

This course provides an introduction to the mechanics of solids with applications to science and engineering. They emphasize the three essential features of all mechanics analyses, namely: (a) the geometry of the motion and/or deformation of the structure, and conditions of geometric fit, (b) the forces on and within structures and assemblages; and (c) the physical aspects of the structural system (including material properties) which quantify relations between the forces and motions/deformation.

[Mechanics of Materials](#) (CC BY-NC-SA)

Overview of mechanical properties of ceramics, metals, and polymers, emphasizing the role of processing and microstructure in controlling these properties. Basic topics in mechanics of materials including: continuum stress and strain, truss forces, torsion of a circular shaft and beam bending. Design of engineering structures from a materials point of view.

[Polymer Engineering](#) (CC BY-NC-SA)

This course offers and overview of engineering analysis and design techniques for synthetic polymers.

Treatment of materials properties selection, mechanical characterization, and processing in design of load-bearing and environment-compatible structures are covered.

Practical Metallurgy (CC BY)

This course offers a study of metallurgical terms and definitions in an effort to understand both the behavior of metals and their service to industry. Characteristics during heating, cooling, shaping, forming, and the stresses related to their mechanical properties are covered. The theory behind the alloys, heat treatment processes, and the impact they have on strength, toughness, hardness, elasticity, ductility, malleability, wear resistance and fatigue resistances is investigated.

Solid Mechanics (CC BY-NC-SA)

This course introduces students to the fundamental principles and methods of structural mechanics. Topics covered include: static equilibrium, force resultants, support conditions, analysis of determinate planar structures (beams, trusses, frames), stresses and strains in structural elements, states of stress (shear, bending, torsion), statically indeterminate systems, displacements and deformations, introduction to matrix methods, elastic stability, and approximate methods.

Strength of Materials (CC BY)

This course serves as an extension of Statics and includes the study of mechanical properties of materials and their limitations in engineering design by the study or stresses, strains, torsion forces, shear forces, and deflections placed upon these materials.

Journals

Oxford Open Materials Science (CC BY)

Publishes high-impact, novel research and reviews across the spectrum of the materials sciences and materials engineering encompassing theoretical/computational modelling, characteristic studies, synthesis, design, and application.

Textbooks

Applied Strength of Materials for Engineering Technology [PDF] (CC BY-SA)

This algebra-based text is designed specifically for Engineering Technology students, using both SI and US Customary units. All example problems are fully worked out with unit conversions. Unlike most textbooks, this one is updated each semester using student comments, with an average of 80 changes per edition.

Materials Science and Engineering (CC BY-NC-ND)

This text serves to provide a brief overview of some of the myriad of topics available for study in the field of Materials Science. This is by no means a comprehensive compilation of Materials Science and

Engineering topics but is instead meant as an introduction to the topic for entry-level undergraduates who want to pursue a career studying materials.

[Strength of Materials Supplement for Power Engineering](#) (CC BY)

This work complements the Applied Strength of Materials for Engineering Technology by Barry Dupen and is used in teaching Strength of Materials to Power Engineering students at the British Columbia Institute of Technology.

Videos

[Anthony Kelly: Composite Materials and Carbon Fibre](#) (CC BY)

Anthony Kelly introduces the history and science of carbon fibre and other composite materials.

[How Cold Is Cold: Examining the Properties of Materials at Lower Temperatures](#) (CC BY-NC-SA)

This video examines the properties of materials under low temperature conditions. The video consists of a series of fascinating demonstrations with liquid nitrogen, which boils at 77K (−196°C; −321°F).

[Polymers and polymeric materials polymers with special properties](#) (CC BY-NC-ND)

A video lecture on polymers and polymeric materials polymers with special properties.

[Strength of Materials](#) (CC BY-NC)

A collection of videos and simulations on the strength of materials.

Websites

[Supplemental Modules (Materials Science)](#) (CC BY-NC-SA)

A collection of modules on different topics in Materials Science.

Media Attributions

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62.

Mechanical Engineering

Courses

Hydraulics and Electrical Control of Hydraulic Systems (CC BY-NC)

Last update: May 8/23

This collection of instructional resources is intended to support teaching the "Hydraulics and Electrical Control of Hydraulic Systems" class using the flipped classroom format where lecture content is placed online and all class time is re-purposed into a hands on workshops or lab activities.

Intro to Motor Controls (CC BY)

Mechanical and electromagnetic control systems for both AC and DC systems will be studied. Ladder logic diagrams, starting and relay equipment used in control systems will be introduced.

Motor Controls (CC BY)

This course covers the following topics: Electrical Quantities, Electrical Tools, Electrical Test Instruments, Electrical Symbols and Diagrams, Control Logic, Alternating Current Motors and Transformers, Contractors and Magnetic Motor Starters, Control Devices, Timers, and Common Control Circuits.

Motors and Controls (CC BY)

This course contains materials to help the student to study, construct, test, and evaluate basic industrial control systems, including AC/DC motors, stepper motors, power sources, generators, tachometers, line diagrams and logic functions. Covers safety standards and preventive maintenance.

Images

Electronics (CC BY-NC)

A collection of interactive learning objects that focus on concepts that cover a broad-based electromechanical program. Resources are divided into the following categories: AC Electronics, Automation, DC Electronics, Digital, Generators / Distribution, Hydraulics, Ladder / PLCs, Mechanical Drives, Mechanical Linkages, Electric Motors, Pneumatics, Process Control, Safety, Sensors, Solid State, Information and Communications Technologies, and Variable Speed Drives.

Journals

[Programmable Logic Controller](#) (CC BY-NC-SA)

An open access peer-reviewed publication on programmable logic controllers. Each chapter is available for download as a PDF.

Textbooks

[Basics of Fluid Mechanics](#) (CC BY)

This book describes typical issues that are taught and covered in first year class of fluid mechanics with various example applications with many visual illustrations. The focus of the book is on effective learning and current state of the art. The presentation is built from ground up to facilitate familiarity with many concepts used in real life. The concepts are described in easy and plain terms avoiding the jargon as much as possible. The real word examples are provided engaging the readers with the material.

[Engineering Mechanics for Structures](#) (CC BY-NC-SA)

This text explores the mechanics of solids and statics as well as the strength of materials and elasticity theory. In addition to introducing the fundamentals of structural analysis, it combines and applies important concepts in engineering mechanics. Its many design exercises encourage creative student initiative and systems thinking.

[A Guide to MATLAB for ME 160](#) (CC BY-NC-SA)

This textbook provides an introduction to the MATLAB programming language for first-year mechanical engineering students enrolled in ME 160 at Iowa State University. Designed to follow the content taught in class, this book provides a supplement to in-class learning that is presented at a level that is understandable to a student with no prior experience coding. Topics include commands, MATRIX operations, writing scripts, graphing in MATLAB, graphical user interface, functions and function handles, inputting and outputting data, and projects.

[Introduction to Mechanical Engineering Design](#) (CC BY-SA)

A collection of readings and exercises aligned with the course, ME 270, Introduction to Mechanical Engineering Design, at Iowa State University. This course provides an overview of mechanical engineering design with applications to thermal and mechanical systems, and an introduction to current design practices used in industry. As part of the course design, learners will complete a semester-long team project focused on addressing societal needs.

Videos

[Fluid Mechanics Video Series](#) (CC BY-NC)

A collection of YouTube videos on different topics related to fluid mechanics.

63.

Thermodynamics / Thermal Power Plant

Simulations

[Sim Labs for Thermodynamics and Thermal Power Plant Simulator](#) (CC BY)

This Simulator laboratory (SIMLAB) book was created to provide ancillary resources for Thermodynamics and Thermal Power Plant Simulator courses. It is intended to act as a collection of exercises to help students merge the theory covered in the classroom with the practice performed in the labs.

Media Attributions

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Fine Arts

Subjects and Disciplines
This section includes: • [Fine Arts – General](#) • [Design](#) • [Fashion](#) • [Film and Video](#) • [Graphics and Animation](#) • [Music](#) • [Photography](#) • [Theatre](#) • [Visual Arts](#)

Also see [Fine Arts](#) in the "Books under consideration" section of this directory. [Books open for review](#) and [Books scheduled to be added to the collection](#) may also contain resources.

64.

Fine Arts - General

Collections

[OER by Subject: Art](#) (Various CC licences)

A list of art-related open educational resources collected by the Bethel University Library.

[OER by Subject: Art and Art History](#) (Various CC licences)

A list of art-related open educational resources collected by the Washtenaw Community College Library.

Textbooks

[Interpreting Love Narratives in East Asian Literature and Film](#) (CC BY-NC)

This book explores the role of traditional East Asian worldviews, ethical values, and common practices in the shaping of East Asian narratives in literature and film. It offers a specific method for this analysis. The interpretive goal is to arrive at interpretations that more accurately engage cultural information so that narratives are understood more closely in terms of their native cultural rather than that of the reader/interpreter.

[Introduction to Art: Design, Context, and Meaning](#) (CC BY-SA)

This textbook offers a comprehensive introduction to the world of Art. Authored by four USG faculty members with advance degrees in the arts, this textbooks offers up-to-date original scholarship. It includes over 400 high-quality images illustrating the history of art, its technical applications, and its many uses. It introduces such issues in art as its meaning and purpose; its meaning and purpose; its structure, material, and form; and its diverse effects on our lives.

Websites

[Open Art Histories](#) (Various CC licences)

A platform for art, art history, visual art, communication, and museum studies teachers and instructors in Canada.

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65.

Design

Courses

[Visual Design](#) (CC BY-NC-SA)

Last update: Sep 6/22

In this mini-course, students learn to analyze and produce effective printed documents, such as technical reports, proposals, and software documentation. To guide their learning, students are introduced to the basics of visual communication design and typography through a series of audio-visual explanations that describe and illustrate key concepts and vocabulary, self-assessments that verify the understanding, and hands-on exercises with individualized feedback that provide opportunities to try out what they learned.

Guides

[Inclusive Design Guide](#) (CC BY)

Created by the Inclusive Design Research Centre at OCAD University, the Inclusive Design Guide can be applied to digital design as well as to the design of services, the built environment, and physical products. It can be applied to processes like workshops, meetings, conferences, and even our daily interactions with one another. It can be used by anyone.

[Inclusive Learning Design Handbook](#) (CC BY)

The Floe Inclusive Learning Design Handbook created by the Inclusive Design Research Centre at OCAD University is designed to assist teachers, content creators, Web developers, and others in creating adaptable and personalizable educational resources that can accommodate a diversity of learning preferences and individual needs.

Monographs

[Task-Centered User Interface Design](#) (Non-commercial, no derivatives — see [Shareware notice](#))

The central goal of this book is to teach the reader how to design user interfaces that will enable people to learn computer systems quickly and use them effectively, efficiently, and comfortably. The interface issues addressed are primarily cognitive, that is, having to do with mental activities such as perception, memory, learning, and problem solving.

Textbooks

[Digital Foundations](#) (CC BY-NC)

This book was written by two artist educators who teach digital art and design studio foundation classes. While teaching classes that take place in software laboratories, we noticed that many of our students expected to learn to use software, but gave little consideration to aesthetics or art and design history. A typical first day question is, "Are we going to learn Photoshop in this class?" This book is a mash-up of the Bauhaus Basic Course and open source software such as Inkscape, Gimp, Firefox, and Processing. We have taken some of the visual principles and exercises from the Bauhaus Basic Course and adapted them into exercises for these applications.

[Design Thinking](#) (CC BY-NC-SA)

Design thinking is a methodology for creative problem solving. It's a structured and cyclical approach to generating and evolving ideas. It has five phases that help navigate the development from identifying a design challenge to finding and building a solution. Those phases include: empathizing, defining the problem, ideating solutions, prototyping ideas, and testing with users.

[Interaction Design Foundation Resources](#) (CC BY-ND, but licences may vary)

A collection of open source textbooks on UX design.

[Tutorials of Visual Graphic Communication Programs for Interior Design](#) (CC BY-NC)

This book is for the beginning level of both architecture and interior design students who learn computer graphic communication software. The author developed multiple tutorials to teach three computer graphic applications, AutoCAD, Revit, and Enscape. AutoCAD is an essential computer drafting software which is 2D drawing software. Revit is a Building Information Modeling software, which is 3D based modeling software. Lastly, Enscape is a real-time rendering, animation, and virtual reality plug-in for users' 4D experiences.

[Tutorials of Visual Graphic Communication Programs for Interior Design 2](#) (CC BY-NC)

This book is for advanced-level architecture and interior design students who have in-depth knowledge and skills with computer-aided visualization software. The author developed a total of twenty-two chapters to teach practical graphic presentation techniques for architectural presentations. Readers will learn these techniques by following step-by-step tutorials. This book includes multiple exercises for the reader's practice. After completing the tutorials, readers will be able to apply these techniques to their design projects. This book contains a total of 22 Illustrator, Painter, Revit, SketchUp, Lumion, Photoshop, and Premiere tutorials for conceptual diagramming, hybrid digital drawing, advanced modelling, rendering, and animations.

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66.

Fashion

Collections

[Fashion History Timeline](#) (CC BY-NC-SA)

An open-access source for fashion history knowledge, featuring objects and artworks from over a hundred museums and libraries that span the globe. The *Timeline* website offers well-researched, accessibly written entries on specific [artworks](#), [garments](#) and [films](#) for those interested in fashion and dress history.

Textbooks

[21st Century Queer Fashion Brands: Oral History Project](#) (CC BY-NC-SA)

In the early part of the 21st century, several LGBTQIA+ focused clothing brands emerged on the market. The purpose of this project is to document the history of each brand using the [oral history method](#). We conducted oral histories with 24 brands with questions ranging from their own personal histories to how and why they started the brand.

[Queer Fashion and Style: Stories from the Heartland](#) (CC BY-ND)

This exhibition catalog analyzes the recent history of fashion through a queer lens by examining how queer identities are negotiated in everyday styles by women in the Midwest part of the United States from the late twentieth century to the present.

[stitched](#) (CC BY-NC-SA)

Within the fashion, sewing, and textile classrooms it is a challenge to find a textbook on the topic of sewing that covers the range of skills and techniques. Typically to supplement student learning, handouts will be utilized along with in-class, and in-person demos. This OER will enable educators to continually update the resource to meet current student needs, learning outcomes, and reflect best practices within the apparel and fashion industry. It contains details and step-by-step instructions, supported with images, videos, and text.

67.

Film and Video

Collections

[Theater & Film – LibreTexts](#) (Various CC licences)

Last update: Mar 30/23

Courses

[Do-It-Yourself Film School Online Course](#) (CC BY-NC)

This course will teach you the basics of how to get the most out of shooting video with your mobile device. It will help you get to grips with the basics of shooting video, such as how to orientate your camera, and how to avoid shaky footage; understand the 'rule of thirds', and how to use it; the importance of lighting, including scenarios for filming outdoors and indoors; and how to get the best audio, and why sound is often more important than video.

[Film Aesthetics](#) (CC BY)

This open set of course materials for Film Aesthetics is a downloadable version of a course created for a learning management system. Included are learning modules and a quiz bank based on introductory film concepts including the following topics: Narrative structure and motifs, mise-en-scene, cinematography, sound design, music, and visual effects.

Software

[Shotcut](#) (GNU GPL)

This is a free, open source, cross-platform video editor for Windows, Mac and Linux. Major features include support for a wide range of formats; no import required meaning native timeline editing.

Textbooks

[Film Appreciation](#) (CC BY)

This open textbook was developed with funding from an Affordable Learning Georgia Textbook Transformation Grant. It is dedicated to the remarkable faculty and students of the Communication, Media, and Journalism department at the University of North Georgia.

[Interpreting Love Narratives in East Asian Literature and Film](#) (CC BY-NC)

This book explores the role of traditional East Asian worldviews, ethical values, and common practices in the shaping of East Asian narratives in literature and film. It offers a specific method for this analysis. The interpretive goal is to arrive at interpretations that more accurately engage cultural information so that narratives are understood more closely in terms of their native cultural rather than that of the reader/ interpreter.

[Moving Pictures: An Introduction to Cinema](#) (CC BY-NC-SA)

A free and open-source introduction to the art and science of moving pictures, offering in-depth exploration of how cinema communicates, and what, exactly, it is trying to say.

68.

Graphics and Animation

Courses

[ART 323: Color Theory Course Pack](#) (CC BY)

Last update: Oct 27/23

This course covers studio problems in the use and understanding of color and its application to works of art, interior design and graphics, basics of color theory, and color interchange. It also includes image and composition as related to the use of color both functionally and creatively.

Software

[Blender](#) (GNU GPL)

This software is a free and open source 3D creation suite. It supports the entire 3D pipeline—modeling, rigging, animation, simulation, rendering, compositing and motion tracking, video editing and 2D animation pipeline.

Textbooks

[Computer Graphics and Computer Animation: A Retrospective Overview](#) (CC BY-NC-ND)

This book was developed in an attempt to maintain in one location the information and references that point to the many important historical developments of the short life of the computer graphics world as we know it.

[Digital Photography for Graphic Communications](#) (CC BY)

The purpose of this book is to serve as a reference for a one-semester course in digital photography for graphic communications. Since digital cameras have mostly replaced colour scanners, graphic communicators need to capture images for use in magazines, catalogs, brochures, packages, signs, banners—all forms of printed materials—and also for eBooks, web sites, and apps. It is based on a 2009 print book by the authors that was called *Digital Photography for Print* and published by the Printing Industries of America (PIA) Press.

Workshops

[Gif It Up – Create your own Gifs](#) (CC BY)

This workshop was created to provide an introduction to creating GIFs from openly licensed and public domain, museum, library, and archival materials. This workshop includes a series of guides to take anyone through the steps to create GIFs using images, videos, and materials from University of Edinburgh museum, library, and archival materials (or anywhere else that provides openly licensed content).

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69.

Music

Also see [Music OER](#) in development.

[Music Appreciation](#): This document maps OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/competencies or items for this course (MUS 120, Colorado).

Audio

Last update: Apr 6/23

[Bach's Open Goldberg Variations](#) (CC0)

The Open Goldberg Variations (Johann Sebastian Bach, BWV 988), played by Kimiko Ishizaka on a Bösendorfer 290 Imperial piano, are free to download and share.

Courses

[Art and Music Since 1945](#) (CC BY)

This open website is used for a course on Art and Music since 1945 offered at The Ohio State University. The website contains a [collection of biographies of artists and musicians](#), a [sample syllabus](#), and [assignments](#). Its companion textbook is meant to be *A Quick and Dirty Guide to Art, Music, and Culture*, which is posted below.

Textbooks

[Brass Techniques and Pedagogy](#) (CC BY-NC-SA)

Textbook for undergraduate brass methods course focusing on brass instrument techniques and pedagogy.

[Comprehensive Musicianship, A Practical Resource](#) (CC BY-NC-SA)

(Also see [Aural Training and Sight Singing Supplement for Comprehensive Musicianship, A Practical Resource)](#)

This book presents an integrated suite of learning resources developed for the core music theory and musicianship curriculum at the University of Northern Iowa School of Music. It provides a more comprehensive symbiosis of musicianship and music theory learning than can be found in existing textbooks, including engaging and progressive video demonstrations and interactive listening and vocal exercises that integrate musical knowledge with foundational musical skills.

[Fundamentals, Function, and Form](#) (CC BY-NC)

This text provides readers with a comprehensive study of the theory and analysis of tonal Western art music. Author Andre Mount begins by building a strong foundation in the understanding of rhythm, meter, and pitch as well as the notational conventions associated with each. From there, he guides the reader through an exploration of polyphony—the simultaneous sounding of multiple independent melodies—and an increasingly rich array of different sonorites that grow out of this practice. The book culminates with a discussion of musical form, engaging with artistic works in their entirety by considering the interaction of harmonic and thematic elements, but also such other musical dimensions as rhythm, meter, texture, and expression.

[Music Appreciation](#) (CC BY-NC-ND)

For the course that this text accompanies the goals for each student are: To gain basic exposure to the elements of music and their treatment in music, to learn historical and cultural signifiers in a diverse body of music, to approach listening to music actively/analytically and to reflect on the experience, to understand the factors that contribute to musical style in their own music and music presented in the course, to gain knowledge about differing musical aesthetics and trends, and to become more knowledgeable and sensitive to varied human expression through music.

[Music Theory for the 21st-Century Classroom](#) ([GNU Free Documentation License](#))

This is an openly–licensed online four–semester college music theory textbook. It differs from other music theory textbooks by focusing less on four–part (SATB) voiceleading and more on relating harmony to the phrase. Also, in traditional music theory textbooks, there is little emphasis on motivic analysis and analysis of melodic units smaller than the phrase.

[Open Music Theory: Version 2](#) (CC BY-SA)

This is an open-source, interactive, online "text"book for college-level music theory courses.

[A Quick and Dirty Guide to Art, Music, and Culture](#) (CC BY)

An open textbook by The Ohio State University that discusses art and music in the context of popular culture. It is meant to work with the open course *Art and Music Since 1945*, which is posted above.

[Resonances: Engaging Music in Its Cultural Context](#) (CC BY-SA)

Although this book is intended primarily for use in the college music appreciation classroom, it was designed with consideration for independent learners, advanced high school students, and experienced musicians. That is to say, it includes enough detail that expert guidance is not required and is written using broadly-accessible language. At the same time, it addresses advanced topics and positions music as a serious object of study.

[Sight-Reading for Guitar: The Keep-Going Method Book and Video Series](#) (CC BY)

This book teaches guitar players from all musical backgrounds to understand, read, and play modern staff notation in real time. The Keep-Going Method is designed to impart the knowledge, skills and attitudes needed for sight-reading with efficiency, fun and encouragement.

[Soul Music Odyssey USA 1968 – 2nd ed](#) (CC BY-NC-SA)

This is from the author's research trip 1968 (plus a little from 1978). The first version was basically a translation of articles written in Swedish and originally published in the Swedish magazine *Jefferson* (world's oldest blues magazine) plus a summary. It was published online by York University Libraries in 2017. This edition includes illustrations and corrections.

[Understanding Music: Past and Present](#) (CC BY-SA)

Understanding Music: Past and Present is an open Music Appreciation textbook co-authored by music faculty across Georgia. The text covers the fundamentals of music and the physics of sound, an exploration of music from the Middle Ages to the present day, and a final chapter on popular music in the United States.

Videos

[Acoustics](#) (CC BY)

A set of four videos on acoustics.

[Piano video playlists by Dr. Janci Bronson](#) (CC BY)

- [Piano lesson series](#)
- [Piano level 1](#)
- [First week learning piano](#)
- [Chord improvisation](#)
- [Name piano keys](#)
- [Piano techniques](#)
- [Sight reading strategies](#)

70.

Photography

Software

[Gimpshop](#) (GNU GPL)

This a photo and image editing software, similar to Photoshop.

Last update: Mar 16/23

Textbooks

[Digital Photography for Graphic Communications](#) (CC BY)

The purpose of this book is to serve as a reference for a one-semester course in digital photography for graphic communications. Since digital cameras have mostly replaced colour scanners, graphic communicators need to capture images for use in magazines, catalogs, brochures, packages, signs, banners—all forms of printed materials—and also for eBooks, web sites, and apps. It is based on a 2009 print book by the authors that was called *Digital Photography for Print* and published by the Printing Industries of America (PIA) Press.

[Photography: What, How, Why](#) (CC BY)

A *beginner's* guide to the process of black and white 35mm analog film photography in which the picture-taking process, film development, and darkroom printing are explained.

Videos

[Exposure Overview](#) (CC BY)

Detailed tutorial on photographic exposure. Made with support from Oregon Open Education Resources.

[Exposure: Aperture](#) (CC BY)

Detailed tutorial on how Aperture functions and contributes to photographic exposure. Made with support from Oregon Open Education Resources.

[Exposure: ISO](#) (CC BY)

Detailed tutorial on how ISO functions and contributes to photographic exposure. Made with support from Oregon Open Education Resources.

[Exposure: Shutter](#) (CC BY)

Detailed tutorial on how Shutter functions and contributes to photographic exposure. Made with support from Oregon Open Education Resources.

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71.

Theatre

Collections

[Theater & Film – LibreTexts](#) (Various CC licences)

Supplemental Materials

[Improvisation Recipe Book](#) (CC BY)

The following recipes, or games, are intended to be used as reference and study for an improvisation. course This format has been set up to help with ease of quick learning and immediate application.

[Introduction to Theater – Learning Resources](#) (CC BY)

The purpose of this book is to provide open educational resources for those who study theater.

[Storytelling on Screen: An Online Playback Theatre Archive and Guidebook](#) (CC BY-NC-SA)

Playback Theatre is a form of community-centered storytelling theater where the audience tells stories, which are then reflected by a company of actors and musicians. This resource consists of a collection of full-length recordings of online Playback Theatre performances, and a 55-page explanatory guidebook. The guidebook explains the adaptation to online performances and some of the key concepts, roles, and forms involved in online Playback Theatre. The resource as a whole is suitable for a wide range of theatre students in courses such as applied theatre, theatre for social justice, improvisation, theatre appreciation, or acting. The guidebook contains hyperlinks to specific sections of the archive where students can see a given form or concept in action, allowing for a comparison of how different companies approach a given form.

Textbooks

[Actors and the Art of Performance](#) (CC BY)

This textbook opens with a cascade of contradictory motives for becoming an actor. These motives converge in the particular fascination of theater, in which ethics are realized in the aesthetic.

[An Introduction to Technical Theatre](#) (CC BY-NC)

An Introduction to Technical Theatre draws on the author's experience in both the theatre and the classroom over the last 30 years. Intended as a resource for both secondary and post-secondary theatre courses, this text provides a comprehensive overview of technical theatre, including terminology and general practices.

[Film Appreciation](#) (CC BY)

This textbook covers film appreciation both analyzing film form and film style. The elements of film form are the building blocks of cinema: all of the tools that a filmmaker has at her disposal to tell her story.

[La France Sauvée ou le Tyran Détrôné: A Dramaturgical Casebook](#) (CC BY-NC-SA)

This is a dramaturgical casebook on La France Sauvée, an unfinished play by Olympe de Gouges, translated by Clarissa Palmer, with contextual information on the French Revolution.

[Technical Theatre Practicum](#) (CC BY)

Welcome to the exciting world of technical theatre. Studying this topic can lead to many different careers in several different sectors of the economy. The general skills needed for any of the careers or sectors have many things in common. Workers need to be deadline-coriented, as most productions have firm timelines that cannot be altered.

[The Theatre of Shelley](#) (CC BY-NC-ND)

A full-length study of Shelley's plays that covers Shelley's role as a playwright and dramatist and contains chapters on each of Shelley's dramatic works

[Theatre and War: Notes from the Field](#) (CC BY)

A book by Nandita Dinesh offering a description of her own experiences in conflict zones across the world to offer a theoretical and practical reflection on making theatre in times of war.

[Theatrical Worlds](#) (CC BY-NC-ND)

A textbook providing an introduction to theatre, including theatrical production and special topics in theatre.

Videos

[Shakespeare in China](#) (CC BY)

The seminar 'Shakespeare in China – A conversation with Lin Zhaohua' is a series of videos covering the event was held by the Confucius Institute for Scotland as part of the Edinburgh International Festival in 2013. The seminar was dual-language with both English and Chinese being translated by participants.

Websites

[Howlround Theatre Commons](#) (CC BY)

A free and open platform for theatre makers worldwide. We amplify progressive, disruptive ideas about theatre and facilitate connection between diverse practitioners. We function as a "commons" — a social structure that invites open participation around shared values.

72.

Visual Arts

Art Appreciation: This document maps OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/competencies or items for this course (ART 110, Colorado).

Courses

Last update: Jun 9/23

Art Appreciation (Various CC licences)

This course from Lumen Learning investigates how quality is determined and created by artists in order to evaluate and appreciate art on a deeper level, and emphasizes why each topic contributes to valuing a piece of art and provides the necessary knowledge to do so. Students are first introduced to the elements and principles of art and the importance of artists' context and perspective. The course then covers different periods in art history, different techniques in art, and how to research and evaluate art.

Art Appreciation (CC BY)

This course, from Saylor, is an exploration of visual art forms and their cultural connections across historical periods, designed for the student with little experience in the visual arts. It includes brief studies in art history, and in-depth inquiry into the elements, media and methods used in a wide range of creative processes.

Art Appreciation (CC BY-NC-SA)

From East Tennessee State University, this course explores the world's visual arts, focusing on the development of visual awareness, assessment, and appreciation by examining a variety of styles from various periods and cultures while emphasizing the development of a common visual language. The materials are meant to foster a broader understanding of the role of visual art in human culture and experience from the prehistoric through the contemporary.

Art History I (Various CC licences)

This course is from Lumen Learning, and offered through SUNY.

Introduction to Art Concepts (Various CC licences)

This course is from Lumen Learning.

Supplemental Materials

[The Greats](#) (CC BY-NC-SA)

A free vault with carefully curated socially engaged visual content open to anyone to use or adapt non-commercially. The Greats is a project of [Fine Acts](#) – a non-profit creative studio for global social impact.

[WISC-Online Visual Arts Learning Objects](#) (CC BY-NC)

A collection of learning objects on topics related to visual arts.

Textbooks

[The Bright Continent: African Art History](#) (CC BY-NC-SA)

This book aims to act as your map through the world of African art. As such, it will help you define the competencies you need to develop–visual analysis, research, noting what information is critical, asking questions, and writing down your observations–and provide opportunities for you to practice these skills until you are proficient. It will also expose you to new art forms and the worlds that produced them, enriching your understanding and appreciation.

Websites

[Art History Teaching Resources](#) (CC BY-NC)

AHTR is a peer-populated platform for art history teachers and home to a constantly evolving and collectively authored online repository of art history teaching content including, but not limited to, lesson plans, video introductions to museums, book reviews, image clusters, and classroom and museum activities. The site promotes discussion and reflection around new ways of teaching and learning in the art history classroom through a peer-populated blog, and fosters a collaborative virtual community for art history instructors at all career stages.

[ArtxHistory](#) (CC BY-NC-SA)

An educational resource of commonly available images, videos, mini-lectures and scholarship of the decades which influenced or defined the mid-century through contemporary art. Most links are concise in content, of prevalent works of art in the early or mature stage of an artist's career, sourced from museum, academic, journalistic and for profit institutions. The core intent is to offer an art history that replaces the dominant white, male, heteronormative, advantaged, celebrity narratives for a more inclusive history balanced with the work of women, artists of color, LGBTQIA+ persons, intersectional makers, and the self-taught.

XI

Health, Medical, and Social Work

Subjects and Disciplines

This section includes:

- [Health and Medical – General](#)
- [Addiction](#)
- [Dentistry](#)
- [Genetics](#)
- [Health Records and Technology](#)
- [Hematology](#)
- [Immunology](#)
- [Kinesiology](#)
- [Medical Terminology](#)
- [Mental Health, Dementia](#)
- [Nursing](#)
- [Nutrition and Dietetics](#)
- [Pathology](#)
- [Pharmacology](#)
- [Physical Activity](#)
- [Physiotherapy](#)
- [Public Health](#)
- [Pulmonary/Respiratory](#)
- [Social Work](#)
- [Speech Therapy](#)
- [Surgical](#)
- [Veterinary Medicine](#)

See [Health, Medical, and Social Work](#) in the "Books under consideration" section of this directory. [Books open for review](#) and [Books scheduled to be added to the collection](#) may also contain resources.

Also see the following chapters in the [Science](#) section:

- [Anatomy and Physiology](#)
- [Histology](#)
- [Microbiology](#)
- [Neuroanatomy](#)

73.

VIRTUAL LABS and SCIENCE RESOURCES

For labs and related resources, see [Biology](#) in the *Virtual Lab and Science Resource Directory*.

74.

Health and Medical - General

Also see Health and Medical (General) and Health Sciences OER in development.

Case Studies

Last update: Aug 18/23

Health Case Studies (CC BY-SA)

Health Case Studies is composed of eight separate health case studies that align with the open textbooks Clinical Procedures for Safer Patient Care and Anatomy and Physiology: OpenStax. Each case study includes the patient narrative or story that models the best practice (at the time of publishing) in healthcare settings.

Collections

IntechOpen: Health Sciences (CC BY)

Courses

Cancer Registration & Surveillance Modules (Public domain)

The *Cancer Registration & Surveillance* modules provide information needed by cancer registry staff and others interested in collecting and recording the most complete and accurate cancer data possible. The modules cover information on: registries and their operations, basic anatomy and medical terminology, cancer tests and treatments, coding and staging standards for cancer registration, and casefinding and follow-up.

JHSPH Open Courseware (CC BY-NC-SA)

A collection of open public health courses and materials.

Data

[Edinburgh DataShare: College of Medicine & Veterinary Medicine](#) (Various CC licences)

A digital repository of research data produced at the University of Edinburgh by the College of Medicine & Veterinary Medicine.

Images

[Bio-Image Search](#) (Various CC licences)

This data, from Stanford University School of Medicine, enables discovery of biomedical images, aggregated from many image sources, with Public Domain and Creative Commons licences. Results are displayed in four groups, from broadest reuse rights to most limited reuse rights.

[Genetics Home Reference](#) (Public domain)

A gallery of illustrations related to genetic conditions.

[JHSPH Open Images](#) (CC BY-NC-SA)

A collection of open images organized by subjects relating to public health.

[Open Access Biomedical Image Search Engine](#) (Various CC licences)

Open-i service of the National Library of Medicine enables search and retrieval of abstracts and images (including charts, graphs, clinical images, etc.) from the open source literature, and biomedical image collections.

Journals

[Emerging Infectious Diseases](#) (Public domain)

All volumes from the journal *Emerging Infectious Diseases* published from 1995 to the present.

[Environmental Health Perspectives](#) (Public domain)

All volumes from the journal *Environmental Health Perspectives* published from 1972 to the present.

[Preventing Chronic Disease](#) (Public domain)

All volumes from the journal *Preventing Chronic Disease* published from 2004 to the present.

Supplemental Materials

[LGBT+ Healthcare 101](#) (CC BY)

Digital story interviews with LGBT+ volunteers, 'LGBT+ Healthcare 101' presentation, and a secondary school resource, created by and for University of Edinburgh medicine students. The resources were created as part of a project to address a lack of awareness and knowledge of LGBT+ health, and of the sensitivities needed to treat LGBT patients as valuable skills for qualifying doctors.

[Surgery 101](#) (CC BY-NC-SA)

A collection of videos and podcasts relating to different topics in surgery.

[WISC-Online Medical Terminology](#) (CC BY-NC)

A collection of learning objects and activities relating to medical terminology.

Textbooks

[Building a Medical Terminology Foundation](#) (CC BY)

Targeted at health office administration and health services students in the first year of their college programs, this textbook focuses on breaking down medical terms into their word parts, pronouncing medical terms, and learning the meaning of medical terms within the context of introductory anatomy and physiology.

[Career Cornerstones: Establishing a Foundation for a Career in Healthcare](#) (CC BY-NC-SA)

This textbook focuses on career skills required for students entering their respective health profession's program. This book is designed to help students be successful not only in their health profession's educational program, but also as they start to intern or work in healthcare settings. This resource is targeted for Healthcare Administration, Health Sciences, and Pre-Professional students.

[Cell Biology, Genetics, and Biochemistry for Pre-Clinical Students](#) (CC BY-NC-SA)

An undergraduate medical-level resource for foundational knowledge across the disciplines of genetics, cell biology and biochemistry. This text is designed for a course in first year undergraduate medical course that is delivered typically before students start to explore systems physiology and pathophysiology.

[A clinical educator's guide to understanding and facilitating the clinical reasoning process](#) (CC BY-NC)

Developing Clinical Reasoning is an important part of the training of Undergraduate Health and Rehabilitation students. However, a lack of consensus amongst Educators on how to facilitate this, often hampers student progress. This booklet was designed to give Clinical Educators a brief overview on strategies to assist students in developing Clinical Reasoning. Based on the 'Making thinking Visible'

approach, it guides Clinical Educators in how to make their own reasoning processes more explicit to students, so that they can learn from their more expert thinking practices.

[Concepts of Fitness and Wellness](#) (CC BY-NC-SA)

The textbook covers a broad area of fitness and wellness, and it includes physiological, behavioral, psychological, and biomechanical domains. The content covered is suitable for students being introduced to the field, such as those taking an introductory Kinesiology course.

[Enabling and Optimising Recovery from COVID-19](#) (CC BY-NC)

This textbook provides readers with up to date knowledge about the assessment, management and support of people experiencing Long COVID. Learning activities draw upon personas co-authored with people with Long COVID.

[Exploring the U.S. Healthcare System](#) (CC BY-NC-SA)

This book introduces undergraduate students in the field of healthcare to foundational characteristics of the U.S. healthcare system. It begins with an overview of the healthcare system that includes a brief history and a description of the current state of health in the U.S.

[Foundations of Epidemiology](#) (CC BY-NC)

A textbook that provides an introduction to to topics and methods of studying human health.

[Introduction to Health](#) (CC BY-SA)

This book provides a broad overview of information pertaining to human health and opportunities for improving health and wellness throughout life. The intended goal of the book is to equip the learners with important information needed to better understand their own health and how their daily choices may impact both their quantity and quality of life. Although this is a "health" textbook, it could actually be called a "life" textbook. The textbook is structured into two parts: the first part contains text-heavy chapters, and the second part contains continued learning for each chapter, such as videos and reflection questions.

[Medical LibreTexts Library](#) (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources relating to topics in medicine.

[Medical Terminology for Healthcare Professions](#) (CC BY)

This textbook focuses on breaking down, pronouncing, and learning the meaning of medical terms within the context of anatomy and physiology. This resource is targeted for Healthcare Administration, Health Sciences, and Pre-Professional students.

[Leadership in Healthcare and Public Health](#) (CC BY)

This book is a reflection of a diverse group of graduate students from health services, health

management, health professions and a diverse group of mid-career professionals engaged in obtaining a Master of Public Health at The Ohio State University College of Public Health.

["Overweight" Bodies, Real and Imagined](#) (CC BY-NC-SA)

This compilation has several purposes. It is meant to gather OER sources on health literacy related to body weight, nutrition, and movement, and it is meant to problematize the cultural meaning of these readings. Roughly, this anthology is divided into two parts—informational and theoretical–but the two parts inform each other as parts of a larger conceptual discussion of how medical research and journalism influence and are influenced by social stereotypes, constructed ideas about bodies, food, and individual choices within social systems.

Videos

[WISC-Online Health Science](#) (CC BY-NC)

A collection of videos relating to health science.

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75.

Addiction

Also see [Addiction OER](#) in development.

Journals

[Addiction Science & Clinical Practice](#) (Public domain)

All volumes of the journal *Addiction Science & Clinical Practice* from 2007 to the present.

Textbooks

[Foundations of Addition Studies](#) (CC BY-NC-SA)

This book introduces addition key terminology and research help that define, discuss, diagnose, and deal with this problem. The material is organized so that each chapter focuses on a different theme related to addiction. Within each chapter are multiple sub-parts where you will find an introductory reading, a video, an article, an activity, questions for discussion, and a short quiz. Some sections also include slide presentations for you to view.

76.

Dentistry

Collections

[Dentistry-related resources [Excel file]](#) (Various CC licences)

A list of dentistry-related resources with a number that are designed specifically for dental hygienists. Resources include textbooks, courses, videos, and more.

<div style="border: 1px solid black; padding: 10px;">
Last update: Jun 27/22
</div>

Supplemental Materials

[Oral Health Education Tool](#) (CC BY-SA)

This is a series of four community health booklets on preventative dental care. The goal behind this collaborative initiative effort was to develop a culturally appropriate oral health educational tool for immigrant communities.

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77.

Genetics

Supplemental Materials

[Chemical Biology & Biochemistry Laboratory Using Genetic Code Expansion Manual](#) (CC BY-NC)

From Oregon State University.

Downloadable images (CC BY-SA)

- [Chromosome terminology](#)
- [DNA helicase, DNA replication](#)
- [DNA ligase, DNA replication](#)
- [DNA polymerase, DNA replication](#)
- [Egg and Sperm](#)
- [Independent assortment](#)
- [Messenger RNA – simple](#)
- [Multiple ribosomes translation, protein synthesis](#)
- [Rough ER close up](#): Showing a ribosome creating a polypeptide which is folded into a secondary structure in the lumen of the rER
- [Synapsis and Crossing Over with Labels](#)
- [Synapsis and Crossing Over No Labels](#)
- [Transcription and translation](#)
- [Types of RNA](#)

Textbooks

[Cell Biology, Genetics, and Biochemistry for Pre-Clinical Students](#) (CC BY-NC-SA)

An undergraduate medical-level resource for foundational knowledge across the disciplines of genetics, cell biology and biochemistry. This text is designed for a course in first year undergraduate medical course that is delivered typically before students start to explore systems physiology and pathophysiology.

[Crop Genetics](#) (CC BY-NC)

This book provides an introduction to the genetic concepts of reproductive systems, recombination, mutation, segregation and linkage analysis, inbreeding, quantitative inheritance, fertility regulation, population genetics and polyploidy.

[Genetics, Agriculture, and Biotechnology](#) (CC BY-NC-SA)

This textbook provides an introduction to plant genetics and biotechnology for the advancement of agriculture. A clear and structured introduction to the topic for learners new to the field of genetics, the book includes: an introduction to the life cycle of the cell, DNA and how it relates to genes and chromosomes, DNA analysis, recombinant DNA, biotechnology, and transmission genetics.

[Open Genetics](#) (CC BY-NC-SA)

Covering the pioneering work of Gregor Mendel, this textbook investigates the interactions between and amongst genes, and how these interactions can be used to map biochemical pathways and the order of genes on chromosomes.

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78.

Health Records and Technology

Courses

[Health Information Technology Foundations](#) (CC BY-NC-SA)

Health Information Technology Foundations offers an overview of healthcare, health information technology, and health information management systems. The focus is on the role and responsibilities of entry-level health IT specialists in each phase of the health information management systems lifecycle.

Last update: Feb 2/21

Medical Record Systems

[Educational Electronic Health Record-EdEHR](#) (CC BY)

Designed for medical education programs that seek a Canadian system that is focused on the student experience. EdEHR is suitable for all health care programs including, but not limited to, nursing, medicine, pharmacy, physiotherapy and more. EdEHR can be connected with many learning management systems including Moodle, Canvas, Blackboard, and other [LTI](#) compliant learning systems.

[OpenEMR](#) ([GNU GPL](#))

An open source electronic health records and medical practice management software with over 30 supported languages includes scheduling, e-prescribing, and medical billing.

[Open MRS](#) (CC BY)

The global OpenMRS community works together to build the world's leading open source enterprise electronic medical record system platform.

[OSCAR-EMR](#) ([GPL Version 2](#))

Created by [Dr. David Chan](#) and McMaster University's Department of Family Medicine in 2001.

[SEHRA – Sunshine Electronic Health Record Academic Simulation](#) (CC BY)

An educational simulation of an electronic health records system using Access 2019 as the development platform. Piloted in December of 2019, SEHRA was successfully implemented in January of 2020.

SEHRA continues to grow and is currently used in on-campus laboratories, remote courses, and for professional practice experience.

[WorldVistA](#) ([GNU GPL](#))

This system was originally developed by the U.S. Department of Veterans Affairs for use in its veterans hospitals, outpatient clinics, and nursing homes. WorldVistA has a number of development efforts aimed at adding new software modules such as pediatrics, obstetrics, and other functions not used in the veterans' healthcare setting.

Tools

[SuperTracker](#) (CC0)

The source code and foods database for SuperTracker, which was an online tool offered by USDA (2011-2018) that helped users track diet, physical activity and weight. SuperTracker provided a personalized plan based on the 2015-2020 Dietary Guidelines for Americans for what they should eat and drink and guided users to making better choices.

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79.

Hematology

Labs

Clinical Hematology Atlas: A Pictorial Guide for the Hematology Laboratory (CC BY-NC-SA)

Last updated: Oct 5/23

This atlas is designed to assist students taking Hematology courses
learn to evaluate normal and abnormal blood cell morphology through microscopic examination of blood smears, and interpret results and correlate with other laboratory data to identify hematologic disorders.

A Laboratory Guide to Clinical Hematology (CC BY-NC)

The creation of this laboratory guide accompanied a project which digitized laboratory slides so students and the public could access these medical resources for study. The digitized slide images and descriptive text are included in this resource.

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80.

Immunology

Last update: Oct 21/20

Journals

[Open Oxford Immunology](#) (CC BY)

High-interest research and reviews across all aspects of the immune system in health and disease. The journal brings together basic immunological research alongside clinical perspectives and applications for treatment of disease.

81.

Kinesiology

Last update: Jun 16/22

Courses

[Kinesiology & Biomechanics](#) (CC BY-NC-SA)

The OER content in this course shell was originally intended for a 300-level *Kinesiology & Biomechanics course.* The course is described as providing "an in-depth study of the basic body movements, osteology, applied myology, spatial relations of muscles and joints, aggregate muscle action, kinesiologic constructs of summation of internal forces, aerodynamics and hydrodynamics, techniques for cinematographical and noncinematographical analysis of sport skills. The study of methods, mechanics and analysis of movement as applied to the structure and function of the human organism will also be discussed."

Textbooks

[Biomechanics of Human Movement](#) (CC BY)

This is a custom textbook catered to the needs of kinesiology students enrolled in a first-year biomechanics course. It has been modified from OpenStax College Physics and Anatomy and Physiology.

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82.

Laboratory

Supplemental

[Clinical Hematology Atlas: A Pictorial Guide for the Hematology Laboratory](#) (CC BY-NC-SA)

This atlas is designed to assist students taking Hematology courses learn to evaluate normal and abnormal blood cell morphology through microscopic examination of blood smears, and interpret results and correlate with other laboratory data to identify hematologic disorders.

[Urinalysis Atlas: A Pictorial Guide to Formed Elements in Urine](#) (CC BY-NC-SA)

This atlas is designed to assist students taking Urinalysis courses learn to evaluate normal and abnormal formed urinary elements through microscopic examination of urine sediment, and interpret results and correlate with other laboratory data to identify disease.

83.

Medical Terminology

Courses

[Medical Terminology Canvas Course Shell](#) (CC BY)
This course is aligned with the [Medical Terminology textbook](#) and
[student companion](#). It contains a variety of materials, assignments, and assessments to support instructors and students of Medical Terminology.

Textbooks

[Building a Medical Terminology Foundation](#) (CC BY)

This textbook focuses on breaking down medical terms into their word parts, pronouncing medical terms, and learning the meaning of medical terms within the context of introductory anatomy and physiology. This resource is targeted for health office administration and health services students in the first year of their college programs.

[Medical Terminology](#) (CC BY)

This textbook focuses on breaking down medical terms into their word parts, pronouncing medical terms, and learning the meaning of medical terms. This resource is targeted for health services students in the first year of their college programs.

[Medical Terminology Student Companion](#) (CC BY)

Printable study companion aligned with [Medical Terminology](#), an open educational resource that focuses on breaking down medical terms into their word parts, pronouncing medical terms, and learning the meaning of medical terms. This resource is targeted for health services students in the first year of their college programs.

[Medical Terminology for Healthcare Professions](#) (CC BY)

This textbook focuses on breaking down, pronouncing, and learning the meaning of medical terms within the context of anatomy and physiology. This resource is targeted for Healthcare Administration, Health Sciences, and Pre-Professional students.

[Medical Terminology: An Interactive Approach](#) (CC BY)

The target audience for this textbook are dual enrollment students. Dual enrollment is the opportunity for a student to be enrolled in high school and college at the same time. This book offers students the ability to learn basic medical terminology to prepare them for education and a profession in the medical field.

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84.

Mental Health, Dementia

Courses

[Living Life with Dementia](#) (CC BY-SA)

In this course, students will work through four units at their own pace: The Person, Living Well with Dementia, the Disease, and Tools. In each unit, there are readings, videos, and activities that students will be asked to participate in to enhance their understanding. At the end of each unit, students are given the opportunity to reflect on what they have learned.

Monographs

[Dementia: Advances and Treatment](#) (CC BY-NC-ND)

An edited open access book on dementia.

[History of Community Mental Health in the Vancouver Area (1973–2000)](#) (CC BY-NC)

For some time I have been wanting to capture the story of the development of the community mental health system in Vancouver. It's a story of visionary thinkers, administrators, service providers, clients and family members who, together, created a unique, world-renowned system known as the Greater Vancouver Mental Health Service (GVMHS).

Textbooks

[Child and Adolescent Mental Health](#) (CC BY)

This book covers diagnosis, treatment, and social implications. The first section describes diagnostic processes. It describes a reevaluation of projective techniques, a new clinical tool in psychotraumatology, the foundations of the framing technique, and an overview on integrative approaches. The second section focuses on new developments in the field with special emphasis on culture-specific contexts. From parenting of adolescents in India to the influence of poverty on mental health issues in Mexico, as well as the use of marijuana and Internet addiction, some of the most important fields are highlighted. The third section concentrates on therapy. It shows how to react to bullying and reviews the use of antidepressants in children and adolescents.

[A Long Goodbye: Ed and Mary's Journey with Lewy Body Dementia](#) (CC BY-NC-ND)

This book, built around Ed's journal, chronicles Ed's experiences as a carer following his wife Mary's diagnosis with Lewy body dementia. Students and experienced health professionals are rarely afforded such an insight into how their words and actions are interpreted by, and impact upon patients, families and friends. Ed's Story provides information and education resources related to dementia care. Although specifically focusing on Lewy body dementia, the resources are transferable to caring for people with any type of dementia.

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85.

Nursing

Case Studies

Last update: Jul 31/23

End-of-life Care After Stroke: Videos and Illustrations (CC BY-NC-SA)

This e-learning module aims to help healthcare professionals have sensitive and effective conversations about end of life care after stroke. Using different case study videos, its goal is to improve the care that stroke patients receive at the end of their life and the experiences of their families.

Health Case Studies (CC BY-SA)

Eight separate health case studies that align with the open textbooks Clinical Procedures for Safer Patient Care and Anatomy and Physiology: OpenStax.

Nursing Virtual Case Studies (CC BY)

These learner paced, interactive virtual branching case studies aim to help learners develop their noticing and clinical judgment skills. Each case study is designed to work with a specific level of learner (novice to advanced) and uses a variety of resources to help learners prepare for the experience and reflect on their actions. Concepts of patient-centered care, communication, safety and health and illness are used to demonstrate how care is provided in a variety of health care settings across the lifespan (community and acute care).

Miscellaneous

Regul8: A framework for optimising autonomic regulation in children (CC BY-NC)

The Regul8 framework represents an approach to providing fundamental children's nursing care. The impetus for the work was to align emerging understandings and research outcomes with current

children's nursing practice. Concepts were developed through continuous exploration of emerging scientific fields and refined through a decade of teaching and learning alongside children's nursing students, practitioners and educators from across Africa. The framework is designed to comprehensively address the major influences on regulatory function through an intentionally Afrocentric guide to children's nursing care planning. This resource includes a poster and a document laying out the evidence supporting the framework.

Simulations

[BC Schools of Nursing Virtual Simulation Games](#) (CC BY-NC-SA)

This resource is intended to be a series of interactive nursing training modules produced in collaboration between Selkirk College and College of the Rockies in British Columbia, Canada. While there is currently only one module available, more will be added later. Each module will contain learning preparation, background, a virtual simulation game consisting of videos embedded in an H5P activity, and a debrief. The first module is about post-operative care for a non-binary patient.

[OpenRN Simulations for Nursing](#) (CC BY)

A collection of online virtual simulations created in H5P. This simulations include a new born assessment, a patient with heart failure on a ventilator (see accompanying [Teacher's Guide](#)), a clinic walk-in with chronic angina, a heart-failure patient in a LTC facility, a pediatric patient with asthma at a clinic, and an older adult patient receiving antimicrobial therapy in a hospital setting.

Textbooks

[Documentation in Nursing: 1st Canadian edition](#) (CC BY-NC)

This open access textbook is intended to guide best practices of documentation in the nursing profession. This resource is designed for students in undergraduate nursing programs, and addresses principles of documentation, legislation associated with documentation, methods and systems of documentation, and key trends in the future of documentation. Incorporated into this resource is legislation and practice standards specific to the province of Ontario, Canada.

[An Introduction to Anti-Racism for the Nursing Professional: A Focus on Anti-Black Racism](#) (CC BY-NC)

This textbook was created for undergraduate nursing students at the introductory level. Educators co-curated this OER in collaboration with students for students. This resource is a unique contribution to nursing education as content focuses on Anti-Black racism in the Canadian context.

[Leading Change in Health Systems: Strategies for RN-BSN Students](#) (CC BY)

This book is designed for practicing nurses pursuing a Bachelor of Science in Nursing. This book is

focused on building upon previous knowledge, skills and attitudes Registered Nurses (RNs) related to leadership in healthcare systems. Readers will be able to apply the theoretical knowledge gained from this course in their clinical practice environment.

[Leadership and Influencing Change in Nursing](#) (CC BY)

Leadership and Influencing Change in Nursing is designed for a single-semester introduction to the professional nurse's leadership role as both a care provider and a formal leader. An assortment of authors with diverse nursing leadership roles across Saskatchewan and Canada have contributed to this textbook. These diverse voices are focused on providing student nurses with the foundational tools, techniques, and knowledge required to empower them to meet the leadership challenges found within the incessantly changing Canadian health care environment.

[Nursing Assistant](#) (CC BY)

This textbook is from Wisconsin Technical College and aligns with its Nursing Assistant program which prepares students for employment as nursing assistants as well as for entry to other health-related programs. This train prepares students for employment in nursing homes, hospitals, home health agencies, hospices, community based residential facilities, assisted living centers, and homes for the developmentally disabled.

[Nursing Fundamentals](#) (CC BY)

This textbook from OpenRN is developed for entry-level prelicensure nursing students. Content is based on the Wisconsin Technical College System (WTCS) statewide nursing curriculum for the Nursing Fundamentals course (543-101), the 2019 NCLEX-RN Test Plan, the 2020 NCLEX-PN Test Plan, and the Wisconsin Nurse Practice Act.

[Nursing: Mental Health and Community Concepts](#) (CC BY)

In this book, mental health and community health concepts are discussed while emphasizing stress management techniques, healthy coping strategies, referrals to community resources, and other preventative interventions. Nursing care for individuals with specific mental health and substance use disorders is examined, and the nurse's role in community health needs assessments and caring for vulnerable populations is introduced.

[Nursing Pharmacology](#) (CC BY)

This textbook from OpenRN is designed for entry-level undergraduate nursing students. It explains basic concepts of pharmacology and describes common medication classes. This book is not intended to be used as a drug reference book, but direct links are provided to [DailyMed](#), which provides trustworthy information about marketed drugs in the United States.

[Nursing Skills](#) (CC BY-SA)

This textbook from OpenRN is developed for entry-level undergraduate nursing students. It describes techniques for obtaining a health history and performing a basic physical assessment using a body systems approach. It also includes evidence-based clinical skills with related mathematical calculations and conversions.

[Open RN series](#) (CC BY)

The OER Nursing textbooks are written based on the State Nursing curriculum established by the Wisconsin Technical College System. Upcoming books include

- Nursing: Mental Health & Community Concepts
- Nursing: Management & Professional Concepts

Videos

[Nursing Skills Videos](#) (CC BY)

This video series was produced by the British Columbia Institute of Technology BSN Program as part of the BCcampus Health OER project. The playlist includes:

- [Newborn Bath Demonstration](#)
- [Post Operative Head To Toe Assessment](#)
- [Pediatric Post Surgical Assessment](#)
- [Airway Medication Administration](#)
- [IV Medication Administration](#)
- [Post Partum Assessment](#)

[Open RN Project videos](#) (CC BY)

This channel contains OER media with a CC 4.0 license being used by the Open RN project. The Open RN project is funded by a $2.5 million dollar grant from the Department of Education to create 5 OER Nursing Textbooks with 25 associated Virtual Reality scenarios.

[Personal Care – HCA videos](#) (CC BY-NC)

These 11 videos were created by College of the Rockies and Selkirk College as part of BCcampus's 2020 Open Education Foundation Grant for Institutions.

86.

Nutrition and Dietetics

Courses

[Nutrition 101](#) (CC BY)

An introductory nutrition course for fresh/sophomore undergraduate level. It assumes some basic science knowledge and it should be sufficient for most graduate or professional programs including nursing programs. Instructors are free to use all or any portion of the course and its resources.

Supplemental Materials

[Food Product Development Lab Manual](#) (CC BY-NC-SA)

A practical how-to illustrating the process of developing a new food product from ideation and formulation to processing and lastly commercialization. This book highlights the overall process and gives instructions for each of the steps along the way.

Textbooks

[The High Protein Cookbook for Muscle Health During Cancer Treatment](#) (CC BY)

Over the past 10-15 years, research has found that cancer-induced weight loss affects 30-80% of patients and is associated with poorer tolerance to chemotherapy, impaired quality of life, more frequent hospital admissions, and reduced survival. This cookbook, from [Open Education Alberta](#), provides recipes meals, including those from animal- and plant-based protein sources, for patients undergoing cancer treatment.

[Human Nutrition in a Canadian Context](#) (CC BY)

This textbook serves as an introduction to nutrition for undergraduate students. It covers basic concepts in human nutrition, key information about essential nutrients and how the scientific method should be used to make nutrition-related decisions.

Tools

[SuperTracker](#) (CC0)

The source code and foods database for SuperTracker, which was an online tool offered by USDA (2011-2018) that helped users track diet, physical activity and weight. SuperTracker provided a personalized plan based on the 2015-2020 Dietary Guidelines for Americans for what they should eat and drink and guided users to making better choices.

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87.

Paramedic

Supplemental

[Oregon EMS Psychomotor Skills Lab Manual](#) (CC BY-NC-SA)

Last update: Oct 5/23

This manual contains many of the skills an EMT will be expected to perform. This textbook was made possible by a grant from Open Education Oregon and a team of Emergency Medical Services professionals, educators, and librarians.

88.

Pathology

Textbooks

[Introduction to Cancer Concepts: A Guidebook for the Non-Oncologist](#) (CC BY-NC-SA)

From the [Department of Radiation Oncology](#) and the [Department of Medicine, Division of Hematology Oncology](#) at the University of Massachusetts Medical School.

[Pathology](#) (CC BY-NC)

This multimedia resource provides the science behind the disease that a health care professional is managing and an explanation of the signs and symptoms a patient is experiencing, starting at the tissue level. Each disease begins with a review of normal anatomy, histology and physiology – followed by the changes the disease has on the tissue (histopathology or anatomic pathology), organ (gross pathology), and function (pathophysiology). Videos and photos of gross pathological specimens & histological slides are included in every topic, with videolessons guiding viewers on the observable pathological changes. Because working with patients in their health journey is a team affair, this resource highlights the interprofessional collaboration that occurs between health care providers. This resource includes personal interviews with many health care professionals, explaining their role in a patient's diagnosis and/or treatment and management.

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89.

Pharmacology

Collections

[Pharmacology Resources [Excel file]](#) (Various open licences)

A list of links to pharmacology resources. Resources include videos, courses, textbooks, and more.

Supplemental Materials

[Public Health in Pharmacy Practice: A Casebook, 2nd Edition](#) (CC BY)

This casebook was developed in an effort to further the goals of pharmacy curricula related to population-based care, cultural sensitivity, interprofessional collaboration, and health and wellness. This casebook is a collaboration of over 90 individuals with expertise and training in public health pharmacy. Topics include cross-cultural care, health literacy and disparities, infectious disease, health promotion and disease prevention, medication safety, structural racism, advocacy/policy analysis, chronic disease, women's health, rural health, and travel medicine.

Textbooks

[Nursing Pharmacology](#) (CC BY)

Introduces the principles of pharmacology, including drug classifications and their effects on the body. Emphasis is on the use of the components of the nursing process when administering medications.

[Nursing Pharmacology – Chippewa Valley Technical College](#) (CC BY)

This book is designed for entry-level undergraduate nursing students and is aligned with the Wisconsin Technical College System (WTCS) statewide nursing curriculum for the Nursing Pharmacology course (543-103). It explains basic concepts of pharmacology and describes common medication classes. This book is not intended to be used as a drug reference book, but direct links are provided to [DailyMed](#), which provides trustworthy information about marketed drugs in the United States.

[Principles of Pharmacology – Study Guide](#) (CC BY-NC)

A study guide covering the basics of pharmacology.

90.

Physical Activity

Textbooks

[A Guide to Physical Activity](#) (CC BY)

This book was written by Eydie Kramer with edits by colleagues in the School of Kinesiology at the University of Minnesota. Quiz questions that accompany the text are available for faculty and instructors. Request access by providing your credentials and contacting us at learnlib@umn.edu.

91.

Physiotherapy

Supplemental Materials

[Lymphedema Workbook](#) (CC BY-NC-SA)

From Niagara College.

[Rehab Techniques in Oncology Workbook](#) (CC BY-NC)

From Niagara College.

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92.

Public Health

Collections

[PHIL (Public Health Image Library)](#) ([Public domain; some is restricted](#))

Last update: Mar 23/22

Much of the information critical to the communication of public
health messages is pictorial rather than text-based. Created by a Working Group at the Centers for Disease Control and Prevention (CDC), the PHIL offers an organized, universal electronic gateway to CDC's pictures. The imagery showcased in the PHIL is historic in nature; the contents depicted, though appropriate at the time a photograph was captured, may no longer be appropriate in the context of the current time period, and is not to be viewed as a source of the most current public health information.

93.

Pulmonary / Respiratory

Textbooks

[Breathe Easy: RT Student Resource for Mechanical Ventilation](#) (CC BY-NC-SA)

Last update: Oct 27/23

A primer on mechanical ventilation intended for respiratory therapy students. Offering a blend of theoretical principles and practical illustrations, this book provides an engaging platform for students to develop the essential skills necessary for the effective application of mechanical ventilation in clinical practice.

[Pulmonary Pathophysiology for Pre-Clinical Students](#) (CC BY-NC-SA)

This text is an undergraduate medical-level resource for foundational knowledge of pulmonary pathophysiology. This text is designed for a pre-clinical undergraduate medical curriculum and is aligned to USMLE(r) (United States Medical Licensing Examination) content guidelines. The text is meant to provide the essential information in a concise format that would allow learner preparation to engage in an active classroom. Clinical correlates and additional application of content is intended to be provided in the classroom experience. The text assumes that the students will have an understanding of basic pulmonary physiology that will be helpful to understand the content presented here. This resource should be assistive to the learner later in medical school and for exam preparation given the material is presented in a succinct manner, with a focus on high-yield concepts.

[Pulmonary Physiology for Pre-Clinical Students](#) (CC BY-NC-SA)

This text is an undergraduate medical-level resource for foundational knowledge of pulmonary physiology. This text is designed for a pre-clinical medical curriculum and is aligned to USMLE(r) (United States Medical Licensing Examination) content guidelines. The text is meant to provide the essential information in a concise format that would allow learner preparation to engage in an active classroom. Clinical correlates and additional application of content is intended to be provided in the classroom experience. This resource should be assistive to the learner later in medical school and for exam preparation given the material is presented in a succinct manner, with a focus on high-yield concepts.

94.

Social Work

Also see [Social Work OER](#) in development.

Collections

[Open Textbooks for Social Work](#) (Various CC licences)

A collection of openly licensed textbook from a variety of publishers and projects about or related to social work.

Supplemental Materials

[A Toolkit for Teaching Communication Skills in Social Work](#) (CC BY-NC)

A resource for any instructor who teaches communication skills in either a face-to-face or online environment. It includes five videos demonstrating basic communication skills and a teaching guide for instructors.

Textbooks

[Rural and Northern Social Work Practice: Canadian Perspectives](#) (CC BY)

This book highlights the contextual foundation of social work practice with rural and northern communities by addressing the importance of place using anti-oppressive perspectives. Practice competencies are presented, including an emphasis on trauma- and violence-informed approaches and the importance of addressing the mental wellness of social workers practicing in these communities. The book explores selected areas of social work practice including abuse and intimate partner violence, mental health issues and addictions, newcomers and immigrant populations, older adults, and child protection work.

[Understanding Homelessness in Canada](#) (CC BY-NC-ND)

Have you ever wondered about why homelessness exists in Canada? This book brings together lived experience representation and the most recent research to explore homelessness in Canada, from a range of different perspectives. Readers are challenged to think about homelessness from various academic viewpoints, including the fields of Indigenous and Canadian Studies, Mental Health and Public Health Studies, Population Studies, Social Sciences, and Health Sciences. The authors pose seemingly simple questions and then, through the use of real life scenarios, embedded interview videos, artwork, and interactive activities, demonstrate how the answers are actually rather complex.

Websites

[Open Social Work](#) (CC BY-NC-SA)

A collaborative project that addresses open education, open access, open science, and the practices that support them.

[Open Social Work Education](#) (CC BY-NC-SA)

Open Social Work Education (OSWE) is dedicated to increasing the availability and adoption of OER in social work by publishing open textbooks, conducting OER research, curating resources, and conducting research and advocacy.

95.

Speech Therapy

Also see [Speech Therapy OER](#) in development.

Last update: Oct 15/20

96.

Surgical

Textbooks

[A Clinical Approach to Common Surgical Scenarios: A Handbook for Students and Junior Doctors](#) (CC BY-NC)

Last update: Jun 4/20

Aimed at students and junior doctors, the purpose of this book is to provide a guide to the evaluation of common surgical problems as well as test diagnostic and troubleshooting skills when there is nobody to help or ask for advice.

97.

Veterinary Medicine

Also see [Veterinary Medicine OER](#) in development.

Images

Last update: Dec 2/21

[3D Skeletons and Skulls](#) (CC BY)

A collection of 3D CT scans of a variety of wild and domestic animal skeletons and skulls.

Presentations/Slides

[Animal Learning Theory Lecture](#) (CC BY)

Presentation slides for a lecture on basic learning theory for teaching Animal Behaviour created by Dr Ralph R.J. Thompson from the Jeanne Marchig International Centre for Animal Welfare Education at The University of Edinburgh. It's intended as a basis for lectures, to which images/graphics can be added and the lecture adapted for the purposes needed. The use of a coloured background to aid accessibility may benefit some students. Reflective/class questions are shown in light blue. Addition of other reflective or class response questions to check understanding and promote engagement is recommended.

Supplemental Materials

[Clinical Veterinary Diagnostic Laboratory](#) (CC BY-NC)
This book is aimed to guide the pre-clinical veterinary student through basic patient-side diagnostic testing procedures that accompany the in-person laboratory course.

Textbooks

[Anatomy and Physiology of Animals](#) (CC BY-NC-SA)

This book describes the structure of the animal body and the way in which it works. Animals encountered in normal veterinary practice are used as examples where possible.

[Animals & Ethics 101: Thinking Critically about Animal Rights](#) (CC BY-SA)

This textbook helps readers identify and evaluate the arguments for and against various uses of animals.

[Atlas of Renal Lesions in Proteinuric Dogs](#) (CC BY-NC-ND)

The goal of this Renal Pathology Atlas is to provide teaching material to veterinary pathologists and nephropathologists. The atlas demonstrates the breadth of lesions that can occur within a cohort of dogs presenting with the clinical sign of protein loss in the urine. Kidney samples were examined with multiple modalities including: histopathology, immunofluorescence and electron microscopy. Integration of these comprehensive evaluations with the clinical history can help veterinary pathologists and nephrologists to better understand the etiology and prognosis of renal lesions in proteinuric dogs.

[A Guide to the Principles of Animal Nutrition](#) (CC BY-NC)

In this introductory text, six fundamental nutrients, their structure, digestion, and metabolism are covered. A brief introduction to bioenergetics, feed additives, nutrient analysis, digestive organs and processes in monogastric and ruminant animals, and methods for assessing nutrient utilization are also included.

[Integrating Veterinary Medicine with Shelter Systems](#) (CC BY-NC-ND)

Shelter Medicine is an emerging field of veterinary specialization supported by rapidly increasing career opportunities. This book uses a case-based approach to explore the critical role played by the entire shelter team to protect the health and welfare of sheltered dogs and cats and how medical care, behavior programs, and operations all come together under the umbrella of Shelter Medicine.

[Judging and Evaluating Dairy Cattle](#) (CC BY-NC-SA)

These materials have been put together to help students and youth to learn the basics of judging and evaluating dairy cattle using various methods. There are numerous 4-H, Cooperative Extension and Breed Association booklets freely available, referred to in the document. However, this resource differs as it is intentionally full of visual examples and videos. The objective is to provide educators with additional resources to help beginning cattle judges understand visual evaluation and comparative judging techniques, as well as breed standards, linear scoring, oral reasons and the basics of fitting and showmanship.

[Large Animal Surgery – Supplemental Notes](#) (CC BY-NC)

This textbook includes basic principles of large animal surgery and anesthesia, how to apply those principles to cases and situations, and discover ways of finding answers when you don't remember the information, are presented with cases that aren't "textbook" and/or things don't go as planned.

[The Lymphatic System of the Dog](#) (CC BY-NC-SA)

An English translation of a 1918 work by German veterinary anatomist Dr. Hermann Baum, *The Lymphatic System of the Dog* details a comprehensive investigation of the anatomy and drainage patterns of the canine lymphatic system. Despite being written over 100 years ago, much of Dr. Baum's exhaustive work has not been repeated and is still relevant today.

[Shelter Animal Physical Health](#) (CC BY-NC-ND)

This book uses a variety of interactive components, including videos, recorded presentations, hyperlinked content, flip cards, interactive multimedia, and practice quizzes to explore the physical health of shelter animals.

[Swine Diseases](#) (CC BY-NC)

This textbook was written as a support for the course CVM 6969: Large Animal Medicine III at the University of Minnesota. Its structure follows the organization of the course sessions and may be confusing for an external audience.

[Vet Med: Applied GI Physiology- Supplemental Notes](#) (CC BY-NC)

This book is an attempt to connect the principles of veterinary physiology to the clinical presentation of disorders, particularly diagnostic tests and test interpretation.

[Veterinary Epidemiology: Principles and Methods](#) (CC BY-NC-ND)

The purpose of this textbook is to provide an introductory, yet comprehensive, source of information on epidemiology for veterinary students, researchers, and practitioners. There has not been a textbook that presents analytic epidemiology as a science, basic to veterinary medicine's efforts in health management (herd health) as well as in clinical medicine.

[Veterinary Histology](#) (CC BY-NC)

This open textbook focuses on conveying the basic material required for understanding the microscopic anatomy to better understand the disease processes that they will learn later in the curriculum. Included is a basic overview of veterinary histology of commonly reviewed organ systems, with the goal of illustrating important concepts of cells, tissues, and organs in a manner that we hope is not only accessible to first-year veterinary students, but serves as a reference for clinical medicine and pathology.

[Veterinary Preventive Medicine](#) (CC BY-NC)

This textbook covers preventive approaches in veterinary medicine.

[Well-being Handbook](#) (CC BY-NC)

This book is a resource for veterinary students.

Videos

[Small Animal Handling Videos](#) (CC BY-NC-ND)

A series of videos demonstrating the best ways to handle small animals.

[The Normal Canine Video Series](#) (CC BY)

This series of four videos are intended for first-year students of veterinary medicine and include four canine exams: head and neck canine exam, thoracic canine exam, abdominal canine exam, urogenital rectal canine exam.

[What is IBD in Pets?](#) (CC BY)

In this video, Dr. Silke Salavati, who is a senior lecturer and specialist in Small Animal Internal Medicine (Dipl. ECVIM-CA) at the Royal (Dick) Veterinary School at the University of Edinburgh, and has been working on gut problems in dogs and cats for nearly 2 decades, gives a brief explanation of the common gut problem called "Inflammatory Bowel Disease" (IBD) in dogs and cats.

Websites

[Online Veterinary Anatomy Museum](#) (CC BY-NC-ND)

An online veterinary anatomy exhibits within one collection.

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XII

Hospitality and Tourism

Subjects and Disciplines

This section includes:

- [Hospitality](#)
- [Tourism](#)

[Books open for review](#) and [Books scheduled to be added to the collection](#) may also contain resources.

98.

Hospitality

Collections

[Hospitality – LibreTexts](#) (CC BY-NC-SA)

LibreTexts includes material regarding the hospitality industry, a broad category of fields within the service industry that includes lodging, food and drink service, event planning, theme parks, and transportation. It includes hotels, restaurants and bars.

[WISC-Online](#) (CC BY-NC)

This is a collection of videos and other learning materials targeted on hospitality, e.g., staffing (housekeeping, beverage servers), and airports.

Textbooks

[Human Resources in the Food Service and Hospitality Industry](#) (CC BY)

This book is one of a series of Culinary Arts open textbooks developed to support the training of students and apprentices in British Columbia's foodservice and hospitality industry. Although created with the Professional Cook, Baker and Meatcutter programs in mind, these have been designed as a modular series, and therefore can be used to support a wide variety of programs that offer training in foodservice skills.

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99.

Tourism

Textbooks

[Sustainable Tourism Marketing](#) (CC BY-NC-ND)

This book, published by MDPI Books, collects contributions about the marketing of destinations and the marketing management of companies and tourism organizations from a sustainable tourism perspective. The studies highlighted analyze the marketing strategies adopted by tourism companies and institutions or tourist destinations in order to manage visitors in a sustainable manner, promote the destination in marginal areas, promote territorial balance, or analyze the effect or tourism on the consumption of local products and the economic development of host communities.

Last update: Dec 11/20

XIII

Law/Criminal Justice

Subjects and Disciplines
This section includes: • Law – General • American Law • Criminal Justice • Environmental Law • First Nations

Also see Law/Criminal Justice in the "Books under consideration" section of this directory. Books open for review and Books scheduled to be added to the collection may also contain resources.

100.

Law - General

Textbooks

The CanLII Manual to British Columbia Civil Litigation: A User-friendly Guide (CanLII open licence)

There are perhaps few greater challenges to the contemporary justice system than meaningful public access to it. Access has been a Canada for some time,and, if it can be said that there has been any shift in this issue, it is perhaps for the worse. We hope that this manual will facilitate your navigation through your specific litigious issue and that, in so doing, that it might also contribute a greater measure of access to justice for all British Columbians.

Constitutional Law for Student: Part 1 and Constitutional Law for Students: Part 2 (CC BY-SA)

For students by students, to help navigate the complex world of Constitutional Law in South Africa. Constitutional Law is one of the most challenging courses in the LLB programme. This book aims to clarify concepts and increase understanding around the various aspects of Constitutional Law. Each chapter has a workbook to help prepare students. This book has been published open access to ensure that every law student and the public has access to it. This book has been designed to be as inclusive as possible with the addition of an audiobook format.

Tools

H2O – Open Casebooks (CC BY-NC-SA)

H2O helps law faculty create high quality, open-licensed digital textbooks for free. Collect materials, hide and annotate text, and distribute casebooks to your students quickly and reliably. H2O is easy to add to your class.

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300 Josie Gray

101.

American Law

Casebooks

[H2O](#) (Various CC, and other, licences)

H2O is a website that helps faculty authors make casebooks that are free, simple to modify, and easy to access and print. H2O is offered by the Harvard Law School Library, through its [Library Innovation Lab](#).

[Trademark: An Open-Source Casebook](#) (CC BY-NC-SA)

This casebook is designed for a four-credit trademark course taught at NYU School of Law.

Collections

[CALI (The Center for Computer-Assisted Legal Instruction)](#) (CC BY-NC-SA)

CALI hosts and facilitates the creation of [CALI Lessons](#), a library of over 1,000 interactive legal tutorials written by law professors and geared towards law students. In 2012, we began publishing [open and free casebooks with our eLangdell®](#) Press publishing wing.

[Legal Information Institute (LII)](#) (CC BY-NC-SA; also see [Terms of Use](#))

We are a [small research, engineering, and editorial group](#) housed at the [Cornell Law School](#) in Ithaca, NY. Our collaborators include publishers, legal scholars, computer scientists, government agencies, and other groups and individuals that promote open access to law, worldwide. Most of our publishing efforts go into producing and maintaining the extensive [legal collections](#) on this web site.

Textbooks

[Fundamentals of Business Law](#) (CC BY)

This book is an introductory survey of the legal topics required in undergraduate business law classes.

[Trademark Law: An Open-Source Casebook](#) (CC BY-NC-SA)

An open textbook on American Trademark Law that is in use at law schools across the United States.

Websites

[O Say Can You See: Early Washington, D.C., Law & Family](#) (CC BY-NC-SA)

This project explores multigenerational black, white, and mixed family networks in early Washington, D.C., by collecting, digitizing, making accessible, and analyzing thousands of case files from the Circuit Court for the District of Columbia, Maryland state courts, and the U.S. Supreme Court.

102.

Criminal Justice

[Intro to Criminal Justice](): This document maps OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/competencies or items for this course (CRJ 110, Colorado).

Collections

Last update: Aug 9/22

[Criminal Justice Resources]() (Various CC licences)

A collection of open resources curated by Houston Community College Libraries relating to different topics in criminal justice.

Textbooks

[Forensic Toxicology: From Crime Scene to the Virtual Lab]() (CC BY-NC-SA)

Take a virtual tour from fundamental toxicology through laboratory demonstrations to court cases that focus on analysis, interpretation and reporting of toxicological results in a forensic science context.

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103.

Environmental Law

Case Studies

[The Enbridge Northern Gateway Pipelines: Reconciling Interests](#) (CC BY)

Drawing from a case study of the Northern Gateway (Enbridge) pipeline project we consider if it is possible to reconcile or mediate the conflicting objectives and goals of the resource proponent and the First Nations whose lands the pipeline will traverse. We will draw from the existing legal precedents and a consideration of approaches taken to such disputes in similar settings in other settler-colonial societies such as New Zealand and Australia. In considering the efficacy of Canadian legal measures we need to consider the place and role of Indigenous laws and if they are given sufficient weight in disputes such as this.

Media Attributions

104.

First Nations

Case Studies

[The Enbridge Northern Gateway Pipelines: Reconciling Interests](#) (CC BY)

Drawing from a case study of the Northern Gateway (Enbridge) pipeline project we consider if it is possible to reconcile or mediate the conflicting objectives and goals of the resource proponent and the First Nations whose lands the pipeline will traverse. We will draw from the existing legal precedents and a consideration of approaches taken to such disputes in similar settings in other settler-colonial societies such as New Zealand and Australia. In considering the efficacy of Canadian legal measures we need to consider the place and role of Indigenous laws and if they are given sufficient weight in disputes such as this.

Media Attributions

105.

International Law

Supplemental Materials

Last update: Nov 4/21

[Free Legal Research Resources – Foreign & International](#) (CC BY-NC-SA)

This guide, from the Harvard Law School library, contains selected free online legal research resources for jurisdictions outside of the United States. These resources can be a great way to get started with your research when you don't have access to paid databases or if you want to get an overview of a topic before getting started with potentially expensive searches.

XIV

Liberal Arts and the Humanities

Subjects and Disciplines

This section includes:

- [Humanities – General](#)
- [American Sign Language (ASL)](#)
- [Art History](#)
- [Asian Literature](#)
- [English Literature and Writing](#)
- [Gender, Race, Sexuality, Social Justice](#)
- [Greek and Roman Studies](#)
- [History](#)
- [Indigenous Studies](#)
- [Language Learning: OER for specific languages](#)
- [Library and Information Science](#)
- [Linguistics](#)
- [Philosophy](#)
- [Religion and Theology](#)

Also see [Liberal Arts and Humanities](#) in the "Books under consideration" section of this directory. [Books open for review](#) and [Books scheduled to be added to the collection](#) may also contain resources.

106.

Humanities - General

Collections

ACLS Humanities E-Book (Various CC licences)

A digital collection of over 5,400 seminal books in the humanities and related social sciences. These titles are presented in collaboration with more than 120 publishers and Michigan Publishing. Books in the ACLS HEB collection have been recommended and reviewed by scholars and constituent learned societies of the American Council of Learned Societies.

Cornell Open (CC BY-NC-ND)

An open access portal for both new and classic out-of-print titles from the distinguished catalog of Cornell University Press. Cornell Open offers open access to key titles in the fields of anthropology, classics, political science, literary criticism and theory, German studies, and Slavic studies.

Humanities Commons: CORE (Various CC licences)

A humanities repository for openly licensed articles, monographs, course materials, white papers, conference papers, code, digital projects, and more.

IntechOpen Books: Social Sciences and Humanities (CC BY)

Data

Edinburgh DataShort: College of Arts, Humanities & Social Sciences (Various CC licences)

A digital repository of research data produced at the University of Edinburgh by the College of Arts, Humanities & Social Sciences

Textbooks

Humanities LibreTexts Library (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources related to engineering.

Websites

[Walt Whitman Archive](#) (CC BY-NC-SA)

A collection of works by and about Walt Whitman.

107.

American Sign Language (ASL)

Courses

ASL 101 (CC BY-NC-ND)

ASL 102 (CC BY-NC-ND)

These American Sign Language courses (101 and 102) are Google Docs containing instructional videos of original design. The documents also offer media content from ASL instructors and creators across the Web. All materials are meant as a supplement to ASL instruction. These resources are in no way intended to replace the breadth of knowledge acquired from taking an ASL course.

Supplemental Materials

American Sign Language 101 OER (CC BY-NC-SA)

This resource is a Google Doc containing instructional videos of original design. The document also offers media content from ASL instructors and creators across the Web. All materials are meant as a supplement to ASL instruction. These resources are in no way intended to replace the breadth of knowledge acquired from taking an ASL course.

American Sign Language 102 OER (CC BY-NC-SA)

This resource is a Google Doc containing instructional videos of original design. The document also offers media content from ASL instructors and creators across the Web. All materials are meant as a supplement to ASL instruction. These resources are in no way intended to replace the breadth of knowledge acquired from taking an ASL course.

Textbooks

Deaf Education (Public Domain)

This is a pilot project to explore the efficacy of Pressbooks toward the creation of e-books to deaf learners. The research project undertakes several strands of inquiry in order to develop a proposed theoretical framework that would guide the creation of e-books with the Pressbooks platform.

[Fingerspelling – A Mindful Approach](#) (CC BY)

This textbook shows how to build a foundation of mindfulness and then ways of consciously and intentionally building fingerspelling skills for the improvement of our ASL communication.

[Integrated and Open Interpreter Education](#) (CC BY-NC)

This OER on interpreting offers authors and readers free and open access to current, relevant, easy-to-access, and free materials. The editors have created a space where emerging scholars in the field of signed language interpreting make contributions with the ability to revise as the interpreting studies discipline and the scholars, themselves, develop and change. This OER provides faculty and students readings and practical application experiences that connect program specific coursework and concepts across the interpreter education curriculum emphasizing the holistic nature of the field of interpreting.

108.

Art History

Art

[3D Gandharan Sculptures](#) (CC BY)

Three 3D models of Gandharan sculptures have been created from the University of Edinburgh's Centre for Research Collections (CRC), and made available on Sketchfab.

Last update: Feb 4/21

Courses

[Art and Music Since 1945](#) (CC BY)

This open website is used for a course on Art and Music since 1945 offered at The Ohio State University. The website contains a [collection of biographies of artists and musicians](#), a [sample syllabus](#), and [assignments](#). Its companion textbook is meant to be *A Quick and Dirty Guide to Art, Music, and Culture*, which is posted below.

[Helen Langdon's 'Caravaggio'](#) (CC BY-NC-SA)

This course will concentrate on one of the most common forms of art history writing — a biographical monograph about a single artist's life and work. You will be focusing on the way that one author, Helen Langdon, has used biography in her book about one artist, Caravaggio. In order to get the most out of studying this course you will need access to a copy of this book.

Monographs

[Essays on Paula Rego: Smile When You Think about Hell](#) (CC BY)

In these powerful and stylishly written essays, Maria Manuel Lisboa dissects the work of Paula Rego, the Portuguese-born artist considered one of the greatest artists of modern times. Focusing primarily on Rego's work since the 1980s, Lisboa explores the complex relationships between violence and nurturing, power and impotence, politics and the family that run through Rego's art.

Textbooks

[Introduction to Art](#) (CC BY)

From Boise State University.

[A Quick and Dirty Guide to Art, Music, and Culture](#) (CC BY)

An open textbook by The Ohio State University that discusses art and music in the context of popular culture. It is meant to work with the open course *Art and Music Since 1945,* which is posted above.

Videos

[Shakespeare in China](#) (CC BY)

The seminar 'Shakespeare in China – A conversation with Lin Zhaohua' is a series of videos covering the event was held by the Confucius Institute for Scotland as part of the Edinburgh International Festival in 2013. The seminar was dual-language with both English and Chinese being translated by participants.

Websites

[19th-Century France: A Visual Resource](#) (Licence unspecified)

This site contains a collection of photographs and information about 19th-century French painting, architecture, fashion, and caricature.

[Open Art Histories](#) (Various CC licences)

A platform for art, art history, visual art, communication, and museum studies teachers and instructors in Canada.

[Smarthistory](#) (CC BY-NC-SA)

A huge collection of educational resources related to art history from all over the world.

[Verdi in Victorian London](#) (CC BY)

Massimo Zicari's Verdi in Victorian London reconstructs the reception of Verdi's operas in London from 1844, when a first critical account was published in the pages of The Athenaeum, to 1901, when Verdi's death received extensive tribute in The Musical Times.

109.

Asian Literature

Textbooks

[Interpreting Love Narratives in East Asian Literature and Film](#) (CC BY-NC)

This book explores the role of traditional East Asian worldviews, ethical values, and common practices in the shaping of East Asian narratives in literature and film. It offers a specific method for this analysis. The interpretive goal is to arrive at interpretations that more accurately engage cultural information so that narratives are understood more closely in terms of their native cultural rather than that of the reader/interpreter.

110.

English Literature and Writing

Also see [English Literature and Writing OER](#) in development.

[English Composition I](#) and [II](#) and [Intro to Literature](#): These documents map OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/ competencies or items for these courses (ENG 121; ENG 122; LIT 115, Colorado).

Anthologies

Last update: Jan 6/23

[88 Open Essays](#) (CC BY-SA)

These essays were collected from online magazines that offer their articles under Creative Commons licenses. A few are from individual authors who generously agreed to give their work an open license in order to share it for this collection.

[My Slipper Floated Away: New American Memoirs](#) (CC BY-NC-ND)

An anthology of fresh, compelling essays written by students at Lehman College in the Bronx. The writers are immigrants or the children of immigrants and/or POC.

Collections

[Digitized Shakespeare](#) (CC BY)

A library's rich holdings of early English drama include the majority of editions of William Shakespeare published before 1660

[Eighteenth Century Collections Online](#) (CC0)

A collection of over 25,000 XML/SGML encoded electronic text editions of early print books produced by The Text Creation Partnership. They transcribe and mark up the text from the millions of page images

in ProQuest's Early English Books Online, Gale Cengage's Eighteenth Century Collections Online, and Readex's Evans Early American Imprints.

[Making Nineteenth-Century Literary Environments](#) (CC BY-NC-ND)

A collection of student papers from the Simon Fraser University course *English 435: Topics in the Literature of the Long Nineteenth Century*. All papers have been peer reviewed by the students, received instructor feedback, and revised for publication.

[Project Gutenberg](#) (Public domiain)

A collection of public domain literature available in multiple formats.

[Thomas Raddall's Short Stories](#) (CC BY-NC-SA)

This digital edition contains five short stories by Thomas Raddall from unpublished and undated typescripts held in the Dalhousie University Archives.

[The Victorian Web](#) (Various CC licences)

A collection of primary and secondary materials (books, articles, images) in British Victorian economics, literature, philosophy, political and social history, science, technology, and visual arts. Although the site concentrates on Great Britain in the age of Victoria (1837–1901), it includes much material before and after those years, particularly in sculpture and architecture, and the site also has a good deal of comparative material.

Monographs

[Mind, Body, Motion, Matter: Eighteenth-Century British and French Literary Perspectives](#) (CC BY)

Mind, Body, Motion, Matter investigates the relationship between the eighteenth century's two predominant approaches to the natural world — mechanistic materialism and vitalism — in the works of leading British and French writers such as Daniel Defoe, William Hogarth, Laurence Sterne, the third Earl of Shaftesbury and Denis Diderot.

[Writing Boxes: The Reading/Writing Connection in Libraries](#) (CC BY-NC)

A guidebook and source of programming inspiration for all librarians working with early to young adult readers. Librarians will find thematic, easy to implement, hour-long writing workshops that require only paper, markers, and excited young writers.

Supplemental Materials

[APA Style Citation Tutorial, 7th edition](#) (CC BY-NC-SA)

This tutorial covers why it is important to use citations, elements of common source types, and how to create reference and in-text citations based on the 7th edition APA guidelines. This tutorial can also be used a reference resource.

[Moon of the Crusted Snow: Reading Guide](#) (CC BY-NC-SA)

Moon of the Crusted Snow by Waubgeshig Rice is a fictional novel that looks at how an Anishinaabe First Nation, in northern Ontario, deals with an unknown event that leaves the community isolated, without power or phone service, and limited food sources as winter sets in. This guide, developed collaboratively with the author, discusses themes and connections, quotes, resources, discussion questions, activities, and additional readings.

[WISC-Online Literature Learning Objects](#) (CC BY-NC)

A collection of learning objects on various topics in literature comprehension.

Textbooks

[Academic Integrity](#) (CC BY-NC-SA)

An interactive approach to conveying the values of academic integrity, clarifying the meaning of plagiarism, and introducing the basics of citations, quoting and paraphrasing.

[Academic Writing Basics](#) (CC BY-NC-SA)

Designed specifically for Kwantlen Polytechnic University students, this Pressbook offers interactive activities and strategies for developing academic writing skills. Learners have the opportunity to review key parts of the writing process from interpreting their assignment instructions, organizing their ideas, drafting their writing, and revising their work.

[Becoming America: An Exploration of American Literature from Precolonial to Post-Revolution](#) (CC BY-SA)

Featuring sixty-nine authors and full texts of their works, the selections in this open anthology represent the diverse voices in early American literature. This completely-open anthology will connect students to the conversation of literature that is embedded in American history and has helped shaped its culture.

[Brehe's Grammar Anatomy](#) (CC BY-SA)

This book provides an in-depth look at beginner grammar terms and concepts, providing clear examples with limited technical jargon. It includes practices exercises, a full glossary and index, and easy-to-read language.

[British Literature: Middle Ages to the Eighteenth Century and Neoclassicsm](#) (CC BY-SA)

Featuring over 50 authors and full texts of their works, this anthology follows the shift of monarchic to parliamentarian rule in Britain, and the heroic epic to the more egalitarian novel as genre.

[British Literature II: Romantic Era to the Twentieth Century and Beyond](#) (CC BY-SA)

Featuring 37 authors and full texts of their works, the selections in this open anthology represent the literature developed within and developing through their respective eras. This completely-open anthology will connect students to the conversation of literature that has captivated readers in the past and still holds us now.

[Compact Anthology of World Literature](#) (CC BY-SA)

The emphasis in this anthology is on non-Western and European works, with only the British authors who were the most influential to European and non-Western authors (such as Shakespeare, whose works have influenced authors around the world to the present day).

[Compact Anthology of World Literature II](#) (CC BY-SA)

This book is a continuation of Compact Anthology of World Literature. This literature anthology contains three sections: the seventeenth and eighteenth centuries, which includes information on the Age of Reason and the Near East and Asia; the long nineteenth century, which covers romanticism and realism; and the twentieth century and contemporary literature, which talks about modernism and postcolonial literature. Instructor resources are available for this book by request to the publisher.

[Consequential Contexts](#) (CC BY-NC)

Principles for Effective Community Engagement in Technical and Professional Writing.

[Contribute a Verse: An Introduction to First Year Composition](#) (CC BY-SA)

This text combines a composition rhetoric manual with grammar and documentation instruction and resources, components that can be flexibly arranged to fit instructors' classroom plans. Its contents include Reading Critically/Engaging the Material; Rhetorical Situations; Effective Argument; Introductions and Conclusions; Logic of Assertion, Evidence, and Interpretation; Documentation; Visual Rhetoric; Multi-Modality; Inter-disciplinary Writing; and Grammar.

[Developmental English](#) (CC BY)

Students learn proficiency in the reading and writing connection, the writing process, writing effective paragraphs, prewriting strategies, organizing and outlining, parts of speech, sentence skills, basic research skills, creating a draft, revision strategies, proofreading and editing strategies.

[EmpoWord: A Student-Centered Anthology & Handbook for College Writers](#) (CC BY-NC)

This is a reader and rhetoric that champions the possibilities of student writing. The textbook uses actual student writing to exemplify effective writing strategies, celebrating dedicated college writing students to encourage and instruct their successors: the students in your class.

English 101 E-Text Writing for the Rhetorical Situation [Word] (CC BY)

This e-text focuses on writing for the rhetorical situation. The e-text will not give you a formula for writing, but it will teach you tools that you can use in your writing. These tools will help you decipher the rhetorical situation and how to address it accordingly.

English Composition 1 (CC BY)

Students learn the writing process and prewriting, grammar for parts of speech, punctuation and sentences, preparing to write, the first draft, revising, editing, and proofreading, narrative, comparison/contrast, and argumentative modes, and reading and research.

English Composition 2 (CC BY)

Students build on what they learned in Comp I and practice critical reading, deepen knowledge about and how to use academic research, develop understanding of argument and other modes of persuasion, and practice revising and editing.

Entering the Conversation: A College Composition Compilation (CC BY)

A collection of readings that emerged out of partnerships between OER enthusiasts, composition instructors at the University of Wisconsin–Madison, and contributors who shared ideas and resources on a Twitter thread about open composition.

Fronts of Modernity: The 20th-Century Collections at the University of Victoria Libraries [PDF] (CC BY-NC-ND)

This book outlines 20th-century collections held at the University of Victoria. For more information, read the book review.

A Guide to Rhetoric, Genre, and Success in First-Year Writing (CC BY-NC-SA)

This book combines the *Introduction to Writing in College* by Melanie Gagich and *ENG 102: Reading, Writing and Research* by Emilie Zickel. This book also contains complete and remixed chapters from other authors, links to several essays from the open source textbook series *Writing Spaces: Readings on Writing*, and several links to articles from the open source website *Writing Commons*. Additionally, parts of this book also come out of a remixed version of Robin Jeffrey's, *About Writing*, which have been rearranged, amended, edited, and enhanced with digital reading experience by including videos and visual reading features.

Informed Arguments: A Guide to Writing and Research (CC BY-NC-SA)

This book is appropriate for a first-year composition course focusing on academic writing, reading, researching, and speaking. Major concepts in argument theory are covered.

Kids Read the Best Stuff (CC BY-NC-SA)

This textbook from North Dakota State College covers the study of children's literature.

[Open Anthology of Earlier American Literature](#) (CC BY)

This textbook takes a distinctly socio-historical approach to introducing Early American literature. The anthology will allow students to engage with literature in exciting and dynamic ways.

[Open Technical Writing: An Open-Access Text for Instruction in Technical and Professional Writing](#) (CC BY-SA)

This book presents technical writing as an approach to researching and carrying out writing that centers on technical subject matter. Each and every chapter is devoted to helping students understand that good technical writing is situationally-aware and context-driven.

[Technical and Report Writing](#) (CC BY)

This textbook provides an introduction to technical and report writing for first-year students. It also covers ethical and legal obligations, social and collaborative communication, types of technical documents, and research.

[Technical Writing @SLCC](#) (CC BY-NC)

This textbook is for use in the English 2100 Technical Writing courses at Salt Lake Community College. It contains reading materials that the Technical Writing Committee of the English department have deemed important for students of ENGL 2100 to learn.

[The Woman in White: Grangerized Edition](#) (CC BY)

This text is the beta version of a participatory critical edition of Wilkie Collins's *The Woman in White.* By "beta version," we mean "text in progress." During 2019, we'll be composing and publishing additional supplemental content to accompany the novel.

[World Literature I: Beginnings to 1650](#) (CC BY-SA)

A three-part textbook taking a comparative approach to world literature from the beginning.

[A Writer's Guide to Mindful Reading](#) (CC BY-NC-ND)

This book develops and enacts the mindful reading pedagogy described in Ellen C. Carillo's scholarly monograph *Securing a Place for Reading in Composition: The Importance of Teaching for Transfer* (Utah State UP). Offering a comprehensive approach to literacy instruction by focusing on reading and writing, *A Writer's Guide to Mindful Reading* supports students as they become more reflective, deliberate, and mindful readers and writers by working within a metacognitive framework.

[Writing and Literature: Composition as Inquiry, Learning, Thinking, and Communication](#) (CC BY-SA)

Writing and Literature builds a new conversation covering various genres of literature and writing. Students learn the various writing styles appropriate for analyzing, addressing, and critiquing these genres including poetry, novels, dramas, and research writing. The text and its pairing of helpful visual aids throughout emphasizes the importance of critical reading and analysis in producing a successful composition.

[Writing the Nation: Concise Introduction to American Literature 1865 to Present](#) (CC BY-SA)

An anthology of American literature since 1865.

Tools

[Open Modernisms Anthology Builder](#) (CC BY)

An online platform that allows instructors to build custom anthologies of out-of-copyright primary materials for the period 1850–1950.

Videos

[Videos on Composition](#) (CC BY)

By Lance Eaton from Massachusetts' based North Shore Community College.

[Writability Podcast](#) (CC BY-NC)

An openly licensed series of conversations with our faculty and staff: podcast episode topics range from [tips for successful online students](#) to the [5-paragraph essay](#) to [remote Library services.](#) Most episodes are English and/or writing-focused but include a lot of cross-discipline conversations as well. The podcast with transcripts is housed in a [library-hosted LibGuide](#); they're also accessible from the [Internet Archive](#) and podcast apps.

Websites

[The Nature of Writing](#) (CC BY-NC-ND)

The Nature of Writing provides instructional videos, prose explanations, exercises, and sample assignments on topics like parts of speech, sentence structure, punctuation, mechanics, essay writing, citation, and more.

[Roughwriter's Guide: A Handbook for Writing Well](#) (CC BY-NC-SA)

This guide provides students with help navigating academic writing, including all aspects of the writing process, MLA and APA formatting, and grammatical and mechanical issues.

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111.

Gender, Race, Sexuality, Social Justice

Also see [Gender, Race, Sexuality, Social Justice OER](#) in development.

Collections

Last update: Nov 1/22

[Labor Studies & Work](#) (Temple University Press)

Thanks to a grant from the National Endowment for the Humanities,
TU Press has reissued 32 outstanding labor studies books and made them freely available online. Chosen by an advisory board of scholars, labor studies experts, publishers, and librarians, each book contains a new foreword by a prominent scholar, reflecting on the content and placing it in historical context.

Courses

[Black Matters: Introduction to Black Studies](#) (CC BY-NC-SA)

Interdisciplinary survey of people of African descent that draws on the overlapping approaches of history, literature, anthropology, legal studies, media studies, performance, linguistics, and creative writing. This course connects the experiences of African-Americans and of other American minorities, focusing on social, political, and cultural histories, and on linguistic patterns.

[Everyday Social Justice](#) (CC BY-NC)
This website is for people who want to learn about social justice, or for folks who teach it. It has all of the teaching materials for my courses on social justice, so you could walk yourself through it or talk about it with a "book" group! The classes use conversations instead of lectures, so I use pop-culture materials to cover what would usually be the lecture in a traditional classroom. The 2-hour lessons are all conversation-based, so you'll see the prompts that get people talking about real-life scenarios. I teach from an intersectional feminist perspective, so we're always talking about the ways that all oppressions connect; the similarities between racism and classism, the connections between sexism and ageism, the ways that ableism affects transphobia. One of the hardest things about my job is talking to people about the worst parts of humanity, the ways we hurt each other on purpose. These courses help you think about ways of doing better through empathy, compassion, and patience.

- [Intercultural Women's Studies](#) (CC BY-NC)

- [Introduction to Women's and Gender Studies 101](#) (CC BY-NC)
- [Introduction to Queer Studies 101](#) (CC BY-NC)
- [Women, Social Change and Activism](#) (CC BY-NC)

Images

[The Gender Spectrum Collection](#) (CC BY-NC-ND)

A stock photo library featuring images of trans and non-binary models that go beyond the clichés. This collection aims to help media better represent members of these communities as people not necessarily defined by their gender identities—people with careers, relationships, talents, passions, and home lives.

[WOCinTech](#) (CC BY)

This collection provides images of women of colour in technology: entrepreneurs, software engineers, infosec professionals, IT analysts, marketers, and other people who make up the tech ecosystem.

Monographs

[Feeling Gender: A Generational and Psychosocial Approach](#) (CC BY)

This book explores how feelings about gender have changed over three interrelated generations of women and men of different social classes during the twentieth century. The author explores the ways in which generational experiences are connected, what is continued, what triggers gradual or abrupt changes between generations – and between women and men within these generations. The book explores how new feelings of gender gradually change gender norms from within, and how they contribute to the incremental creation of new social practices.

[Feminism and the Politics of Childhood](#) (CC BY)

Feminism and the Politics of Childhood offers an innovative and critical exploration of perceived commonalities and conflicts between women and children and, more broadly, between various forms of feminism and the politics of childhood. This unique collection brings into dialogue authors from a range of social science disciplines, activist organisations, and theoretical perspectives. They address topics such as gender, generation and intergeneration, relationality, power, exploitation, solidarity, and emancipation in a variety of situations, including refugee camps, care labour, domestic violence, and childcare and education.

[Transgender Identities: Towards a Social Analysis of Gender Diversity](#) (CC BY-NC-ND)

This volume offers vivid accounts of the diversity of living transgender in today's world. The first section, "Emerging Identities," maps the ways in which social, cultural, legal and medical developments shape new identities on both an individual and collective level. Rather than simply reflecting social change, these shifts work to actively construct contemporary identities. The second section, "Trans Governance," examines how law and social policy have responded to contemporary gender shifts. The

third section, "Transforming Identity," explores gender and sexual identity practices within cultural and subcultural spaces. The final section, "Transforming Theory?", offers a theoretical reflection on the increasing visibility of trans people in today's society and traces the challenges and the contributions transgender theory has brought to gender theory, queer theory and sociological approaches to identity and citizenship. Featuring contributions from throughout the world, this volume represents the cutting-edge scholarship in transgender studies and will be of interest to scholars and students interested in gender, sexuality, and sociology.

Supplemental Materials

[Equality Archive](#) (CC BY-NC-SA)

Equality Archive is a reliable source for the history of sex and gender equality in the United States. It is a theater for history and social justice with the goal to provide a forum for curious people. We know feminism is intersectional: as you explore one entry, you will find connections–intersections–with others. You can follow issues, people, and history by browsing images, or you can search information by using the key words.

[Feminist Adult Educators' Guide to Aesthetic, Creative and Disruptive Strategies in Museums and Community](#) [(CC BY-NC-ND)](#)

From the University of Victoria, this is a collection of imaginative aesthetic, arts-based and arts-informed methods, strategies and approaches to educating and research across community and institutional settings. This collection is a culmination of our responses to a deeply troubled gendered, colonial, unjust and unsustainable world and the role we know that art and creative practices can play.

[LGBT+ Healthcare 101](#) (CC BY)

Digital story interviews with LGBT+ volunteers, 'LGBT+ Healthcare 101' presentation, and a secondary school resource, created by and for University of Edinburgh medicine students. The resources were created as part of a project to address a lack of awareness and knowledge of LGBT+ health, and of the sensitivities needed to treat LGBT patients as valuable skills for qualifying doctors.

[The Transgender Archives: Foundations for the Future – 2nd Edition [PDF]](#) (CC BY-ND)

A document providing an overview of the Transgender Archives housed at the University of Victoria, which encompasses a distinctive range of materials, from organizations' business records to audio histories, from conference programs to pornography, from medical textbooks to self-published newsletters.

Textbooks

[The American LGBTQ Rights Movement: An Introduction](#) (CC BY-SA)

A peer-reviewed chronological survey of the LGBTQ fight for equal rights from the turn of the 20th century to the early 21st century. Illustrated with historical photographs, the book beautifully reveals

the heroic people and key events that shaped the American LGBTQ rights movement. The book includes personal narratives to capture the lived experience from each era, as well as details of essential organizations, texts, and court cases that defined LGBTQ activism and advocacy.

[Antiracism Inc.](#) (CC BY-NC-SA)

This book traces the ways people along the political spectrum appropriate, incorporate, and neutralize antiracist discourses to perpetuate injustice. It also examines the ways organizers continue to struggle for racial justice in the context of such appropriations. Antiracism Inc. reveals how antiracist claims can be used to propagate racism, and what we can do about it.

[Badass Womxn in the Pacific Northwest](#) (CC BY-NC)

This zine is a collection of biographies and portraits of badass womxn in the Pacific Northwest. Undergraduate students collaborated to create this resource that fuses multilingual poetry, art, and writing to celebrate and honor some of the strongest people you might not have heard of. It was created in an interdisciplinary gender, women & sexuality studies classroom.

[Contemporary Families: An Equity Lens](#) (CC BY)

Created with students, approaches contemporary families from an equity lens, this book asks two questions relevant to the Difference, Power, and Discrimination outcomes at Linn-Benton Community College and Oregon State University: "What do families need?" and "How do society and institutions support or get in the way of families getting what they need?"

[Dress, Appearance, and Diversity in U.S. Society](#) (CC BY)

This book introduces topics about identity, dress, and the body. Through the content, readers explore how individuals and communities use dress as a way to communicate (i.e. "negotiate" in fashion studies) their various identities. There is heightened attention to social justice, power, privilege, and oppression. That is, the content focuses on the experiences of historically marginalized communities and the ways they navigate dress and dressing their bodies in different contexts. In the first part of the book, readers are introduced to concepts and theories related to fashion, clothing, dress, and/or accessories. In the second part, readers examine the role that fashion, clothing, dress, and/or accessories play in identity development for individuals in marginalized communities in the United States.

[Global Femicide: Indigenous Women and Girls Torn from Our Midst](#) (CC BY-NC)

Laying our Canadian stories alongside the global phenomenon of femicide in other colonized countries such as Mexico and Guatemala, this book underscores the common, interlocking effects of racism and sexism on Indigenous women. Family members, scholars and researchers, artists, activists and policy-makers provide their decade-long perspectives, providing testimony and evidence that sexualized and racialized violence is not only a product of historic colonization but continues to manifest in entrenched systems of colonization and global femicide.

[Introduction to LGBTQ+ Studies: A Cross-Disciplinary Approach](#) (CC BY)

Designed for an introductory course, this textbook takes a cross-disciplinary approach to the study of LGBTQ+ issues that helps students grasp core concepts through a variety of different perspectives.

[LGBTQ+ Studies: An Open Textbook](#) (CC BY)

This textbook is designed to provide an introduction to and an overview of LGBTQ+ Studies for the introductory level college student and the curious public.

[Our Lives: An Ethnic Studies Primer](#) (CC BY-NC)

This is an introduction or primer to ethnic studies, not a comprehensive review of the literature. We identified and included major concepts, theories, perspectives, and voices in ethnic studies with research from anthropology, history, political science, psychology, and sociology to offer an inclusive approach for critical inquiry.

[A People's History of Structural Racism in Academia: From A(dministration of Justice) to Z(oology)](#) (CC BY)

The goal of this open educational resource is to briefly introduce the reader to the role structural racism plays in each of the academic disciplines discussed throughout it, with the caveat that there is much more to tell. The goal of this book is not to tell the whole story, merely to invite further investigation, as a primer is intended to do. We will briefly define each discipline and move into a sampling of the impact structural racism has had on that specific area. While much of this book is historical, it also looks at present day effects and sadly, incidents of individual and structural racism that are still happening today. In some cases, we also highlight great thinkers of colour, LGBTQIA+, or women who were overlooked, or ways in which individual academic fields are confronting this historical legacy in hopes of changing it.

[Persistence is Resistance: Celebrating 50 Years of Gender, Women & Sexuality Studies](#) (CC BY-NC)

A collection celebrating 50 years of Gender, Women and Sexuality Studies. Contributors are a diverse group of scholars, from undergraduate students to faculty emeritus, representing twenty-two institutions. Essays cover GWSS's history, praxis, and implementation.

[Slavery to Liberation: The African American Experience](#) (CC BY-NC)

A comprehensive and up-to-date account of African Americans' cultural and political history, economic development, artistic expressiveness, and religious and philosophical worldviews in a critical framework. It offers sound interdisciplinary analysis of selected historical and contemporary issues surrounding the origins and manifestations of White supremacy in the United States. By placing race at the center of the work, the book offers significant lessons for understanding the institutional marginalization of Blacks in contemporary America and their historical resistance and perseverance.

[What We Now Know about Race and Ethnicity](#) (CC BY-NC-ND)

Attempts of nineteenth-century writers to establish "race" as a biological concept failed after Charles Darwin opened the door to a new world of knowledge. Yet this word already had a place in the organization of everyday life and in ordinary English language usage. This book explains how the idea of race became so important in the USA, generating conceptual confusion that can now be clarified. Developing an international approach, it reviews references to "race," "racism," and "ethnicity" in

sociology, anthropology, philosophy, and comparative politics and identifies promising lines of research that may make it possible to supersede misleading notions of race in the social sciences.

Websites

[Archives of Lesbian Oral Testimony](#) (CC BY-NC)

The Archives of Lesbian Oral Testimony collects and makes available the oral histories of people who presently or at one time identified as same-sex and same-gender attracted women. Materials in the Archives include oral history audio and video recordings, radio and television programs, and associated materials.

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112.

Greek and Roman Studies

Collections

[Open Greek and Latin Project](#) (CC BY-SA)

The ultimate goal is to represent every source text produced in Classical Greek or Latin from antiquity through the present, including texts preserved in manuscript tradition as well as on inscriptions, papyri, ostraca and other written artefacts.

Textbooks

[Euripides Scholia: Scholia on Orestes 1–500](#) (CC BY-NC-SA)

A web and PDF version of the online edition of scholia at euripidesscholia.org, covering Release 1(2020) of the annotations on Euripides, Orestes 1–500. This version is intended for digital preservation purposes. Updates and greater functionality are available at the online site.

[Spectacles in the Roman World [Word File]](#) (CC BY-NC-SA)

[Spectacles in the Roman World: A Sourcebook](#) (CC BY-SA)

This is a collection of primary sources on Roman games and spectacles in some of their various forms, created for a second-year undergraduate class on spectacles in Greece and Rome (this book covers the Roman section of that course) at the University of British Columbia.

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113.

History

Also see [Political Science](#) in this directory.

See [History OER](#) in development.

[Western Civilization: Antiquity-1650](#); [US History to Reconstruction](#); [History since Civil War](#); [Colorado History](#): These documents map OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/competencies or items for these courses (HIS 101, HIS 121, HIS 122, HIS 225, Colorado).

Collections

Last update: May 8/23

[Canada 150 Conference Proceedings: Migration of Bengalis](#) (CC BY-NC)

The Canada 150 Conference on Migration of Bengalis was triggered by our academic as well as personal desires to establish broadly the history of migration of Bengalis or Bangla-speaking people to Canada. As long-time researchers on Asian immigrants in Canada, and through our involvement in the Metropolis Research Project, we realized that there was hardly any published material on Canadian Bengalis. Therefore, in 2017, on the eve of Canada's 150th anniversary, we took the opportunity to celebrate and document the history and contemporary trends of Bengali immigrants in Canada.

[Canadian Settlement in Action: History and Future](#) (CC BY-NC-SA)

The eight chapters of this book encapsulate the past, present, and future of Canadian immigration and settlement. The topics, in part, cover the history of immigration to Canada through an objective lens that

allows readers to learn what transpired with the settlement of specific ethnic groups, as well as address Canada's current policies and approaches to immigration. This leads to an exploration of the challenges that newcomers to Canada and the settlement sector are encountering today. Readers and learners of settlement studies will embark on a journey of self-reflection throughout this book as they engage in many activities, quizzes, and interactions which may be self-directed or instructor led.

Canadiana (Public domain, see the copyright notice)

A digital repository containing historical Canadian primary material. Included are Canadiana Online, Early Canadiana Online, and Héritage. These collections include a wide collection of primary source material, including historical monographs, serials, and government publications.

Fashion History Timeline (CC BY-NC-SA)

An open-access source for fashion history knowledge, featuring objects and artworks from over a hundred museums and libraries that span the globe. The *Timeline* website offers well-researched, accessibly written entries on specific artworks, garments and films for those interested in fashion and dress history.

LibreTexts: National History (CC BY-NC-SA)

A collection of open textbooks covering American history.

Meiji at 150 Digital Teaching Resource (Open source, licences vary)

Curated and edited by Tristan Grunow and Naoko Kato, the Meiji at 150 DTR is designed to present open-source scholarly content that will be useful for educators and academics looking for new images and topics to introduce into their classroom teaching, while highlighting the academic research possible using UBC's digital materials. The Meiji at 150 Visual Essays pair digitized materials with historical narrative and interpretive analysis. The companion Digital Resources page collates all of the Japan-related digital collections at UBC into one convenient location to facilitate accessibility for research purposes and for easy adoption in the Japanese studies classroom.

OpenGLAM (Various CC licences)

Collections from around the world that provide digital scans or photos of cultural heritage held by galleries, libraries, archives, and museums.

The Victorian Web (Various CC licences)

A collection of primary and secondary materials (books, articles, images) in British Victorian economics, literature, philosophy, political and social history, science, technology, and visual arts. Although the site concentrates on Great Britain in the age of Victoria (1837-1901), it includes much material before and after those years, particularly in sculpture and architecture, and the site also has a good deal of comparative material.

Trans-Atlantic Slave Trade Database (CC BY-NC)

The Trans-Atlantic Slave Trade Database has information on almost 36,000 slaving voyages that forcibly

embarked over 10 million Africans for transport to the Americas between the sixteenth and nineteenth centuries. The site also links to a number of web resources.

Monographs

[Confronting Canadian Migration History](#) (CC BY-SA)

A collection of essays that speak to the broad range of research being done in Canadian migration history; they also highlight the commitment of their authors to an engaged, public-facing scholarly practice. Read together, the authors believe they offer a much-needed historical perspective on contemporary Canadian debates around immigration and refuge, questions that cut to the heart of who we are as a society.

[Curious Encounters: Voyaging, Collecting, and Making Knowledge in the Long Eighteenth Century](#) (CC BY)

Curious Encounters uncovers a rich history of global voyaging, collecting, and scientific exploration in the long eighteenth century. Voyagers from Greenland to the Ottoman empire crossed paths with French, British, Polynesian, and Spanish travelers across the world, trading objects and knowledge for diverse ends. The essays in this collection restore our understanding of the encounters between European and Indigenous people. To do this, the essays consider diverse agents of historical change, both human and inanimate: commodities, curiosities, texts, animals, and specimens moved through their own global circuits of knowledge and power. The dynamic contact zones of these curious encounters include the ice floes of the Arctic, the sociable spaces of the tea table, the hybrid material texts and objects in imperial archives, and the collections belonging to key figures of the Enlightenment.

[Digital Meijis: Revisualizing Modern Japanese History at 150](#) (CC BY-NC-SA)

A companion volume to the Meiji at 150 Digital Teaching Resource that aims to present and widely disseminate research on the Meiji Period in a public format designed for easy adoption in the Japanese studies classroom. By pairing digitized materials and documents with historical narrative and interpretive analysis, the "visual essays" contained within encourage readers to review and rethink modern Japanese history through images.

[Fact and Fiction: Literary and Scientific Cultures in Germany and Britain](#) (CC BY)

Fact and Fiction explores the intersection between literature and the sciences, focusing on German and British culture between the eighteenth century and today.

[Plague Diaries: Firsthand Accounts of Epidemics, 430 B.C. to A.D. 1918](#) (CC BY-SA)

This project originated in response to the Covid-19 pandemic sweeping the globe and its various knock-on effects. We created a small collection of openly available primary documents discussing epidemics from the past, such as the Black Death in Europe in the mid-fourteenth century and smallpox hitting northern Michigan in the nineteenth.

Textbooks

[American Environmental History](#) (CC BY-SA)

This text surveys findings of the new field of environmental history about how the environment of the Americas influenced the actions of people here and how people affected their environments, from prehistory to the present.

[American History I: Colonial Period to Civil War](#) (CC BY)

This text contains all modular text content used in the LMS implementation of American History I (HIST 2111) courses. American History 1 covers topics ranging from the colonial period to the Civil War.

[The American Yawp](#) (CC BY-SA)

An open American history textbook designed for college-level history courses.

[Canada and Speeches from the Throne](#) (CC BY)

This book by senior undergraduate and graduate student in the Department of History at the University of Regina describes how Canadian Prime Ministers articulated their vision of Canada from 1935 to 2015 through their Speeches from the Throne and in their Leaders' Day speeches. It demonstrates that each of Canada's Prime Ministers had a vision for the country and articulated that vision in their speeches and through their words.

[The European Experience: A Multi-Perspective History of Modern Europe, 1500–2000](#) (CC BY)

The European Experience brings together the expertise of nearly a hundred historians from eight European universities to internationalise and diversify the study of modern European history, exploring a grand sweep of time from 1500 to 2000. Offering a valuable corrective to the Anglocentric narratives of previous English-language textbooks, scholars from all over Europe have pooled their knowledge on comparative themes such as identities, cultural encounters, power and citizenship, and economic development to reflect the complexity and heterogeneous nature of the European experience. Rather than another grand narrative, the international author teams offer a multifaceted and rich perspective on the history of the continent of the past 500 years. Each major theme is dissected through three chronological sub-chapters, revealing how major social, political and historical trends manifested themselves in different European settings during the early modern (1500–1800), modern (1800–1900) and contemporary period (1900–2000)

[The First into the Dark: The Nazi Persecution of the Disabled](#) (CC BY-NC-ND)

Under the Nazi regime a secret program of 'euthanasia' was undertaken against the sick and disabled. Known as the *Krankenmorde* (the murder of the sick) 300,000 people were killed. A further 400,000 were sterilised against their will. From eyewitness accounts, records and case files, this book narrates a history of the victims, perpetrators, opponents to and witnesses of the *Krankenmorde*, and reveals deeper implications for contemporary society.

[History in the Making: A History of the People of the United States of America to 1877](#) (CC BY-SA)

This textbook examines U.S. History from before European Contact through Reconstruction, while focusing on the people and their history.

Keys to Understanding the Middle East (CC BY-SA)

This book is intended for readers who have never studied the Middle East, or experts who may wish to fill gaps in their knowledge of the region from other disciplines. Whether for establishing or deepening one's knowledge of the region, these fundamentals are important to know. The languages, cultural, religious and sectarian communities of the region, and selected turning points and influential people in history are starting points for gaining an understanding of the diverse contexts of the region.

Making up Numbers: A History of Invention in Mathematics (CC BY)

Making up Numbers: A History of Invention in Mathematics offers a detailed but accessible account of a wide range of mathematical ideas. Starting with elementary concepts, it leads the reader towards aspects of current mathematical research.

Modern World History (CC BY-NC-SA)

This is the textbook for an undergraduate survey course taught at all the universities and most of the colleges in the Minnesota State system. Readers of this text may have varying levels of familiarity with the events of World History before the modern period we will be covering. Occasionally understanding the text may require a bit of background that will help contextualize the material we are covering. See the book's Introduction for details.

Open History Seminar: Canadian History (CC BY-NC-SA)

This book brings together open resources for learning about Canadian history from the earliest times to the present. Chapters include both historical documents and secondary interpretations on a range of topics. With this book, students have access to digitized copies of original historical documents and high-quality secondary source research materials. They will learn how to critically analyze historical documents, deconstruct historical arguments, and engage with historical scholarship. This is a supplement to the open textbooks, Canadian History: Pre-Confederation and/ or Canadian History: Post-Confederation.

Tokyo University and the War (CC BY)

Tachibana Takashi analyzes the impact of World War II on Tokyo University and Tokyo University's impact on the war: attacks from outside, faculty politics and purges, institutional expansion, the sacrifice of liberal arts students to the war machine, and heroic dissenting professors who tried in vain to bring the war to an early end.

Using Primary Sources (CC BY-NC-ND)

An archive-based open access e-textbook published by the University of Liverpool that provides students with an essential learning resource to study primary sources, comprising over 200,000 words and in excess of 200 original documents (photographs, maps, letters, audio recordings, diaries, pamphlets and newspapers) with 26 collections by leading academics in the field.

[World History: Cultures, States, and Societies to 1500](#) (CC BY-SA)

An open textbook that introduces the history of humankind from prehistory to 1500. It covers such cultures, states, and societies as Ancient Mesopotamia, Ancient Israel, Dynastic Egypt, India's Classical Age, the Dynasties of China, Archaic Greece, the Roman Empire, Islam, Medieval Africa, the Americas, and the Khanates of Central Asia.

Videos

[Canadian History: Post-confederation](#) (CC BY)

A collection of interviews with historians on different topics in Canadian history. (45 videos)

[Canadian History: Pre-confederation](#) (CC BY)

A collection of interviews with historians on different topics in Canadian history. (97 videos)

[Centre for the History of the Book](#) (CC BY)

A series of videos designed to introduce key skills for Book Historians. The videos provide guidance on how to handle rare books, how to tell a quarto from an octavo, how paper is made and where watermarks come from, how to read and write a collation, how to use a scholarly edition and more. These videos offer a useful resource for mastering research techniques that can be difficult to learn from a book.

[The History of Sugar](#) (CC BY-SA)

This stop-motion animation captures the complex history of the sugar trade, and how it was connected to the slave trade. The video shows the evolution of modern capitalism from the sugar and slave trades.

[The History of State](#) (CC BY-SA)

This stop-motion animation illustrates the history of the modern state, explaining how it was shaped by political, philosophical and scientific processes happening as early as the 17th century.

Websites

[Active History](#) (CC BY-NC-SA)

A website that connects the work of historians with the wider public and the importance of the past to current events.

[Civil War Washington](#) (CC BY-NC-SA)

Civil War Washington allows users to study, visualize, and theorize the complex changes in the city of Washington, DC between 1860 and 1865 through a collection of datasets, images, texts, and maps.

[Histories of the National Mall](#) (CC BY)

This site contains a collection of historical maps, a chronology of past events, short bios of significant individuals, and episodes in the Mall's history.

[NICHE Canada](#) (CC BY-NC)

NiCHE: Network in Canadian History & Environment / Nouvelle initiative canadienne en histoire de l'environnement is a Canadian-based confederation of researchers and educators who work at the intersection of nature and history. They explore the historical context of environmental matters and communicate their findings to researchers, policymakers, and the public.

[O Say Can You See: Early Washington, D.C., Law & Family](#) (CC BY-NC-SA)

A site documenting the challenge to slavery and the quest for freedom in early Washington, D.C., by collecting, digitizing, making accessible, and analyzing freedom suits filed between 1800 and 1862, as well as tracking the multigenerational family networks they reveal.

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Indigenous Studies

<div style="border:1px solid black">

Also see <u>Language Learning: OER for specific languages</u> in this directory.

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Collections

[Indigenous voices](#) (Various CC licences)

This collection features Indigenous voices, stories, and perspectives.
Here you'll find examinations of historical and contemporary issues, reading guides for celebrated novels, a series about Indigenizing post-secondary institutions and professional practice, and more. You're sure to find something challenging, inspiring, and thought-provoking as you explore these resources.

Courses

[Understanding Indigenous Perspectives](#) (CC BY-NC-SA)

This set of learning modules has been created to support and inspire educators and future teachers to gain a deeper understanding of Indigenous perspectives and an appreciation of how Indigenous knowledge and worldviews can assist all learners in their educational journey. The goal of the modules is to provide an introductory grounding to key issues affecting Indigenous people in Canada as a foundation for further and deeper learning.

Supplemental Materials

[Moon of the Crusted Snow: Reading Guide](#) (CC BY-NC-SA)

Moon of the Crusted Snow by Waubgeshig Rice is a fictional novel that looks at how an Anishinaabe First Nation, in northern Ontario, deals with an unknown event that leaves the community isolated, without power or phone service, and limited food sources as winter sets in. This guide, developed collaboratively with the author, discusses themes and connections, quotes, resources, discussion questions, activities, and additional readings.

Textbooks

[Cree Dictionary of Mathematical Terms with Visual Examples](#) (CC BY)

This dictionary is the continuation of prior work by the authors on composing Cree equivalents of mathematics terms. The glossary of mathematics terms was developed considering the topics of school curriculums of Canadian provinces. The dictionary provides Cree equivalents of 176 mathematics terms and their definitions in English. The visual examples mainly contain Indigenous elements. The dictionary was reviewed by Elders, Indigenous Knowledge Keepers, and Cree-speaking educators.

[Pulling Together: Manitoba Foundations Guide (Brandon Edition)](#) (CC BY-NC)

This is the first Manitoba adaptation of an open professional learning series developed for staff across post-secondary institutions. This guide is intended to be a living document. Just as human relationships are dynamic, so too is this document meant to grow and change.

Free materials (Not openly licensed)

[Digital Atlas of Native American Intellectual Traditions](#) (Not openly licensed)

The Digital Atlas of Native American Intellectual Traditions (DANAIT) is an IMLS-funded project to create a space for conversation and collaboration, with the goal of developing a framework for sharing, exploring, and visualizing Native-authored library and archival collections. The project will bring together Native Studies scholars; Native librarians; tribal historians; representatives from libraries with large Native-authored collections; metadata, digital humanities, and user interface specialists; and technologists to expand and improve culturally appropriate access to Native digital collections and to create collaborative digital humanities scholarship that accurately represents Native American intellectual networks.

[Indigenous Resources](#)

A list of publicly available (but not openly licenced) video, audio, and other digital files grouped in relation to specific First Nations or to Many Nations across North America. A General category includes links to curriculum resources, books and articles, and criteria for resource evaluation.

[Infusing Indigenous Perspectives in K-12 Teaching](#) (Licences vary)

The University of Toronto Library has compiled a list of 50 freely accessible resources regarding Truth and Reconciliation and Indigenous Education for educators across the province of Ontario. These materials are largely created by Indigenous authors and creators, and include films, mobile phone applications, websites, curricula and lesson plans. While these resources are all available online for free, many of them are not under open licences.

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Language Learning: OER for specific languages

Also see [Languages OER](#) in development.

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Collections

[Global Storybooks Portal](#) (CC BY-NC-SA)

A collection of early-reader books available in the official, Indigenous, and commonly spoken languages of nations all around the world. Countries represented include Bangladesh, Brazil, Canada, Germany, Ghana, Haiti, Hong Kong, Hungary, Indigenous, Jamaica, Japan, Kenya, Korea, Mexico, American states (Minnesota, Washington), Nigeria, Norway, Pakistan, Poland, Rwanda, Tanzania, Uganda, United Kingdom, and Zambia.

[Language OER Network](#) (CC BY)

The goal of the Language OER Network (LOERN, pronounced 'learn') is to showcase the work of open educators in the field of language learning and teaching (L2LT). The site also includes links to learning materials.

[The Pathways Project](#) (Various CC licences)

An initiative from the Boise State University Department of World Languages, this is a collaborative network of open educational resources including instructional language teaching materials and professional development created by and uniquely for Idaho's K-16 language teachers and students.

[Storybooks Canada](#) (CC BY-NC-SA)

Storybooks Canada is a free open educational resource that promotes literacy and language learning in homes, schools, and communities. It makes 40 stories from the African Storybook available with text and audio in English, French, and the most widely spoken immigrant and refugee languages of Canada. These languages include Arabic, Bengali, Cantonese, German, Italian, Korean, Mandarin, Persian, Polish, Portuguese, Punjabi, Somali, Spanish, Tagalog, Turkish, and Urdu.

Journals

[Reading in a Foreign Language](#) (CC BY-NC-ND)

Published by the [National Foreign Language Resource Center (NFLRC)](#) at the University of Hawai'i at Mānoa.

[Second Language Research & Practice](#) (CC BY-NC-ND)

A refereed journal of the AAUSC addressing postsecondary language education from theoretical, empirical, and practical perspectives.

Tools and resources

[Bilingual Language Profile](#) (CC BY-NC-SA)

The Bilingual Language Profile (BLP) is an instrument for assessing language dominance through self-reports that is concise, quick, and easy to use. The BLP is intended to produce a continuous dominance score and a general bilingual profile taking into account a variety of linguistic variables.

[Foreign Languages & the Literary in the Everyday (FLLITE)](#) (CC BY)

This handbook is a culmination of ideas, resources, and pedagogies that have been developed over the past several years as a series collaboration from which the FLLITE approach has emerged as a heuristic for creating lessons and developing integrated curricula from the beginning to the end of language study.

Resources by language

Anishinaabemowin (Ojibwe/Salteaux)

[Ojibwe Bilingual K-4 Book Series](#) (Free, but not openly licensed)

A collection of 15 books dedicated to those that lost their language and those that aspire to learn Anishinaabemowin. These books are available for free to anyone worldwide. This is our contribution to the preservation and restoration of Anishinaabemowin (Ojibwe/Salteaux).

Arabic

[Arabic and English Sentence Patterns: A Comparative Guide](#)

This text explores verb time, tense, aspect, and mood through comparison of Arabic and English sentence patterns. It includes examples of the Arabic patterns from classical and popular sources so Arabic students can learn by explanation and example how to formulate cohesive and grammatically correct sentence structure.

[Arabic Teaching Methods](#) (CC BY-NC)

A website that aims to support professors teaching Arabic as a foreign/second language.

[Arabic Voices](#)

A web site designed for learners and teachers of Arabic seeking materials for listening comprehension. The site provides listening materials and accompanying activities that are intended for the various levels of proficiency from Novice to Superior.

[Elementary Arabic](#) (CC BY)

An open textbook on Elementary Arabic for undergraduate students who are taking Arabic in their second semester. It addresses language structures in theme-based modules that cover the four language skills. The book can be used as a self-study resource or as the main textbook in beginning Arabic classes.

[From MSA to CA: A Beginner's Guide for Transitioning into Colloquial Arabic](#) (CC BY-NC)

This book is for students who have studied Modern Standard Arabic (MSA) for one year or more and would like to learn colloquial Arabic basics using their knowledge of MSA. It aims at transitioning learners from Novice Mid level to Intermediate Low through presenting situations useful for living in an Arab country. The book has several features including hyperlinks, practice dialogues with open answers, cultural tips, and more.

Cree

[Cree: Language of the Plains / nēhiyawēwin: paskwāwi-pīkiskwēwin](#) (CC BY-NC-ND)

Cree: Language of the Plains is a comprehensive educational resource, offering a broad range of learning materials that is easily accessible to Cree language learners. This collection includes an updated and redesigned Cree language textbook, Cree language audio labs, and a Cree language workbook.

[Little Cree Books](#) (CC BY-NC-SA)

The Little Cree Books are the first in what the creators hope will become a large collection of online books designed for early Cree readers. These little books are designed to incorporate the vocabulary and grammatical elements introduced at each grade level in Alberta's Cree curriculum framework and guides to implementation (K–3 and 4–6).

[Indigenous Storybooks: Cree](#) (CC BY-NC-SA)

Indigenous Storybooks is a Canadian website for children, families, community members, and educators. Inspired by the open-licensed stories from Little Cree Books, this project aims to make the text, images, and audio of stories available in Indigenous languages ([Plains Cree](#) and [Swampy Cree](#)) as well as English, French, and the most widely spoken immigrant and refugee languages of Canada. A story that is read in English or French at school can be read in ancestral languages by parents and children at home. In this way, Indigenous Storybooks provides access to stories in ancestral languages as well as English and French. Similarly, the audio versions of the stories can help beginning readers and language learners make the important connection between speech and text.

Czech

[Reality Czech](#) (CC BY-SA)

A Czech textbook and curriculum currently under development. Resources are expected to be completed

by end of Summer 2018. In addition to a textbook, resources will include an in-class activity book, online grammar and cultural units, and printable homework exercises.

English

See [English Language Learning (ELL)](#).

French

[Au Boulot! First-Year French](#) (CC BY-NC)

Au boulot! is a two-year college French program consisting of: a textbook, workbook, and 21 accompanying audio exercises; as well as a reference grammar, to be used the entire two years.

[Chapeau! First-Year French](#) (CC BY-NC)

A first-year French-language textbook that includes a textbook, a workbook, and 24 accompanying audio exercises (mp3).

[Enhancing French Skills](#) (CC BY-NC)

A website for intermediate learners of French, created for students in a three-hour semester course at the University of Texas at Austin. Students expand their knowledge of the French language and francophone cultures and continue the development of their communicative abilities by practicing the four basic skills of speaking, listening, writing and reading.

[French à la mode](#) (CC BY-NC-ND)

This website has activities for French learners at the beginning and intermediate levels that are intended to be used in conjunction with any curriculum.

[Le littéraire dans le quotidien](#) (CC BY)

An open textbook offering a transdisciplinary approach to reading/writing at the first and second year levels of college French.

[Les conversations mises à jour](#)

A collection of authentic conversations in French that targets mostly intermediate and advanced learners of French. Each conversation highlights the shared experience of two native or near-native French speakers and provides both an oral history of that experience and a trove of cultural references.

[Let's Read French Books](#) (CC BY-NC-SA)

Reading books is a great way to learn a language. It helps to discover the culture, to learn new words, to be exposed to different language structures in the context. But, one of the biggest challenges in the language and literature classes is to encourage the students to read. This project aims to make reading literary books easier for the students by creating an open textbook reader using Public Domain 19th century French literature. Along with the text, there are activities for students to engage with and discover the text.

[Libre Accès](#) ([Licence OpenEdition](#))

Les Presses de l'université de Montreal se sont associées à la Direction des bibliothèques de l'UdeM pour un projet pilote de publication de livres numériques en libre accès, mais il ne s'agit pas de la seule offre en libre accès des PUM. La collection « [Parcours numériques](#) », propose deux modes de lecture complémentaires, dont un site web pour l'édition augmentée.

[Sons et lettres: A French Pronunciation Method for Intermediate-level French](#) (CC BY-NC)

Sons et lettres provides a set of classroom materials to train students to hear and produce the sounds of French and to recognize the regular spellings used to represent those sounds in print. The materials are inspired by a desire to help students feel more confident about their French pronunciation and more at home saying the many French words.

[Tex's French Grammar](#) (CC BY)

A user-friendly guide to French grammar that combines explanations with dialogues and cartoon images.

German

[Das Zentrale OER-Repositorium der Hochschulen in Baden-Württemberg (ZOERR)](#) (Various CC licences)

ZOERR is a service within the university network Digitization in Teaching Baden-Württemberg (HND-BW). With this service, the University Library of Tübingen provides open teaching and learning materials from the university sector for Baden-Württemberg and beyond.

[Der und mehr](#) (CC BY)

This textbook is developed for use with the [*der | die | das*](#) German language learning website, developed by [Dr. Jamie Rankin](#) of Princeton University, with funding from a [Round 15 Textbook Transformation Grant](#).

[German Frame-semantic Online Lexicon](#) (CC BY)

A German-English vocabulary resource that organizes words according to their meanings, rather than just alphabetically, provides detailed definitions and pointing out differences between seemingly similar German and English words, and includes a number of real example sentences for each word (from www.dwds.de) to show how it is used in context.

[Grenzenlos Deutsch](#) (CC BY-NC-SA)

This full-year curriculum mixes materials rooted in real-world, contemporary communication scenarios, multimedia content, and online learning activities and ensures that the topics of discussion in the language classroom are relevant to and reflect today's world.

[Willkommen: Deutsch für alle](#) (CC BY-NC-SA)

An innovative first-year German language e-textbook for learning German at the college/ university level. It features a task-based, communicative approach which provides students with opportunities to communicate in German in a variety of contexts and situations. Through a wide range of activities, students develop and practice their language skills which they showcase at the end of each chapter by accomplishing a specific task.

Also see [German OER](#) in development.

Haida

[Indigenous Storybooks: Haida](#) (CC BY-NC-SA)

Indigenous Storybooks is a resource designed specifically for children, families, community members, and educators. Inspired by the open-licensed stories from Little Cree Books, this project aims to make the text, images, and audio of stories available in Indigenous languages (Plains Cree, Swampy Cree, and Haida) as well as English, French, and the most widely spoken immigrant and refugee languages of Canada.

Hindi

[Basic Hindi](#) (CC BY)

An online, interactive, theme-based textbook for the true beginner of Hindi language. It promotes communicative, linguistic, and cultural competence. It has mixture of pedagogical approaches to fit all types of learning and teaching philosophies/styles to achieve intermediate low to mid ACTFL proficiency level within a semester.

[Hindi in America Video Collection](#) (CC BY)

A video collection of Hindi speakers answering questions about their experiences living in the United States.

Hul'q'umi'num'

[Hul'q'umi'num' (Cowichan) Language Resources](#) (Not openly licenced)

A collection of resources developed by the Cowichan Valley School District to support Hul'q'umi'num' language revitalization at an elementary level.

[Ruler of the Forest](#) (CC BY-NC-ND)

A digital story from School District 79 Aboriginal Education (Cowichan Valley) told in Hul'q'umi'num'.

Indigenous – general

[Native Languages of Texas](#) (CC BY-SA)

Texas was home to a variety of Native American tribes, including the Apache, the Comanche, the Caddo, the Coahuiltecan, the Karankawa, the Kiowa, the Kitsai, the Tonkawa, and the Wichita. Their history and way of living shared similarities, but they were also different.

Italian

[Tutt* a tavola! Volume 1](#) and [Volume 2](#) (CC BY-NC)
This two-volume set is intended for Elementary Italian over two semesters. In general, each chapter addresses three to four grammatical topics and includes a vocabulary section related to a cultural theme with the vocabulary incorporated into the grammatical presentations and exercises. There is also a short reading in each chapter regarding different aspects of culture and language to address those questions of diversity and inclusion that are often missing from textbooks.

Japanese

[Beginning Japanese for Professionals: Book 1](#) (CC BY-NC)

This textbook is designed for beginning learners who want to learn basic Japanese for the purpose of living and working in Japan. Unlike textbooks written primarily for students, whose content largely centers on student life, this book focuses more on social and professional life beyond school.

[Beginning Japanese for Professionals: Book 2](#) (CC BY-NC)

This textbook is designed for beginning learners who want to learn basic Japanese for the purpose of living and working in Japan. Unlike textbooks written primarily for students, whose content largely centers on student life, this book focuses more on social and professional life beyond school.

[Beginning Japanese for Professionals: Book 3](#) (CC BY-NC)

This textbook is designed for beginning learners who want to learn basic Japanese for the purpose of

living and working in Japan. Unlike textbooks written primarily for students, whose content largely centers on student life, this book focuses more on social and professional life beyond school.

[Preadvanced Japanese](#) (CC BY-NC)

This textbook is designed for students who have intermediate competency in Japanese, roughly at Level 2 on the ILR (The Interagency Language Roundtable) proficiency scale, and are working on reaching Level 3. This textbook can be used for self-study, as part of online course, and in a traditional classroom setting. It is comprised of four chapters, intended to be covered in one term of a quarter system.

K'iche'

[Chqe'tamaj le qach'ab'al K'iche'!](#) (CC BY)

This beginner-to-advanced level online course for K'iche', a Mayan language of Guatemala.

Korean

[Korean Through Folktales](#) (CC BY-NC)

Korean Through Folktales consists of four chapters and each centers on a famous Korean folktale. Through the selected folktales and various activities offered in the book, students can gain cultural knowledge and insights into traditional and cultural values while they are given linguistic lessons to reinforce their acquired skills and to apply the learned materials in an integrated approach. This book is designed to accompany 1st-year, 2nd-year, and 3rd-year Korean courses.

Malayalam

[Malayalam Resources](#) (CC BY-SA)

This is a collection of classroom materials, curricular plans, lesson plans and other resources designed to facilitate teaching and learning Malayalam, from the Department of Asian Studies and South Asia Institute at the University of Texas at Austin.

Mandarin

[Gateway to Chinese](#) (CC BY-NC)

This site offers a collection of free interactive language learning resources for beginning Mandarin Chinese. Students now have the option to practice pronunciation, vocabulary, grammar, listening, and reading skills at their own convenience.

Nahuati

[Nahuatlahtolli](#) (CC BY-SA)

This self-paced course is based on the Nahuatl variant from the Huasteca of Veracruz that is spoken in Chicontepec, Veracruz, Mexico. The principal aim of this course is to develop the student's oral, written, and comprehension abilities primarily through the study of grammar, listening, and reading.

Portuguese

[Bate-Papo](#) (CC BY)

An introduction to Portuguese.

[Brazilpod](#) (CC BY)

A collection of teaching materials created at the University of Texas at Austin for the study of Portuguese.

[ClicaBrasil](#) (CC BY-NC-SA)

Here you will find Portuguese language resources that highlight aspects of Brazilian culture. These materials are designed for intermediate to advanced students, but are accessible to everyone. Each unit includes videos of Brazilians from all walks of life speaking naturally about their lives and their country, and numerous activities and exercises available in PDF files.

[Português para principiantes](#) (CC BY-NC-SA)

This media-rich beginners text is designed to provide learners with a solid grammatical basis for using Brazilian Portuguese as well as regular opportunities to practice and improve their ability to read, speak, and understand the Portuguese language as it is used in contemporary Brazil.

[Recursos Educacionais Abertos](#) (Various CC licences)

O Projeto Recursos Educacionais Abertos desenvolvidos para a Melhoria Acadêmica (REAdME) busca dar apoio à divulgação das ações de ensino, pesquisa e extensão que estão sendo desenvolvidas na UFPE para enfrentamento da Covid-19. Isso é feito por meio desta Comunidade, que tem o objetivo de possibilitar a disponibilização e o acesso aos Recursos Educacionais Abertos (REAs) produzidos na UFPE.

Spanish

[Acceso](#) (CC BY-NC-ND)

Acceso is intended as a complete, interactive curriculum for intermediate-level learners of Spanish.

[¡Bienvenidos!](#) (CC BY)

This textbook was developed as part of a [Round 15 Textbook Transformation Grant](#).

[Curso de Escritura en Español](#) (CC BY-NC-SA)

The materials in this project are specifically designed for a third-year Spanish Writing course, offering guidance to instructors on how to develop each of the four modules that constitute the course: Description, narration, argumentation, and exposition.

Español abierto (Various CC licences)
Open educational resources for the Spanish classroom maintained by the Center for Open Educational Resources and Language Learning (COERLL) at the University of Texas at Austin.

Heritage Spanish (CC BY)

On online community created to help Spanish instructors share and find teaching resources.

Heritage Spanish – Professional Development Modules (CC BY)

An ongoing TeCHS project aiming to provide relevant information and resources to promote, expand and celebrate heritage Spanish teaching and learning.

La hora del cuento en español (CC BY-NC)

La hora del cuento en español is a collection of children's stories in Spanish authored by Kwantlen Polytechnic University (KPU) students and edited by KPU Faculty Constanza Rojas-Primus and KPU alumna Sofía Rodríguez. The first part of this collection is a selection of stories written by KPU Spanish 1100 students between Fall 2017 and Spring 2019. The second part of this collection is a selection of stories written by KPU Spanish 1101 students between Fall 2020 and Spring 2022. All stories are narrated by Constanza Rojas-Primus and have been translated into English by Sofía Rodríguez. The illustrations in the cover and first part of this collection are artwork of KPU student Cheyenne Pokeda.

Mi idioma, mi comunidad: español para bilingües (CC BY-NC-ND)

For Heritage Language Leaners of Spanish that centers on students' experiences with language, identity, and belonging in the Midwest through real-world applications. It uses a project-based approach that outlines how students engage in real-life applications by exploring culturally relevant topics in language use, arts, festivals, food, ethnography, oral history, digital lives, and the university. Through multimedia such as podcasts, videos, neighborhood maps, and music, we promote interactive exploration of culturally relevant content while supporting students' language maintenance and growth.

Open Educational Resources for Spanish (Various CC licences)

From the ASCCC OERI Resource Page for Spanish: This space is intended to provide faculty in the discipline with a collection of resources that have been subject to a peer-review process and/or that have been selected for use by faculty in the California community colleges.

Social and Regional Dialects of Spanish (CC BY-NC-ND)

An advanced undergraduate-level course that is written in Spanish.

SOS Spanish Basic Grammar Toolkit (CC BY)

[Spanish Corpus Proficiency Level Training](#) (CC BY-NC-ND)

Video recordings of Spanish learners of different levels answering several questions, a written transcript of what they say, and exercises that will guide you interactively to notice features about their talk, as well as answers to those exercises.

[Spanish in Texas](#) (CC BY)

The purpose of the Spanish in Texas project is to profile Spanish as it is spoken throughout Texas today and to provide open learning tools that allow students, teachers, and the general public to explore Spanish language variation. A central goal of the project is to encourage users to view local varieties of Spanish and their speakers as important resources for learning about language and culture.

[Yo puedo: para empezar](#) (CC BY-NC)

Many say, "I have studied Spanish for years and don't know how to speak or write it," while others are a bit anxious about taking a second language for the first time, but all are overwhelmed by the expensive textbooks and online packages that don't seem to be practical or relevant. We sought to change these common complaints by creating materials that take a new approach to learning a second language based upon the skills that we deem most useful and that will enable our students to confidently express themselves in Spanish.The text is designed for beginning Spanish language students.

[Yo puedo: segundos pasos](#) (CC BY-NC)

As you begin the equivalent of a second semester Spanish course with these materials, some of you might think about how long it has been since you studied Spanish while others may come to the class with some background knowledge. We want you to know this book has been designed with many types of learners in mind. Our goals were to address the need for students to achieve the ability to communicate in written and spoken form.

Also see [Spanish OER](#) in development.

Yorùbá

[Yorùbá Yé Mi](#) (CC BY-NC-ND)

An interactive, communicative, introductory, multi-media program intended to provide college/university students with basic listening, speaking, reading, and writing skills of language learning in Yorùbá. It exposes the learner not only to Yorùbá language in meaningful situations but also to the culture of the Yorùbá-speaking people of South-western Nigeria.

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- [Canada Map Icon](#) © [Icons8](#) is licensed under a [CC BY-ND (Attribution NoDerivatives)](#) license

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Library and Information Science

Also see [Library and Information Science OER](#) in development.

Courses

Last update: Sep 25/20

[Mantra: Research Data Management Training](#) (CC BY)

MANTRA is a free, online non-assessed course with guidelines to
help you understand and reflect on how to manage the digital data you collect throughout your research. It has been crafted for the use of post-graduate students, early career researchers, and also information professionals.

Textbooks

[Academic Integrity](#) (CC BY-N C-SA)

An interactive approach to conveying the values of academic integrity, clarifying the meaning of plagiarism, and introducing the basics of citations, quoting and paraphrasing.

[The Discipline of Organizing – 4th Professional Edition](#) (CC BY-NC)

Organizing is a fundamental issue in library and information science, computer science, systems analysis, informatics, law, economics, and business. This book analyzes these different contexts and disciplines to propose a discipline of organizing that applies to all of them; the 4th edition builds a bridge between organizing and data science. It reframes descriptive statistics as organizing techniques, expands the treatment of classification to include computational methods, and incorporates many new examples of data-driven resource selection, organization, maintenance, and personalization.

[Got a minute? Instruction tune-up for time pressed librarians](#) (CC B Y-NC-SA)

No time to catch up? Try these short and informative essays that have been written on a wide variety of library instruction topics and with the busy practitioner in mind.

Videos

[The British Library YouTube Channel](#) (CC BY)

Videos from the British Library, the national library of the United Kingdom.

Media Attributions

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Linguistics

Supplemental Materials

[WISC-Online Linguistics Learning Objects](#) (CC BY-NC)

A collection of learning objects on various topics in Linguistics.

Last update: Oct 1/20

Textbooks

[Languages and Worldview](#) (CC BY-NC-SA)

Asking and answering questions about what culture entails and examines the fundamental properties and intertwining nature of language and culture. This text explores linguistic relativity, lexical differences among languages and intercultural communication, including high and low contexts.

[Linguistics for Teachers of English](#) (CC BY-NC-SA)

The primary goals of this text are to acquaint prospective teachers of English with certain aspects of the history, structure, and use of the English Language. Through considering the nature of the English language; how language and culture are interconnected as well as how it is acquired and how and why it changes, readers will come to a fuller understanding of sociolinguistics.

Videos

[Generative Linguistics](#) (CC BY-NC-SA)

A series of eleven videos dealing with topics on generative syntax.

[The Origins of the Scots Language](#) (CC BY)

A fantastic video introduction to the tongues, peoples and events that shaped the earliest history of the Scots language with versions narrated both in Scots and English.

118.

Philosophy

Also see [Philosophy OER](#) in development.

Courses

Last update: May 8/23

[Argument Diagramming](#) (CC BY-NC-SA)

Potentially useful to a broad range of students, Argument Diagramming provides an introduction to exploring and understanding arguments. This course will explain what the parts of an argument are and how to break arguments into their parts and create diagrams to show how those parts relate to each other.

[Causal and Statistical Reasoning](#) (CC BY-NC-SA)

This course provides an introduction to causal and statistical reasoning. After taking this course, students will be better prepared to make rational decisions about their own lives and about matters of social policy. They will be able to assess critically—even if informally—claims that they encounter during discussions or when considering a news article or report. A variety of materials are presented, including Case Studies where students are given the opportunity to examine a causal claim, and the Causality Lab, a virtual environment to simulate the science of causal discovery. Students have frequent opportunities to check their understanding and practice their skills.

[Logic & Proofs](#) (CC BY-NC-SA)

This is an introductory course designed for students from a broad range of disciplines, from mathematics and computer science to drama and creative writing. The highly interactive presentation makes it possible for any student to master the material. Concise multimedia lectures introduce each chapter; they discuss, in detail, the central notions and techniques presented in the text, but also articulate and motivate the learning objectives for each chapter.

Monographs

[Animals & Ethics 101: Thinking Critically About Animal Rights](#) (CC BY-SA)

This book provides an overview of the current debates about the nature and extent of our moral obligations to animals. We will explore the most influential and most developed answers to these questions – given by philosophers, scientists, and animal advocates and their critics – to try to determine which positions are supported by the best moral reasons.

Supplemental Materials

The Republic of Plato (Public Domain, Project Gutenberg)

Transcript of Benjamin Jowett's 1888 translation of this work. This text attempts to capture all that is of value in the early versions. It is based largely on the third edition, "revised and corrected throughout," of 1888, but incorporating the complete Stephanus numbering that is found only in a two-volume version published in 1908.

WISC-Online Philosophy Learning Objects (CC BY-NC)

A collection of learning objects on topics in philosophy.

Textbooks

Critical Thinking (CC BY)

Using a combination of the newest findings in hemispheric science, neuropsychology, and brain development, along with the long-established rhetorical algorithms for analyzing the structure of arguments, this course explores the boundaries of critical and creative thinking in pursuit of developing a clearer and more robust model for the construction and deconstruction of various forms of argument. A variety of "texts" are used to help students develop rhetorical analysis skills, critical thinking tools and a diverse, integrative apparatus for establishing the veracity of truth claims in both academic and cultural contexts.

Form and Content: An Introduction to Formal Logic (CC BY-NC-ND)

An introductory logic text that uses low-stakes, fun examples to illustrate good and bad arguments.

Foundations for Moral Relativism – 2nd expanded edition (CC BY-NC-ND)

This textbook explores the current debate about cultural difference and shows that different communities can indeed be subject to incompatible moralities, because their local mores are rationally binding. At the same time, the mores of different communities are explained, even when incompatible, as still being variations on the same moral themes.

Fundamental Methods of Logic (CC BY)

The text is suitable for a one-semester introductory logic or "critical thinking" course. The emphasis is on formal techniques and problem solving rather than analytical writing, though exercises of the latter sort could easily be incorporated. It covers a variety of topics at an introductory level. Chapter One

introduces basic notions, such as arguments and explanations, validity and soundness, deductive and inductive reasoning; it also covers basic analytical techniques, such as distinguishing premises from conclusions and diagramming arguments. Chapter Two discusses informal logical fallacies. Chapters Three and Four concern deductive logic, introducing the basics of Aristotelian and Sentential Logic, respectively. Chapters Five and Six concern inductive logic. Chapter Five deals with analogical and causal reasoning, including a discussion of Mill's Methods. Chapter Six coversbasic probability calculations, Bayesian inference, fundamental statistical conceptsand techniques, and common statistical fallacies.

[A Friendly Introduction to Mathematical Logic](#) (CC BY-NC-SA)

At the intersection of mathematics, computer science, and philosophy, mathematical logic examines the power and limitations of formal mathematical thinking. In this expansion of Leary's user-friendly 1st edition, readers with no previous study in the field are introduced to the basics of model theory, proof theory, and computability theory. The text is designed to be used either in an upper division undergraduate classroom, or for self study.

[An Introduction to Philosophy](#) (CC BY-NC)

The goal of this text is to present philosophy to newcomers as a living discipline with historical roots. While a few early chapters are historically organized, the goal in the historical chapters is to trace a developmental progression of thought that introduces basic philosophical methods and frames issues that remain relevant today. Later chapters are topically organized. These include philosophy of science and philosophy of mind, areas where philosophy has shown dramatic recent progress.

[Introduction to Philosophy by OpenStax](#) (CC BY)

Designed to meet the scope and sequence of your course, *Introduction to Philosophy* surveys logic, metaphysics, epistemology, theories of value, and history of philosophy thematically. To provide a strong foundation in global philosophical discourse, diverse primary sources and examples are central to the design, and the text emphasizes engaged reading, critical thinking, research, and analytical skill-building through guided activities.

[Introduction to Philosophy: Epistemology](#) (CC BY)

This book engages first-time philosophy readers on a guided tour through the core concepts, questions, methods, arguments, and theories of epistemology—the branch of philosophy devoted to the study of knowledge. The book progresses systematically while placing key ideas and thinkers in historical and contemporary context. Central topics include the analysis of knowledge, the nature of epistemic justification, rationalism vs. empiricism, skepticism, the value of knowledge, the ethics of belief, Bayesian epistemology, social epistemology, and feminist epistemologies.

[Learning from Arguments: An Introduction to Philosophy](#) (CC BY-NC)

Each chapter offers a sustained argument for some controversial thesis, specifically written for an audience of beginners. The aim is to introduce newcomers to the dynamics of
philosophical argumentation, using some of the arguments standardly covered in an introductory philosophy course, but without the additional hurdles one encounters when reading the primary sources

of the arguments: challenging writing, obscure jargon, and references to unfamiliar books, philosophers, or schools of thought.

[Metaethics from a First Person Standpoint](#) (CC BY)

This textbook addresses in a novel format the major topics and themes of contemporary metaethics, the study of the analysis of moral thought and judgement. Metathetics is less concerned with what practices are right or wrong than with what we mean by 'right' and 'wrong.' Looking at a wide spectrum of topics including moral language, realism and anti-realism, reasons and motives, relativism, and moral progress, this book engages students and general readers in order to enhance their understanding of morality and moral discourse as cultural practices.

[Other Logic Textbooks](#) (Various CC licences)

A list of introductory and advanced logic open textbooks and free textbooks that are not under open licences. Many of the open textbooks include source files.

[Plato's Republic: An Introduction](#) (CC BY)

Plato's 'Republic': An Introduction offers a rigorous and thought-provoking analysis of the text, helping readers navigate one of the world's most influential works of philosophy and political theory. With its approachable tone and clear presentation, it constitutes a welcome contribution to the field, and will be an indispensable resource for philosophy students and teachers, as well as general readers new to, or returning to, the text.

[The Politics of Sports](#) (CC BY-NC-SA)

A collection of texts and materials that team together students' familiarity with sports and critical inquiry skills. The Politics of Sports has the potential to capture the interest of college students in order to excite them to begin a research journey with a sense of authority and investment in a topic that is at once familiar and complex enough to yield a wide range of inquiry.

[Thinking Critically About Abortion](#) (CC BY)

This book introduces readers to the many arguments and controversies concerning abortion. While it argues for ethical and legal positions on the issues, it focuses on how to think about the issues, not just what to think about them. It is an ideal resource to improve your understanding of what people think, why they think that and whether their (and your) arguments are good or bad, and why. It's ideal for classroom use, discussion groups, organizational learning, and personal reading. It includes a number of teaching resources, including discussion questions and videos.

[Words of Wisdom: Intro to Philosophy](#) (CC BY-NC-SA)

In this text we discuss topics ranging from "Are Humans good by nature?" to "Is there a God?" to "Do I have the right to my own opinion?" Philosophy is the study of wisdom, and can emerge in our conversations in places like social media, in school, around the family dinner table, and even in the car. The text uses materials that are 2,500 years old, and materials that were in the news this year.

Tools

Carnap (GNU General Public Licence)

Carnap is a free and open software framework written in Haskell for teaching and studying formal logic.

Videos

Critical Thinking (CC BY-NC)

A collection of videos for a Critical Thinking in Global Challenges course. Topics include obesity, climate change, infectious diseases, and population.

Introduction to Philosophy (CC BY-NC)

A collection of 34 videos on different introductory topics in philosophy.

119.

Popular Culture Studies

Videos

[Pop Culture in the US Course Playlist](#) (CC BY)

120.

Religion and Theology

Collections

The Seghers Collection: Old Books for a New World [PDF]
(CC BY-ND)

Last update: Oct 5/23

This document offers a description of the Seghers Collection, which is housed at the University of Victoria. Charles John Seghers (1839–1886) was the second Roman Catholic bishop of Victoria. The Seghers Collection consists of approximately 4,000 volumes. It is essentially Seghers' personal library complemented by collateral works purchased by the diocese.

Approaching Religion Through Story (CC BY-NC)

A collection of stories relating to Christianity, Buddhism, Hinduism, and Islam that address beliefs, values and issues, and practices and traditions. Each of the stories is accompanied by notes for teachers (providing background information) and suggested discussion questions (to be adjusted as necessary for different learners and levels). These resources are curated by the School of Divinity at the University of Edinburgh.

Atla Digital Library (Various licences, Public domain)

Find archival, historical, and special collections in religion and theology from libraries, religious institutions, and archives worldwide.

- Books at Atla: Open Press (Various licences)
- Open access books that were relevant to the study and practice of theological librarianship. Currently the mission of the program is publication of open access works on subjects at the intersection of librarianship and religious and theological studies that potentially impact libraries. We seek to provide resources that guide and support innovative library services and enhance professional development.

Open Access Digital Theological Library (Various licences, Public domain)

High-quality content in religious studies and related disciplines from publisher websites, institutional repositories, scholarly societies, archives, and stable public domain collections.

Textbooks

[African Traditional Religions: Ifa](#) (CC BY-NC)

For use by seminary graduate students in an introductory course on the sacred West African spiritual tradition Ifa. This guide is comprised of open scholarly content and images and resides in LibGuide form, which will benefit others globally who seek open course content on African spiritual and religious traditions.

[Evolution of Wisdom: Major and Minor Keys](#) (CC BY-NC-ND)

This volume emerges from the final conference of the Evolution of Wisdom project and reflects its ongoing attempt to develop integrative dialogue and innovative outcomes between evolutionary, anthropological, and theological perspectives. The Evolution of Wisdom project has attempted, in a rigorous way, to develop toolkits to search for how the capacity for human wisdom has evolved and what that might mean for anthropology and theology today.

[Six Ways of Being Religious](#) (CC BY-ND)

[Theological Questions](#) (CC BY-NC)

From St. Mary's University in San Antonio, this textbooks is designed to give a broad historical overview of theological questions from the perspective of the Catholic tradition. It seeks to represent fairly a variety of questions and answers within and beyond the Catholic tradition.

Media Attributions

XV

Math/Stats

Subjects and Disciplines

This section includes:
 	
    • Game Theory
    • Math
    • Statistics

Also see Math/Stats in the "Books under consideration" section of this directory. Books open for review and Books scheduled to be added to the collection may also contain resources.

121.

VIRTUAL LABS and SCIENCE RESOURCES

For labs and related resources, see Math in the *Virtual Lab and Science Resource Directory.*

122.

Game Theory

Last update: Sep 30/20

Textbooks

(CC BY)

A guide to implement and analyze Agent-Based Models within the framework of Evolutionary Game Theory, using NetLogo.

123.

Math

Also see [Math OER](#) in development.

Collections

Last update: Jul 21/23

[American Institute of Mathematics – Approved Textbooks](#) (Various CC licences)

This list groups open textbooks by course title. All the books have been judged to meet the [evaluation criteria](#) set by the AIM [editorial board](#).

[Applied Math and Science Education Repository (AMBER)](#) (Various CC licences)

A collection of educational resources and services on topics related to applied math and science.

[Mathematics LibreTexts Library](#) (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources on the topic of mathematics.

[National Science Digital Library](#) (Various CC licences)

A collection of high quality online educational resources for teaching and learning with emphasis on the sciences, technology, engineering, and mathematics.

[OpenIntro](#) (CC BY-SA)

OpenIntro provides three textbooks (OpenIntro Statistics, Introductory Statistics with Randomization and Simulation, and Advanced High School Statistics) along with a collection of ancillary resources including videos, labs, lecture slides, sample exams, and syllabuses.

[PreTeXt](#) (Various CC and open licences)

An uncomplicated XML vocabulary for authors of research articles, textbooks, and monographs. The best of DocBook, LaTeX, and HTML. Outputs: print, PDF, web, EPUB, Jupyter Notebooks.

[Mathematical Reasoning: Writing and Proof](#) (CC BY-NC-SA)

For first college mathematics course that introduces students to the processes of constructing and writing proofs and focuses on the formal development of mathematics.

[Mathematics LibreTexts Library](#) (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources on the topic of mathematics.

Courses

[STEM Readiness](#) (Various CC licences)

This course provides a refresher of a core skill related to STEM careers: Mathematics from arithmetic to beginning algebra. Students will be better prepared for success in post-secondary STEM-related technical programs and ultimately in STEM-related careers.

Presentations/Slides

Graph Theory and Management (CC BY-SA)

Four sets of slides created by an instructor at the University of Hartford that cover four different sections of graph theory and management. These make up one unit or a little more than one fourth (five weeks) of the course.

- [Graph Theory and Management Science 1 – Euler Paths and Circuits \[PowerPoint\]](#)
- [Graph Theory and Management Science 2- Fleury's Algorithm and Eulerizing \[PowerPoint\]](#)
- [Graph Theory and Management Science 3-Hamilton Graphs and The Traveling Salesperson Problem \[PowerPoint\]](#)
- [Graph Theory and Management Science 4-Networks and Spanning Trees \[PowerPoint\]](#)

The creator would like to keep track of who is using these slides. If you decide to use them in your course, please [email Peggy Mitchell Beauregard](#) to let her know.

Supplemental Materials

[Grasple](#) (Various CC licences)

Curated open exercises and lessons on math and stats created by the community.

Textbooks

[Advanced Problems in Mathematics: Preparing for University](#) (CC BY)

This book is intended to help candidates prepare for entrance examinations in mathematics and scientific subjects, including STEP (Sixth Term Examination Paper). STEP is an examination used by Cambridge Colleges for conditional offers in mathematics. This book bridges the gap between school and university mathematics, and prepares students for an undergraduate mathematics course. The questions analysed in this book are all based on past STEP questions and each question is followed by a comment and a full solution. The comments direct the reader's attention to key points and put the question in its true mathematical context. The solutions point students to the methodology required to address advanced mathematical problems critically and independently.

[Abstract Algebra](#) (GNU Free Documentation Licence)

This text is designed to teach the principles and theory of abstract algebra. The first half of the book presents group theory, through the Sylow theorems, with enough material for a semester-long course. The second-half is suitable for a second semester and presents rings, integral domains, Boolean algebras, vector spaces, and fields, concluding with Galois Theory.

[The Art of Analysis](#) (CC BY-NC-ND)

This introductory textbook in real analysis provides a new perspective on teaching the theory of integration. Most introductory analysis courses focus initially on the Riemann integral, with other definitions discussed later (if at all). The paradigm being proposed is that the Riemann integral and the "generalized Riemann integral" should be considered simultaneously, not separately — in the same manner as uniform continuity and continuity. Riemann integrability is simply a special case of integrability, with particular properties that are worth noting. This point of view has implications for the treatment of other topics, particularly continuity and differentiability. Sections include fundamentals of analysis, continuity, differentiation, integration, and sequences and series.

[Basic Concepts of Mathematics](#) (CC BY-NC-ND)

This book helps the student complete the transition from purely manipulative to rigorous mathematics. The clear exposition covers many topics that are assumed by later courses but are often not covered with any depth or organization: basic set theory, induction, quantifiers, functions and relations, equivalence relations, properties of the real numbers (including consequences of the completeness axiom), fields, and basic properties of n-dimensional Euclidean spaces.

[Brief Calculus](#) (CC BY-SA)

This short text is designed more for self-study or review than for classroom use; full solutions are given for nearly all the end-of-chapter problems. For a more traditional text designed for classroom use, see Fundamentals of Calculus (http://www.lightandmatter.com/fund/). The focus is mainly on integration and differentiation of functions of a single variable, although iterated integrals are discussed. Infinitesimals are used when appropriate, and are treated more rigorously than in old books like Thompson's Calculus Made Easy, but in less detail than in Keisler's Elementary Calculus: An Approach

Using Infinitesimals. Numerical examples are given using the open-source computer algebra system Yacas, and Yacas is also used sometimes to cut down on the drudgery of symbolic techniques such as partial fractions. Proofs are given for all important results, but are often relegated to the back of the book, and the emphasis is on teaching the techniques of calculus rather than on abstract results.

Book of Proof (CC BY-NC-ND)

This book is an introduction to the standard methods of proving mathematical theorems.

Business Math I (CC By-NC-SA)

This book is aimed at university business students as an introduction to the mathematics required for the field of business. This textbook covers the fundamentals of business precalculus, finance, as well as the applications to general business management, human resources and the economy, marketing and accounting.

Calculus (CC BY-NC-SA)

Published in 1991 by Wellesley-Cambridge Press, the book is a useful resource for educators and self-learners alike. It is well organized, covers single variable and multivariable calculus in depth, and is rich with applications. There is also an online Instructor's Manual and a student Study Guide.

Combinatorics Through Guided Discovery (GNU Free Documentation Licence)

This book is an introduction to combinatorial mathematics, also known as combinatorics. The book focuses especially, but not exclusively, on the part of combinatorics that mathematicians refer to as "counting." The book consists almost entirely of problems. From time to time there is a discussion that pulls together some of the things you have learned or introduces a new idea for you to work with. Many of the problems are designed to build up your intuition for how combinatorial mathematics works.

Community Calculus (CC BY-NC-SA)

This series of texts includes Single variable calculus, early transcendentals; Multivariable calculus, early trancendentals; Single variable calculus, late transcendentals; and Multivariable calculus, late transcendentals.

A Computational Introduction to Number Theory and Algebra (CC BY-NC-ND)

This books does not presuppose any previous background in number theory or algebra, but it quickly moves into material beyond the usual courses in math departments because of the emphasis on algorithms and computation. The chapter titles give an idea of the unusual flavor of this book, which has a number of topics that would be suitable for a senior level "advanced topics" course following a more traditional algebra or number theory course. The author writes that the book could "be used as a textbook in a graduate or upper-division undergraduate course on (computational) number theory and algebra, perhaps geared towards computer science students."

[Cree Dictionary of Mathematical Terms with Visual Examples](#) (CC BY)

This dictionary is the continuation of prior work by the authors on composing Cree equivalents of mathematics terms. The glossary of mathematics terms was developed considering the topics of school curriculums of Canadian provinces. The dictionary provides Cree equivalents of 176 mathematics terms and their definitions in English. The visual examples mainly contain Indigenous elements. The dictionary was reviewed by Elders, Indigenous Knowledge Keepers, and Cree-speaking educators.

[Elemental Differential Equations](#) (CC BY-NC-SA)

This book, from the University of South Florida, is written for students in science, engineering, and mathematics who have completed calculus through partial differentiation.

[Elementary Calculus](#) (GNU Free Documentation Licence)

This is the first part (Calculus I) of a text on elementary calculus, designed for students who have completed courses in high-school algebra, geometry, and trigonometry. Though designed for college students, it could also be used in high schools. The traditional topics are covered, but the old idea of infinitesimals is resurrected, owing to its usefulness (especially in the sciences).

[A First Course in Linear Algebra](#) (GNU Free Documentation Licence)

An introductory textbook designed for university sophomores and juniors. Typically such a student will have taken calculus, but this is not a prerequisite. The book begins with systems of linear equations, then covers matrix algebra, before taking up finite-dimensional vector spaces in full generality. The final chapter covers matrix representations of linear transformations, through diagonalization, change of basis and Jordan canonical form.

[A Gentle Introduction to the Art of Mathematics](#) (GNU Free Documentation Licence)

This text covers several topics in the foundations of mathematics (logic, sets, relations, functions and cardinality) and introduces the reader to many techniques of mathematical proof (direct, indirect, contradiction, contrapositive, mathematical induction, combinatorial proofs and magic). There are amusing quotations at the start of each chapter.

[How We Got from There to Here: A Story of Real Analysis](#) (CC BY-NC-SA)

This book covers the major topics typically addressed in an introductory undergraduate course in real analysis in their historical order. Written with the student in mind, the book provides guidance for transforming an intuitive understanding into rigorous mathematical arguments. For example, in addition to more traditional problems, major theorems are often stated and a proof is outlined. The student is then asked to fill in the missing details as a homework problem.

[Introducing Mathematical Biology](#) (CC BY)

Mathematical modelling plays an increasingly important role in almost any area of life sciences, and this interactive textbook focuses on the areas of population ecology, infectious diseases, immunology and cell dynamics, gene networks and pharmacokinetics. It is aimed at anyone who is interested in learning

about how to model biological systems, including undergraduate and postgraduate mathematics students who have not studied mathematical biology before, life-sciences students with an interest in modelling, and post-16 mathematics students interested in university-level material. Some mathematical knowledge is assumed, and the mathematical models used are all in the form of ordinary differential equations.

[Introduction to Complex Numbers](#) (CC BY)

This is an introduction to the mathematics of complex numbers, starting from the very basics of their definitions, up to proving theorems for polynomials. The text covers everything required of most first-year mathematics courses on complex numbers with proofs, where appropriate.

[An Introduction to the Theory of Numbers](#) (CC BY)

This book, which presupposes familiarity only with the most elementary concepts of arithmetic (divisibility properties, greatest common divisor, etc.), is an expanded version of a series of lectures for graduate students on elementary number theory. Topics include: Compositions and Partitions; Arithmetic Functions; Distribution of Primes; Irrational Numbers; Congruences; Diophantine Equations; Combinatorial Number Theory; and Geometry of Numbers. Three sections of problems (which include exercises as well as unsolved problems) complete the text.

[Linear Algebra: A Course for Physicists and Engineers](#) (CC BY-NC-ND)

This open textbook is meant for courses on space and atmospheric science, remote sensing, geographic information systems, meteorology, climate and satellite communications at UN-affiliated regional centers, various applications of the formal theory are discussed as well. These include differential equations, statistics, optimization and some engineering-motivated problems in physics.

[Linear Algebra Done Wrong](#) (CC BY-NC-ND)

This text is for a first linear algebra course for mathematically advanced students. It is intended for a student who, while not yet very familiar with abstract reasoning, is willing to study more rigorous mathematics that is presented in a "cookbook style" calculus type course. Besides being a first course in linear algebra it is also supposed to be a first course introducing a student to *rigorous* proof, formal definitions—in short, to the style of modern theoretical (abstract) mathematics.

[Mathematical Analysis I](#) (CC BY)

This text leads the student through the basic topics of Real Analysis. Topics include metric spaces, open and closed sets, convergent sequences, function limits and continuity, compact sets, sequences and series of functions, power series, differentiation and integration, Taylor's theorem, total variation, rectifiable arcs, and sufficient conditions of integrability. Well over 500 exercises (many with extensive hints) assist students through the material.

[Mathematical Reasoning: Writing and Proof](#) (CC BY NC-SA)

This textbook is designed for the first course in the college mathematics curriculum that introduces students to the process of constructing and writing proofs.

[Modelling, Functions, and Graphs: Algebra for College Students](#) (GNU Free Documentation Licence)

All students, not just those headed for science and engineering, should develop a mathematical viewpoint, including critical thinking, problem-solving strategies, and estimation, in addition to computational skills. *Modeling, Functions and Graphs* employs a variety of applications to motivate mathematical thinking.

Number Theory: In Context and Interactive (CC BY-ND)

The book tackles all standard topics of modular arithmetic, congruences, and prime numbers, including quadratic reciprocity. In addition, there is significant coverage of various cryptographic issues, geometric connections, arithmetic functions, and basic analytic number theory, ending with a beginner's introduction to the Riemann Hypothesis. Ordinarily this should be enough material for a semester course with no prerequisites other than a proof-transition experience and vaguely remembering some calculus.

Optimal, Integral, Likely: Optimization, Integral Calculus, and Probability (CC BY-NC-SA)

This textbook is intended for UBC's course MATH 105: Integral Calculus with Applications to Commerce and Social Sciences. This book can also be used for Economics and Math courses. Most content is remixed from CLP-1 and CLP-2 by Feldman, Rechnitzer, and Yeager. New content includes applications, primarily to economics. The chapter on probability incorporates some content from Introductory Statistics. Detailed information can be found in the textbook.

Precalculus – College Algebra – Trigonometry (CC BY-NC-SA)

This text covers the following topics: Relations and Functions, Linear and Quadratic Functions, Polynomial Functions, Rational Functions, Further Topics in Functions, Exponential and Logarithmic Functions, Hooked on Conics, Systems of Equations and Matrices, Sequences and the Binomial Theorem, Foundations of Trigonometry, and Applications of Trigonometry.

Teaching Limits: A Guide for Calculus Instructors [PDF] (Public domain)

After so many generations of teaching limits without introducing their definitions as a starting point, it is difficult to convince instructors to do it differently, particularly when most calculus textbooks follow this approach. This guide intends to help calculus instructors by promoting the learning of definitions of limits and giving recommendations as to how to teach limits without leaving them out of the syllabus.

Tea Time Numerical Analysis (CC BY-SA)

An introductory Numerical Analysis textbook designed to be a complete, one-semester textbook for mathematics classes.

Technical Mathematics (CC BY-NC-SA)

From Open Oregon, this developmental-level mathematics textbook is intended for career-technical students.

Trigonometry (GNU Free Documentation Licence)

This is a text on elementary trigonometry, designed for students who have completed courses in high-school algebra and geometry. Though designed for college students, it could also be used in high schools.

The traditional topics are covered, but a more geometrical approach is taken than usual. Also, some numerical methods (e.g. the secant method for solving trigonometric equations) are discussed. A brief tutorial on using Gnuplot to graph trigonometric functions is included.

[Trigonometry](#) (GNU Free Documentation Licence)

We have tried to make this edition of Trigonometry useful to students in a variety of programs. In addition to the Homework Problems, each Example in the book is followed by a similar Exercise for students to test their understanding. Each Section concludes with a Summary , a set of Study Questions, and a list of Skills to be addressed in the Homework. A Summary and a set of Review Problems follows each chapter.

[Vector Calculus](#) (GNU Free Documentation Licence)

This is a text on elementary multivariable calculus, designed for students who have completed courses in single-variable calculus. The traditional topics are covered: basic vector algebra; lines, planes and surfaces; vector-valued functions; functions of 2 or 3 variables; partial derivatives; optimization; multiple integrals; line and surface integrals.

Tools

[Comparison of MyOpenMath and WeBWorK](#) (CC BY)

A chart by Open Oregon Educational Resources comparing two open math platforms: MyOpenMath and WeBWork.

[PhET Interactive Simulations](#) (CC BY)

The PhET Interactive Simulations project at the University of Colorado Boulder creates free interactive math and science simulations. The site is available in a number of languages.

[WeBWork – Mathematical Association of America](#) (Open source)

WeBWorK is an open-source online homework system for math and science courses. WeBWorK is supported by the MAA and the NSF and comes with a National Problem Library (NPL) of over 20,000 homework problems. Problems in the NPL target most lower division undergraduate math courses and some advanced courses.

Videos

[Mathispower 4u Tutorials](#) (CC BY-SA)

This site provides more than 6,000 free mini-lessons and example videos on different math topics.

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Statistics

Collections

[OpenIntro](#) (CC BY-SA)

OpenIntro provides three textbooks (OpenIntro Statistics, Introductory Statistics with Randomization and Simulation, and Advanced High School Statistics) along with a collection of ancillary resources including videos, labs, lecture slides, sample exams, and syllabuses.

[Statistics LibreTexts Library](#) (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources on sujects related to statistics.

Courses

[Principles of Quality Assurance](#) (CC BY)

Hybrid/blended course that introduces the scope and function of quality assurance, including basic definitions, statistics, quality policy and objectives, manuals and procedures, concept of variation, inspection and sampling techniques, metrology process control, methods and elements of reliability. Current (TQM) and ISO 9000 standards are reviewed.

[Probability & Statistics](#) (CC BY-NC-SA)

This course introduces students to the basic concepts and logic of statistical reasoning and gives the students introductory-level practical ability to choose, generate, and properly interpret appropriate descriptive and inferential methods. In addition, the course helps students gain an appreciation for the diverse applications of statistics and its relevance to their lives and fields of study. The course does not assume any prior knowledge in statistics and its only prerequisite is basic algebra.

[Statistical Reasoning](#) (CC BY-NC-SA)

Probability & Statistics introduces students to the basic concepts and logic of statistical reasoning and gives the students introductory-level practical ability to choose, generate, and properly interpret appropriate descriptive and inferential methods. In addition, the course helps students gain an appreciation for the diverse applications of statistics and its relevance to their lives and fields of study. The course does not assume any prior knowledge in statistics and its only prerequisite is basic algebra.

Supplemental Materials

[Grasple](#) (Various CC licences)

Curated open exercises and lessons on math and stats created by the community.

Textbooks

[Beginning Statistics](#) (CC BY-SA)

This book is meant to be a textbook for a standard one-semester introductory statistics course for general education students.

[Engineering Statistics Handbook](#) (Public domain)

The NIST/SEMATECH e-Handbook of Statistical Methods is a web-based book whose goal is to help scientists and engineers incorporate statistical methods into their work as efficiently as possible. Ideally it will serve as a reference that will help scientists and engineers design their own experiments and carry out the appropriate analyses when a statistician is not available to help. It is also hoped that it will serve as a useful educational tool that will help users of statistical methods and consumers of statistical information better understand statistical procedures and their underlying assumptions and more clearly interpret scientific and engineering results stated in statistical terms. The book is available online and as a PDF.

[Introduction to Probability](#) (GNU Free Documentation Licence)

This introductory probability book, published by the American Mathematical Society, emphasizes the use of computing to simulate experiments and make computations. The authors have prepared a set of programs to go with the book, along with solutions available to instructors. They also provide links to other probability resources.

[Introductory Business Statistics](#) (CC BY)

The book *Introductory Business Statistics* by Thomas K. Tiemann explores the basic ideas behind statistics, such as populations, samples, the difference between data and information, and most importantly, sampling distributions. The author covers topics including descriptive statistics and frequency distributions, normal and t-distributions, hypothesis testing, t-tests, f-tests, analysis of variance, non-parametric tests, and regression basics. Using real-world examples throughout the text, the author hopes to help students understand how statistics works, not just how to "get the right number."

[Learning Statistics with Jamovi: A tutorial for psychology students and other beginners](#) (CC BY-SA)

This book of learning statistics with jamovi covers the contents of an introductory statistics class, as typically taught to undergraduate psychology students. Descriptive statistics and graphing are followed by chapters on probability theory, sampling and estimation, and null hypothesis testing. The book covers the analysis of contingency tables, correlation, t-tests, regression, ANOVA and factor analysis.

[Learning Statistics with R: A tutorial for psychology students and other beginners](#) (CC BY-SA)

This book covers the contents of an introductory statistics class, as typically taught to undergraduate psychology students, focusing on the use of the R statistical software. The book discusses how to get started in R as well as giving an introduction to data manipulation and writing scripts. From a statistical perspective, the book discusses descriptive statistics and graphing first, followed by chapters on probability theory, sampling and estimation, and null hypothesis testing. After introducing the theory, the book covers the analysis of contingency tables, t-tests, ANOVAs and regression. Bayesian statistics are covered at the end of the book.

[Lies, Damned Lies, or Statistics: How to Tell the Truth with Statistics [PDF]](#) (CC BY-SA)

This textbook is intended for a one-semester, undergraduate statistics course. There are many concrete, specific questions that humans have about the world which are best answered by carefully collecting some data and using a modest amount of mathematics and a fair bit of logic to analyze them. It is, therefore, the goal of this book to help you learn How to Tell the Truth with Statistics and, therefore, how to tell when others are telling the truth … or are faking their "news."

[Online Statistics Education: An Interactive Multimedia Course of Study](#) (Public domain)

Online Statistics: An Interactive Multimedia Course of Study is a resource for learning and teaching introductory statistics. It contains material presented in textbook format and as video presentations. This resource features interactive demonstrations and simulations, case studies, and an analysis lab. It also includes resources for instructors, such as an instructor's manual, PowerPoint slides, and additional questions.

[OpenIntro Statistics – 4th ed](#) (CC BY-SA)

This book offers a traditional introduction to statistics at the college level published on [OpenIntro](#).

[Probability and Statistics EBook](#) (CC BY)

A general statistics curriculum E-Book, which includes Advanced-Placement (AP) materials.

[Random: Probability, Mathematical Statistics, Stochastic Processes](#) (CC BY)

Random is a website devoted to probability, mathematical statistics, and stochastic processes, and is intended for teachers and students of these subjects. The site consists of an integrated set of components that includes expository text, interactive web apps, data sets, biographical sketches, and an object library. Please read the Introduction for more information about the content, structure, mathematical prerequisites, technologies, and organization of the project.

[R for Data Science](#) (CC BY-NC-ND)

This book will teach you how to do data science with R: You'll learn how to get your data into R, get it into the most useful structure, transform it, visualise it and model it. In this book, you will find a practicum of skills for data science. Just as a chemist learns how to clean test tubes and stock a lab, you'll learn how to clean data and draw plots—and many other things besides. These are the skills that allow data science to happen, and here you will find the best practices for doing each of these things with

R. You'll learn how to use the grammar of graphics, literate programming, and reproducible research to save time. You'll also learn how to manage cognitive resources to facilitate discoveries when wrangling, visualising, and exploring data.

[Statistical Methods in Quality Control [PDF]](#) (CC BY-SA)

This book is the outcome of more than 30 years teaching a course titled "Statistical Quality Control" to B.S. students. The book is divided into fourteen chapters that cover the topics on statistical quality control needed for a one-semester course. Due to the importance of control charts and Acceptance Sampling Standards, most chapters of the book deal with the control charts and Standard Sampling Tables.

[Statistical Thinking for the 21st Century](#) (CC BY-NC)

A stats books designed for psychology students that teaches the approaches that are increasingly used in real statistical practice in the 21st century.

Videos

[Models, Assumptions and Confidence Limits](#) (CC BY-NC-ND)

Confidence intervals reflect our uncertainty about a parameter of interest, and models reflect our assumptions about the context of the data. Some of these assumptions may be justified by background knowledge, but others will be rather arbitrary. Statistics textbooks advise that before assuming a model we should check that it gives a good fit to the data (by using goodness-of-fit tests or graphical diagnostics). But does a well-fitting model necessarily mean a good confidence interval? Looking at the robustness of confidence limits to model choice suggests some rather basic questions about our use of models and assumptions in statistics.

XVI

Science

Subjects and Disciplines
This section includes: • [Sciences – General](#) • [Anatomy and Physiology](#) • [Astronomy](#) • [Biochemistry](#) • [Biology](#) • [Botany](#) • [Chemistry](#) • [Histology](#) • [Microbiology](#) • [Neuroanatomy](#) • [Physics](#)

Also see [Science](#) in the "Books under consideration" section of this directory. [Books open for review](#) and [Books scheduled to be added to the collection](#) may also contain resources.

125.

VIRTUAL LABS and SCIENCE RESOURCES

For labs and related resources, see [Biology](#), [Chemistry](#), and [Physics and Astronomy](#) in the *Virtual Lab and Science Resource Directory.*

126.

Sciences - General

Also see [Science OER](#) in development.

Collections

Last update: Feb 4/21

[Applied Math and Science Education Repository (AMBER)](#) (Various CC licences)

A collection of educational resources and services on topics related to applied math and science.

[Dissemination of IT for the Promotion of Materials Science (DoITPoMS)](#) (CC BY-NC-SA)

A library of learning packages (TLPs = teaching and learning packages) covering common topics in Materials Science (an interdisciplinary field involving the properties of matter and its applications to various areas of science such as applied physics and chemistry, as well as chemical, mechanical, civil and electrical engineering).

[IntechOpen: Life Sciences](#) (CC BY)

[IntechOpen: Physical Sciences, Engineering and Technology](#) (CC BY)

[NANSLO [PDF]](#) (Various CC licences)

A collection of links to OER used in science labs.

[National Science Digital Library](#) (Various CC licences)

A collection of high quality online educational resources for teaching and learning with emphasis on the sciences, technology, engineering, and mathematics.

Courses

[Open Science: An Introduction](#) (CC BY)

This course is meant to share information about *what it means for science to be open* with young

scientists (of all ages), and hopefully inspire them to champion things that are more open. A number of communities are networked within Open Science, and we've designed this course as a high-level introduction to topics and groups that are chipping away at closed systems in science.

Data

[Edinburgh DataShort: College of Science & Engineering](#) (Various CC licences)

A digital repository of research data produced at the University of Edinburgh by the College of Science and Engineering.

Textbooks

[ABE Fundamental Level Science Modules](#) (CC BY)

A collection of 5 modules designed for Adult Basic Education (ABE) fundamental level science. The five modules cover astronomy, ecology, biology, physics, and water. While they contain specific content, each book emphasizes a particular type of scientific thinking. The books are designed to be consumable student workbooks.

[The Mission, the Message, and the Medium: Science and Risk Communication in a Complex World](#) (CC BY-ND)

From the University of British Columbia, this textbook covers many of the principles of science communication, as well as the theory and practice of risk communication, specifically. The content is divided into three main sections: 1) the 'mission' (why you are communicating), 2) the 'message' (what you are communicating), and 3) the 'medium' (how you are communicating).

Tools

[PhET Interactive Simulations](#) (CC BY)

The PhET Interactive Simulations project at the University of Colorado Boulder creates free interactive math and science simulations. The site is available in a number of languages.

127.

Anatomy and Physiology

Human Anatomy & Physiology I and II with Lab: These documents map OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/competencies or items for these courses (BIO 201 and BIO 202, Colorado).

Collections

Last update: Sep 6/22

AnatomyTool (Various CC licences)

A collection of documents, images, videos, and interactive activities related to anatomy.

Courses

Anatomy & Physiology I & II (CC BY-NC-SA)

This course focuses on a few themes that, when taken together, provide a full view of what the human body is capable of and of the exciting processes going on inside of it. The themes are:

- Structure and function of the body, and the connection between the two.
- Homeostasis, the body's natural tendency to maintain a stable internal environment.
- Levels of Organization, the major levels of organization in the human organism from the chemical and cellular levels to the tissues, organs and organ systems.
- Integration of Systems, concerning which systems are subsets of larger systems, and how they function together in harmony and conflict.

Atlas of Comparative Vertebrate Anatomy (Lumen/SUNY)

The majority of entries in this atlas were produced by students including dissection, photography, and identification. It is a work in progress, but we hope that students of anatomy find this a useful tool for studying anatomy outside of the lab.

Images

[Anatomy Illustrations](#) (CC BY)

A collection of almost 300 anatomy illustrations by an instructor with over twenty years experience teaching anatomy.

[Biology 351 – Anatomical Illustrations](#) (CC BY-NC-SA)

These anatomical illustrations were created by Biological and Pre-Medical Illustration (BPMI) students from Iowa State University. The students worked closely with the lab instructor to develop detailed anatomical illustrations of the specimens studied in the lab.

[Clinical Anatomy](#) (CC BY-NC-SA)

A collection of videos, interactive modules, anatomical illustrations, interactive radiology, and other media for clinical anatomy.

[The Visible Human Project](#) (Public domain)

The NLM Visible Human Project® has created publicly-available, complete, anatomically detailed, three-dimensional representations of a human male body and a human female body. Specifically, the VHP provides a public-domain library of cross-sectional cryosection, CT, and MRI images obtained from one male cadaver and one female cadaver.

Labs

[Comparative Vertebrate Physiology Lab Manual](#) (CC BY-NC-SA)

This is a collection of 11 vertebrate physiology labs for upper-division biology laboratory courses. The manual is highly adaptable, suitable for nearly any comparative vertebrate physiology lab course, using any textbook or no textbook at all. The experiments can be adapted to suit nearly any environment in which the course is taught. The materials and equipment needed are inexpensive for the most part, and commonly available in university departments of biology.

[Human Anatomy Lab Manual](#) (CC BY)

This is a lab manual for a college-level human anatomy course. The activities in this manual encourage students to engage with new vocabulary in many ways, including grouping key terms, matching terms to structures, recalling definitions, and written exercises. Most of the activities in this manual utilize anatomical models, and several dissections of animal tissues and histological examinations are also included. Each unit includes both pre- and post-lab questions and six lab exercises designed for a classroom where students move from station to station. The vocabulary terms used in each unit are listed at the end of the manual and serve as a checklist for practicals.

[UGA Laboratory Manual for Functional Human Anatomy](#) (CC BY)

The manual contains the following labs:

- Introduction to Anatomical Terminology
- Back: Skeletal Framework
- Back Muscles
- Skeletal Framework of the Upper Limb
- Muscles of the Upper Limb
- Skeletal Framework of the Lower Limb
- Skeletal Framework of the Thorax
- Body Cavities and Mesenteries

Supplemental Materials

Also see [Images](#)

[Anatomy and Physiology I Lab Manual](#) (CC BY)

This lab manual was created for Anatomy and Physiology I at the University of Georgia. The manual contains labs on cells, histology, the integumentary system, the skeletal system, the nervous system, muscles, and the senses.

[Anatomy Quizbook](#) (CC BY-NC-ND)

A series of carefully selected questions addressing core learning in clinically relevant anatomy. It provides the opportunity for both pre-med and medical students to improve their knowledge of anatomy, as well as their performance in tests and examinations.

[Atlas of Comparative Anatomy](#) (CC BY)

This atlas began as a class project at SUNY Oneonta in 2017 because of the lack of a comprehensive freely-accessible photographic atlas. The majority of entries in this atlas were produced by students including dissection, photography, and identification. It is a work in progress. The [online version](#) is available through Lumen Learning.

[Introduction to the Brain](#) (CC BY)

This resource includes an introductory information pack for high school students and an activity with printable materials. It addresses the following learning outcomes: Name and locate the different lobes of the brain, understand the functions of each brain, and their real-life applications, actively work in a team with a common goal, and understand the implications of brain damage, such as the case of Phineas Gage.

Textbooks

[Anatomical Basis of Injury](#) (CC BY)

An adaptation of Anatomy and Physiology (OpenStax) designed to supplement an Anatomical Basis of Injury in Athletic Training course while providing review of basic Anatomy and Physiology.

[Body Physics: Motion to Metabolism](#) (CC BY-NC-SA)

This textbook sticks to the basic functioning of the human body, from motion to metabolism, as a common theme through which fundamental physics topics are introduced. Related practice, reinforcement and Lab activities are included.

[A Mixed Course-Based Research Approach to Human Physiology](#) (CC BY-SA)

This book was written for the Biology 256 Laboratory course at Iowa State University. It was designed to provide students with hands-on access to modern techniques in human physiological analyses using the course-based research pedagogical approach.

Videos

[Anatomy and Physiology Videos](#) (CC BY)

A collection of YouTube playlists on different anatomy topics including anatomy of the senses, nervous system anatomy, muscle anatomy, appendicular skeleton anatomy, and axial skeleton anatomy.

[Clinical Anatomy](#) (CC BY-NC-SA)

A collection of videos, interactive modules, anatomical illustrations, interactive radiology, and other media for clinical anatomy.

Websites

[Functional Neuroanatomy](#) (CC BY-NC-SA)

This website includes photographs, diagrams, illustrations, video tutorials, MRI scans, and 3D reconstructions of functionally important parts of the human brain.

[The Brain from Top to Bottom](#) ([Copyleft](#))

An interactive website about the human brain and behaviour.

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Astronomy

Also see [Physics](#) in this directory.

[Planetary Astronomy with Lab](#): This document maps OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/competencies or items for this course (AST 101, Colorado).

Courses

Last update: Jun 27/22

[Introduction to Astronomy](#) (CC BY-NC-SA)

Introduction to Astronomy provides a quantitative introduction to the physics of the solar system, stars, the interstellar medium, the galaxy, and the universe, as determined from a variety of astronomical observations and models.

[Introduction to Astronomy](#) (CC BY)

In ASTR101, you will be introduced to our current understanding of the universe and how we have come to this understanding. We will start with the ancient Greeks and their belief that the universe was an orderly place capable of being understood. We will continue through history, as we acquired more information on the nature of the universe and our models of the universe changed to reflect this. This will take us through several different worldviews.

Images

[Digital Diagrams for Astronomy [ZIP]](#) (Licences vary)

A collection of images created or adapted by Douglas College with a grant from BCcampus Open Education for the Astronomy: OpenStax textbook. Many of the images are available in several formats, with labelled and unlabelled versions to be used for assessment purposes.

Supplemental Materials

[Astronomy of Many Cultures](#) (CC BY-NC-ND)

This resource guide, for instructors and students in introductory astronomy courses, focuses on the contributions to astronomy of African, Asian, Hispanic, South Pacific, Islamic, and Native American cultures. It also contains a section on reports and articles for achieving greater diversity in science.

[Black Lives in Astronomy: A Resource Guide](#) (CC BY-NC-ND)

This focused resource guide, "Black Lives in Astronomy," includes specific written and video resources about and by 25 black astronomers, as well as general materials to examine the history and issues facing black members of the astronomical community. It includes both older, established scientists and people early in their careers. It is aimed at the Astro 101 and amateur astronomer level, and thus does not include any technical materials. I hope this resource will give instructors and students examples of authentic black voices that can be shown in class or used in assignments.

[Worksheets and Solutions](#) (CC BY-SA)

A collection of worksheets and solutions that align with the Astronomy (OpenStax) textbook adapted by B.C. faculty.

Textbooks

[Astronomy – 1st Canadian Edition](#) (CC BY)

The first Canadian edition of an introduction to astronomy open textbook. It was adapted from the Astronomy open textbook published by OpenStax by Jennifer Kirkey at Douglas College.

[BCIT Astronomy 7000: A Survey of Astronomy](#) (CC BY)

An adaptation of the Canadian edition of the Astronomy originally published by OpenStax for courses at the British Columbia Institute of Technology.

[General Astronomy](#) (CC BY-SA)

This Wikibook introduces the reader to that tapestry and the process that revealed it to humanity. It presents astronomy not only as a field of knowledge, but also as a human endeavor in science.

Tools

[Stellarium](#) (Open source)

Stellarium is a free, open source planetarium for your computer. It shows a realistic sky in 3D, just like what you see with the naked eye, binoculars or a telescope.

Videos

[Astrobiology and the Search for Extraterrestrial Life](#) (CC BY-NC)

A collection of videos (33) looking at the possibility of life in space as part of the Astrobiology and the Search for Extraterrestrial Life (ASTROBIO) open online course.

[AstroTech: The Science and Technology behind Astronomical Discovery](#) (CC BY-NC)

A collection of 4 videos on astronomy as a discipline.

[Limits of Resolution: The Rayleigh Criterion Video Series](#) (CC BY)

Four videos created to accompany the chapter on "Limits of Resolution: The Rayleigh Criterion" in College Physics (OpenStax). The videos provide an introduction and answer the following questions: How far apart can we see stars in the Andromeda Galaxy? How big of a telescope is needed to resolve Moon craters? How big of a telescope is needed to resolve the Moon Landing?

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Biochemistry

Courses

[Biochemistry](#) (CC BY-NC-SA)

Biochemistry is an introductory course, designed for both biology and chemical engineering majors. A consistent theme in this course is the development of a quantitative understanding of the interactions of biological molecules from a structural, thermodynamic, and molecular dynamic point of view. A molecular simulation environment provides the opportunity for you to explore the effect of molecular interactions on the biochemical properties of systems. This course assumes that students have taken introductory chemistry, including basic thermodynamics, as well as introductory organic chemistry. An introductory biology course is not a prerequisite for the course, but students would benefit from some prior exposure to biology, even at the high school level. Required mathematical skills include simple algebra and differential calculus.

Supplemental Materials

[Chemical Biology & Biochemistry Laboratory Using Genetic Code Expansion Manual](#) (CC BY-NC)

From Oregon State University.

 Downloadable images (CC BY-SA)

- [Active transport – protein pumps](#)
- [Anabolism and catabolism](#)
- [Cellular respiration simple](#)
- [Chromosome terminology](#)
- [DNA helicase, DNA replication](#)
- [DNA ligase, DNA replication](#)
- [DNA polymerase, DNA replication](#)
- [Egg and Sperm](#)
- [Independent assortment](#)

- [Messenger RNA – simple](#)
- [Multiple ribosomes translation, protein synthesis](#)
- [Protein synthesis elongation](#)
- [Rough ER close up](#): Showing a ribosome creating a polypeptide which is folded into a secondary structure in the lumen of the rER
- [Synapsis and Crossing Over with Labels](#)
- [Synapsis and Crossing Over No Labels](#)
- [Transport across the plasma membrane](#)
- [Transcription and translation](#)
- [Types of RNA](#)
- [Unit cell for SA to V ratio with tables](#)

Textbooks

[Cell Biology, Genetics, and Biochemistry for Pre-Clinical Students](#) (CC BY-NC-SA)

An undergraduate medical-level resource for foundational knowledge across the disciplines of genetics, cell biology and biochemistry. This text is designed for a course in first year undergraduate medical course that is delivered typically before students start to explore systems physiology and pathophysiology.

Media Attributions

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130.

Biology

Also see [Biology OER](#) in development.

[Science of Biology with Lab](#) and [General College Biology with Lab](#): These documents map OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/competencies or items for these courses (BIO 105 and BIO 111, Colorado).

Collections

Last update: Jul 21/23

[Biological Sciences Open Textbooks](#) (Various CC licences)

From Galileo Open Learning Materials.

Courses

[Biology Course Hub Site](#) (CC BY)

Links to the course sites for Biology courses taught at [Keene State College](#) in Keene, NH.

[Introduction to Biology](#) (CC BY-NC-SA)

This introductory course defines biology and its relationship to other sciences. We examine the overarching theories of life from biological research and also explore the fundamental concepts and principles of the study of living organisms and their interaction with the environment. We will examine how life is organized into hierarchical levels; how living organisms use and produce energy; how life grows, develops, and reproduces; how life responds to the environment to maintain internal stability; and how life evolves and adapts to the environment.

[Modern Biology](#) (CC BY-NC-SA)

The Modern Biology course covers specialized and somewhat advanced topics in the fields of cellular

biology, molecular biology, biochemistry, and genetics. It does not cover organismal biology or taxonomy. The course is carefully planned to provide the background that biology students will need for advanced biology classes. Non-biology majors will also find this course useful as it explains many of the concepts and techniques currently discussed in the popular press.

[The Story of the Woolly Mammoth](#) (CC BY)

A resource pack consisting of three lessons, set out over three detailed presentations accompanied by student worksheets, that focus on the extinction of the Woolly Mammoth as a means of teaching students about Biodiversity and Interdependence.

[To Bee or not to Bee](#) (CC BY)

A series of workshops that aims to express the importance of bees to our planet by teaching about pollination, bee diversity, and the adaptions that honey bees have made in their hives to allow them to be efficient in their jobs. There are three detailed lesson plans based on the following topics: pollination, bee diversity, and hexagons in the beehive.

Images

[Animal Dissection Images](#) (CC BY-SA)

A collection of animal dissection images created by BCIT. Images include bony fish, clams, dogfish, frogsm pigeons, rats, and squids.

[Biology 351 Anatomical Illustrations](#) (CC BY-NC-SA)

These anatomical illustrations were created by Biological and Pre-Medical Illustration (BPMI) students that had previously attended the course, BIOL351: Comparative Chordate Anatomy. The students worked closely with the lab instructor to develop detailed anatomical illustrations of the specimens studied in the lab, which allowed the students to showcase their work. The images were then incorporated in the lab handbook for the course and made more widely available as open educational resources.

[Bioscience Image Library](#) (CC0)

The Biology Image Library is a growing collection of over 900 text-supported microscopic and macroscopic images and videos drawn from commercially prepared slide collections and live specimens commonly used in the study of Biology, Botany, Zoology, Histology and Microbiology.

[Pacific Open Images](#) (CC BY-NC-SA)

These open images were created by faculty at the University of the Pacific.

Supplemental Materials

[Animal Dissection Images Library](#) (CC BY)

A collection of dissection images from the British Columbia Institute of Technology.

[Bioinformatics & Raspberry Pi](#) (CC BY)

The 4273π project provides materials for teaching and learning bioinformatics, including an SD card image for the low-cost Raspberry Pi computer. The resource is tailored for bioinformatics use and includes open educational resources for computational biology.

[Supercytes](#) (CC BY-NC-SA)

Supercytes is a card game and resource pack (with animated cartoons) about having fun with Biology and encouraging an early interest in science. The resource is designed for use in schools (ages 9-18) (or school science clubs).

Textbooks

[Applied Bioinformatics](#) (CC BY)

From Oregon State University. Please note that this is the first edition of the text. *Applied Bioinformatics* is frequently updated, and the current edition may be downloaded from the [Applied Bioinformatics](#) site.

[Biology LibreTexts Library](#) (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources on biology subjects.

[Bumble bees of Unama'ki](#) (C BY-NC-SA)

This buzzing guide for naturalists introduces the young and the young at heart to bumble bees in Cape Breton. Through interactive quizzes, videos, and text, readers learn all about bumble bees in their community and discover what they can do to protect them.

[Evolutionary Developmental Biology](#) (CC BY-NC-SA)

The fields of Development and Evolution cannot be truly separated. When we study Developmental Biology we are mostly looking at a fine-tuned mechanical and genetic process that has been selected on for eons. Not only can evolution select on the final product – a working, fertile adult – but also can act at each developmental stage. It is easy to see how evolution acts through natural selection on adults, but how can it act on development itself?

[An Interactive Introduction to Organismal and Molecular Biology](#) (CC BY-NC-SA)

This textbook is interactive, meaning that although each chapter has text, they also have interactive

HTML5 content, such as quizzes, simulations, interactive videos, and images with clickable hotspots. Students receive instant feedback when they complete the interactive content, and therefore, can learn and check their understanding all in one place.

[Introducing Mathematical Biology](#) (CC BY)

Mathematical modelling plays an increasingly important role in almost any area of life sciences, and this interactive textbook focuses on the areas of population ecology, infectious diseases, immunology and cell dynamics, gene networks and pharmacokinetics. It is aimed at anyone who is interested in learning about how to model biological systems, including undergraduate and postgraduate mathematics students who have not studied mathematical biology before, life-sciences students with an interest in modelling, and post-16 mathematics students interested in university-level material. Some mathematical knowledge is assumed, and the mathematical models used are all in the form of ordinary differential equations.

[Introduction to Systems Biology: Handout for Flipped-classroom Teaching](#) (CC BY)

This book is an introduction to the language of systems biology, which aims to facilitate the understanding of biochemical networks, metabolic modeling and system dynamics. This handout is all about self-paced learning, supports the flipped-classroom concept, and kick-starts with scientific evidence on studying. Each chapter comes with links to external YouTube videos, learning checklists, and Integrated real-world examples to gain confidence in thinking across scientific perspectives. The result is an integrated approach that opens a line of communication between theory and application, enabling readers to actively learn as they read.

[Library Skills for 2nd Year Biological Sciences](#) (CC BY)

This tutorial covers the library skills required for students in 200-level Biological Sciences courses with these objectives:

- Understand the difference between popular and scholarly sources and know the different types of scholarly sources
- Know how to read a scholarly article
- Learn how to effectively search for articles and access library material from home
- Know how to properly cite sources and avoid plagiarism

[A Primer for Computational Biology](#) (CC BY-NC-SA)

This book aims to teach these basics of scientific computing: skills that even in fields such as computer science are often gained informally over a long period of time. This book is intended for readers who have passing familiarity with computing. While these concepts will likely be useful to researchers in many fields, I frame most of the discussion and examples in the analysis of biological data, and thus assume some basic biological knowledge, including concepts such as genes, genomes, and proteins.

Videos

[Biology textbook playlist](CC BY) (CC BY)

A YouTube playlist containing a collection of biology-related videos featuring biology instructor Charles Molnar at Camosun College in Victoria, British Columbia.

[iBiology](CC BY-NC-ND) (CC BY-NC-ND)

Open-access free videos that convey the excitement of modern biology and the process by which scientific discoveries are made. The aim is to let you meet the leading scientists in biology, so that you can find out how they think about scientific questions and conduct their research, and can get a sense of their personalities, opinions, and perspectives.

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131.

Botany

Also see [Agriculture](#).

Last update: Nov 3/23

Collections

[Botany – LibreTexts](#) (CC BY-NC-SA)

Botany is the science of plant life and a branch of biology. Traditionally, botany includes the study of fungi and algae by mycologists and phycologists respectively.

[Primary Botany – OER Commons](#) (Various CC licences)

These resources are appropriate for Applied Science, Education, Life Science, and Physical Science programs.

Supplemental Materials

[Buds, Branches and Bark: A Guide to Winter ID in the Pacific Northwest](#) (CC BY-NC-SA)

This project was made possible by funding through the Open Education Resource Grant at BCIT.

Textbooks

[Cultivar Development](#) (CC BY-NC)

This textbook places emphasis on the design of a process pipeline for continuous development of new

improved cultivars as a means to implement the cycle of crop improvement. Essential topics in New Line Development and New Line Evaluation are addressed, such as choice of parents, creation of progeny, and evaluation and selection of progeny. Students learn to design a process pipeline to produce improved cultivars that meet a specific product target which represents stakeholders' needs.

History and Science of Cultivated Plants (CC BY-NC)

This textbook narrates how humans transitioned from foragers to farmers and have arrived at present-day industrial agriculture-based civilization. It entails myths, historical accounts, and scientific concepts to describe how human efforts have shaped and produced easier to grow, larger, tastier, and more nutritious fruits, vegetables, and grains from wild plants. Using examples of various economically and socially important crops central to human civilization, the book describes the origin of crop plants, the evolution of agricultural practices, fundamental concepts of natural selection vs. domestication, experimental and methodical plant breeding, and plant biotechnology.

Identifying Noxious Weeds of Ohio (CC BY)

This identification guide provides technical descriptions and photos for Ohio's 21 invasive and noxious weed species. These descriptions include information on habitat, life cycle, key plant characteristics, and a summary of problematic features. Photos included in this guide present the weed species at different stages of maturity for optimal identification aid. This book also provides information on Ohio's noxious seed law, extension guides to weed control, and a quick guide to weed regulations in Ohio law.

Plant Anatomy and Physiology (CC BY-SA)

This book was created to support teaching of an introductory unit on plant environmental physiology at Charles Darwin University in Australia. It makes use of various images of cells and tissues to introduce and illustrate the range of plant organelles, cells, tissues and organs.

Quantitative Genetics for Plant Breeding (CC BY-NC)

This textbook is intended to expose students to the application of quantitative genetic models to plant breeding populations. Specific topics include conducting and interpreting multi-environment trials, resource allocation using engineering principles, genetic modeling of quantitative traits, simulation modeling, variance, covariance and heritability, prediction, selection, and genetic gain.

Quantitative Methods for Plant Breeding (CC BY-NC)

This textbook covers common statistics used in agriculture research, including experimental design in plant breeding and genetics, as well as the analysis of variance, regression, and correlation.

The Science of Plants (CC BY-NC)

An approachable guide to the fundamentals of plant science. Created for horticulture students, gardeners, science teachers, and anyone interested in understanding plants and how they grow. This is the required text for HORT 1001/6001 Plant Propagation at the University of Minnesota Department of Horticultural Science.

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132.

Chemistry

Also see [Chemistry OER](#) in development.

[Intro to Chemistry/Lab](#) and [General College Chemistry I/Lab](#): These documents map OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/competencies or items for these courses (CHE 101 and CHE 111, Colorado).

Collections

Last update: Jun 27/22

[MERLOT Chemistry](#) (Various CC licences)

The MERLOT Chemistry Portal helps people explore all the many resources available for teaching and learning chemistry.

[Open Chemistry](#) (CC BY-SA)

Open Chemistry (OpenChem) provides a full curriculum of recorded lectures covering undergraduate chemistry plus selected graduate topics. Through lecture videos and ancillary materials, anyone in the world can effectively sit alongside UCI Irvine students and view complete undergraduate core and elective course lectures delivered by top faculty members.

[WikiEducator CHEMISTRY](#) (CC BY-SA)

A collection of chemistry resources curated by [Jim Hebden](#), a British Columbia high school teacher.

Courses

[Biochemistry](#) (CC BY-NC-SA)

Biochemistry is an introductory course, designed for both biology and chemical engineering majors. A

426 Josie Gray

consistent theme in this course is the development of a quantitative understanding of the interactions of biological molecules from a structural, thermodynamic, and molecular dynamic point of view. A molecular simulation environment provides the opportunity for you to explore the effect of molecular interactions on the biochemical properties of systems.

[Chemistry – Review of Stoichiometry](#) (CC BY-NC-SA)

This is a complete course in chemical stoichiometry, which is a set of tools chemists use to count molecules and determine the amounts of substances consumed and produced by reactions. The course is set in a scenario that shows how stoichiometry calculations are used in real-world situations. The list of topics (see below) is similar to that of a high school chemistry course, although with a greater focus on reactions occurring in solution and on the use of the ideas to design and carry out experiments.

[OpenOChem Cloud](#) (Various CC licences)

A homework/quizzing system that plugs in to your existing LMS. Unlike other "do all" homework systems, OpenOChem was designed from the ground up for creating, sharing, and administering Organic Chemistry assessments.

Supplemental Materials

A student [Workbook](#) and [PPT Slides](#) for [Chemistry and the Environment: A Chemistry Perspective for discussion of Environmental Issues](#) (CC BY)

[OrgChem 101 Learning Lab](#) (CC BY-NC-SA)

A set of organic chemistry learning modules that provide structured guidance to explore organic chemistry concepts. The modules provide metacognitive support, interactive instructional videos, animations, and interactive activities that promote the mastery of concepts, provide feedback, and link to real-world contexts with three learning modules:

1. Nomenclature for organic chemistry
2. Organic reaction mechanisms
3. Organic acid-base reactions

Downloadable images (CC BY-SA)

- [Hypertonic Isotonic Hypotonic](#): Movement of water, due to osmosis of a cell in three different solutions, tonicity. In a hypertonic solution, water moves out of the cell. In an isotonic solution, there is no net movement of water. In a hypotonic solution, water moves into the cell.
- Molecules
    - [Acetic Acid CH3COOH (Vinegar)](#)

- ◦ [Methane CH4](#)
- ◦ [Oxygen O2](#)
- [Periodic Table of the Elements](#)
- [pH Scale](#): pH Scale showing neutral, acidic and basic
- Subatomic particles
  - ◦ [Lost an electron joke](#): A joke about an atom losing an electron. When an atom loses an electron, it ends up with a positive charge, which is why the joke ends with "Yeah, I'm positive…"
  - ◦ [Subatomic attitudes](#): Shows the relative charge of each of the subatomic particles, but as related to what the same language would mean with respect to personalities.
- [Synthesis and Degradation](#): Synthesis is the bonding of monomers to create polymers. Degradation is the breaking of bonds within a polymer to create monomers.

Textbooks

[Chemistry and the Environment: A Chemistry Perspective for discussion of Environmental Issues](#) (CC BY)

This textbook designed to accompany a one-semester course in chemistry-based discussions of important environmental issues such as air pollution, the ozone layer, climate change and water quality. Chemical principles are introduced, followed by environmental 'focus' sections to base discussions on the scientific principles and societal intricacies of the individual topics. A student [Workbook](#) and [PPT Slides](#) are also available.

[Concept Development Studies in Chemistry](#) (CC BY)

"Concept Development Studies in Chemistry" is an online textbook for an Introductory General Chemistry course. Each module develops a central concept in Chemistry from experimental observations and inductive reasoning. This approach complements an interactive or active learning teaching approach.

[Chemistry LibreTexts](#) ([CC BY-NC-SA)](#)

A collection of open textbooks, assignments, and other educational resources on chemistry subjects.

[Introductory Chemistry](#) (CC BY-NC-SA)

This books surveys some of the basic topics of chemistry. This survey should give you enough knowledge to appreciate the impact of chemistry in everyday life and, if necessary, prepare you for additional instruction in chemistry. Throughout each chapter, two features are presented that reinforce the theme of the textbook: chemistry is all around you. The first is a feature titled, appropriately, "Chemistry Is Everywhere." "Chemistry Is Everywhere" focuses on the personal hygiene products that you may use every morning: toothpaste, soap, and shampoo, among others. This feature makes it clear that chemistry is, indeed, everywhere. The other feature focuses on chemistry that you likely indulge in every day: eating and drinking. In the "Food and Drink App," it is explained how the chemistry of the

chapter applies to things that you eat and drink every day. These two features allow us to see the things we interact with every day in a new light—as chemistry.

Videos

Chemistry Videos (CC BY)

The following three training videos were produced by the University of Northern British Columbia (UNBC) with an OER Grant from BCcampus Open Education.

1. pH meter and electro-conductivity (EC) meter training
2. Ion Chromatography Training
3. Microwave Digester Training

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133.

Histology

Images

[Digital Histology](#) (CC BY-NC-SA)

From the Virginia Commonwealth University (VCU), this collection provides an open educational resource that combines a digital atlas with extensive descriptive text. It is organized as a multi-hierarchy outline that reinforces broader histological concepts and parallels the content of most histology textbooks. Digital Histology, featuring on-demand labeling of structures and interactive quizzes with formative feedback, can be used by a diverse group of learners.

[Photos by Navid Golpour](#) (CC BY)

Last update: Jun 25/21

134.

Microbiology

Images

Last update: Sep 6/22

[Microbiology]() (CC BY-NC)

These slides and other images from Joe Rubin (TheRubinLab) can be found in Flickr. Click on each image for a label and description of the image or slide.

Labs

[Fundamentals of Microbiology Lab Manual]() (CC BY)

This lab manual for Fundamentals of Microbiology was developed to supplement OpenStax Microbiology at Atlanta Metropolitan State College. Topics include smear preparation, simple, gram, acid, and endospore staining, environmental effects on bacterial growth, and bacterial isolation from a mixed culture.

Supplemental Materials

[Introductory Medical Microbiology Ancillary Materials]() (CC BY)

This set of lecture materials, laboratory notes, and activities are ancillary materials created for use with [OpenStax Microbiology](). Topics covered include the cell, prokaryotes, eukaryotes, acellular pathogens, microbial metabolism, microbial growth, biochemistry of the bacterial genome, microbial genetics, microbial growth, antimicrobial drugs, pathogenicity, epidemiology, and the immune system.

Textbooks

[Introduction to Food Microbiology [PDF]](#) (CC BY-ND)

The high-level objective of the *Introduction to Food Microbiology* open textbook is to increase awareness and knowledge of food safety and safe food handling procedures as they relate to the principles of food microbiology. Created by the FOODSAFE Secretariat, the Introduction to Food Microbiology open textbook content emphasizes food safety awareness practices as found within the food service industry, to make it as practical and relevant for learners as possible.

[Microbiology for Allied Health Students](#) (CC BY)

Microbiology for Allied Health Students is designed to cover the scope and sequence requirements for the single semester Microbiology course for non-majors and allied health students. The book presents the core concepts of microbiology with a focus on applications for careers in allied health. Adapted from [OpenStax Microbiology, CC BY 4.0](#). Has an accompanying lab manual.

Videos

[TheRubinLab](#) (CC BY)

This YouTube channel is devoted to microbiology education for post-secondary students and beyond.

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135.

Neuroanatomy

Supplemental Materials

[Virtual REACH Program 2020: Exploring Neuroscience and Neurotechnologies at Home](#) (CC BY-NC-SA)

This book was developed and published by the Center for Neurotechnology at the University of Washington in 2020 for use by student participants in the Virtual REACH Program (VRP).

Textbooks

[Foundations of Neuroscience](#) (CC BY-NC-SA)

This book is aimed at undergraduate students new to the field of neuroscience. The first edition specifically targets students enrolled in Neurobiology at Michigan State University and primarily contains topics covered in that course.

[Psychology as a Biological Science](#) (CC BY-NC-SA)

This textbook provides standard introduction to psychology course content with a specific emphasis on biological aspects of psychology. This includes more content related to neuroscience methods, the brain and the nervous system.

Websites

[Functional Neuroanatomy](#) (CC BY-NC-SA)

This website includes photographs, diagrams, illustrations, video tutorials, MRI scans, and 3D reconstructions of functionally important parts of the human brain.

[The Brain from Top to Bottom](#) ([Copyleft](#))

An interactive website about the human brain and behaviour.

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136.

Physics

Also see [Physics OER](#) in development.

Courses

Last update: Jun 27/22

[Introduction to Mechanics](#) (CC BY)

In this course, we will study physics from the ground up, learning the basic principles of physical laws, their application to the behavior of objects, and the use of the scientific method in driving advances in this knowledge. This course will cover the area of physics known as classical mechanics. Classical mechanics is the study of motion based on the physics of Galileo Galilei and Isaac Newton. While mathematics is the language of physics, you will only need to be familiar with high school level algebra, geometry, and trigonometry. The small amount of additional math and calculus that we need will be developed during the course.

[Mechanics I](#) (CC BY)

This course will introduce you to the core concepts of mechanics that will enable you to answer important questions as you strive to design, test, and manufacture safe and reliable products.

Simulations

[PhET Simulations](#) (CC BY)

PhET provides fun, free, interactive, research-based science and mathematics simulations. We extensively test and evaluate each simulation to ensure educational effectiveness. These tests include student interviews and observation of simulation use in classrooms. The simulations are written in Java, Flash or HTML5, and can be run online or downloaded to your computer.

[Physics Fundamentals](#) (CC BY)

A collection of videos and simulations on different topics in physics.

Supplemental Materials

Downloadable images (CC BY-SA)

- [Ohm's Law variations](#)

Textbooks

[Advanced Library Skills for Physics Research](#) (CC BY)

Literature searching and information evaluation for upper level undergraduates and Master's students, from the University of Alberta Library.

[BCIT Physics 0312 Textbook](#) (CC BY)

An adaptation of OpenStax's *College Physics* for courses at the British Columbia Institute of Technology.

[Introduction to Electricity, Magnetism, and Circuits](#) (CC BY)

This textbook emphasizes connections between theory and application, making physics concepts interesting and accessible to students while maintaining the mathematical rigour inherent in the subject. Frequent, strong examples focus on how to approach a problem, how to work with the equations, and how to check and generalize the result.This book is an adaptation of [University Physics: Volume 2 (OpenStax)](#).

[Linear Algebra: A Course for Physicists and Engineers](#) (CC BY-NC-ND)

This open textbook is meant for courses on space and atmospheric science, remote sensing, geographic information systems, meteorology, climate and satellite communications at UN-affiliated regional centers, various applications of the formal theory are discussed as well. These include differential equations, statistics, optimization and some engineering-motivated problems in physics.

[Physics LibreTexts Library](#) (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources on sujects related to physics.

[University Physics I: Classical Mechanics](#) (CC BY-NC)

This is a "minimalist" textbook for a first semester of university, calculus-based physics, covering classical mechanics (including one chapter on mechanical waves, but excluding fluids), plus a brief introduction to thermodynamics. The presentation owes much to Mazur's The Principles and Practice of Physics: conservation laws, momentum and energy, are introduced before forces, and one-dimensional setups are thoroughly explored before two-dimensional systems are considered.

Videos

[Discovery of the Higgs Boson](#) (CC BY-NC)

A collection of 35 videos addressing the discovery of the Higgs Boson.

[Fluid Mechanics Video Playlist](#) (CC BY-NC)

A collection of 40+ videos by the School of Physics & Astronomy at the University of Edinburgh on various topics in Fluid Mechanics.

Websites

[Open Physics](#) (CC BY)

An interactive map of physics subjects that allows students to navigate through topics and read simpler or more complex versions of a concept.

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XVII

Social Sciences

Subjects and Disciplines
This section includes: • [Social Sciences – General](#) • [Anthropology and Archaeology](#) • [International Relations and Development](#) • [Political Science](#) • [Psychology](#) • [Sociology](#)

Also see [Social Sciences](#) in the "Books under consideration" section of this directory. [Books open for review](#) and [Books scheduled to be added to the collection](#) may also contain resources.

137.

Social Sciences - General

Collections

[Cornell Open](#) (CC BY-NC-ND)

An open access portal for both new and classic out-of-print titles from the distinguished catalog of [Cornell University Press](#). Cornell Open offers open access to key titles in the fields of anthropology, classics, political science, literary criticism and theory, German studies, and Slavic studies.

[IntechOpen Books: Social Sciences and Humanities](#) (CC BY)

[Social Science LibreTexts Library](#) (CC BY-NC-SA)

A collection of open textbooks, assignments, and other educational resources on topics in the social sciences.

Data

[Edinburgh DataShort: College of Arts, Humanities & Social Sciences](#) (Various licences)

A digital repository of research data produced at the University of Edinburgh by the College of Arts, Humanities & Social Sciences

Supplemental Materials

[Psychology, Sociology, Anthropology, and Social Work ancillary materials](#) (CC BY)

From Galileo Open Learning Materials.

Textbooks

[Exploring Intercultural Communication](#) (CC BY)

Intercultural communication is the study and practice of communication across cultural contexts. It applies equally to domestic cultural differences such as ethnicity and gender and to international

differences such as those associated with nationality or world region. Intercultural communication is an approach to relations among members of these groups that focuses on the recognition and respect of cultural differences, seeks the goal of mutual adaptation leading to biculturalism rather than simple assimilation, and supports the development of intercultural sensitivity on the part of individuals and organizations to enable empathic understanding and competent coordination of action across cultural differences.

[Social Science Research: Principles, Methods, and Practices](#) (CC BY-NC-SA)

This book is designed to introduce doctoral and graduate students to the process of scientific research in the social sciences, business, education, public health, and related disciplines. It is a one-stop, comprehensive, and compact source for foundational concepts in behavioral research, and can serve as a stand-alone text or as a supplement to research readings in any course on research methods.

The contents and examples are designed for anyone interested in behavioral research (not just information systems people), and so, the book should appeal to most business programs, social sciences, education, public health, and related disciplines. It has been translated into Arabic, Chinese, Korean, Persian, Ukrainian, and Vietnamese.

138.

Anthropology and Archaeology

Also see Anthropology and Archaeology OER in development.

Cultural Anthropology: This document maps OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/competencies or items for this course (ANT 101, Colorado).

Collections

Last update: Apr 21/23

SFU Archaeology Press (CC BY-ND)

A collection of reports and monographs on topics in archaeology published by SFU Archaeology Press.

Berghahn Open Anthro (Various CC licences)

Berghahn Open Anthro is a subscribe-to-open model being piloted by Berghahn Books in partnership with Libraria, a group of researchers who are also supporting a number of other publishers hoping to adopt this model should the pilot prove successful.

Freebookapalooza (Various CC licences)

A list of free books regarding myth and folklore. Many of these are in the public domain.

Vertebrate Paleontology 3D Database (CC BY-NC)

A collection of dinosaur bone scans.

Courses

[Anthropology Mini Lectures: A collective resource for online teaching in the time of COVID19](#) (CC BY-NC-SA)

A platform for anthropologists (and those anthropology adjacent) to create and share 10-30 minute videos and accompanying texts and pedagogical resources (slides, film clips, lesson plans/assignments suitable for online submission) as a way to supplement, enliven, and collectivize the work we are all already doing to take our courses online.

[Macroevolution](#) (CC BY)

Evolutionary thinking provides the underpinnings of modern biology. In recent decades, the field of macroevolution (evolution above the species level) has matured into a rich discipline with a well-developed mathematical theory for testing hypotheses of species diversification, for understanding trait evolution, and evaluating patterns of covariation across the tree of life. This course will provide a synthetic view of biology and how life on earth has changed over time.

Journals

[Anthropological Review: The Journal of Polish Anthropological Society](#) (Various CC licences)

[Student Anthropologist](#) (CC BY-NC-ND)

This is the flagship peer-reviewed journal of the [National Association of Student Anthropologists](#). The journal publishes peer-reviewed, original ethnographic or theoretical student research as well as book reviews of relevant texts in anthropology and related fields.

Monographs

[The Ancient Past of Keatley Creek: Volume I: Taphonomy](#) (CC BY-NC-ND)

Keatley Creek is a world heritage quality site with unusually large housepits, good preservation, clear architectural features and evidence for complex socioeconomic organization. Work done here has been at the centre of theoretical and methodological advances in archaeological studies of complex hunter/gatherers. Volume I: Taphonomy includes thorough documentation of dating, climate, soils, and site formation processes. Botanical, faunal and lithic remains are examined to see what they reveal about the formation of different types of strata (floors, roofs, middens). Stone sources are identified and the lithic assemblage is analyzed from a design theory perspective emphasizing both artifacts and debitage.

[The Ancient Past of Keatley Creek: Volume II: Socioeconomy](#) (CC BY-NC-ND)

Volume II: Socioeconomy presents analyses dealing with the basic social, economic, and political organization of the prehistoric community at Keatley Creek. Faunal, botanical, and

lithic remains are examined in individual chapters to determine how activities were structured within housepits of different sizes (small, medium, and large).

[Archaeology of the Lower Fraser River Region](#) (CC BY-NC-ND)

a considerable number of significant and richly informative archaeological studies have been conducted within the Lower Fraser River Region of southwestern British Columbia. As a result, a great deal has been revealed and learned about pre-contact period and early post-contact period human occupation, settlement, and use of natural resources. This book aims to bring those studies together into a single volume.

[The Archaeology of Kamloops](#) (CC BY-NC-ND)

This report is concerned with archaeological excavations in the south-central interior of British Columbia, in the vicinity of Kamloops. The principal results of the research are the description and incorporation of new archaeological data into a cultural-historical synthesis for the Kamloops locality.

[Archaeology, the Paleolithic of Northeast Asia, a Non-Tropical Origin for Humanity, and the Earliest Stages of the Settlement of America](#) (CC BY-NC-ND)

This controversial volume by Siberian archaeologists, Yuri Mochanov and Svetlana Fedoseeva, places the recent discoveries of early Paleolithic artifacts at the Diring Yuriak site on the Lena River in Siberia, dated at several million years ago, in a model of human origins in the north and thereby challenges the current ruling theory of human origins in Africa. In addition the authors provide illustrations of artifact assemblages from their forty years of research in northeast Siberia that span the early Paleolithic, Middle Paleolithic, and late Paleolithic periods.

[At A Crossroads: Archaeology and First Peoples in Canada](#) (CC BY-NC-ND)

The 20 papers in this volume were written by both Native and Non-Native authors, and provide both substance and food-for-thought concerning the complex interactions between archaeologists and contemporary indigenous peoples of Canada in regard to working together, interpretation of the past, ownership of the past, and the relationships between traditional knowledge and archaeological fact.

[Lifestyle in Siberia and the Russian North](#) (CC BY)

Lifestyle in Siberia and the Russian North breaks new ground by exploring the concept of lifestyle from a distinctly anthropological perspective. Showcasing the collective work of ten experienced scholars in the field, the book goes beyond concepts of tradition that have often been the focus of previous research, to explain how political, economic and technological changes in Russia have created a wide range of new possibilities and constraints in the pursuit of different ways of life.

[Toolstone Geography of the Pacific Northwest](#) (CC BY-NC-ND)

This book includes fifteen chapters by well-known and respected authors presenting new and intriguing revelations about toolstones in British Columbia, Washington, Oregon, Idaho, Montana, and northern California. Each chapter examines lithic raw material sources, the uses and

distribution of the toolstones quarried from them, and the archaeological or anthropological inferences that studies of toolstone geography provide.

Textbooks

ANTH 101 (CC BY-NC-SA)

A free online textbook called *The Art of Being Human* along with a collection of complementary ancillary resources including lesson plans, activities, and videos.

The Art of Being Human: A Textbook for Cultural Anthropology (CC BY-NC-SA)

In this unique book, Dr. Michael Wesch shares many of his own adventures of being an anthropologist and what the science of human beings can tell us about the art of being human. This special first draft edition is a loose framework for more and more complete future chapters and writings. It serves as a companion to anth101.com, a free and open resource for instructors of cultural anthropology.

Beliefs: An Open Invitation to the Anthropology of Magic, Witchcraft, and Religion (CC BY)

This book on the Anthropology of Religion includes material from contributing authors' lectures that have been interesting for students in their classrooms. The core concepts are accompanied by ethnographic examples from various cultures around the world, as well as, audio playlists of each chapter that is available on Soundcloud.

Digging into Archaeology: A Brief OER Introduction to Archaeology with Activities (CC BY-NC)

This book is intended for use in a variety of introductory archaeology settings, such as in lectures and lab courses. This text can complement an existing traditional text or completely replace a standard text. It can be used for its activities or as a study resource.

Explorations: An Open Invitation to Biological Anthropology (CC BY-NC)

A comprehensive, peer-reviewed open access textbook for biological anthropology courses. Produced with support from the Society for Anthropology in Community Colleges (a section of the American Anthropological Association) and a grant from Minnesota State.

Introduction to Human Osteology (CC BY-NC)

This text was designed for use in the human osteology laboratory classroom. Bones are described to aid in identification of skeletonized remains in either an archaeological or forensic anthropology setting. Basic techniques for siding, aging, sexing, and stature estimation are described. Both images of bone and drawings are included which may be used for study purposes outside of the classroom.

Speaking of Culture (CC BY-NC)

The purpose of this textbook is to define culture and other concepts associated with it. This book will help you to better understand the breadth of the concept of culture and provide a vocabulary for discussing it more articulately. Culture is a broad concept that cuts across many academic disciplines.

This book touches on anthropology, biology, history, mythology, political science, psychology, and sociology.

[What We Now Know about Race and Ethnicity](#) (CC BY-NC-ND)

Attempts of nineteenth-century writers to establish "race" as a biological concept failed after Charles Darwin opened the door to a new world of knowledge. Yet this word already had a place in the organization of everyday life and in ordinary English language usage. This book explains how the idea of race became so important in the USA, generating conceptual confusion that can now be clarified. Developing an international approach, it reviews references to "race," "racism," and "ethnicity" in sociology, anthropology, philosophy, and comparative politics and identifies promising lines of research that may make it possible to supersede misleading notions of race in the social sciences.

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139.

Child, Youth, Family, Community Studies

Textbooks

[Children, Families, Schools, and Communities](#) (CC BY-NC-SA)

This book is an introductory text in the field of Child and Family Studies. It provides a lens for understanding the evolving definition

of "family" through socially constructed and ecological theory frameworks. It promotes strategies for culturally sustaining and deeply collaborative relationships between families, schools, and communities through the use of home-grown advocacy strategies based on community-driven data.

450 Josie Gray

140.

International Relations and Development

Case Studies

[SDG Toolkit for Canadian Colleges and Institutes](#) (CC BY-NC-SA)

Last update: May 4/21

This guide identifies emerging practices in post-secondary settings across Canada that integrate the SDGs explicitly and curates a selection of these into an Open Educational Resource (OER) toolkit and guide to the SDGs for Canadian colleges and institutes.

Collections

[IDRC Books](#) (CC BY)

IDRC (International Development Research Centre) is committed to improving lives and livelihoods by supporting research that addresses critical international development issues. One of the important ways that IDRC and our grantees help to bring about positive change is through our book publishing program, where we share our research results and findings with other researchers, policymakers, and communities globally.

Explore our book collection from the last 25 years below, all free for digital download. Hundreds more IDRC books, published from the 1970s to the 1990s, are available through the [IDRC Digital Library](#).

[E-International Relations](#) (Various CC licences)

The world's leading open access website for students and scholars of international politics, featuring high quality scholarly content and student-facing resources. The website was established in November 2007. In addition to maintaining the website, we produce a range of [open access books](#).

Journals

[Global Studies Quarterly](#) (CC BY)

The International Studies Association's fully open access journal. The journal publishes original and innovative scholarship within the topics, subfields, and approaches in international studies. Work published in *GSQ* offers significant theoretical, epistemological, empirical, or normative contributions to the field.

Textbooks

[Immigrant and Refugee Families, 2nd Ed: Global Perspectives on Displacement and Resettlement Experiences](#) (CC BY-NC)

This book offers an interdisciplinary perspective on immigrant and refugee families' challenges and resilience across multiple domains, including economic, political, health, and human rights. This new edition has been revised and updated from the [original 2016 edition](#).

[International Relations](#) (CC BY)

As a 'Day 0' beginner's guide, this textbook condenses the most important information into the smallest space and present concepts in an accessible way. The chapters build up the foundations for understanding how the world works and then explore the key global issues that concern the discipline – taking readers from no knowledge to competency.

[International Relations Theory](#) (CC BY)

This book is designed as a foundational entry point to International Relations theory. Each chapter sets out the basics of a theory whilst also applying it to a real-world event or issue, creating a lively, readable and relevant guide that will help students to see not only what theories are – but why they matter.

[Language and Culture in Context: A Primer on Intercultural Communication](#) (CC BY-NC); also see posting in the [Open Textbook Library](#)

This text introduces some of the key concepts in intercultural communication as traditionally presented in (North American) courses and textbooks, namely the study of differences between cultures, as represented in the works and theories of Edward Hall and Geert Hofstede. Common to these approaches is the prominence of context, leading to a view of human interactions as dynamic and changeable, given the complexity of language and culture, as human agents interact with their environments.

Media Attributions

141.

Political Science

Case Studies

Last update: Jun 27/22

[UBC Case Studies: Global Climate Justice](#) (CC BY)

The overall goal of this case study is to stimulate students to try to generate original ways to approach or frame the issue of global climate change that might provide a more productive path forward.

Monographs

[Labour and Value: Rethinking Rethinking Marx's Theory of Exploitation](#) (CC BY)

In this book Ernesto Screpanti provides a rigorous examination of Marx's theory of exploitation, one of the cornerstones of Marxist thought. With precision and clarity, he identifies the holes in traditional readings of Marx's theory before advancing his own original interpretation, drawing on contemporary philosophy and economic theory to provide a refreshingly interdisciplinary exegesis.

[On Civic Republicanism: Ancient Lessons of Global Politics](#) (CC BY)

On Civic Republicanism explores the enduring relevance of the ancient concepts of republicanism and civic virtue to modern questions about political engagement and identity. Examining both ancient and early modern conceptions of civic republicanism, the contributors respond to the work of thinkers ranging from Plato and Aristotle to Machiavelli, Montesquieu, and Wollstonecraft.

[Vulnerable: The Law, Policy and Ethics of COVID-19](#) (CC BY-NC-ND)

This book confronts the vulnerabilities and interconnectedness made visible by the pandemic and its consequences, along with the legal, ethical and policy responses. These include

vulnerabilities for people who have been harmed or will be harmed by the virus directly and those harmed by measures taken to slow its relentless march; vulnerabilities exposed in our institutions, governance and legal structures; and vulnerabilities in other countries and at the global level where persistent injustices harm us all.

Supplemental Materials

[Democracy In Brief – PowerPoint Slides](#) (CC BY)

PowerPoint slides that provide an introduction to democracy and are designed to accompany [Democracy in Brief](#). This resource was created by Janni Aragon at the University of Victoria.

[Democracy in Brief – Summary and Questions [Word]](#) (CC BY)

A summary of [Democracy in Brief](#) plus a collection of multiple choice and short answer questions on different topics related to democracy. This resource was created by Janni Aragon at the University of Victoria.

[The Food Security Quest](#) (CC BY)

A learning game focused on the topic of food security. The game allows players to step into the life of a fictional character in order to help the character navigate different decisions while trying to stay food secure.

Textbooks

[2018 Political Year of the Woman Election: A Critical Examination](#) (CC BY-NC)

This book consists of student-authored original research papers collectively examining the ways in which gender shaped, and was shaped by, the 2018 Year of the Woman elections.

[Attenuated Democracy](#) (CC BY-NC-SA)

A critical introduction to U.S. government and politics.

[The Basics of American Government](#) (CC BY-SA)

A comprehensive overview of the American political system for students taking introductory courses in American national government. Most of its chapters offer a piece of original scholarship as a case study bolstering the material in the chapter. Additionally, most chapters present a civic engagement-type exercise and discussion questions.

[Canada and Speeches from the Throne](#) (CC BY)

This book by senior undergraduate and graduate student in the Department of History at the University of Regina describes how Canadian Prime Ministers articulated their vision of

Canada from 1935 to 2015 through their Speeches from the Throne and in their Leaders' Day speeches. It demonstrates that each of Canada's Prime Ministers had a vision for the country and articulated that vision in their speeches and through their words.

[Keys to Understanding the Middle East](#) (CC BY-SA)

This open textbook published by The Ohio State University is intended for readers who have never studied the Middle East, or who would like to improve their knowledge of the region. Chapters focus on the languages, cultural, religious and sectarian communities of the region, and certain turning points in history which are keys for understanding the region.

[The Cause and Consequence of Human Trafficking: Human Rights Violations](#) (CC BY-NC)

This text is intended to convey the importance of understanding how the violation of human rights is a cause and consequence of human trafficking.

[The Politics of Sports](#) (CC BY-NC-SA)

A collection of texts and materials that team together students' familiarity with sports and critical inquiry skills. The Politics of Sports has the potential to capture the interest of college students in order to excite them to begin a research journey with a sense of authority and investment in a topic that is at once familiar and complex enough to yield a wide range of inquiry.

Videos

[The Making of the US President](#) (CC BY)

Featuring Professor Frank Cogliano of the School of History, Classics, and Archaeology at the University of Edinburgh, this series of videos provides an introduction to the main parties and individuals involved in the election of 1796 and the election of 1800.

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142.

Psychology

Also see [Psychology OER](#) in development.

[Human Growth and Development](#): This document maps OER (curated by librarians and vetted for content and alignment by subject matter experts) to specific outcomes/competencies or items for this course (PSY 235, Colorado).

Collections

Last update: Mar 21/23

[Psychology as a Science](#) (CC BY-SA)

A Pressbooks containing a collection of links to resources (textbooks, videos, activities, and more) organized by topic.

[Teach Psych Science](#) (CC BY)

A website devoted to peer-reviewed resources for teaching research, statistics, and writing for psychological science.

Courses

[Introduction to Psychology](#) (CC BY-NC-SA)

Introduction to Psychology offers students an engaging introduction to the essential topics in psychology. Throughout this study of human behavior and the mind, you will gain insight into the history of the field of psychology, as well as explore current theories and issues in areas such as cognition, motivation, and wellness. The importance of scientific methods and principles of research design is emphasized throughout this course and presented in a way that will enrich your study of individuals as thinking, feeling, and social beings.

[Lifespan Development](#) (CC BY)

An open textbook covering human development over a lifespan with accompanying lecture notes, power point slides, and other resources.

Psychology Research Methods (CC BY)

Often overlooked as the less interesting-side of studying Psychology, research methods take centre stage in this set of engaging lesson plans. These lesson plans contain several practical activities and experiments. Students complete research methods worksheets alongside each experiment, encouraging them to consider how research is planned, recorded, and conducted.

Supplemental Materials

Attention and Advertising Tactics (CC BY)

This resource covers examination of popular culture, the media, and peers, in addition to ones own attitudes and values, and how these can affect and impact an individuals actions.

Introduction to the Brain (CC BY)

This resource includes an introductory information pack for high school students and an activity with printable materials. It addresses the following learning outcomes: Name and locate the different lobes of the brain, understand the functions of each brain, and their real-life applications, actively work in a team with a common goal, and understand the implications of brain damage, such as the case of Phineas Gage.

Introduction to Psychology Study Guide (CC BY-NC)

This study guide is designed to accompany the Introduction to Psychology – 1st Canadian Edition open text by Jennifer Walinga and Charles Stangor. For each chapter, it summarizes the learning objectives and presents multiple-choice, true-false, and fill-in-the-blank tests of the material covered. It provides links to resources to enable students to deepen their understanding of key topics and to explore related issues. Finally, it offers suggestions for hands-on activities relevant to each chapter.

Prejudice Reduction Strategies (CC BY)

This resource identifies stereotypes, prejudice, and discrimination, where they arise from, and how to recognise and respond to these types of behaviours and comments in a constructive way.

Scientific Reasoning MCAT Modules (CC BY)

A series of eight modules developed by Oregon State University and designed to be used by instructors teaching introductory psychology courses to teach scientific reasoning skills.

Textbooks

Culture and Psychology (CC BY-NC-SA)

Culture is one of the most powerful forces in the world. It shapes how we make sense of our world, how we express ourselves and how we understand and relate to others. In this textbook we introduce cultural universals and culturally specific constructs in psychology. This textbook was created for an undergraduate course that appeals to psychology majors and non-majors because it meets several general education and transfer credit requirements.

[Essentials of Abnormal Psychology – 1st Edition](#) (CC BY-NC-SA)

This textbook tackles the difficult topic of psychological disorders in eight chapters. After the first three foundational chapters, a discussion of psychological disorders ensues to include anxiety disorders, obsessive-compulsive and related disorders, mood disorders, schizophrenia spectrum and other psychotic disorders, and personality disorders.

[Introduction to Biological Psychology](#) (CC BY-NC)

An open access textbook designed primarily for use by first and second year undergraduate students of British Psychological Society accredited Psychology degree courses in the UK.

[Introduction to Psychology](#) (CC BY-NC-SA)

From the University of Saskatchewan, this introductory text has been created from a combination of original content and materials compiled and adapted from a number of open text publications.

[Introduction to Psychology & Neuroscience](#) (CC BY)

The foundation of this book is built upon Psychology 2e from OpenStax. In addition to the core content from Psychology 2e from OpenStax, this book is a combination of original material and resources, and selected works from [Introduction to Psychology](#) by Cummings & Sanders (University of Saskatchewan), [Discovery Psychology 2.0](#) from [Noba Project](#), and various upper-level Psychology courses from [Lumen Learning](#).

[Introduction to Psychology (Stangor)](#) (CC BY-NC-SA)

This textbook includes learning objectives, key takeaways, exercises and critical thinking activities, a marginal glossary of key terms, a [student handbook](#), and [final review PowerPoint slides](#). In short, I think that this book will provide a useful and productive synthesis between your goals and the goals of your students. I have tried to focus on the forest rather than the trees and to bring psychology to life—in ways that really matter—for the students. At the same time, the book maintains content and conceptual rigor, with a strong focus on the fundamental principles of empiricism and the scientific method.

[Learning Statistics with R: A tutorial for psychology students and other beginners](#) (CC BY-SA)

This book covers the contents of an introductory statistics class, as typically taught to undergraduate psychology students, focusing on the use of the R statistical software. The book discusses how to get started in R as well as giving an introduction to data manipulation and writing scripts. From a statistical perspective, the book discusses descriptive statistics and graphing first, followed by chapters on probability theory, sampling and estimation, and null hypothesis testing. After introducing the theory,

the book covers the analysis of contingency tables, t-tests, ANOVAs and regression. Bayesian statistics are covered at the end of the book.

[Learning Statistics with Jamovi: A tutorial for psychology students and other beginners](#) (CC BY-SA)

This book of learning statistics with jamovi covers the contents of an introductory statistics class, as typically taught to undergraduate psychology students. Descriptive statistics and graphing are followed by chapters on probability theory, sampling and estimation, and null hypothesis testing. The book covers the analysis of contingency tables, correlation, t-tests, regression, ANOVA and factor analysis.

[Noba Project](#) (CC BY-NC-SA)

A collection of psychology open textbooks. The Noba platform also allows you to customize textbooks or build your own. Many modules include instructor manuals, PowerPoint presentations, and test banks.

[Personality Theory: A Multicultural Perspective](#) (CC BY)

[Personality Theory in a Cultural Context](#) (CC BY)

[Principles of Social Psychology](#) (CC BY-NC-SA)

Have you ever had trouble teaching the various topics of social psychology and fitting them together to form a coherent field? Dr. Stangor felt like he was presenting a laundry list of ideas, research studies, and phenomena, rather than an integrated set of principles and knowledge. He wondered how his students could be expected to remember and understand the many phenomena that social psychologists study? How could they tell what was most important? It was then that he realized a fresh approach to a Social Psychology textbook was needed to structure and integrate student learning; thus, Principles of Social Psychology was born. This textbook is based on a critical thinking approach, and its aim is to get students thinking actively and conceptually – with a greater focus on the forest than the trees. Yes, there are right and wrong answers, but the answers are not the only thing. What is perhaps even more important is how students get to the answers – the thinking process itself.

[Psychology as a Biological Science](#) (CC BY-NC-SA)

This textbook provides standard introduction to psychology course content with a specific emphasis on biological aspects of psychology. This includes more content related to neuroscience methods, the brain and the nervous system.

[The Psychology of Human Thought](#) (CC BY-SA)

The book is intended to be used as a textbook in courses on higher processes, complex cognition, human thought, and related courses. Chapters include concept acquisition, knowledge representation, inductive and deductive reasoning, problem solving, metacognition, language, expertise, intelligence, creativity, wisdom, development of thought, affect and thought, culture, and sections about history and about methods.

[Tao of Positive Psychology](#) (CC BY)

[Workplace Psychology: Issues and Application](#) (CC BY-NC-SA)

A compilation of open content for students of Psychology 104: Workplace Psychology at Chemeketa Community College.

Websites

Abnormal Psychology (CC BY-NC-SA)

A wiki on abnormal psychology developed by Dr. Caleb Lack and his students at the University of Central Oklahoma and Arkansas Tech University.

R Psychologist (CC BY)

A blog about R, statistics, psychology, open science, and data visualization.

143.

Sociology

Textbooks

[Beyond Race: Cultural Influences on Human Social Life](#) (CC BY-NC-SA)

Beyond Race: Cultural Influences on Human Social Life is a text for introductory courses on cultural sociology. The book is an open educational resource (OER) that provides sociological terms, concepts, theories, and research in the study of culture. The book contains five modules with sociological applications on: 1) Culture and Meaning, 2) Culture as a Social Construct, 3) Cultural Power, 4) Cultural Identity, and 5) The Multicultural World.

[A Career in Sociology](#) (CC BY-NC-SA)

An introductory level textbook that provides sociological terms, concepts, and theories in the study of sociological practice. The book contains five modules with sociological applications on: 1) Careers in Sociology, 2) Theoretical Approaches in Practice, 3) Sociological Interventions, 4) Working with Diverse Groups, and 5) Preparing for a Career in Sociology.

[Classical Sociological Theory and Foundations of American Sociology](#) (CC BY-SA)

There are a few features unique to this particular selection of texts. First, when not originally published in English, they have been freshly translated for the 21st century student. Another unique feature of this volume is the inclusion of a section on early American sociological theory.

[Foundations in Sociology I: Social Construction of Everyday Life](#) (CC BY)

This textbook examines how we come to understand and experience ourselves and the world around us and how we create culture. Students will be introduced to the study of culture, socialization, social interaction, identity formation and self-fashioning, the social construction of class, gender and race, age, deviance, and other social phenomena.

[Individual and Family Development, Health, and Well-being](#) (CC BY-SA)

This book provides an overview of lifespan developmental tasks (physical, cognitive, language, social, emotional) examined from individual and family theoretical perspectives. It covers topics related to families, diversity, individual and family health and well-being, and reciprocal relationships as affected by external factors.

[Sociology: Understanding and Changing the Social World](#) (CC BY-NC-SA)

This book presents a sociological understanding of society but also a sociological perspective on how to change society, while maintaining the structure and contents of the best mainstream texts.

[Sociology: Understanding and Changing the Social World](#) – Adapted by The Saylor Foundation (CC BY-NC-SA)

The book includes the most recent data in the following categories, so your students have access to the latest sociological trends: crime and victimization, income and poverty, life expectancy and aging, employment, marriage and divorce, education, medical care and health disparities, and fertility and population change.

[Understanding Homelessness in Canada](#) (CC BY-NC-ND)

Have you ever wondered about why homelessness exists in Canada? This book brings together lived experience representation and the most recent research to explore homelessness in Canada, from a range of different perspectives. Readers are challenged to think about homelessness from various academic viewpoints, including the fields of Indigenous and Canadian Studies, Mental Health and Public Health Studies, Population Studies, Social Sciences, and Health Sciences. The authors pose seemingly simple questions and then, through the use of real life scenarios, embedded interview videos, artwork, and interactive activities, demonstrate how the answers are actually rather complex.

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XVIII

Trades

Subjects and Disciplines

This section includes:

- [Trades – General](#)
- [Appliances](#)
- [Automotive](#)
- [Aviation](#)
- [Common Core](#)
- [Construction](#)
- [Electricity](#)
- [Hairdressing](#)
- [Manufacturing](#)
- [Mechanics](#)
- [Mining](#)

Also see Trades in the "Books under consideration" section of this directory. Books open for review and Books scheduled to be added to the collection may also contain resources.

144.

Trades - General

Also see [Trades OER](#) in development.

Collections

Last update: Jun 27/22

[ViVET: Global Hub for Vocational Education Training](#) (CC BY-NC-SA)

A learning platform that provides videos, courses, training, and topics related to Vacation and Education Training (VET).

Courses

[Mechatronics Technology](#) (CC BY-NC-SA)

Learn skills in electrical, mechanical, and computer technologies in a course mapped to the Siemens Mechatronic Systems Level 1 certification. Students are prepared for entry-level Mechatronics positions in almost every industry.

[Skills Commons](#) (CC BY)

A digital library of Workforce Training Materials.

Textbooks

[Basic Blueprint Reading](#) (CC BY)

This is an entry level blueprint reading book written for the first year welding student. The book will be used in the first term of a two year welding program to familiarize the student to sketching and reading blueprints.

145.

Appliances

Textbooks

[Introduction to Vacuum Technology](#) (CC BY-NC-SA)

This textbook addresses basic topics in vacuum technology for individuals tasked with maintaining vacuum systems and instructors teaching technician-level courses. The topics are carefully curated to the needs of technicians in a production environment and the types of vacuum systems used, and the accompanying laboratory manual and instructor's guide support the delivery of lecture-laboratory courses.

Last update: Oct 27/23

470 Josie Gray

146.

Automotive

Courses

[Diesel Drivetrain Systems](#) (CC BY)

This course covers theory and operation of all drive system components including manual transmissions, automatic transmissions, clutches, drivelines and differentials. Other studies include component troubleshooting, inspecting, service, repair operations, removal, replacement and preventive maintenance practices.

Last update: Sep 27/18

147.

Aviation

Textbooks

[Aerodynamics and Aircraft Performance, 3rd edition](#) (CC BY)

Last update: Sep 2/21

Intended for undergraduates, this text provides "stand alone" coverage of basic, subsonic, aircraft performance preceded by an introduction to the basics of aerodynamics that will provide a background sufficient to the understanding of the subjects to be studied in aircraft performance.

[Aviation Safety – The Basics](#) (CC BY-NC-SA)

This book provides a detailed introduction into the current important issues affecting aviation safety. This textbook discusses the latest safety indicatives now being introduced throughout the industry. Although several chapters are dedicated toward General Aviation, the material applies to all facets of aviation.

148.

Common Core

Textbooks

[B.C. Open Collection: Common Core](#) (Various CC licences)

A collection of open textbooks relating to topics in common core trades programs.

Last update: Jun 27/22

Videos

[Trades Access Common Core Videos](#) (YouTube CC Licence)

A playlist of videos demonstrating different trade skills. (35 videos)

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149.

Construction

Courses

[Basic Industrial Skills](#) (CC BY)

A course on basic industrial skills covering topics on Power Tools, Introduction to Construction Drawings, Basic Rigging, Basic Communication Skills, and Basic Employability Skills.

Textbooks

[Building Maintenance & Construction: Tools and Maintenance Tasks (Interactive)](#) (CC BY)

This textbook introduces and develops knowledge of basic building maintenance tools and materials, applied skills and techniques, industry health and safety standards, and preventive maintenance and troubleshooting practices required by employers for entry-level positions in the building trades and facilities maintenance fields.

[Construction Contracting: Business and Legal Principles – Second Edition](#) (CC BY-NC-SA)

This is an introduction to construction contracting as it applies to typical, everyday situations that explains "theoretical" ideas in terms of what really happens in practice. It emphasizes the more common case law holdings and industry customs that help avoid troublesome legal issues during the completion of a project.

150.

Electricity

Videos

The Electric Academy (CC BY)

Sometimes electrical theory can come across as confusing. These videos are simple and to the point. This series of dozens of easy-to-understand videos was created by Chad Flinn when he was a trades instructor at the British Columbia Institute of Technology in Vancouver, B.C., Canada.

Last update: Jul 4/18

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151.

Hairdressing

Collections

[Jisc Hairdressing Training Resources](#) (CC BY-NC-SA)

A collection of curriculum-mapped hairdressing and barbering resources, created for and by further education and skills practitioners.

Last update: Oct 1/19

152.

Manufacturing

Collections

[Training and Professional Development Resources for Manufacturing](#) (CC BY)

The Ohio Manufacturers' Association (OMA) has partnered with
California State University, SkillsCommons to provide easy access to high-quality training resources for Ohio manufacturers and their workforce partners! Create your optimum training program by reviewing and customizing the SkillsCommons training materials, developed by community colleges nationwide and evaluated by Ohio manufacturing subject matter experts to ensure quality.

Courses

[Composites Technology](#) (CC BY-NC-SA)

Learn about composites fabrication, assembly, repair; CNC machining; and composite manufacturing. Composites students are prepared for entry-level positions in industries including aviation, marine, recreation, green energy, and manufacturing.

153.

Mechanics

Courses

[Drive Systems](#) (CC BY)

Topics covered are the following: Introduction to Mechanical Drive Systems, Key Fasteners, Select Mechanical Drive System Measurements, Power Transmission Systems, V-Belt Drives, Chain Drives, Spur Gear Drives, Multiple Shaft Drives.

154.

Mining

Courses

[Underground Miner Curriculum](#) (CC BY-SA)

These three resources are related to entry-level underground mining in British Columbia. The first item is a provincial curriculum framework containing three modules (provincial theory, site-specific theory, and hands-on equipment); the second is a "train-the-trainer" guide for instructors who might use the curriculum, and the third is a transferable skills toolkit for underground miners. These resources are provided by the B.C. Centre of Training Excellence in Mining (CTEM).

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155.

Professional Cook

Textbooks

[Introduction to Food Microbiology [PDF]](#) (CC BY-ND)

The high-level objective of the *Introduction to Food Microbiology* open textbook is to increase awareness and knowledge of food safety and safe food handling procedures as they relate to the principles of food microbiology. Created by the FOODSAFE Secretariat, the Introduction to Food Microbiology open textbook content emphasizes food safety awareness practices as found within the food service industry, to make it as practical and relevant for learners as possible.

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XIX

Upgrading

Subjects and Disciplines

This section includes:
 	
    • Adult Basic Education (ABE)
 	
    • English Language Learning (ELL)

Also see Upgrading in the "Books under consideration" section of this directory.

156.

Adult Basic Education (ABE)

Also see [Adult Basic Education OER](#) in development.

Collections

Last update: Jun 27/22

[WikiEducator CHEMISTRY](#) (CC BY-SA)

A collection of chemistry resources curated by a British Columbia high school teacher.

Courses

[Basic Computer Skills MOOC](#) (CC BY)

A Massive Online Open Course covering topics in basic computer skills including using computing devices, navigating an operating system, using a keyboard, creating documents using Word processing software, using email, managing files, using the Internet, exploring social media, and managing personal data.

Textbooks

[Computer Science 20](#) (CC BY-SA)

This textbook was written to support the teaching of Computer Science 20 in Saskatchewan. This book is meant to provide students with an interactive experience as they learn to program. They can read the text, watch videos, and write and execute Python code.

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license

157.

English Language Learning (ELL)

English Language Learning (ELL) is also known as English as a Second Language (ESL).

Also see [English Language Learning OER](#) in development.

Courses

Last update: Mar 30/23

[Advanced Academic Grammar for ESL Students](#) (CC BY)

Also see Advanced Academic Grammar for ESL Students under "Textbooks"

This course was created for an advanced academic grammar course for ESL students. By the end of the course, students will recognize and demonstrate the appropriate use of advanced grammar structures. To meet these outcomes, students will listen to aural language that includes the target structures, identify and edit grammar errors in written language, read and analyze texts that include the target grammar structures, and demonstrate the correct and appropriate use of target structures in written and spoken language.

[American English Speech](#) (CC BY-NC-SA)

Learn how to communicate with the sounds and music of American English. Improve your pronunciation in Standard American English by dealing with the sounds of the words that you speak. NOTE: This is a course on speaking American English, not learning the English language.

[Mobile ESL](#) (CC BY)

From Athabasca University in Alberta, this is a course of lessons and practice on the system of English. It is divided into eighty-six sections. Each section covers an area of basic grammar and contains a number of exercises.

[Project I-DEA](#)

The Integrated Digital English Acceleration (I-DEA) program teaches English language skills in the context of college and careers for learners who face the largest language gaps. Unlike traditional approaches — in which learners are expected to learn English before pursuing college or job-training — I-DEA teaches English in tandem with college and career skills. Students quickly learn skills relevant to their lives and careers.

Monographs

[WAC and Second-Language Writers: Research Towards Linguistically and Culturally Inclusive Programs and Practices](#) (CC BY-NC-ND)

This book looks at the differing perspectives, educational experiences, and voices of second-language writers. The chapters within this collection not only report new research but also share a wealth of pedagogical, curricular, and programmatic practices relevant to second-language writers. Representing a range of institutional perspectives—including those of students and faculty at public universities, community colleges, liberal arts colleges, and English-language schools—and a diverse set of geographical and cultural contexts, the editors and contributors report on work taking place in the United States, Asia, Europe, and the Middle East.

Readers

[Global Storybooks Portal](#) (CC BY)

Global Storybooks is a collection of 40 stories from the African Storybook available with text and audio in English, French, and the most widely spoken immigrant and refugee languages in countries all over the world. This resource was created in order to promote literacy and language learning in homes, schools, and communities.

Supplemental Materials

[Home and School](#) (CC BY)

This book contains 10 easy picture stories for beginning students of English along with exercises and discussion prompts.

[Study Zone](#) (CC BY-NC-SA)

The Study Zone is for students of the English Language Centre (ELC) at the University of Victoria. ELC teachers create English language lessons and practice exercises. The site is designed for our adult English language learners, but all are welcome to read the lessons and use the exercises.

[Writing with Grammar](#) (CC BY-SA)

Practice grammar with authentic writing and speaking activities.

Textbooks

[Advanced Academic Grammar for ESL Students](#) (CC BY)

Also see Advanced Academic Grammar for ESL Students under "Courses"

This textbook was created for an advanced academic grammar course for ESL students. By the end of the course, students will recognize and demonstrate the appropriate use of advanced grammar structures. To meet these outcomes, students will listen to aural language that includes the target structures, identify and edit grammar errors in written language, read and analyze texts that include the target grammar structures, and demonstrate the correct and appropriate use of target structures in written and spoken language.

[Advanced Community College ESL Composition: An Integrated Skills Approach](#) (CC BY-NC-SA)

This textbook is for advanced ESL writing classes. It takes a theme-based approach, with content from professional writers, and gives students the opportunity to delve deeply into the readings, learn annotation strategies, and apply critical thinking to their assignments.

[ESL for Beginning Students: The Way You Like It, Levels 1–5](#) (CC BY-NC)

A collection of English-grammar books ranging in levels from beginner to advanced. These books were created by Don Bissonnette of South Seattle College for students and teachers of English as a Second Language (ESL). These grammar-based books also include vocabulary, some pronunciation, punctuation, capitalization, and model paragraphs.

[Explorations 1: Grammar for the Experienced Beginner](#) (CC BY-NC-SA)

This English grammar textbook was designed for a class of Clackamas Community College (CCC) ESOL students who need only a review of the BE verb and are ready to learn the simple present and present progressive tenses.

[Intermediate Reading and Writing](#) (CC BY)

OER Textbook for English as a Second Language. It uses themes found in the historical fiction novel *Uprising*. Email rebecca.alhaider@reedleycollege.edu if you have any questions.

[It's All Greek to Me! Using the Authentic Readings to Improve Knowledge of the English Language and Western Culture](#) (CC BY-NC-SA)

This book includes entertaining stories, academic articles in a variety of disciplines, vocabulary crossover in literary and academic readings, connections to local, American, and Western culture, and plenty of chances for critical thinking for advanced students of English as a Second Language (ESL). All readings are authentic with minimal adaptation from a variety of sources.

[Oral Communication for Non-Native Speakers of English](#) (CC BY-NC-SA)

This textbook is designed to serve as an instructional tool for both learners and teachers in the field of pronunciation. Topics covered include vowel and consonant sounds, word stress, thought groups, prominence, and intonation as well as materials on listening, speaking, lexicogrammar, pragmatics, and pronunciation. The book can be used as a self-paced instructional tool or a classroom resource for speaking or pronunciation courses.

[Teaching Math for Emergent Bilinguals: Building on Culture, Language, and Identity](#) (CC BY-NC-SA)

This book is designed for pre-service/in-service teachers and others who will work or work with K–12 students who have linguistically and culturally diverse backgrounds, especially students of other languages (English language learners/Emergent bilingual/multilingual).

[Transition with Purpose: Pathways from English Language to Academic Study](#) (CC BY-NC)

This textbook will guide students through their English language to academic degree studies. Part one of this textbook is a guide for moving from ESL study to academic study at a university. Part two focuses on how academic skills are used across various disciplines and is comprised of activities and assignments designed to practice these skills.

[Writing for Change: An Advanced ELL Resource](#) (CC BY)

This ELL textbook includes anti-racist, culturally responsive, and decolonization approaches to learning English.

[Writing for Change: An Intermediate ELA Resource](#) (CC BY-NC-SA)

[Writing for Change: An Advanced ELA Resource](#) (CC BY-NC-SA)

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XX

Non-English OER

<div style="text-align: center; background: black; color: white;">Subjects and Disciplines</div>

This section includes:

- [Non-English OER – General](#)
- [Arabic](#)
- [Bulgarian](#)
- [Chinese](#)
- [Czech](#)
- [Dutch](#)
- [Farsi](#)
- [French](#)
- [German](#)
- [Greek and Latin](#)
- [Hindi](#)
- [Italian](#)
- [Japanese](#)
- [Kannada](#)
- [Khmer](#)
- [Korean](#)
- [Malay](#)
- [Norwegian](#)
- [Pashto](#)
- [Portuguese](#)
- [Russian](#)
- [Scots](#)
- [Spanish](#)

- [Turkish](#)
- [Ukrainian](#)
- [Urdu](#)

[Books open for review](#) and [Books scheduled to be added to the collection](#) may also contain resources.

158.

Non-English OER - General

Collections

[COERLL: Center for Open Educational Resources and Language Learning](#) (Various CC licences)

COERLL is one of [16 National Foreign Language Resource Centers (LRC's)](#) funded by the U.S. Department of Education. The overall mission of these federally-funded centers is to improve the teaching and learning of foreign languages by producing resources (materials and best practices) that can be profitably employed in a variety of settings.

Websites

[OER in Other Languages](#) (Various CC and other licences)

The open education resource world is largely uni-directional in favour of English to other languages. The resources, time and skill required to localize and translate OER created in English for adaption and reuse into other languages is understated and raises important questions about whose knowledge is privileged. The purpose of this site is to surface OERs created in other languages and to amplify those efforts. Contributions are welcome.

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159.

عربی (Arabic)

Textbooks

[Arabic and English Sentence Patters: A Comparative Guide](#) (CC BY-NC)

This text explores verb time, tense, aspect, and mood through comparison of Arabic and English sentence patterns. It includes examples of the Arabic patterns from classical and popular sources so Arabic students can learn by explanation and example how to formulate cohesive and grammatically correct sentence structure. While this guide is intended mainly for English-speaking students studying Arabic, the charts also provide a quick reference of English sentence patterns for Arabic speakers. The book is designed as a supplement.

[Elementary Arabic I](#) (CC BY)

This is an open textbook on Beginner Arabic for undergraduate students who are taking Arabic in their first semester. It addresses letters and sounds of Arabic along with basic skills in reading, speaking and writing. The book can be used as a self-study resource or as the main textbook in beginning Arabic classes.

[Elementary Arabic II](#) (CC BY)

This is an open textbook on Elementary Arabic for undergraduate students who are taking Arabic in their second semester. It addresses language structures in theme-based modules that cover the four language skills. The book can be used as a self-study resource or as the main textbook in beginning Arabic classes.

[جاوااسكربيت شيوا](#): Eloquent Javascript – 2nd edition (CC BY-NC)

An Arabic translation of the 2nd edition of [Eloquent Javascript](#).

Videos

[MIT BLOSSOMS Videos](#) (CC BY-NC-SA)

Math and science videos for high school classes in Arabic.

504 Josie Gray

160.

Български (Bulgarian)

Textbooks

Last update: Jan 28/21

[Eloquent Javascript – 2nd edition](#) (CC BY-NC)

A Bulgarian translation of the 2nd edition of [Eloquent Javascript](#).

161.

◈◈ (Chinese)

Courses

[Elementary Chinese 1](#) (CC BY-NC-SA)

Elementary Chinese 1 is the first half of a two-semester Mandarin Chinese course that aims to help beginners develop communicative competence in the basic four skills (listening, speaking, reading and writing) and culture of Chinese.

Textbooks

[Elementary Chinese I](#) (CC BY-NC)

This open textbook is designed for those who are learning Chinese as a second/foreign language in their first semester. It has eight chapters, covering topics including a brief introduction about the Chinese language, greetings, and self-introduction, hobbies, nationalities, family members and occupations, inviting friends to dinner, talking about food and beverage, making phone calls, and talking about classes and exams.

[Elementary Chinese II](#) (CC BY-NC)

This open textbook is designed for those who are learning Chinese as a second/foreign language in their second semester. It has six chapters, covering topics including describing school life, shopping in stores and online, transportation means, reporting weather and climates, ordering foods, and asking and giving directions.

[◈◈◈](#) (CC BY-NC-ND)

A Chinese version of the groundwater hydrology textbook Groundwater by Allan Freeze and John Cherry, which was originally published in 1979.

Videos

[MIT BLOSSOMS Videos](#) (CC BY-NC-SA)

Math and science videos for high school classes in Mandarin.

162.

čeština (Czech)

Textbooks

[Reality Czech](#) (CC BY-SA)

Last update: Dec 15/20

A next generation openly licensed Czech textbook and curriculum developed by Dr. Christian Hilchey from the [Department of Slavic and Eurasian Studies](#) in collaboration with the [Center for Open Educational Resources and Language Learning (COERLL)](#) at the University of Texas at Austin.

510 Josie Gray

163.

Nederlands (Dutch)

Collections

[Floss Manuals](#) (CC BY-SA)

Openly licensed booklets, course materials, and manuals for free software.

Last update: Nov 30/18

Courses

[TU Delft Open Courseware](#) (CC BY-NC-SA)

TU Delft OpenCourseWare provides free and open educational resources of high quality university-level, organised as courses, available in English and Dutch.

164.

فارسی (Farsi/Persian)

Collections

[Floss Manuals](#) (CC BY-SA)

Openly licensed booklets, course materials, and manuals for free software.

[Open Persian Project](#) (CC BY-SA)

Communication and collaboration among the world's leading traditions of classical scholarship, share resources and expertise.

Textbooks

[Eloquent Javascript – 3rd edition](#) (CC BY-NC)

A Persian translation of the 3rd edition of [Eloquent Javascript](#).

[Tajik Persian: Readings in History, Culture and Society](#) (CC BY-NC)

Tajik Persian: Readings in History, Culture and Society seeks to help students develop reading proficiency in Tajik at advanced level through authentic texts written for native speakers and provides them glimpses into the history, culture and society of Tajikistan without losing its focus on cultural aspects of the country—an aspect that constitutes a core component in the second language acquisition. The book can be adopted by instructors as a supplementary or the main textbook for advanced-level courses.

Videos

[MIT BLOSSOMS Videos](#) (CC BY-NC-SA)

Math and science videos for high school classes in Farsi.

514 Josie Gray

165.

Le Français (French)

Collections

[Floss Manuals](#) (CC BY-SA)

Openly licensed booklets, course materials, and manuals for free software.

[Manuels de physique](#) (CC BY-NC)

Série de 13 manuels numériques pour des activités pédagogiques de niveau MSc ou PhD.

Monographs

[OpenEdition Books](#) (Various CC licences)

OpenEdition Books est une plateforme de livres en sciences humaines et sociales. Plus de la moitié d'entre eux est en libre accès. Des services complémentaires sont proposés via les bibliothèques et institutions abonnées.

[Souvenirs d'Émigration: Lettres à Madame de Montijo en 1801 et 1803](#) (CC BY-NC)

Dès la première page de ses Mémoires, publiés en 1830, Mme de Fars Fausselandry déclare: « Nous sommes dans un siècle de mémoires et […] chacun livre à la mode présente des réflexions sur les événemens qu'il a vus de près ou de loin ». En effet, on compte plus de mille mémorialistes qui ont décidé de faire publier leurs souvenirs de la Révolution française. De ces écrits, environ quatre-vingts sont dûs à des femmes dont deux tiers étaient des aristocrates. Le texte que nous éditons ici est l'œuvre de Mme la marquise de Lage de Volude, témoin privilégié et parfois acteur de l'Histoire. Proche de la famille royale, cette femme cultivée manie la plume avec aisance et, du fait de sa position dans la société, a subi tous les excès de la Terreur et tous les malheurs de l'Émigration.

Textbooks

[Apprendre à distance – Guide d'accompagnement pour les personnes étudiantes pour les étudiants](#) (CC BY)

L'enseignement à distance s'est imposé comme la principale solution de remplacement à

l'enseignement en présentiel, car elle permet aux étudiants et étudiantes de poursuivre leur programme d'études dans de meilleures conditions que les autres solutions envisageables. Ce guide s'adresse aux personnes étudiantes qui feront leur première expérience pédagogique en formation à distance.

[Eaux Souterraines](#) (CC BY-NC-ND)

A French version of the groundwater hydrology textbook Groundwater by Allan Freeze and John Cherry, which was originally published in 1979.

[Histoires d'Avenirs: Science-fiction pour le cours de français niveaux intermédiaire et avancé](#) (CC BY-NC)

Histoires d'Avenirs est un manuel basé sur neuf nouvelles de science fiction française qui s'adresse à un public d'apprenants étrangers (de niveaux intermédiaire et avancé) mais aussi à un public natif voulant approfondir ses connaissances de la science-fiction moderne – après un chapitre préliminaire qui rappelle les bases historiques du genre. Le manuel propose une approche holistique (stylistique, linguistique, et interculturelle) et sollicite une pensée critique au travers d'activités de lecture, interprétation, conversation, recherche et présentations, dans un double objectif : développer les compétences en français sur des sujets contemporains au travers de la fiction; et faire découvrir la science-fiction française et francophone aux apprenants étrangers.

[L'économie](#) (CC BY-NC-ND)

An open textbook for an introduction-to-economics class.

Videos

[Approche SoTL](#) (CC BY-NC-SA)

Adaptation d'une vidéo « d'une démarche de codéveloppement d'une expertise sur l'enseignement et l'apprentissage à l'université, appelée SoTL ou Scholarship of Teaching and Learning.

Websites

[Le cerveau à tous les niveaux](#) ([Copyleft](#))

Un site web interactif sur le cerveau et les comportements humains. (The brain from top to bottom.)

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[ShareAlike)](#) license

166.

Deutsch (German)

Collections

[The German Studies Collaboratory](#) (CC BY-SA)

This collection includes assignments, syllabi, and course frameworks. The teaching resources at this site are covered under a Creative Commons Attribution-Share Alike 4.0 International license (CC BY-SA 4.0).

Last update Jan 13/21

Supplemental Materials

[Dataselfie](#) (CC BY-NC)
A game and resource to teach people about big data and how the data we share is being used and sold.

520 Josie Gray

167.

Greek and Latin

Collections

[Open Greek and Latin Project](#) (CC BY-SA)

The ultimate goal is to represent every source text produced in Classical Greek or Latin from antiquity through the present, including texts preserved in manuscript tradition as well as on inscriptions, papyri, ostraca and other written artefacts.

Last update: Nov 14/18

168.

◇◇◇◇◇ (Hindi)

Videos

[MIT BLOSSOMS Videos](#) (CC BY-NC-SA)

Math and science videos for high school classes in Hindi.

Last update: Oct 16/18

169.

Italiano (Italian)

Textbooks

[Acque Sotterranee](#) (CC BY-NC-ND)

An Italian version of the groundwater hydrology textbook Groundwater by Allan Freeze and John Cherry, which was originally published in 1979.

Last update: Nov 7/20

170.

◇◇◇ (Japanese)

Videos

[MIT BLOSSOMS Videos](#) (CC BY-NC-SA)

Math and science videos for high school classes in Japanese.

Last update: Oct 16/18

171.

◇◇◇◇◇ (Kannada)

Videos

[MIT BLOSSOMS Videos](#) (CC BY-NC-SA)

Math and science videos for high school classes in Kannada.

Last update: Oct 16/18

530 Josie Gray

172.

Khmer

Textbooks

[Basic Khmer](#) (CC BY)

This online interactive theme-based open textbook is for beginner learners of the Khmer language. This book aims to provide a practical introduction to speaking, listening, and reading. By the end of this course, students will be at the B1 level of the Common Framework for Language and at the low intermediate level on the American Council on the Teaching of Foreign Languages (ACTFL) proficiency scales. Basic Khmer is funded by the Open Educational Resources Program at Michigan State University.

Last update: Dec 13/22

173.

◈◈◈ (Korean)

Videos

[MIT BLOSSOMS Videos](#) (CC BY-NC-SA)

Math and science videos for high school classes in Korean.

Last update: Oct 16/18

174.

بهاس ملايو (Malay)

Videos

[MIT BLOSSOMS Videos](#) (CC BY-NC-SA)

Math and science videos for high school classes in Malay.

175.

Norsk (Norwegian)

Collections

[Nasjonal Digital Læringsarena](#) (Various CC licences)

Nasjonal digital læringsarena (NDLA) er et interfylkeskommunalt samarbeid som tilbyr fritt tilgjengelige åpne digitale læringsressurser for videregående opplæring. Hordaland fylkeskommune er juridisk ansvarlige enhet for det interfylkeskommunale samarbeidet, der 17 fylkeskommuner deltar. Kun Oslo står utenfor.

Last update: Jul 31/19

176.

پښتو (Pashto)

Collections

[Darakht-e Danesh Library](#) (Various CC licences)

The Darakht-e Danesh Online Library for Educators is a repository of open educational resources for teachers, teacher trainers, school administrators, literacy workers and others involved in furthering education in Afghanistan. The DD Library currently houses more than 3,000 resources in over 100 subjects, for both primary and secondary teachers, in three languages: Dari, Pashto and English, and hopes to expand into additional Afghan minority languages.

Last update: Jan 15/19

540 Josie Gray

177.

Português (Portuguese)

Textbooks

[Água Subterrânea](#) (CC BY-NC-ND)

A Portuguese version of the groundwater hydrology textbook Groundwater by Allan Freeze and John Cherry, which was originally published in 1979.

Last update: Jan 28/21

Videos

[MIT BLOSSOMS Videos](#) (CC BY-NC-SA)

Math and science videos for high school classes in Portuguese.

178.

Русский (Russian)

Textbooks

[Выразительный Javascript](#) (Eloquent Javascript) – 2nd edition (CC BY-NC)

A Russian version of the 2nd edition of [Eloquent Javascript](#).

179.

Scots

Videos

[Origins of the Scots Language (In Scots)](#) (CC BY)

A video introduction to the tongues, peoples and events that shaped the earliest history of the Scots language with versions narrated both in Scots and English.

180.

Español (Spanish)

Also see [Spanish](#) in this directory.

Last update: May 8/23

Courses

[Civilización hispanoamericana](#) (CC BY-NC-SA)

Un recorrido por la historia y cultura de Hispanoamérica, diseñado para estudiantes de la lengua española a nivel intermedio.

Textbooks

[Agua Subterránea](#) (CC BY-NC-ND)

A Spanish version of the groundwater hydrology textbook Groundwater by Allan Freeze and John Cherry, which was originally published in 1979.

[ECE textbook collection](#) (CC BY)

- Child Growth and Development
- Child Family and Community
- Observation and Assessment
- Role of Equity and Diversity in ECE

[La hora del cuento en español](#) (CC BY-NC)

La hora del cuento en español is a collection of children's stories in Spanish authored by Kwantlen Polytechnic University (KPU) students and edited by KPU Faculty Constanza Rojas-Primus and KPU alumna Sofía Rodríguez. The first part of this collection is a selection of stories written by KPU Spanish 1100 students between Fall 2017 and Spring 2019. The second part of this collection is a selection of stories written by KPU Spanish 1101 students between Fall 2020 and Spring

2022. All stories are narrated by Constanza Rojas-Primus and have been translated into English by Sofía Rodríguez. The illustrations in the cover and first part of this collection are artwork of KPU student Cheyenne Pokeda.

[Para vivir con salud: leyendo la salud y la literatura](#) (CC BY-NC)

This Spanish-language textbook introduces literary and textual analysis of Hispanic literature through the lens of health, illness, and medicine. The book targets Spanish majors and minors who are preparing themselves for careers in healthcare, in which they will engage Hispanic communities. These students seek advanced-level study of Hispanic culture and language that prepares them to communicate about health-related issues. This book includes classics of Hispanic narrative, drama, and poetry—pieces by authors such as Cervantes, Garcilaso, Sor Juana, Martí, Neruda, Castellanos, Pizarnik, and Morejón, less-well-known literary authors and a wealth of other types of cultural texts. While the primary genres of poetry, narrative and drama are well represented, the book includes expository essays, journalism, memoir, testimony, song, film, television, and visual art. It presents voices and experiences from the diverse Hispanic world, including European, Creole, Indigenous, Mestizo, Afro-Hispanic, Latinx, and Jewish perspectives.

[Principios y practicas de la ensenanza infantil](#) (CC BY)

This is the generic early release of the Spanish translation for the *Principles and Practices of Teaching Young Children* OER textbook, Version 1.0. Both the PDF and Word files are provided.

[¡Que viva la música!: Repaso de conversación en español](#) (CC BY-NC)

¡*Qué viva la música! Repaso de conversación en español,* or *Long Live Music! Spanish Conversational Review* is an open textbook intended for conversational review, typically a fourth-semester Spanish class. The textbook is organized around nine different songs that provide students opportunities to practice, aurally and orally, as well as in writing, the main communicative goals and key grammatical structures learned in previous classes. It can also be used in similar high school classes.

Videos

[¡A Programar! Una introducción a la programación](#) (CC BY-NC)

A collection of videos providing an introduction to programming.

[MIT BLOSSOMS Videos](#) (CC BY-NC-SA)

Math and science videos for high school classes in Spanish.

181.

Türk (Turkish)

Last update: Mar 2/21

Textbooks

[Her Şey Bir Merhaba ile Başlar](#) (CC BY)

Developed for intermediate Turkish courses, the lessons in this book integrate reading, listening and viewing comprehension, writing and speaking practice, grammar, vocabulary, and cultural activities. Dozens of audio and video clips of Turkish speakers describing their lives, their culture, and their country support and enhance these activities. The Her Şey Bir Merhaba ile Başlar textbook, accompanying public Canvas course, and [YouTube channel](#).

550 Josie Gray

182.

Українська (Ukrainian)

Textbooks

Last update: Jun 27/22

[Вікно у світ бізнесу: ділова українська мова](#) (CC BY-NC-ND)

Електронний підручник для розвитку умінь і навичок ділового та професійного спілкування українською мовою.

Linguist and university professor Alla Nedashkivska's web-based textbook for advanced business communication is the first of its kind, filling a need for those interested in developing working relationships with companies in Ukraine. *Ukrainian for Professional Communication* is the perfect principal text for advanced Ukrainian at the third or fourth level of instruction. This open access resource is intended for content-based courses devoted to learning Ukrainian for business and professional communication at universities and colleges, as well as for autodidact entrepreneurs focusing on business, trade, medicine, and construction. Users will develop a working knowledge of the language through intensive oral and written practice, with attention to gaining professional and socio-cultural competence. The web-based textbook features texts with enhanced vocabulary glossing, cultural images, video segments, exercises for individual or in-class learning, interactive exercises for self-assessment, crossword puzzles, vocabulary, index, and appendices.

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183.

اردو (Urdu)

Textbooks

[Basic Urdu](#) (CC BY)

Basic Urdu is a theme-based, interactive open-source online textbook for the true novice learners of the Urdu language. The book uses mixed pedagogical approaches to language teaching to match diverse teaching and learning styles. It aims to help learners achieve intermediate low to mid-proficiency levels set by the American Council on the Teaching of Foreign Languages (ACTFL).

Last update: Dec 13/22

Videos

[MIT BLOSSOMS Videos](#) (CC BY-NC-SA)

Math and science videos for high school classes in Urdu.

XXI

Interdisciplinary

<div style="text-align:center">

Subjects and Disciplines

</div>

This section includes:

- [Research](#)
- [Urban Planning](#)

Also see [Interdisciplinary](#) in the "Books under consideration" section of this directory. [Books open for review](#) and [Books scheduled to be added to the collection](#) may also contain resources.

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Research

Textbooks

[Advanced Library Skills for Physics Research](#) (CC BY)

Literature searching and information evaluation for upper level undergraduates and Master's students, from the University of Alberta Library.

[Critical Thinking in Academic Research](#) (CC BY-SA)

This book will introduce students to the techniques and principles of critical thinking, and provides guidance on developing research questions and finding resources to answer the questions.

[Data Feminism](#) (CC BY)

A new way of thinking about data science and data ethics that is informed by the ideas of intersectional feminism.

[Doing Research: A Student's Guide to Finding and Using the Best Sources](#) (CC BY)

A modules-based approach to learning research skills that emphasizes the reflective nature of information discovery, the contextual basis for evaluating that information, and a recognition that information has value.

[Engaging Researchers with Data Management: The Cookbook](#) (CC BY)

Engaging Researchers with Data Management is an invaluable collection of 24 case studies, drawn from institutions across the globe, that demonstrate clearly and practically how to engage the research community with RDM. These case studies together illustrate the variety of innovative strategies research institutions have developed to engage with their researchers about managing research data.

[Informed Arguments: A Guide to Writing and Research](#) (CC BY-NC-SA)

This book is appropriate for a first-year composition course focusing on academic writing, reading, researching, and speaking. Major concepts in argument theory are covered.

[Introduction to College Research](#) (CC BY)

This book acknowledges the changing information landscape, covering key concepts in information literacy to support a research process with intention. It critically examines the everyday online

environment such as algorithms, the attention economy, information disorder and cynicism, information hygiene, and fact-checking. This is followed by an exploration of information source types, meaningful research topics, keyword choices, effective search strategies, library resources, Web search considerations, the ethical use of information, and citation.

[Library 160: Introduction to College-Level Research](#) (CC BY-SA)

You will learn how scholarly information is produced, organized, and accessed; how to construct and use effective search strategies in a variety of web tools and scholarly databases; how to choose finding tools appropriate to the type of information you need; critical thinking skills in the evaluation of resources; and best practices in the ethical use of information.

[Niagara College Libraries + Learning Commons Information Skills Online Handbook](#) (CC BY)

This handbook introduces and reinforces essential information literacy skills for students beginning their post-secondary careers.

[Research Methods Handbook](#) (CC BY)

In this guide we explore some of these issues with a focus on open research, drawing on insights from researchers within the Global OER Graduate Network (GO-GN). Open practices in research can challenge assumptions about how to create and share new knowledge. In the handbook, we draw on insights from experienced open researchers to build understanding of research in the open. The advice given applies to all research, but is of particular relevance to those interested in open approaches.

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Urban Planning

Monographs

[Infrastructure Investment in Indonesia: A Focus on Ports](#) (CC BY)

This interdisciplinary collection—spanning the disciplines of engineering, law and planning—draws helpfully on a range of practical

and theoretical perspectives. It is the collaborative effort of leading experts in the fields of infrastructure project initiation and financing, and is based on international research conducted by the University of Melbourne, Universitas Indonesia and Universitas Gadjah Mada.

Textbooks

[Spatial Thinking in Planning Practice: An Introduction to GIS](#) (CC BY-NC)

The goals of this textbook are to help students acquire the technical skills of using software and managing a database, and develop research skills of collecting data, analyzing information and presenting results. We emphasize that the need to investigate the potential and practicality of GIS technologies in a typical planning setting and evaluate its possible applications.

Appendix A: Teaching and Learning Online - Help and Resources

Also see COVID-19 News and Updates in the *Information Directory*.

In this directory, reference the below chapters:
Digital Education

OER support group for educators during COVID-19

Collections

- JSTOR resources during COVID-19
- New website indexes free edtech resources during health crisis (ed scoop)
- Redshelf ebooks

Courses

Course Redesign with Technology Program

Focused Education Preparation Advancing Frontline RNs

Moving Online

Resources and Tips

- Surviving, Thriving or Radical Revisioning: Scenarios and Considerations for Pandemic Recovery and Response Planning (RRU)
- COVID-19 Open Education Community Contributed Resources

- [The New Normal: Using OER to re-open education (English PDF)](#), [(French PDF)](#), [(InDesign)](#), [(Word)](#)

- [Slides: BCcampus Synchronous Basics](#)

- [Lesson Plan: Online Learning Basics for the Trades](#)

- [Slides: Online Teaching and Learning Basics for the Trades](#)

- [Resources for Finding and Using OER](#)

- [Lesson Plan: BCcampus Sample Synchro](#)

- [Inclusive and Accessible Tips for Designing a Course Online](#)

- [Slides: BCcampus Online Teaching and Learning Basics](#)

- [BCcampus OER for Trades](#)

- [Top 5 Resources for the New-to-Online Crowd](#)

- [BCcampus Online Communication Tips_2020](#)

- [BCcampus Online Assessment Resources_2020](#)

- [Remote teaching and learning resources](#) (CCCOER)

- [Teaching practices for remote instruction](#)

- [Rebus and Pressbooks announce support for faculty going online: Open & Online](#)

- [Student tips for remote learning](#)

- [Support remote teaching and learning during COVID-19 (eCampus Ontario)](#)

- [4 Most important things to remember with eLearning](#) (The Art of Education)

- [50 Resources schools & teachers can use during COVID-19 closures](#) – March 25, 2020 (Money Crashers)

- [A template, a course, and an OER for an emergency switch to online](#) – March 27, 2020 (Edugeek Journal)

- [Adjusting your study habits during COVID](#) (University of Michigan)

- [Advice to those about to teach online because of the corona-virus](#) (Tony Bates)

- [Copyright in a crisis guidelines](#) (Open Oregon)

- [Guidance on open educational practices during school closures](#) (UNESCO IITE, UNESCO INRULED)

- [Moving courses online](#) (OpenStax)

- [Online learning in a hurry](#) videos (University of Windsor)

- [Online learning is a way of constraining the spread of COVID-19](#) (Contact North)

- [Online student readiness](#) (California Community Colleges)

- [Podcasts: COVID Transitions (MindWires)](#)

Textbooks

- [Creating Online Learning Experiences](#)
- [Fit for Online Learning: Your Handbook to Teaching Online](#) (Open Education Alberta)
- [Learning to Learn Online](#)
- [The Mission, the Message, and the Medium: Science and Risk Communication in a Complex World](#)
- [Teaching in a Digital Age – Second Edition](#)
- [Vulnerable: The Law, Policy and Ethics of COVID-19](#)

Videos

Assessment

- [Video: Assessments & Activities in an Online Environment #1 – Mar 20](#)
- [Video: Assessments & Activities in an Online Environment #2 – Mar 20](#)
- [Video: Assessments & Activities in an Online Environment – Mar 24](#)
- [Video: Online Assessments – April 2](#)

Basics

- [Video: BCcampus Online Drop-In – March 20](#)
- [Video: BCcampus Online Drop-In – March 24](#)
- [Video: BCcampus Online Drop-In – March 27](#)
- [Video: Basics of Online Learning – April 1](#)
- [Video: The Basics of Online Learning – April 9](#)
- [Video: Basics of Online Learning – April 24](#)
- [Video: Basics of Online Teaching/Facilitating in the Trades – May 5](#)
- [A guide to hosting virtual events](#)

Experiential

- [Video: Immersive Activities in an Online Environment – March 20](#)
- [Video: Experiential Learning in an Online Environment – March 24](#)

Inclusive Design

- [Inclusive Learning Online – April 7](#)

Open Educational Resources (OER)

- [How to find and use OER for your online course – April 30](#)

Teaching

- [Video: The Basics: Facilitating Synchronous Online Sessions – April 8](#)
- [Video: Basics of Synchronous Facilitation – April 20](#)
- [Videoconferencing Alternatives: How low-bandwidth teaching will save us all](#)

Trades

- [Video: Online Office Hours for the Trades – March 31](#)
- [Video: Alternate Assessment Methods for Trades – April 15](#)
- [Video: Alternate Assessment Methods for Trades – April 17](#)

Recorded Work Integrated Learning (WIL) sessions:

- [Boost your #WILPower 1: ACE-WIL](#)
- [Boost your #WILPower 2: Indigenous Initiatives in B.C.](#)
- [Impact of COVID-19 pandemic on WIL programs in B.C. and Yukon – Virtual Townhall #1](#)
- [Impact of COVID-19 pandemic on WIL programs in B.C. and Yukon – Virtual Townhall #2](#)
- [WIL: Funding Streams and Opportunities in times of COVID19](#)
- [ACE-WIL Virtual Town Hall #3 – Let's Talk About Virtual Internships](#)
- [ACE-WIL Virtual Town Hall #4 – Student Wellness](#)

Websites

[Adapting to COVID-19](#) (BCcampus)

Workbooks

- [Level One Peer Tutoring Fundamentals and Integration Workbook](#)
- [Level Two Peer Tutoring Fundamentals and Integration Workbook](#)

- [Level Three Peer Tutoring Fundamentals and Integration Workbook](#)

Workplace

- [Building your remote workforce](#)
- [The Online Learning Collective](#)

Last update: Jun 27/22

Appendix B: OER in Development by Discipline

Wondering if the OER project you're thinking of is already in progress? Check the below list of *OER in Development by Discipline* first to see what others are working on. Links to in-progress projects are also posted on each subject page throughout this directory.

Last update: Nov 30/21

Also see the Pressbooks Directory where, in addition to completed textbooks, books in-progress may be found. For information on how to search for developing books see the Pressbooks Directory chapter in the *Pressbooks Guide*.

Anthropology and Archaeology

Introductory Anthropology (IUP)

Architecture

Preserving the Residential Heritage of the 20th Century and Sustainable Development

Biosystems Engineering

Introduction to Biosystems Engineering

Business

Video series: Doing Business Around the World (BCIT)

Finance

Principles of Finance

Chemistry

[Beginning Chemistry Adaptation](#)

Communications and Media

Communications

[Communication Literacy: An Introduction to Communication Studies](#)

Public Relations

[Introduction to Public Relations](#)

Publishing

[The Web, Content Industries, and Ourselves](#)

Computer Science

[Agent-Based Evolutionary Game Dynamics](#)

Information Systems

[Introduction to Data Science](#) (University of Arkansas)

Earth and Ocean Sciences

[Exploring Earth: An Introduction to Earth Science](#) (Oklahoma State University)

Geography

[Global Regions: World Regional Geography](#)

[Human Geography: Principles and Applications](#)

Geology

[Soils: An Annotated Bibliography](#)

[The Story of Earth: An Observational Guide](#)

Education

[Equity Literacy Project](#)

[First Year Seminar Readings](#)

[Inquiry Based Learning](#)

[Teaching in the University: Learning from the Experiences of Grad Students and Early Career Faculty](#)

[Writing Across the Curriculum: A Guide to Teaching Writing-Intensive Courses](#)

Indigenous Education

[Supplemental materials to bridge Open Modules on Indigenous Awareness](#) (BCIT) XX

Open Education

[OER Activity Sourcebook](#)

[OER Starter Kit for Program Managers](#)

[UNESCO Open Education for a Better World](#)

Environmental Studies

[Calculus Survey for Environmental Science majors](#)

Fine Arts

Music

[GLOBALMUSIX: Contemporary Music throughout the World](#)

[Music Theory Tutorial](#)

Health, Medical, and Social Work

General

[Interprofessional Education Lab Manual and Workbook](#)

Addiction

[Inclusive Version: Big Book of Alcoholics Anonymous](#)

Health Sciences

[Lifelong Fitness and Wellness](#)

Nursing

[Nursing Researchers](#)

Social Work

[Disability Social Work Textbook](#)

Speech Therapy

[Language Disorders in School-Age Children and Adolescents](#)

Veterinary Medicine

[Veterinary Technology](#)

Law

[BC Litigation Practice Manual](#)

Liberal Arts & the Humanities

English Literature and Writing

[The Island Heritage](#)

[Literature Genres: Serial Killers and Violence in Pop Culture](#)

[The Open Anthology of Earlier American Literature](#)

[Technical Writing for Chemistry, Biology, and Engineering Majors](#)

[Writer to Writer: A Guide to Academic Writing](#)

[Writing Across the Curriculum: A Guide to Teaching Writing-Intensive Courses](#)

Gender, Race, Sexuality, Social Justice

[Case Studies in Community Psychology: A Global Lens](#)

[Critical Feminist Methodologies](#) (Oklahoma State University)

[Feminist Choices: A FEminiSTSCHRIFT for Ruth-Ellen Boetcher Joeres](#) (U.Vic.)

[Global Perspectives on Gender](#)

[The Holocaust: Remembrance, Respect, and Resilience](#)

[Introduction to LGBTQ+ Studies](#)

[Mathematics for the People: Quantitative Literacy for Social Justice](#)

History

[As if They Were the Enemy: The Dispossession of Japanese Canadians on Saltspring Island](#)(U.Vic.)

[History of Applied Science and Technology](#)

[The Holocaust: Remembrance, Respect, and Resilience](#)

[Preserving the Residential Heritage of the 20th Century and Sustainable Development](#)

Languages

[GEM Guidebook Series: World Languages](#)

German

[Auf dem Weg!: High School German](#)

Spanish

[Educación Ciudadana](#)

[Translating the Digital Citizenship Toolkit (into Spanish)](#)

Library and Information Science

[Choosing & Using Sources: A Guide to Academic Research – 1st Canadian Edition](#)

Philosophy

[An Introduction to Inquiry: Explanation and Confirmation in Process](#)

[Introduction to Philosophy series](#)

Math

[Calculus Survey for Environmental Science Majors](#)

[Elements of Linear Algebra](#) (Virginia Tech Publishing)

[Cognitively Accessible Math for Adult Learners](#)

[Mathematics for the People: Quantitative Literacy for Social Justice](#)

[Non-STEM College Algebra](#)

[Technical Mathematics](#) (TRAILS)

Science

General

[History of Applied Science and Technology](#)

[Technical Writing for Chemistry, Biology, and Engineering Majors](#)

Biology

[Foundations of Biology](#)

Physics

[Sound of Physics](#) (Open SUNY)

Social Sciences

Anthropology and Archaeology

[Introduction to North American Archaeology](#)

Psychology

[Ancillary Materials for open textbook: Principles of Social Psychology – 1st Intl Edition](#)

[Case Studies in Community Psychology: A Global Lens](#)

Trades

[Curriculum package for Piping Trades](#) (BCIT)

[Student manual for Kongsberg's Dual Fuel Steam Propulsion Plant software](#) (BCIT)

[Technical Mathematics](#)(TRAILS)

Upgrading

Adult Basic Education

[Cognitively Accessible Math for Adult Learners](#)

English Language Learning (ELL)/ESL

[It's all Greek to Me](#)

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Versioning History

This page lists major changes to this directory with each marked with a 0.01 increase in the version number. Because new information is continuously added to this directory, content updates do not appear on this page. Instead, a "Last update" textbox is posted at the top of each chapter. Additional files (e.g., PDF, ePUB) are provided upon request made to open@bccampus.ca.

Version	Date	Change
1.00	Feb 20, 2018	Directory added to B.C. Open Textbook Collection.
1.01	Nov 14, 2018	Added Canada icons by resources created in Canada, for Canadian curricula. Removed all links to College Open Textbooks as this open textbook repository is now closed.
1.02	Nov 20, 2018	Added direct links to subjects in the B.C. Open Textbook Collection throughout the directory and added an explanation on the About this Directory page explaining that textbooks in the B.C. Open Textbook Collection are not also posted in the *OER by Discipline Directory*.
1.03	May 13, 2019	Name changed from *OER by Discipline Guide* to *OER by Discipline Directory* to reflect the structure and purpose of the resource and replaced all mentions of "guide" to reflect this change.
1.04	June 28, 2019	Theme changed from McLuhan to Clarke.
1.05	Sept 30, 2020	Added a BC icon (map/flag) beside all resources that were created in British Columbia or target BC audiences.
1.06	Oct 15, 2020	Added OER in Development by Discipline to appendix. Links to projects also provided to each discipline (where applicable) in a shaded textbox at the top of the subject page.
1.07	Oct 28, 2020	Changed "ancillary resources" labels to "supplementary materials" throughout directory.
1.08	Oct 31, 2023	Updated cover image.