

Open Educational Resources - A Guide for Understanding, Finding, Creating, and Using Open Educational Resources (OERs) at Montgomery College

This document is a resource for Montgomery College faculty and staff who want to locate or develop open educational resources (OERs). OERS are educational materials that are low cost or no cost to the students. The Guide is almost always being updated. This is version March 27, 2017.

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Table of Contents (headings are links)

Section I – What are Open Educational Resources?	2
Background	2
Characteristics and Purposes:	3
Characteristics of Good OER Materials	3
Some Things to Consider	4
Types of OER Content	5
Section II. Why Use Open Educational Resources	6
Section III. Locating Open Educational Resources	7
Section IV. Using Open Educational Resources:	14
Section V. Resources	17
Appendix A	22
Appendix B	26
Accounting: Principles.	26
http://www.saylor.org/site/wp-content/uploads/2011/11/BUS103-TEXTBOOK.pdf	26
Lumen Learning has two accounting textbooks	26
Anatomy and Physiology	26
Anthropology	26
Biology	27
Workforce Development:	44
https://www.skillscommons.org/	44
• Building Trades	44
• Introductory AC & DC Circuitry	45
Appendix C	48
Lumen Learning Announces <i>5R Open Course Design Framework</i> to Support Capacity-Building as OER Use Enters Mainstream	49
Appendix D	51
Appendix E	53
Appendix F	54

NOTE: This is a comprehensive guide to Open Educational Resources (OERs) for Montgomery College Faculty and Staff. If you are only interested in locating OERs go directly to section 3 or Appendix B or F or link to them from the Table of Contents, above. (Press Ctrl-Link)

Section I – What are Open Educational Resources?

The term “open educational resources” was first used in 2002 at a conference hosted by the *United Nations Educational, Scientific and Cultural Organization (UNESCO)*. Open Educational Resources are freely available teaching and learning materials which the author has licensed in an open format to allow others to re-use and adapt with little or no restrictions. They can include lecture notes and slides, handouts given to students, online tutorials, diagrams or even an entire courses. In many cases the author has assigned a [Creative Commons license](#) (British spelling) to the resource indicating that it can be used freely. [JISC](#) define OERs as:

...teaching and learning materials that are freely available online for everyone to use, whether you are an instructor, student or self-learner. Examples of OER include: full courses, course modules, syllabi, lectures, homework assignments, quizzes, lab and classroom activities, pedagogical materials, games, simulations, and many more resources contained in digital media collections from around the world.

Source: <http://lti.lse.ac.uk/digital-and-information-literacy/OERs.php>

Background

- 1) See UMUC’s description at: <http://libguides.umuc.edu/oer>
- 2) Content, including books, or software developed by individuals around the world for educational purposes (K-20 levels);
- 3) Much of it is free to use by others, often with some conditions attached, but most are openly licensed;
 - a) Three principles: openness, free availability, customizability;

- 4) Accessible by search methods, or browsing through collections
- 5) Any individual can develop and post his or her own OER's;
- 6) Generally, the 5R's apply. Faculty can:
 - a) Retain, reuse, revise, remix, re-distribute
 - Source: David Wiley, MDLA Conference, 2014.
- 7) Many OER's are content
 - a) Ex: demonstrations, text, graphs, programs, tutorials, collections, simulations
 - b) Some are static (view only)
 - c) Some are dynamic (interactive)
 - d) Many are Open textbooks
 - i) Entire textbooks in popular areas that are free to use
 - (1) <http://cms.montgomerycollege.edu/elite/oer/resources-open-textbook/>
- a. All educational levels have OER's
 - i) K-12 instructors rely heavily on OER's.

Characteristics and Purposes:

Characteristics of Good OER Materials

Along with being able to search for OER and evaluate their quality, comes the skill to recognize OER with good characteristics. This improves with experience – that is, the more experience you get in searching for relevant OER materials the better you will get at being able to recognize OER materials with good characteristics. Characteristics of a good OER include:

- Clear adoption of Creative Commons license (or other forms of license) and/or a clause that addresses how the OER material should be used.
- Easy adaptation to suit different learning needs.
- Quality content with reliable referencing (from a reliable source).
- Recommended by experts and other members of the community.

The importance of recognizing OER materials with good characteristics lies in deliberately selecting OER materials from a pool of OER materials. This is a process that is relatively subjective to your needs. For instance, a video would be the best option if you wish to teach hands-on skills in using the Internet. The video would allow students to self-pace their learning as they actually use the Internet. Alternatively, an open access textbook and journal articles would be the best option if you are looking for materials that serve as a reference text to supplement the students' learning. The following information provides some tips in selecting OER materials with relevance to your needs.

Source: Commonwealth Media Centre for Asia:

<http://open.cemca.org.in/mod/page/view.php?id=165>

To see the characteristics of OERs as described by Wikipedia see:

https://en.wikiversity.org/wiki/Open_educational_resources#Characteristics

Some Things to Consider

b. Myths

i) <http://campustechnology.com/articles/2014/08/27/5-myths-about-open-educational-resources.aspx>

a) Seven Things You Should Know About OERs

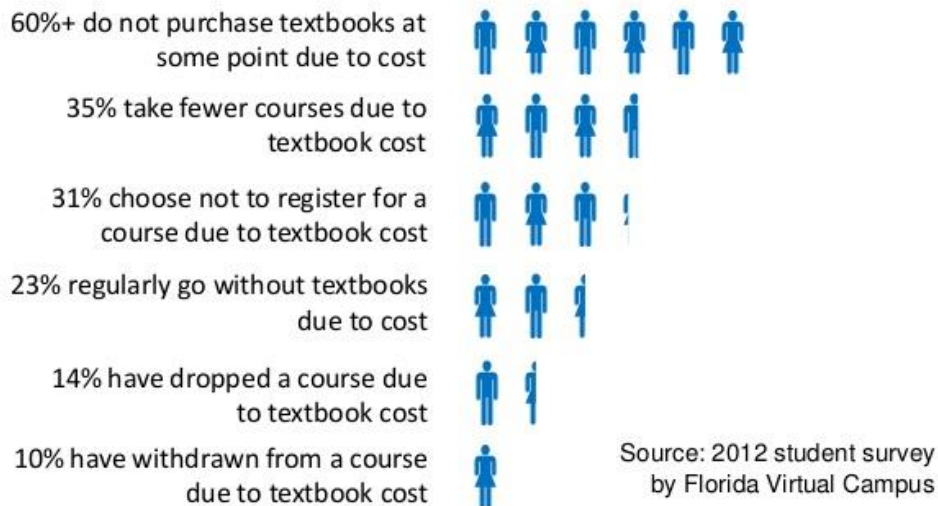
i) <http://net.educause.edu/ir/library/pdf/ELi7061.pdf>

c. 16 OER Sites Every Educator Should Know

<http://campustechnology.com/articles/2014/07/02/16-oer-sites-every-educator-should-know.aspx>

d. Impact on Students

The Direct Relationship Between Textbook Costs and Student Success



lumenlearning. 

The chart above was provided by www.lumenlearning.com

- **Montgomery College's** "Instructional Materials Affordability and Accessibility Guidelines" (IMAAG) site: <http://bookstore.montgomerycollege.edu/SiteText.aspx?id=25669>
- **The Billion Dollar Solution:** www.studentpirgs.org/reports/sp/open-textbooks-billion-dollar-solution
- **Retention:** https://www.insidehighered.com/blogs/confessions-community-college-dean/oer-retention-initiative?utm_source=ITC+Distance+Education+News&utm_campaign=edfb8c83e3-&utm_medium=email&utm_term=0_224b6f46b8-edfb8c83e3-176067593

Types of OER Content

- e. www.Merlot.org lists 19 types (as of December 16, 2014)
 - i) Animation (1,614), Assessment Tool (270), Assignment (1,097), Case Study (736), Collection (3,961), Development Tool (322), Drill

and Practice (1,695) ePortfolio (186), Learning Object Repository (795), Online Course (5,093), Open Journal-Article (1,251), Open Textbook (3,403), Presentation (5,195), Quiz/Test (1,424), Reference Material (9,657), Simulation (3,481), Social Networking Tool (229), Tutorial (3,933), Workshop and Training Material (616)

Section II. Why Use Open Educational Resources

- i) Reduces costs of course materials to students;
- ii) Provides some students with access to courses/programs, etc., that they otherwise would not be able to afford;
- iii) Students may/will choose course sections where materials cost less;
- iv) More control over content for faculty – faculty can use content that is directly related to course objectives;
- v) When licensed by Creative Commons, faculty can share their work without having to answer requests from others who would like to use them; Similarly, users know what they can do with the materials when they see the license on them;
- vi) Cutting Costs:
<http://www.timeshighereducation.co.uk/415127.article;>
- vii) If not used as primary sources of content, they make excellent supporting material;
- viii) Can often address the issue of multiple learning styles;
- ix) Can be accessed repeatedly, on demand, by the student;
- x) Re-usability;
- xi) Open source allows a faculty member to use them indefinitely;
- xii) Copyright restrictions, such as Fair Use, are mediated when using *Creative Commons*, a licensing attribution clearing house;

xiii) Most objects have associated levels of restrictions, if any, written on the resource itself;

xiv) Timeliness:

Oftentimes students must wait for their textbook to arrive in the mail or on back order from the Book store, losing valuable time.

Section III. Locating Open Educational Resources

Because the basic tenet of sharing is alive on the Internet today, there are millions of free educational resources available. The ability to **find the ones you can use** is crucial.

1. **Content (general):**

a. www.creativecommons.com

i. Try this first because anything you find on this site already has a Creative Commons license which means you know right away how you can retain and use the material

ii. Creative Commons Attribution Builder: (this site will help you attribute your sources):

<http://www.openwa.org/open-attrib-builder/>

b. www.merlot.org

i. Can Search or Browse through 45,000 objects

1. Many filters are available;

2. Click "Search Merlot"

a. Try "Search Materials"

i. Choose from a number of filters, such as:

1. Material types, peer reviewed, editor reviewed, with comments,

Creative Commons licensed,
accessibility information

- ii. Can also create an account and join a Merlot Community (such as Biology educators – this keeps you connected to the OERs in your discipline)
- c. Open Culture: This blog formatted repository seeks to bring together free resources on culture and education. The list of movies here is impressive. See: <http://www.openculture.com/>
- d. www.google.com (suggest looking for materials with a Creative Commons license)

Example: Search for “mitosis”

(i) Click the options wheel in upper right corner

(ii) “Advanced Search”

1. Search by “Usage Rights” /Free to Use or Share

a. See Creative Commons logo

e. Lumen Learning:

<https://courses.lumenlearning.com/catalog/lumen>

f. Blackboard xPlor

i. Go into your Blackboard course

1. Click “Course Content”

a. Click “Build Content”

i. Click xPlor Content

1. Click “Discover”

a. Choose subject(s)

ii. Article on the interoperability of xPlor:

1. <http://www.blackboard.com/sites/xplorinfo/>

g. Directory of Open Educational Resources

i. <http://doer.col.org/>

h. Open Educational Resources: Resources Roundup

- i. <http://www.edutopia.org/article/open-educational-resources-oer-resource-roundup>
- i. <http://oerconsortium.org/find-oer/>
- j. <http://sites.udel.edu/open/finding/>
- k. Open Doar
 - i. <http://www.opendoar.org/find.php>
- l. Montgomery College Libraries (optional)
 - i. These would not be open educational resources in the strictest sense since they are only open to MC students and faculty, but the MC libraries has hundreds of databases for locating resources which would be free to MC students. See any of the following:
 1. <http://libguides.montgomerycollege.edu/facresources>
 2. <http://cms.montgomerycollege.edu/edu/sub1.aspx?id=24630>
 3. <http://hx6zp3nx8k.cs.serialssolutions.com/>
- m. OER Commons
 - i. <https://www.oercommons.org/advanced-search>
- n. Professional Organizations
 - i. Many organizations are now keeping collections of OERs for their members. The possible benefit here is that the OERs may already have been evaluated for quality by the organization, or members of the organization. If you belong to a professional academic organization check to see if they OERs.
- o. EDUCAUSE Libraries: <http://www.educause.edu/library/open-educational-resources-oer>
- p. <http://downloadfreecollegegettextbooks.com/>
- q. Free Images: <http://www.freetech4teachers.com/2011/06/9-places-to-find-creative-commons.html#.VRWfgOGZBv6>
- r. Open Courses:
 - i. <http://academicearth.org/>
 - ii. <http://oli.cmu.edu/learn-with-oli/see-our-free-open-courses/> (Carnegie Mellon)
 - iii. <http://oyc.yale.edu/>

2. **Open Courseware:**

- a. For example, Penn State: <http://open.ems.psu.edu/courseware>

3. **Open Textbooks**

- a. OpenStax: <https://openstaxcollege.org/>
- b. <http://www.collegeopentextbooks.org/>
- c. Community College Consortium for Open Educational Resources (CCCOER): <https://www.oerconsortium.org/discipline-specific/>
- d. Open Text Book Store:
<http://www.opentextbookstore.com/catalog.php>
- e. PanOpen: <https://panopen.panopen.com/>
- f. <http://oerconsortium.org/discipline-specific>
- g. http://www.openculture.com/free_textbooks
- h. University of Minnesota collection of open textbooks with full reviews. <https://open.umn.edu/opentextbooks/> (great collection – check it out)
- i. Global Textbook Project: High-level texts hosted or created by the University of Georgia. <http://globaltext.terry.uga.edu/>
- j. Wikibooks: A project of the Wikimedia Foundation, this collection of group written textbooks in a variety of sources follows rules similar to Wikipedia.
https://en.wikibooks.org/wiki/Subject:Books_by_subject
- k. Project Gutenberg: Find the full text of classics and public domain works from the first massive ebook creating organization in existence. Nothing fancy here, just files with the full text.
<https://www.gutenberg.org/>
- l. Bloomsbury Academic: Bloomsbury is a well-respected and long-time UK publisher who has released some of their academic titles

for open access/open education. See:
<http://www.bloomsbury.com/us/academic/>

- m. **Boundless**: Boundless works with experts to compile web-based openly available content into the same general arrangement of textbooks. You can actually search the ISBN for your current textbook and see what content Boundless would use to replace it. Check out Boundless titles at: <https://www.boundless.com/>
- n. **Books 24X7**: Books 24x7 is a database of full-text, e-books in the fields of computing, business, and information technology. At this time we are unable to confirm that these are OERs. See: http://www.skillsoft.com/assets/brochures/OnDemandPlatform_brochure.pdf
- o. <https://sites.google.com/a/sbctc.edu/opencourselibrary/developer-resources/librarians> (more sites, some new)
- p. **Open SUNY**: <http://textbooks.opensuny.org/category/available-now/>
- q. Here are 10 sources linked from one site:
<http://websearch.about.com/od/referencesearch/ss/How-to-Find-Free-Textbooks-Online-Ten-Sources.htm>

4. **Open Textbook Ancillary Materials:**

- a. **Libre**:
http://chem.libretexts.org/Textbook_Maps/General_Chemistry_Textbook_Maps

5. **Search Engines:**

A number of search engines exist to help you locate Open Educational Resources. These include:

- 1) [DiscoverEd](#) - "Discover the Universe of Open Educational Resources"
- 2) [Jorum](#) - "free learning and teaching resources, created and contributed by teaching staff from UK Further and Higher Education Institutions"
- 3) [OCWFinder](#) - "search, recommend, collaborate, remix"
- 4) [Temoa](#) - "a knowledge hub that eases a public and multilingual catalog of Open Educational Resources (OER) which aims to support the education community to find those resources and materials that meet

their needs for teaching and learning through a specialized and collaborative search system and social tools."

- 5) [University Learning = OCW+OER = Free custom search engine](#) - a meta-search engine incorporating many different OER repositories (uses Google Custom Search)
 - 6) [XPERT](#) - "a JISC funded rapid innovation project (summer 2009) to explore the potential of delivering and supporting a distributed repository of e-learning resources created and seamlessly published through the open source e-learning development tool called Xerte Online Toolkits. The aim of XPERT is to progress the vision of a distributed architecture of e-learning resources for sharing and re-use."
-
1. [OER Dynamic Search Engine](#) - a wiki page of OER sites with accompanied search engine (powered by Google Custom Search)
 2. [JISC Digital Media](#) maintain guidance on finding video, audio and images online, including those licensed as Creative Commons.
 3. [Google Books](#): Some books presented in this mass conglomeration of scanned books are fully available, most are excerpted.

Repositories:

Connexions: Large repository of individual teachers' content, some courses and lots of modular writings about a variety of topics.

OER Commons: This resource seeks to collect and distribute a variety of OER at a variety of levels and subjects.

Open Scout: UK based database of business skills teaching resources. Includes articles, tutorials, video and much more in a variety of languages.

AMSER: Materials in the Applied Math and Science Educational Repository are free for use and adaptation. Most resources are at the high school and community college levels.

Free: The mission of Free is to make the learning resources of the US Government easier to find. There are over 1500 lessons, objects, and tools for teaching from the federal government located here.

Edsitement!: Learning objects and lessons from the National Endowment for the Humanities. It offers a large collection of peer evaluated websites.

(Focus on K-12)

University of California Libraries: <http://cool4ed.org/>

<https://archive.org/> - a non-profit library of millions of free books, movies, software, music, websites, and more.

Wikipedia's Exemplary Collection of Open Education Repositories:

- http://wikieducator.org/Exemplary_Collection_of_Open_eLearning_Content_Repositories

NOTE: For additional sources of OERs see Appendix F

Section IV. Using Open Educational Resources:

1) Tips

- a) <http://campustechnology.com/articles/2014/08/27/6-tips-for-using-open-educational-resources.aspx>

2) Accessibility (refer to Appendix D)

- a) You should design your OERs to comply with the certain accessibility standards of Quality Matters:
 - (1) Standard 8.3: "The course provides alternative means of access to course materials in formats that meet the needs of diverse learners."
 - (2) Standard 8.5 "Course multi-media facilitate ease of use."
- b) See UMUC's Library Guide (Libguide) at:
<http://libguides.umuc.edu/content.php?pid=98930&sid=742415>
- c) A rubric for selecting accessible OERs is available at:
http://udloncampus.cast.org/page/media_oer_selecting#.VLQKCXuZAuN
- d) <http://www.slideshare.net/OPEN4Us/oer-presentation-08255> (slides 13 through 16)
- e) Program that will check the accessibility of your web site:
<http://wave.webaim.org/toolbar/>
- f) Another program that will check the accessibility of your web site:
<http://www.paciellogroup.com/resources/wat/>
- g) <https://wcetblog.wordpress.com/2015/04/01/bcaccessibilitytoolkit/> (Open Textbook Accessibility Toolkit);
- h) <https://medium.com/salesforce-ux/7-things-every-designer-needs-to-know-about-accessibility-64f105f0881b>

3) Assessment/Evaluation:

- a) See UMUC's Library Guide (Libguide) at:
<http://libguides.umuc.edu/content.php?pid=98930&sid=742415>
- b) <http://open.bccampus.ca/files/2014/07/OERR-Rubric.pdf>
- c) **Merlot:**
http://info.merlot.org/merlohelp/merlot_peer_review_information.htm

MERLOT has over 20 Editorial boards, each with a group of Peer Reviewers that are the essence of MERLOT materials. As a Peer reviewer, you participate in the peer review process (described

below). Each board has an Editor that triages each material in their discipline and assigns it to a reviewer in that discipline.

- d) <http://collegeopentextbooks.org> (geared towards community colleges)

The College Open Textbooks Collaborative, a collection of twenty-nine educational non-profit and for-profit organizations, affiliated with more than 200 colleges, is focused on driving awareness and adoptions of open textbooks to more than 2000 community and other two-year colleges. This includes providing training for instructors adopting open resources, peer reviews of open textbooks, and mentoring online professional networks that support for authors opening their resources, and other services.

- e) <http://open4us.org>

OPEN is funded by the Bill & Melinda Gates Foundation and offers free services aligned with the DOL's grant requirements, designed to support your project. Our partners' long-standing experience in beneficial service areas will help you achieve your project goals while maximizing the use of your resources.

- f) <https://openeducationalresources.pbworks.com/w/page/62697426/OER-Evaluation>

- g) <https://www.youtube.com/watch?v=9btxdhwSxaU>

- h) <http://libguides.georgefox.edu/content.php?pid=353868&sid=2894448> (has a rubric for evaluating OERs)

- i) http://www.academia.edu/4909734/Quality_Assurance_in_the_Open_An_Evaluation_of_OER_Repositories (nice list of quality assurance indicators)

- j) <http://facultyecommons.org/evaluating-the-quality-of-oers/>

(1) <https://oersynth.pbworks.com/w/page/51320241/EvaluationToolkit> (evaluation toolkit from the UK).

(2) <http://www.achieve.org/files/AchieveOERRubrics.pdf>

- k) <http://is.jrc.ec.europa.eu/pages/EAP/documents/201405JRC88304.pdf>

- l) http://www.temoa.info/sites/default/files/OER_Rubrics_0.pdf
(excellent site for this)

4) Integration into Your Teaching

- a) See Appendix C

5) Sustaining/Maintaining OERs

- i) Sustaining OERs: <http://nparc.cisti-icist.nrc-cnrc.gc.ca/npsi/ctrl?action=rtdoc&an=5764249>

- ii) Sustaining OERs:
<http://www.hewlett.org/uploads/files/ReviewoftheOERMovement.pdf> (general article but see Sections 2.3.2 and 2.3.3).

6) Sharing

- a) Creative Commons
 - i) Considerations
 - (1) https://wiki.creativecommons.org/Before_Licensing (be sure to do this first before licensing your own OERs);
 - ii) Getting Your Work Licensed by Creative Commons
 - (1) <http://creativecommons.org/choose/>. Very simple and quick way to get your work licensed. If your work resides on a web site, after you select your license type you will be provided the HTML code you need to add to your page(s). Code will be made available in lower right quadrant.
 - iii) Attribution Examples: Go to this site to see how to attribute sources:
https://wiki.creativecommons.org/wiki/Best_practices_for_attribution
 - iv) Creative Commons Described in Simple Terms (for students):
<http://www.freetech4teachers.com/2016/11/creative-commons-explained-in-simple.html#.WD2vPn1EcsB>

7) Copyright

- i) See the Montgomery College Library Guide (Libguide) on Copyright at: <http://libguides.montgomerycollege.edu/copyright>
- ii) See the Copyright selector tool at:
<http://librarycopyright.net/resources/digitalslider/>
- iii) Stanford University's Renewable Copyright Database:
 - (1) <http://collections.stanford.edu/copyrightrenewals/bin/page?forward=home>
- iv) "The Campus Guide to Copyright." Download a free copy at:
education.videoblocks.com/e-book

8) Examples of OER's

a) OERs at MC:

- i) [College Reading](#) by Professor **Windy Jefferson-Jackson** MC College Reading Resources. This OER is also available at Merlot.org – search box on the right top corner – type in "MC college reading resources" or "windy jefferson-jackson" to get the result

- ii) [Course Material - Astronomy Video Lectures](#) by Professor **Carrie Fitzgerald**
A collection of astronomy video lectures on YouTube.
- iii) [MOOCs - Get Ready for College Writing](#) by Professor **Emily Rosado**
This 8-week MOOC will offer students a review of basic writing skills. This course will focus on writing clear and effective sentences, paragraphs, and short essays. Students will view video lectures and engage in weekly discussion assignments, journal writing, reading assignments, and quizzes.
- iv) [Video Math](#) – by Professor **Bill Witte**, Math, Germantown
Bill Witte’s Video Math Review Site. He created these in Camtasia and uploaded them to You Tube. Bill has had over 1 million hits and many notes of thanks.

Section V. Resources

a) Articles

- i) The impact of OERs on Learning Outcomes:
<http://link.springer.com/article/10.1007%2Fs12528-015-9101-x#page-1>
- ii) Why You Should Think Twice Before Adopting a Textbook:
<http://chronicle.com/article/Why-You-Ought-to-Think-Twice-/232877/>
- iii) Major Maryland University Abandons Textbooks in Favor of OERs in all undergrad courses (August 28, 2015):
<http://www.baltimoresun.com/news/maryland/bs-md-umuc-no-textbooks-20150827-story.html>
- iv) Office of Science and Technology Policy – White House proclamation of Open Educational Resources week:
<https://www.whitehouse.gov/blog/2015/03/11/open-education-week-2015>
- v) <http://www.edweek.org/ew/articles/2015/05/20/open-educational-resources-promoted-in-us-senate.html>
- vi) <https://www.insidehighered.com/quicktakes/2015/05/12/free-textbook-initiative-expands-virginia> (Free textbooks in VA community colleges)
- vii) National Advocacy:
<http://www.sparc.arl.org/advocacy/national/act>
- viii) Hewlett Foundation White Paper

(1) http://www.hewlett.org/sites/default/files/OER%20White%20Paper%20Nov%202022%202013%20Final_0.pdf

ii. A Guide to Open Educational Resources

(2) <http://www.jisc.ac.uk/publications/programmerelated/2013/Openeducationalresources.aspx>

- ix) **Building Your Own Textbook** by Audrey Watters (2011)
Blogger Audrey Watters looks at the digital possibilities for customizing and updating texts -- at a fraction of what the hard copy would cost.
- x) **California Embraces Open Source Digital Textbooks** by Kara Platoni (2009)
The most populous state is the first to take on this complicated initiative.
- xi) **David Thornburg on Open-Source Textbooks** by Betty Ray (2011)
Guest blogger David Thornburg on how the open-source movement is transforming the textbook industry.
- xii) **New strategy would drop college textbook costs to zero** -
USM holds pilot in which students use free 'open-source' textbooks put together by their professors.
- xiii) **Open, but Undiscovered**
When faculty members choose which textbooks to assign to their students, they look for trusted names and a track record of quality - not the price tag, a new survey suggests.
- xiv) **Save money with open-source textbooks** -
It's hardly a secret that the price of new college textbooks has risen 82% in the last decade, forcing students to find cheaper alternatives or forego course materials altogether.
- xv) **Two-Thirds of Faculty Unaware of Open Education Resources** -
Nearly two-thirds of faculty members in U.S. higher education are generally unaware of open educational resources (OER), according to a new study from Babson Survey Research Group and Pearson. Funded by The William and Flora Hewlett Foundation, the project surveyed 2,144 faculty across a wide range of positions and institution types to explore the role of OER in higher ed.
- xvi) The Impact of Open Textbooks on Secondary Science Learning: <http://edr.sagepub.com/content/43/7/341>
- xvii) **Public Library of Science: An open publisher whose mission is to change the nature of sharing scientific research through open access.**

Directory of Open Access Journals: The most comprehensive collection of open access journals in a variety of disciplines. Unfortunately, you can search by journal subject, but not by article subject.

xviii) www.openedgroup.org/review

xix) Amount students spend on purchasing textbooks is dropping, but for the wrong reasons: <http://m.chronicle.com/article/For-Students-Textbooks-Become/231455/>

xx) <http://www.ednetinsight.com/news-alerts/higher-ed-market-headlines/ebsco-releases-ebook-education-collection.html> - EBSCO eBook collection

xxi) Flickr now support CC0 and CC Public domain marks: <http://creativecommons.org/weblog/entry/45355>

xxii) <https://www.myopenmath.com>

xxiii) Science and Technology Open Resource articles: <http://explore.tandfonline.com/page/est/st-open-access>

b) OER Self-Paced Training Guides

i) Tidewater Community College - <http://libguides.tcc.edu/OER>

ii) Washington State - <http://www.openwa.org/module-1/>

b) Open Access Resources –

<http://scholarlycommunication.library.tamu.edu/open-access/resources.html>

Open Access overview:

<http://legacy.earlham.edu/~peters/fos/overview.htm#copyright>

SPARC - <http://www.sparc.arl.org/issues/open-access>

d. Web Sites

MC's OER web site: <http://cms.montgomerycollege.edu/elite/oer/>

MC Open web site:

External sites:

http://www.icde.org/en/resources/open_educational_resources/

http://edutechwiki.unige.ch/en/Open_Education_Resource

<http://open.umich.edu/education> (U. of Michigan)

Cal Poly Libguide: <http://libguides.library.csupomona.edu/oer>

U of Wisconsin Library Guide: <http://guides.library.uwm.edu/oers>
https://www.oercommons.org/browse?f.provider_set=4567 (NOAA, through
OERCommons)

Survey(s):

- i) <http://sites.hawksey.info/oerhub/evidence/affordable-learning-solutions-survey-2012/>

Multi-Media Resources

Ted: Inspiring thinkers on a range of subjects present big ideas and lectures on a regular basis- completely CC licensed.

Wikimedia Commons: The thinkers behind Wikipedia bring you images, video and music all openly licensed or in the public domain.

CLIP Information Literacy Tutorials: Find great tutorials on information and research competencies.

HippoCampus: HippoCampus, a project of the Monterey Institute of Technology and Education (MITE), is full of high-quality resources in a variety of subjects. It is aimed at high school and college level users.

PhET Science Simulations: These interactive tools from the University of Colorado at Boulder are mostly CC licensed.

Jamendo: Songs by musicians who want to share their music.

Videos:

Turning a Resource into an Open Educational Resource: [step by step how to]

<http://www.youtube.com/watch?v=CUVW5fhQP2k>

Open Education Week: Finding Open Educational Resources, David Wiley [finding OERs – quick tutorial]

<http://www.youtube.com/watch?v=wJI9RShrxr4>

Using OER Commons: [highly recommended for faculty]

<http://www.youtube.com/watch?v=rcHL5sSoH0c>

Vimeo: A social network of video producers. This is a great place to look for a wide variety of content- some is completely open for

redistribution, some is open access. VIMEO appears to be much like YouTube.

100 Top Technologies for Learning (2015):

<http://c4lpt.co.uk/top100tools/>

Online Courses and Lectures

Academic Earth: Find lectures and videos from some of the most respected instructors in the world.

Stem Cell School: Lessons and quality digital imaging about stem cells and stem cell science.

- c) Open Course Library: The WA Open Course Library project offers 81 of Washington's most enrolled courses. There are a lot of great readings in these course files.
- d) LearningSpace from Open University: All of the learning materials presented on this site are CC licensed, but don't confuse "Learning Spaces" with the full Open University- their licensing/copyrights are different.
- e) MIT Open Course Ware – use this for lectures, resources:
<http://ocw.mit.edu/courses/audio-video-courses/>

Research on OERs

OER Research Toolkit: <http://openedgroup.org/toolkit>

Printing OERs

<https://www.createspace.com/>

Appendix A

Additional Resources

Additional OER Resources (General):

Smithsonian Center for Learning and Digital Access:

<http://www.smithsonianofi.com/sors-index/smithsonian-center-for-learning-and-digital-access-sclda-2013/>

- Smithsonian Learning Lab: <https://learninglab.si.edu/>

University of Maryland – OER Master list of Resources

Scholarpedia: MediaWiki brings you this scholarly version of Wikipedia. For the user, it works largely the same way- except that all articles are mediated by proven scholarly experts. *Please note, some articles in this resource are NOT open source.

https://docs.google.com/spreadsheets/d/tER_Jo59ZtAL14Mu7WqjlzQ/htmlview?pli=1# (click on Broad Areas tab)

Creative Commons – Worldwide Usage:

<raw.githubusercontent.com/creativecommons/stateofthe/master/CC.pdf>

<https://openeducationalresources.pbworks.com/w/page/45742673/What%20are%20OERs> (recommended)

http://en.wikipedia.org/wiki/Open_educational_resources

<http://www.slideshare.net/UnaDaly/maryland-online-oer-day-keynote-at-umuc>.

<http://www.jisc.ac.uk/publications/programmerelated/2013/Openeducationalresources.aspx> - a history of the Open Educational Resources can be seen at this site; many other good resources on this page;

Wizard for Considering OER adoption;

<http://www.web2rights.com/OERIPRSupport/diagnostics.html>

<http://www.sparc.arl.org/issues/oer>

http://en.wikibooks.org/wiki/Issues_in_Digital_Technology_in_Education/Open_Educational_Resources

Open Course Library: <http://opencourselibrary.org>

www.youtube.com

www.khanacademy.org

<http://www.gutenberg.org/>

<https://www.oercommons.org/>

<http://open4us.org/find-oer/> [great site – highly recommended]

<http://classroom-aid.com/open-educational-resources/curriculum/> [another compilation site – some new links here]

Case Study/Research:

<http://www.irrodl.org/index.php/irrodl/article/view/1523/2681>

- Community college that used OER's in math
- <http://oerconsortium.org/>

<http://www.collegeopentextbooks.org/>

<http://ocw.jhsph.edu/courses/HumanNutrition/lectureNotes.cfm>

<http://www.collegeopentextbooks.org/opentextbookcontent/open-textbooks-by-subject>

<http://openstaxcollege.org/>

- OpenStax OER Repository: www.cnx.org
 - Companion web site for questions, tests, etc. : <http://www.learningpod.com/>
- Upcoming textbooks (by end of 2016): Chemistry, College Algebra and Trigonometry, Basic College Developmental Math, Elementary Algebra, Calculus, Microbiology, University Physics,

Intermediate Algebra, Astronomy, Introduction to Business,
American Government

<http://open.umn.edu/opentextbooks/>

<http://open.bccampus.ca/>

<http://www.openaccesstextbooks.org/>

Orange Grove Text Plus Open Textbooks: <http://youtu.be/kIsCs1XGC-s>

<http://www.saylor.org/about/> (reference only)

<http://www.slideshare.net/umucedu/e-resources-update-2-14>

<http://www.slideee.com/slide/umuc-adopting-oer-at-scale-to-reduce-student-costs>

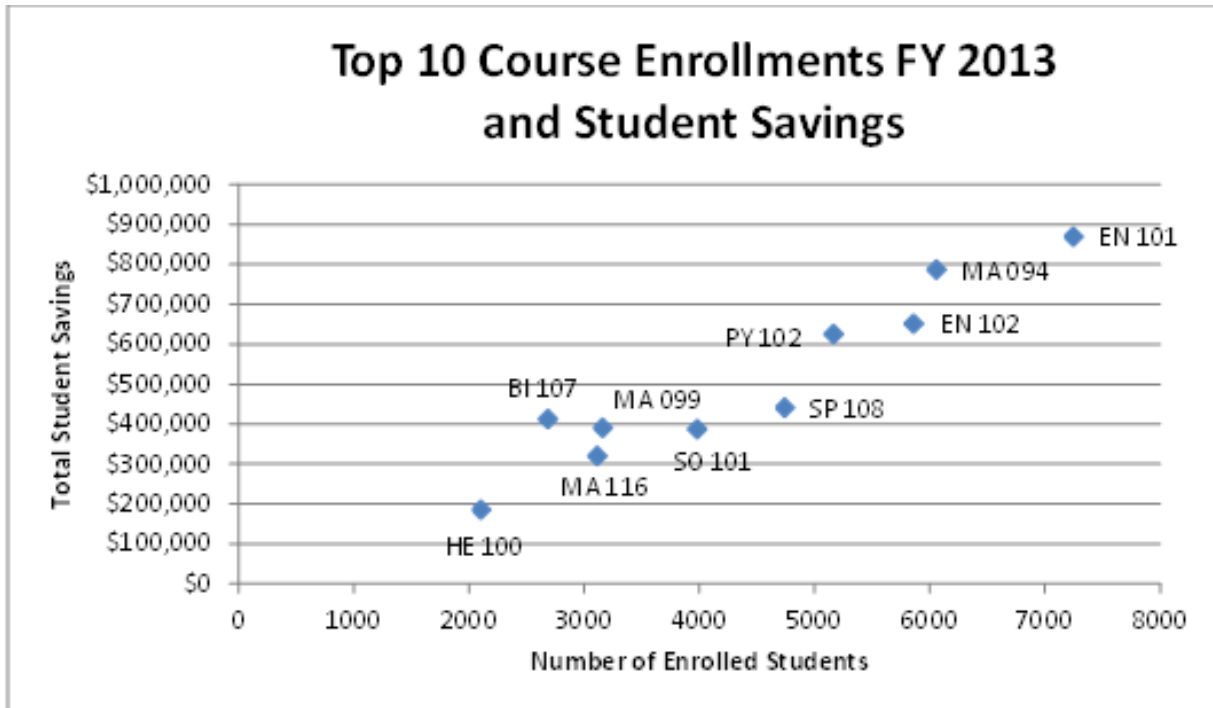
<http://libguides.aacc.edu/content.php?pid=551631&sid=4546074> (Anne Arundel Community College Library)

www.irrodl.org/index.php/irrodl/article/view/1137/2130

A collection of OER readings compiled by David Wiley:

<http://openedreader.org/>

If the Top Ten Enrollment Courses at MC all had Free Textbooks



Total Students Savings Using OERs would be more than \$5 million

Appendix B

Some OERs by Subject Areas:

Accounting: Principles.

<http://www.saylor.org/site/wp-content/uploads/2011/11/BUS103-TEXTBOOK.pdf>

Lumen Learning has two accounting textbooks

Anatomy and Physiology

- [Anatomy & Physiology](#)

Anthropology

- [**http://library.hccs.edu/guides/anthropology/websites**](http://library.hccs.edu/guides/anthropology/websites)

Art and Art History

Open Textbooks:

<http://collegeopentextbooks.org/opentextbookcontent/open-textbooks-by-subject/art>

<http://libguides.umuc.edu/content.php?pid=10316&sid=4202024>
[recommended site]

<https://www.khanacademy.org/humanities/art-history-basics>

<https://www.khanacademy.org/about>

- <http://smarthistory.khanacademy.org/for-the-beginner.html>
- <https://www.khanacademy.org/humanities/ancient-art-civilizations>
- <https://www.khanacademy.org/humanities/prehistoric-art>
- <https://www.khanacademy.org/humanities/medieval-world>

https://www.oercommons.org/browse/general_subject/arts [show the "Read the Fine Print"]

<https://www.oercommons.org/courses/4-366-advanced-projects-in-the-visual-arts-personal-narrative-spring-2004> [show "Read the Fine Print"]

<http://libguides.sjsu.edu/content.php?pid=347882&sid=4071351> [very good]

<http://www.saylor.org/majors/art-history/> [free courses]

<http://ocw.mit.edu/courses/architecture/> [MIT Open Courseware]

<http://ocw.mit.edu/courses/media-arts-and-sciences/> [MIT Open Courseware]

General Art History: <http://www.besthistorysites.net/index.php/art-history>

Astronomy

<http://www.teachastronomy.com/textbook>

Psychology and Sociology (3 on this site) – please separate

<https://cyp-media.org/free-e-textbooks/>

Also, please create a new section called eTextbook Reviews and add this:

<http://cool4ed.org/reviews.html>

Linn-Benton Community College [in-house videos](#)

Biology

- [Concepts of Biology](#)
- [Georgia Tech](#)
 - [Principles of Biology with custom-made activities: <http://bio1510.biology.gatech.edu/>](#)
- [Environmental:](#) <https://cnx.org/contents/WBOykJfe@1.1:MT2oLI0N@1/Introduction-EnBio>
- [Botany:](#) <https://cnx.org/contents/WBpgbdM8@1.23:Pj8cW7X1@4/Introduction>
 - <https://cnx.org/contents/U-U2hzhpH@1.11:Pj8cW7X1@4/Introduction>
- [Ecology:](#) <https://cnx.org/contents/Ja3HjPVK@3.15:slicS-9i@2/Introduction>

Business: Fundamentals of Business:

<https://vtechworks.lib.vt.edu/handle/10919/70961>

Business Law: https://saylor.org.github.io/text_foundations-of-business-law-and-the-legal-environment/

Business English:

Business Comm. for Success book:

https://saylordotorg.github.io/text_business-communication-for-success/

Business English for Success:

https://saylordotorg.github.io/text_business-english-for-success/

Business Communication for Success (CC-BY-NC-SA)

- <http://open.umn.edu/opentextbooks/BookDetail.aspx?bookId=8>

Business English for Success (CC-BY-NC-SA)

- <http://open.umn.edu/opentextbooks/BookDetail.aspx?bookId=65>

Communication in the Real World (CC-BY-NC-SA)

- <http://open.umn.edu/opentextbooks/BookDetail.aspx?bookId=274>

Writing for Success (CC-BY-NC-SA) - <https://open.bccampus.ca/find-open-textbooks/?uuid=8d415c45-41da-4c9d-8c9d-ab66bbdd359c&contributor=&keyword=&subject=>

Writing in College (CC-BY-NC-SA) - <https://open.bccampus.ca/find-open-textbooks/?uuid=76589513-9fc0-4b24-a1ad-629d0a0348ac&contributor=&keyword=&subject=>

Career Exploration

http://library.baycollege.edu/ld.php?content_id=21943682

Chemistry

- [Organic Chemistry with a Biological Emphasis: Vol I and II](#)
- <http://www.oercommons.org/courses/chemistry-6/view>
- <http://organiclabtechniques.weebly.com/description.html> (Lab Manual)

Chemistry Ancillary Materials:

Ancillary materials for OpenStax Chemistry books are available at:

<https://openstax.org/details/books/chemistry#resources>

<https://openstax.org/details/books/chemistry-atoms-first#resources>

<https://www.oercommons.org/groups/openstax-chemistry/1064/discussions/>

<https://www.oercommons.org/groups/openstax-chemistry-atoms-first/1097/discussions/>

<http://chem.libretexts.org/>

http://chem.libretexts.org/LibreTexts/University_of_California_Davis

Germannan Community College YouTube

videos: <https://www.youtube.com/channel/UCaoV5G6Xe2Vog29NQCWNWIBA>

Communication Theory: Communication Theory

Communications (Oral)

<http://publicspeakingproject.org/psvirtualtext.html>

<https://www.scribd.com/document/336503411/A-Primer-on-Communication-Studies>

Computer Applications

- <http://www.gcflearnfree.org/> (free, but not open)
- <http://elearning.linnbenton.edu/course/view.php?id=3130>
- MS OFFICE Work Applications: <https://pmgoff.wordpress.com/padagogy/>

Computer Science

- Database Design – 2nd Edition
- **Facebook page:**
<https://www.facebook.com/ComputerScienceOpenEducationalResources.csoer>

- <http://collegeopentextbooks.org/opentextbookcontent/open-textbooks-by-subject/computerscience>
- Computation and Computer Science:
<http://computerscience.chemeketa.edu/cs160Reader/>
-

Diagnostic Medical Sonography

- No OERs found

Education

Special Education

<https://www.ted.com/topics/autism+spectrum+disorder>

<http://ideas.ted.com/should-emotions-be-taught-in-schools/>

<https://www.ted.com/topics/teaching> (general teaching)

<https://www.ted.com/search?q=special+education>

http://www.educationworld.com/a_curr/curr139.shtml

<http://www.specialeducationguide.com/pre-k-12/tools-and-research/support-and-resources-for-parents-and-teachers/>

<http://www.lesley.edu/special-education-resources/>

YouTube. There are quite a few videos on certain aspects of Special Ed. Maybe use one video per module/unit. Just a thought. Could be used to prepare students for discussion in certain topics.

https://www.youtube.com/results?search_query=special+education

Open Learn:

http://www.open.edu/openlearn/search-results?as_q=special+education

OER Commons:

https://www.oercommons.org/search?f.search=Special+education&f.general_subject=education&f.sublevel=community-college-lower-division&f.alignment_standard=

<https://www.oercommons.org/browse?f.keyword=special-education>

Wikipedia: https://en.wikipedia.org/wiki/Special_education

Google. Scholarly articles:

https://scholar.google.com/scholar?q=teaching+students+with+disabilities&hl=en&as_sdt=0&as_vis=1&oi=scholar&sa=X&ved=0ahUKEwicvfbBlejSAhVIQyYKHegZCv0QgQMIGjAA

Vanderbilt (article): <https://cft.vanderbilt.edu/guides-sub-pages/disabilities/>

Berkeley (Disabled Students Program): <http://dsp.berkeley.edu/faculty/resources/teaching>

Villanova: <https://www1.villanova.edu/villanova/studentlife/disabilityservices/resources/teaching.html>

Other Resources that came up under the Search “Teaching Students with Special Needs”

<https://www.google.com/search?q=teaching+students+with+disabilities&ie=utf-8&oe=utf-8>

Economics

- [Macroeconomics: Theory through Applications](#)
- [Principles of Economics](#)
- [Principles of Macroeconomics](#)
- [Principles of Microeconomics: OpenStax](#)
- [Principles of Microeconomics: Saylor](#)

EMT

- www.merlot.org
 - [6 results for “Emergency Medical Technology” /College Lower Division](#)

Engineering (*all types*)

<http://www.intechopen.com/subjects/mechanical-engineering/books/all/1/grid>

[Communications/Public Speaking](#)

<http://publicspeakingproject.org/>

<https://open.umn.edu/opentextbooks/BookDetail.aspx?bookId=77>

Engineering:

<https://www.oercommons.org/browse?f.search=Engineering>

<http://exchange.ac.uk/oer.html>

<http://explore.tandfonline.com/page/est/st-open-access>

<http://oerconsortium.org/discipline-specific/>

- <http://collegeopentextbooks.org/opentextbookcontent/open-textbooks-by-subject/engineeringandelectronics>
- <http://collegeopentextbooks.org/opentextbookcontent/open-textbooks-by-subject/physics>
- <http://collegeopentextbooks.org/opentextbookcontent/open-textbooks-by-subject/computerscience>
- <http://collegeopentextbooks.org/opentextbookcontent/open-textbooks-by-subject/science>

Open Courseware:

- **Article (Engineering):**
http://conference.oerconsortium.org/2014/wp-content/uploads/2014/02/Paper_53-Engineering1.pdf

English Literature

- [English Literature: Victorians and Moderns](#)

English and Composition

<http://writingcommons.org/>

<https://openoregon.pressbooks.pub/aboutwriting/>

<https://hackpad.com/Content-Organized-by-Module-GC3gBwHtDR3>

<http://writingspaces.org/>

<http://open.lib.umn.edu/writingforsuccess/>

<http://writing.colostate.edu/textbooks/>

- [Writing for Success](#)
- http://library.baycollege.edu/ld.php?content_id=23584170
- *Rhetoric and Composition:*
https://en.wikibooks.org/wiki/Rhetoric_and_Composition
- (not only has a grammar and mechanics section, but also a writing process guide and a rhetorical model section)

- Writing in College: <http://pressbooks.opensuny.org/writing-in-college-from-competence-to-excellence/>
 - (has sections titled Back to Basics: The Perfect Paragraph, Intros and Outros, Clarity and Concision, and Getting the Mechanics Right)

Powerpoint – Writing for Success:

<https://docs.google.com/presentation/d/1gblwAx-dz7qYxdvTQIOEJ2DRyJKfpgHdaDLTrGGlmjg/edit?usp=sharing>

ESL

Here are videos made by Brett Myhren from Saddleback College in CA. The videos are all CC BY.

www.youtube.com/channel/UCcDtZe8N6oZ-nS0sZUDF5kw

<https://owl.english.purdue.edu/owl/section/5/>

This open book has a chapter for English Language Learners:

<http://open.lib.umn.edu/writingforsuccess/>

This open book also has a pretty good chapter:

<https://www.google.com/url?q=https://drive.google.com/a/pcc.edu/file/d/0B2vjQIMyjDswc0VQbnl6Y29ERGs/view&sa=D&ust=1450299200640000&usq=AFQjCNHppEBIzN9XrnN6cSwpRrOV1Fzeng>

<http://eslau.ca/> - check this out. All materials are CC By.

ESL Literacy (noncredit): <https://www.oercommons.org/courseware/module/11459>

First Year Experience Course and College Success

<https://learn.saylor.org/course/view.php?id=348>

<http://florida.theorange grove.org/og/items/0aae8b08-98a8-6145-5a8f-4626e2147c04/1/>

University Success: <http://openpress.usask.ca/universitysuccess/>

Transitioning to College for Non-Traditional Students:
<https://openoregon.pressbooks.pub/collegetransition/>

<https://courses.candelalearning.com/collegesuccess2/>

<https://courses.candelalearning.com/collegesuccess2xmaster/>

<https://courses.lumenlearning.com/collegesuccess-lumen/>

How to Learn Like a Pro:

<https://openoregon.pressbooks.pub/collegerreading/>

Fire Science and Emergency Services

- <http://open-site.org/fire-science/>
- www.merlot.org
 - [25 hits from "Fire Science" /College Lower division](#)

French:

<http://oli.cmu.edu/learn-with-oli/see-our-free-open-courses/>

<http://www.lightandmatter.com/french/>

World Regional Geography:

- <http://caitiefinlayson.com/worldregional/>

German:

<http://coerll.utexas.edu/dib/>

Health Sciences:

General:

<http://open-site.org/open-education/> [many health areas on this list]

<http://doer.col.org/> [will bring up content in numerous areas]

<http://www.syntiro.org/oer/health.php> [Maine dept. of Education]

<http://libguides.umuc.edu/content.php?pid=10992&sid=4062808>

<http://www.jisc.ac.uk/whatwedo/programmes/ukoer3/halsoer.aspx>

<http://www.slideshare.net/VeronicaMitchell/2013-uct-tl-oerfianlpublic>

[Slideshare presentation on OERs in the Health Science Faculty]

<http://www.openhealthnews.com/blogs/groenpj/2012-09-09/open-education-training-resources-healthcare>

<http://guides.library.queensu.ca/open-educational-resources/health-sciences>

<https://www.skillscommons.org/discover?query=Roane+State+> (395 resources in Health, etc.)

<https://oli.cmu.edu/jcourse/lms/students/syllabus.do?section=df3dcb930a0001dc00a4a5e2746e42b4> (Carnegie Mellon – maybe more applicable to Health discipline)

Public Health:

<https://sph.umd.edu/content/open-educational-resources-oer-public-health>

Health Care Repositories:

<http://workspace.nottingham.ac.uk/display/oer/Healthcare+OER+repositories>

<http://www.emeraldinsight.com/doi/abs/10.1108/09654281111144238>
[paper on Public Health OERs]

<http://www.temoa.info/taxonomy/term/31193> [unfortunately, once in this site the text is in Spanish]

Health Information Technology

<http://collegeopentextbooks.org/opentextbookcontent/open-textbooks-by-subject/healthandnursing> (Health and Nursing site)

www.merlot.org

- **Search Merlot**
 - **Search Materials**

- **Keywords: Health Information Technology**
 - **Audience: College Lower Division**

Health Education

- <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/0,,contentMDK:22610205~menuPK:617610~pagePK:148956~piPK:216618~theSitePK:282386~isCURL:Y,00.html> (World Bank site)
- <http://www.jisc.ac.uk/whatwedo/programmes/ukoer3/halsoer.aspx>
- www.merlot.org [32 hits for Health Information Management]/College Lower Division

Mental Health

- <http://doer.col.org/handle/123456789/742>
- www.merlot.org
 - [168 results from "Mental Health" /College Lower Division](#)

Health Science Curriculum:

[http://ioer.ilsharedlearning.org/Content/2197/HSLE-Health Science Curriculum](http://ioer.ilsharedlearning.org/Content/2197/HSLE-Health%20Science%20Curriculum)

Grammar and Punctuation:

<https://openoregon.pressbooks.pub/conventions101/>

History:

<http://www.americanyawp.com/>

US History to 1865:

http://library.baycollege.edu/ld.php?content_id=21943089

US History 1865 to Present:

http://library.baycollege.edu/ld.php?content_id=21943147

History of England:

https://www.gutenberg.org/ebooks/search/?start_index=26&query=history+of+england&go=Go

<http://www.sageamericanhistory.net/> [sent in by Joe Thompson, from one of his students]

<http://collegeopentextbooks.org/opentextbookcontent/open-textbooks-by-subject/history>

<http://www.gavirtualllearning.org/Resources/SharedAPEuropeanHistory.aspx>

<http://www.gavirtualllearning.org/Resources/SSResources/SSShared/SharedAPUSHHistory.aspx>

<http://www2.le.ac.uk/projects/oer/oers/archaeology-and-ancient-history>

Hospitality Management

Human Resources in the Food Service and Hospitality Industry

Management

- Mastering Strategic Management
- Human Resource Management

Marine Biology: (Marine Invertebrate Atlas)

https://docs.google.com/document/d/14W_Zwl6bILrPG8bpp4Phf8EmGvIREYs_R-MOb1yjOQ/edit (unfinished)

Math

- Algorithms and Data Structure
- Calculus – Early Transcendentals
- Introductory Statistics
- Open Calculus I Lab manual from Portland State:
<https://spaces.pcc.edu/display/MS/Calculus+I+Lab+Manual>
- The link to the manual itself: <http://spot.pcc.edu/math/clm/>
- <https://www.myopenmath.com/>
- <http://www.opentextbookstore.com/catalog.php>
- WebWork – homework and solutions: <http://webwork.maa.org/>
- <https://www.boundless.com/teaching/>

- <https://courses.lumenlearning.com/catalog/lumen>
- www.ck12.org
- Videos (precalc, calc, algebra, multivariate, geometry, etc)
 - <https://www.youtube.com/user/cstitz42>

Developmental Math

Pre-Algebra: https://www.youtube.com/playlist?list=PL9dj44OpeMZe_qNgDt_lqqnRjvGNkePq7

Basic Algebra: <https://www.youtube.com/playlist?list=PL9dj44OpeMZfqN4Kqgg7mF0AJ0EN2Fzb8>

Intermediate Algebra: https://www.youtube.com/playlist?list=PL9dj44OpeMZc-cv2_JNITRG2ojdE5zCL2

College Algebra: <https://www.youtube.com/playlist?list=PL9dj44OpeMZe9WwXL9LGFpNEkF799M43c>

Music Appreciation:

<http://openmusictheory.com/>

<http://cnx.org/contents/R21GFBYj@21.2:8gAhyfRY@23/Sound-Reasoning--A-New-Way-to->

<http://cnx.org/contents/fCelrsUo@1.1:fWmMtOTx@8/Rhythm>

<http://opencourselibrary.org/musc-105-music-appreciation/>

Nursing

<http://teachingcommons.cdl.edu/oern/> (mega site from the University of California)

<http://nursing.gwu.edu/open-educational-resources-nursing-education> (George Washington U. site)

<http://libguides.sjsu.edu/alsnursing> (San Jose State - mega site)

<http://open.umich.edu/> (Univ of Michigan)

<http://collegeopentextbooks.org/opentextbookcontent/open-textbooks-by-subject/healthandnursing> (Health & Nursing site)

<http://impoers.wordpress.com/our-blog/> (British site/blog)

<https://www.oercommons.org/courses/community-health-nursing>
(Wiki Educator course)

<http://nursingprofessor.com/about/whatisanoer.html> (general, article)

<https://www.wisc-online.com/learn/health/nursing> (Univ of Wisconsin OERs)

<http://www.du.se/en/NGL/Developmentprojects/Projects-at-the-School-of-Health-and-Social-Studies/Implementation-of-open-education-resources-in-the-Nursing-Programme/>

http://www.sicklecellanaemia.org/teaching-resources/#hc_pro
(lectures, research)

http://learn.gwnursing.org/BSN/ClinicalCompliance/Exposure_Control/Exposure_Control.htm

California State University (Merlot)
<http://teachingcommons.cdl.edu/csuoern/>

University of Maryland University College:
<http://libguides.umuc.edu/content.php?pid=477089&sid=4061340>

Nutrition:

<https://www.oercommons.org/browse/keyword/nutrition>

<http://www.gavirtuallearning.org/Resources/SharedFoodandNutrition.aspx>

<http://fnic.nal.usda.gov/professional-and-career-resources/nutrition-education/sources-free-or-low-cost-materials>

<http://libguides.sjsu.edu/alsnutrition>

http://jolt.merlot.org/vol9no1/lindshield_0313.htm (article on the use of an Open Textbook in Nutrition)

Philosophy

- Modern Philosophy
- Introduction to Logic and Critical Thinking:
<https://drive.google.com/file/d/0B-rkbctcWjo3ZndISzR2YTVzT2c/view>

Physical Therapy

- [Not an OER, per se, but check out pages 15-20 of this slide show: http://cccao.org/files/udp/files/Conf2013_FALL/Presentations/4C-CTE4 Rehab OER Basic Skills and the Physical Therapy Aide.pdf](http://cccao.org/files/udp/files/Conf2013_FALL/Presentations/4C-CTE4_Rehab_OER_Basic_Skills_and_the_Physical_Therapy_Aide.pdf)
- www.merlot.org
 - [7 results for "Physical Therapy" /College Lower Division](#)

Physical Education:

- <https://sites.google.com/site/oerresearchteam/>
- <https://www.sde.idaho.gov/site/edsources/2014/jan/teacherSupport.htm> [article, Idaho]
- www.merlot.org
 - [68 hits for Physical Education \(but some don't seem like they fit\)/College lower division](#)

Physics

- [Calculus-Based Physics I](#)

[Calculus-Based Physics II](#)

[BC Open Textbook Collection](#)

Instructional Videos (for OpenStax text): <https://www.oercommons.org/authoring/15778-physics-instructional-videos-barbara-gilbert-at-cn/view>

Political Science

- [Democracy in Brief](#)

Project Management (for Instructional Designers):
<https://pm4id.pressbooks.com/>

Psychology

- [Principles of Social Psychology](#)
- [Research Methods in Psychology](#)
- [Abnormal Psychology](#) : <http://nmc.libguides.com/psy250mccord>

- University of Maryland Open Intro to PSYCH text:
<http://openpsyc.blogspot.com/>

Polysomnography

- [No OERs located](#)

Public Speaking:

<https://courses.lumenlearning.com/publicspeakingprinciples/>

<https://www.oercommons.org/courses/public-speaking-the-virtual-text>

- Here's the Merlot site of the same material but this one has ratings, comments, etc.
<https://www.merlot.org/merlot/viewMaterial.htm?id=862816>

<https://www.oercommons.org/courses/stand-up-speak-out-the-practice-and-ethics-of-public-speaking>

<https://www.oercommons.org/courses/public-speaking>

Stand Up, Speak Out: The Practice and Ethics of Public Speaking (CC-BY-NC-SA)

- <http://open.umn.edu/opentextbooks/BookDetail.aspx?bookId=77>

Writing for Strategic Communication Industries (CC-BY)

- <http://open.umn.edu/opentextbooks/BookDetail.aspx?bookId=360>

Communication Theory (CC-BY-SA) - <https://open.bccampus.ca/find-open-textbooks/?uuid=df4d269a-aaa6-47dd-9cb3-4f4eb381154f&contributor=&keyword=&subject=>

Presentation Software (CC-BY) - <https://open.bccampus.ca/find-open-textbooks/?uuid=3e02a9ec-9c78-40fe-b358-b5f82aca9c81&contributor=&keyword=&subject=Business%20Technology>

Radiologic Technology

- [No OERs located](#)

Reading, Adult Literacy and English

- BC Reads: Adult Literacy Fundamental English – Course Pack 3

- [BC Reads: Adult Literacy Fundamental English – Course Pack 5](#)
- [BC Reads: Adult Literacy Fundamental English – Course Pack 6](#)
- [BC Reads: Adult Literacy Fundamental English – Reader 1](#)
- [BC Reads: Adult Literacy Fundamental English – Reader 2](#)
- [BC Reads: Adult Literacy Fundamental English – Reader 3](#)
- [BC Reads: Adult Literacy Fundamental English – Reader 4](#)

[BC Reads: Adult Literacy Fundamental English – Reader 5](#)

Research Writing

[The Process of Research Writing by Steven Krause](#)

[The Information Literacy User's Guide by Greg Bobish and Trudi Jacobson](#)

<https://courses.lumenlearning.com/englishcomp2kscopexmaster/>

Science (images from government sites)

<https://openi.nlm.nih.gov>

<http://visibleearth.nasa.gov/>

<https://www.usa.gov/>

<https://www.nih.gov/>

<http://www.photolib.noaa.gov/search.html>

<http://phil.cdc.gov/phil/home.asp>

Eye Anatomy:

<https://openi.nlm.nih.gov/gridquery.php?q=eye%20anatomy&it=xg>

<https://search.usa.gov/search/images?utf8=%E2%9C%93&affiliate=usagov&query=retina+anatomy>

<https://search.nih.gov/search/images?affiliate=nih&query=eye+anatomy>

Color wheel & mixing colors:

<https://search.usa.gov/search/images?utf8=%E2%9C%93&affiliate=usagov&query=color+wheel+mixing>

<https://openi.nlm.nih.gov/gridquery.php?q=color%20wheel%20mixing&it=xg>

Hands-On Science Experiments (in English, Spanish, and Portuguese):
https://ciensacao.org/index_en.html

Sociology

- [Introduction to Sociology](#)
- [Sociology: Understanding and Changing the Social World](#)
- <https://www.canyons.edu/Offices/DistanceLearning/OER/Pages/OERTextbooksSociology.aspx>

Spanish:

<http://oli.cmu.edu/learn-with-oli/see-our-free-open-courses/>

Surgical Tech

- <http://open-site.org/surgical-technologist/>
- www.merlot.org
 - [2 results from "Surgical Technology"/College Lower Division](#)

Technical Writing

- <https://openoregon.pressbooks.pub/technicalwriting/>

Theatre

- <https://opencoursestheatretextbook.wordpress.com/2014/05/06/its-done/>
- <https://opencoursestheatretextbook.wordpress.com/chapter-annotations/>

Women's Studies

- [Women in the World Today](#)

Workforce Development:

<https://www.skillscommons.org/>

- **Building Trades**
- Common Core Trades: <https://open.bccampus.ca/find-open-textbooks/?subject=Common%20Core>
- [Basic Electronics 1](#): DC Circuit Analysis playlist (54 free online lectures) Author: Jim Pytel, NSF ATE CREATE and Columbia Gorge Community College

- Electrically Controlled Systems playlist (50+ free online lectures)
Author: Jim Pytel, NSF ATE CREATE and Columbia Gorge Community College
- Socratic Instrumentation by Tony R. Kuphaldt
- <http://www.skillscommons.org/> (a mega site of resources for the trades)
- **Introductory AC & DC Circuitry**
- Basic Electronics 1: DC Circuit Analysis playlist (54 free online lectures) Author: Jim Pytel, NSF ATE CREATE and Columbia Gorge Community College
- Electrically Controlled Systems playlist (50+ free online lectures)
Author: Jim Pytel, NSF ATE CREATE and Columbia Gorge Community College
-
- All About Circuits, Vol.1: Direct Current (DC). This work is shared under a Design Science License (more info on the license here: <https://www.gnu.org/licenses/dsl.html>).

Writing

- <https://courses.lumenlearning.com/styleguide/>

General OERs:

- <http://campustechnology.com/articles/2014/07/02/16-oer-sites-every-educator-should-know.aspx>
- <http://campustechnology.com/articles/2014/08/27/6-tips-for-using-open-educational-resources.aspx>
- <http://campustechnology.com/articles/2014/08/27/6-arguments-for-oer-and-1-against.aspx>
- <http://campustechnology.com/articles/2014/08/27/5-ideas-for-spreading-oer.aspx>
- <http://campustechnology.com/articles/2014/08/27/5-myths-about-open-educational-resources.aspx>

Open Textbooks or Low-Priced eBooks:

<http://manybooks.net/categories/ART>

<https://www.boundless.com/textbooks/>?

<https://www.boundless.com/art-history/textbooks/>

http://textbookrevolution.org/index.php/Main_Page

Engineering, Physics and Astronomy

- Tufts University – Game Development:
<http://ocw.tufts.edu/Course/75>

University Sites:

- Open.Michigan: <http://open.umich.edu/connect/projects>
- Tufts University: <http://ocw.tufts.edu/TuftsOER>

Open Education Resources Exchange:

- <http://oerexchange.org/en/engineering>

General:

- <http://campustechnology.com/articles/2014/07/02/16-oer-sites-every-educator-should-know.aspx>
- <http://campustechnology.com/articles/2014/08/27/6-tips-for-using-open-educational-resources.aspx>
- <http://campustechnology.com/articles/2014/08/27/6-arguments-for-oer-and-1-against.aspx>
- <http://campustechnology.com/articles/2014/08/27/5-ideas-for-spreading-oer.aspx>
- <http://campustechnology.com/articles/2014/08/27/5-myths-about-open-educational-resources.aspx>

Article

- <http://dl.acm.org/citation.cfm?id=2157314>

OER Knowledge Cloud – Computer Science:

- <https://oerknowledgecloud.org/content/open-educational-resources-computer-science-teaching>

UMUC Site:

- <http://libguides.umuc.edu/content.php?pid=42828&sid=4081312>

Open Courses:

- https://www.oercommons.org/browse/keyword/computer-science?batch_size=20&sort_by=title&view_mode=summary&f.sublevel=community-college-lower-division

LinkedIn Portal:

- <http://www.linkedin.com/groups/Computer-Science-Open-Educational-Resources-1041937.S.269293109>

Physics OER's

- OER Commons: <https://www.oercommons.org/browse?f.search=Physics>
- <http://oerconsortium.org/2009/03/21/physics-flexbook/>
[Open Text]
- General: <http://www.collegeopentextbooks.org/blog/> [check out the "Quick Ways..." article, and the dynamic Physics link below it]
- Wisconsin Online: <https://www.wisc-online.com/learn>

Appendix C

Integrating OERs into Your Teaching

Guidelines for Integrating OERs into Your Teaching

Integrating OERs into your teaching is the process of finding, evaluating, creating, remixing, revising and publishing or distributing.

Here is a list of things to consider:

<http://libguides.umuc.edu/content.php?pid=98930&sid=742415>

After you have done the research, you might be overwhelmed by the amount of content you found and wonder where to start. Hopefully the following information will help you.

Criteria for evaluating OER

- Align with learning goals and objectives
- Analyze the quality of the content (may share with colleagues to review)
- Learners' needs (learning styles)
- Teaching needs (support pedagogically)
- License restrictions (understand Creative Commons)
- Accessibility issues (caption that comes with the video or if the materials can be downloaded)
- Consider the reputation of the resources' affiliation and sponsorship

Remixing/Creating /Contributing OER:

You may share and submit your content as an OER, on sites such as Merlot or OER Commons. That would allow others to find it. Don't forget to add a Creative Commons license to protect your materials first. Adding a Creative Commons license is easy but you should read the conditions, linked from this Guide, before you select a license.

With the license permission, you may replace the images for the handouts you found; you may translate a webpage from English to Chinese or create

your own content over other's video lecture and reuse them for your own teaching.

The platforms for OER distribution and publishing

- Free wiki or Blog, such as, Wordpress... (University of Maryland College Park psychology)
- Merlot <http://www.merlot.org/> (click " create materials" tab")
- OER Commons <https://www.oercommons.org/>
- TedEd <http://ed.ted.com>
- Youtube video Editor <http://youtube.com/editor>
- wikiEducator http://wikieducator.org/main_page
- Bb xPlor (new tool in your Bb course)
- MIT FOLD (digital storytelling):
<https://www.media.mit.edu/research/groups/4720/fold>

Reminder: OERs are digital forms that can be linked to Blackboard courses for online, hybrid or supplement teaching.

For more information on the 5 R's (Retain, Re-Use, Revise, Remix, and Re-Distribute) please see:

Lumen Learning Announces 5R Open Course Design Framework to Support Capacity-Building as OER Use Enters Mainstream

<http://lumenlearning.com/announcement-5r-open-course-design-framework/>

The 5 R's of Designing an OER Course (coming soon):

<http://www.ecampusnews.com/top-news/oer-course-design-475/>

Attributing Open Educational Resources

See Open Washington's Open Attribution Builder:

<http://www.openwa.org/attrib-builder/>

Creative Commons Primer (in Slideshare format):

<http://www.slideshare.net/janeatcc/v40-for-education-final>

Creative Commons Frequently Asked Questions:

https://wiki.creativecommons.org/index.php/Frequently_Asked_Questions#When_is_my_use_considered_an_adaptation.3F

Appendix D

Accessibility in Web-Based Courses

The Americans With Disabilities Act, Section 504 (1990), requires that all web-based courses delivered by institutions that receive federal funding be accessible to students with disabilities. Montgomery College is responsible for and committed to providing these services. To quote the Montgomery College Disabilities Services Support (DSS) page: " DSS is committed to providing all services and operating all programs in accordance with Section 504 of the Rehabilitation Act of 1973, as amended, and the American with Disabilities Act of 1990."

Further, there are a number of good practices promoted by organizations such as WebAim and Quality Matters ©.

Quality Matters

Quality Matters (QM) is a nationally recognized rubric and process that addresses the quality of online course design. The latest Rubric (Version 5) address accessibility issues in Standard 8. Below, is a brief outline and summary of things you should know about accessibility in online courses. These relate to specific QM Standard 8.3 – "The course provides alternative means of access to course materials in formats that meet the needs of diverse learners."

- When you are using images or multi-media, whether developed by you or imported into your course via links, there needs to be alternative forms of expressing the material. Examples include:
 - HTML "ALT" tags around images, with a brief description, so that when a screen reader passes over the image there will be a written description of what is there that the screen reader can interpret.
 - Closed captioning and/or transcripts of audio/video content, such as a YouTube video.

Resources:

WebAim: <http://webaim.org/> (accessibility site certification program here)

Web Accessibility Initiative: <http://www.w3.org/WAI/>

MC Office of Disability Support Services:

<http://cms.montgomerycollege.edu/EDU/Plain.aspx?id=10058>

Appendix E

Affordable College Textbook Act Reintroduced in Congress

SPARC is excited to share that today the [Affordable College Textbook Act](#) was [introduced in both chambers of the U.S. Congress](#). The bill aims to reduce the cost of textbooks by expanding the use of [open educational resources](#) on college and university campuses. It was introduced by Senators Dick Durbin (D-IL), Al Franken (D-MN) and Angus King (D-ME) and Representatives Rubén Hinojosa (D-TX) and Jared Polis (D-CO).

The bill would create a federally-funded competitive grant program for colleges and universities to establish open textbook pilot programs. Pilots would seek to expand the use, creation and improvement of open educational resources on campus, with emphasis on high enrollment subjects and other areas that would achieve the greatest textbook cost savings for students. As a condition of the grants, any educational materials developed would be released under an open license and freely shared with other schools and the general public.

The bill was [originally introduced](#) in the 113rd Congress in 2013, and today's reintroduction signals the continued national significance of open educational resources as part of higher education's future.

Hundreds of campuses across the country are already leveraging open educational resources to reduce costs for students and [improve academic success](#). From Tidewater Community College's [zero textbook cost degree](#) to Carnegie Mellon University's innovative [Open Learning Initiative](#), the evidence continues to grow that the future of educational materials can be open -- and this bill represents a step in that direction.

While the timeline for advancing any legislation in today's political climate can be long, this bill provides a key rallying point for the Higher Education Act reauthorization process and also offers a positive model for state legislatures to consider. SPARC is excited to get to work with our allies to continue moving the conversation forward!

Appendix F

Additional Sites for Searching for OERs

Open Courseware, Sites, and Information

Science and Health

[MIT OpenCourseWare](#) – MIT OpenCourseWare is a free web-based publication of MIT course materials that reflects almost all the undergraduate and graduate subjects taught at MIT.

[Tufts OpenCourseWare](#) – Tufts OpenCourseWare is part of a new educational movement initiated by MIT that provides free access to course content for everyone online. Tufts' course offerings demonstrate the University's strength in the life sciences in addition to its multidisciplinary approach, international perspective and underlying ethic of service to its local, national and international communities.

- [The Science Forum](#) – A very active scientific discussion and debate forum.
- [Free Science and Video Lectures Online!](#) – A nice collection of video lectures and lessons on science and philosophy.
- [Science.gov](#) – Science.gov searches over 42 databases and over 2000 selected websites from 14 federal agencies, offering 200 million pages of authoritative U.S. government science information including research and development results.
- [The National Science Digital Library](#) – NSDL is the Nation's online library for education and research in Science, Technology, Engineering, Mathematics.
- [EnviroLink Network](#) – A non-profit organization, grassroots online community uniting organizations and volunteers around the world. Up-to-date environmental information and news.
- [Geology.com](#) – Information about geology and earth science to visitors without charge: Articles, News, Maps, Satellite Images, Dictionary, etc.

- [**Carnegie Mellon Open Learning Initiative**](#) – No instructors, no credits, no charge. Use these self-guiding Carnegie Mellon materials and activities to learn at your own pace.
- [**Utah State OpenCourseWare**](#) – Utah State OpenCourseWare is a collection of educational material used in our formal campus courses, and seeks to provide people around the world with an opportunity to access high quality learning opportunities.
- [**AMSER**](#) – AMSER (the Applied Math and Science Education Repository) is a portal of educational resources and services built specifically for use by those in Community and Technical Colleges but free for anyone to use.
- [**Wolfram Demonstrations Project**](#) – Wolfram brings computational exploration to the widest possible audience, open-code resource that uses dynamic computation to illuminate concepts. Free player runs all demos and videos.
- [**UC San Diego Podcast Lectures**](#) – UCSD’s podcasting service was established for instructional use to benefit our students. Podcasts are taken down at the end of every quarter (10 weeks Fall-Spring and 5 weeks in the summer). If you’re enjoying a podcast, be sure to subscribe and download the lectures. Once the podcast has been taken offline, faculty rarely approve their reposting.
- [**Johns Hopkins OpenCourseWare**](#) – The Johns Hopkins Bloomberg School of Public Health’s OpenCourseWare project provides access to content of the School’s most popular courses. As challenges to the world’s health escalate daily, the School feels a moral imperative to provide equal and open access to information and knowledge about the obstacles to the public’s health and their potential solutions.
- [**HowStuffWorks Science**](#) – More scientific lessons and explanations than you could sort through in an entire year.
- [**Harvard Medical School Open Courseware**](#) – The mission of the Harvard Medical School Open Courseware Initiative is to exchange knowledge from the Harvard community of scholars to other academic institutions, prospective students, and the general public.
- [**Khan Academy**](#) – Over 1200 videos lessons covering everything from basic arithmetic and algebra to differential equations, physics, chemistry, and biology.

- [Open Yale Courses](#) – Open Yale Courses provides lectures and other materials from selected Yale College courses to the public free of charge via the internet. The courses span the full range of liberal arts disciplines, including humanities, social sciences, and physical and biological sciences.
- [webcast.berkeley](#) – Every semester, UC Berkeley webcasts select courses and events for on-demand viewing via the Internet. webcast.berkeley course lectures are provided as a study resource for both students and the public.
- [The National Science Digital Library](#) – NSDL is the Nation’s online library for education and research in Science, Technology, Engineering, Mathematics.
- [EnviroLink Network](#)– A non-profit organization, grassroots online community uniting organizations and volunteers around the world. Up-to-date environmental information and news.
- [Geology.com](#) – Information about geology and earth science to visitors without charge: Articles, News, Maps, Satellite Images, Dictionary, etc.
- [Scitable](#) – A free science library and personal learning tool that currently concentrates on genetics, the study of evolution, variation, and the rich complexity of living organisms. The site also expects to expand into other topics of learning and education.
- [LearningScience.org](#) – A free open learning community for sharing newer and emerging tools to teach science.

Business and Money

[MIT Sloan School of Management](#) – MIT Sloan is a world-class business school long renowned for thought leadership and the ability to successfully partner theory and practice. This is a subsection of the larger MIT OpenCourseWare site.

- [Investopedia Financial Investing Tutorials](#) – A plethora of detailed lessons on money management and investing.
- [U.S. Small Business Administration Training Network](#) – The Small Business Administration has one of the best selections of business courses on the web. Topics include everything from starting a business and business

management to government contracting and international trade. Most courses take only 30 minutes to complete.

- [**VideoLectures.NET \(Business\)**](#) – A free and open access educational video lectures repository. The lectures are given by distinguished scholars and scientists at the most important and prominent events like conferences, summer schools, workshops and science promotional events from many fields of Science.
- [**My Own Business, Inc.**](#) – Offers a free online business administration course that would be beneficial to new managers and to anyone who is interested in starting a business. This comprehensive course is split up into 16 sessions covering topics like business plans, accounting, marketing, insurance, e-commerce and international trade.
- [**UC Irvine OpenCourseWare \(Business\)**](#) – Rapidly with the addition of nearly 10 new courses every month. Many of our OCW offerings are directed at working adults seeking continuing education, with the option to enroll in instructor-led, for-credit courses, related to the OCW content.
- [**Kutztown University of Pennsylvania**](#) – The Kutztown University of Pennsylvania’s Small Business Development Center offers more than 80 free business courses online. Kutztown’s courses are individualized and self-paced. Many of the courses feature high-end graphics, interactive case studies and audio streams.
- [**Boston College Front Row \(Business\)**](#) – Boston College Front Row is a Web site that offers free access through streaming media to tapes of cultural and scholarly events at Boston College.
- [**Financial Management Training Center**](#) – The Financial Management Training Center provides several free downloadable business courses for people who need to learn the finer points of financial management. All courses offered can be taken online; courses include full exams as well as evaluation forms for people seeking Continuing Professional Education (CPE) credits.
- [**The Free Nonprofit Micro-eMBA**](#) – Free Management Library’s Free Nonprofit Micro-eMBA Program is an especially great resource for students wishing to learn more about nonprofit management, but most of the lessons also apply to general business management. Completion of this program will not result in an MBA degree, but enrollment is free and the material is well structured.

- [Bookboon Free Business e-books](#) – Hundreds of free business books online in PDF format.
- [TheStreet University](#) – If you're just starting out as a stock and bond investor or need a refresher's course, this is the place to learn what you need to know.

History and World Culture

- [University of Washington's OpenUW](#) – Explore a variety of learning in several free history-centric online courses from the University of Washington.
- [Notre Dame OpenCourseWare](#) – Notre Dame OCW is a free and open educational resource for faculty, students, and self-learners throughout the world.
- [Bio's Best](#) – Biography.com's most popular biographies on notable historical figures.
- [UC Irvine OpenCourseWare \(Social Science\)](#) – Rapidly with the addition of nearly 10 new courses every month. Many of our OCW offerings are directed at working adults seeking continuing education, with the option to enroll in instructor-led, for-credit courses, related to the OCW content.
- [Boston College Front Row \(History\)](#) – Boston College Front Row is a Web site that offers free access through streaming media to tapes of cultural and scholarly events at Boston College.
- [MIT OpenCourseWare \(History\)](#) – The MIT History Faculty offers about 70 subjects in the areas of Ancient, North American, European, East Asian, and Middle Eastern history.
- [Wikiversity School of Social Sciences](#) – Wikiversity is a Wikimedia Foundation project devoted to learning resources, learning projects, and research for use in all levels, types, and styles of education from pre-school to university, including professional training and informal learning.
- [OpenLearn \(Arts and Humanities\)](#) – The OpenLearn website gives free access to Open University course materials.

- [**A Biography of America**](#) – A Biography of America presents history not simply as a series of irrefutable facts to be memorized, but as a living narrative of America’s story.
- [**Have Fun with History**](#) – A resource for students, educators and all lovers of American History.
- [**The USGenWeb Project**](#) – Free genealogy and family history resources online.
- [**MacroHistory and World Report**](#) – Tell without illusions or ideological restraints the story of our ancestors, our parents and us.
- [**World History HyperHistory**](#) – Navigates through 3000 years of World History with links to important persons and events of world historical importance.
- [**OpenLearn \(Arts and Humanities\)**](#) – The OpenLearn website gives free access to Open University course materials.
- [**A Biography of America**](#) – A Biography of America presents history not simply as a series of irrefutable facts to be memorized, but as a living narrative of America’s story.
- [**Have Fun with History**](#) – A resource for students, educators and all lovers of American History.
- [**The USGenWeb Project**](#) – Free genealogy and family history resources online.
- [**MacroHistory and World Report**](#) – Tell without illusions or ideological restraints the story of our ancestors, our parents and us.
- [**World History HyperHistory**](#) – Navigates through 3000 years of World History with links to important persons and events of world historical importance.
- [**American Digital History**](#) – Online American history textbook. An interactive, multimedia history of the United States from the Revolution to the present.

Law

- [Duke Law Center for the Public Domain](#) – Duke University is counted amongst the best schools in the South. If you're interested in law, Duke's open courseware in that subject area can go a long way towards helping you learn more about the justice system.
- [Intute Law](#) – Provides free access to high quality resources on the Internet. Each resource has been evaluated and categorised by subject specialists based at UK universities.
- [Boston College Front Row \(Law\)](#) – Boston College Front Row is a Web site that offers free access through streaming media to tapes of cultural and scholarly events at Boston College.
- [American University](#) – Offers a selection of podcasts on a number of different law-related subjects. There is even a very interesting podcast on debt relief and the law.
- [Lewis & Clark Law School](#) – Provides a number of podcast from the law school. Subjects include tax law, business law, environmental law and other areas of law. Interesting and insightful lectures on the law.
- [Case Western Reserve University School of Law](#) – Offers a number of interesting lectures on different law subjects. These lectures are both podcasts and Web casts. You can look ahead to the coming school year, which already has a number of interesting subjects lined up.
- [Harvard Law School](#) – Provides a number of Web casts of law lectures, symposia, panels and conferences. A great collection of relevant information and insights on how the law interacts with current events.
- [Stanford Law](#) – Provides open courseware via iTunes on a variety of law subjects, including the theory of justice, mobile content distribution, gay marriage, judicial review and privacy protection. The tracks are available for free, but you'll need iTunes. Put the lectures on your iPod or iPhone and listen them anywhere.
- [MoneyInstructor Business Law](#) – From MoneyInstructor.com provides a look at a number of basics in business law. Learn how to define crimes under business law. Worksheets and curriculums are available for teachers. Ordinary folks will find them useful as well.

[Wesleyan College Constitutional Law](#) – From North Carolina Wesleyan College offers an overview of the U.S. Constitution and the laws springing from it. Online lectures and class notes are included, which can help you develop a strong understanding of the Constitution and how it forms the basis of our laws.

Computer Science and Engineering

- **[VideoLectures.NET \(Computer Science\)](#)** – A free and open access educational video lectures repository. The lectures are given by distinguished scholars and scientists at the most important and prominent events like conferences, summer schools, workshops and science promotional events from many fields of Science.
- **[Wikiversity School of Computer Science and Technology](#)** – Wikiversity is a Wikimedia Foundation project devoted to learning resources, learning projects, and research for use in all levels, types, and styles of education from pre-school to university, including professional training and informal learning.
- **[New York State University \(US\), Computer Science](#)** – Hundreds of lectures, tutorials and links to educational material.
- **[Dream.In.Code Tutorials](#)** – Lots of computer programming tutorials.
- **[MIT OpenCourseWare \(Engineering and Computer Science\)](#)** – MIT OpenCourseWare is a free web-based publication of MIT course materials that reflects almost all the undergraduate and graduate subjects taught at MIT.
- **[Maine University \(US\), Fogler Guide to Computer Science](#)** – An insanely detailed list of computer science resources.
- **[FreeComputerBooks.com](#)** – Free computer, mathematics, technical books and lecture notes.
- **[Collection of Computer Science Bibliographies](#)** – A massive collection of bibliographies of scientific literature in computer science, updated weekly from original locations, more than 3 millions of references (mostly to journal articles, conference papers and technical reports), clustered in about 2000 bibliographies.
- **[W3Schools](#)** – Web-building tutorials, from basic HTML and XHTML to advanced XML, SQL, Database, Multimedia and WAP.

- FreeTechBooks.com – This site lists free online computer science, engineering and programming books, textbooks and lecture notes, all of which are legally and freely available over the Internet.
- [Free computer Tutorials](#) – Free computer courses and tutorials site. All the courses are aimed at complete beginners, so you don't need experience to get started.
- [Programmer 101: Teach Yourself How to Code](#) – Several helpful resources for computer programming beginners.
- [Google Code University](#) – Provides sample course content and tutorials for Computer Science (CS) students and educators on current computing technologies and paradigms.

www.Codeacademy.com (recommended for learning computer programming)

Mathematics

- [Oxford University Mathematics OpenCourseWare](#) – Various online mathematics classes provided free by Oxford University.
www.17Calculus.com (recommended by a "Tweeter" for Calculus and Differential Equations)
- [UMass Boston Mathematics](#) – Various online mathematics classes provided free by UMass Boston.
- [Whatcom Online Math Center](#) – Various math lessons provided free by Whatcom Community College.
- [VideoLectures.NET \(Mathematics\)](#) – A free and open access educational video lectures repository. The lectures are given by distinguished scholars and scientists at the most important and prominent events like conferences, summer schools, workshops and science promotional events from many fields of Science.
- [Wikiversity School of Mathematics](#) – Wikiversity is a Wikimedia Foundation project devoted to learning resources, learning projects, and research for use in all levels, types, and styles of education from pre-school to university, including professional training and informal learning.

- [AMSER Mathematics](#) – AMSER (the Applied Math and Science Education Repository) is a portal of educational resources and services built specifically for use by those in Community and Technical Colleges but free for anyone to use.
- [Math.com](#) – Math.com is dedicated to providing revolutionary ways for students, parents, teachers, and everyone to learn math.
- [Intute Mathematics](#) – Provides free access to high quality resources on the Internet. Each resource has been evaluated and categorized by subject specialists based at UK universities.
- [Free-Ed College Mathematics](#) – Offers a wide range of free online math courses and study programs.

English and Communications

- [Open Yale Courses \(English\)](#) – Open Yale Courses provides lectures and other materials from selected Yale College courses to the public free of charge via the internet.
- [Writing Guidelines for Engineering and Science Students](#) – These guidelines for engineering writing and scientific writing are designed to help students communicate their technical work.
- [MIT Writing and Humanistic Studies](#) – The MIT Program in Writing and Humanistic Studies gives students the opportunity to learn the techniques, forms, and traditions of several kinds of writing, from basic expository prose to more advanced forms of non-fictional prose, fiction and poetry, science writing, scientific and technical communication and digital media.
- [Merriam-Webster Online](#) – In this digital age, your ability to communicate with written English is paramount skill. And **M-W.com** is the perfect resource to improve your English now.
- [National Novel Writing Month](#) – Valuing enthusiasm and perseverance over painstaking craft, NaNoWriMo is a novel-writing program for everyone who has thought fleetingly about writing a novel but has been scared away by the time and effort involved.
- [Lifewriting](#) – A complete text of the 9-week writing class a professor taught for years at UCLA.

- [Guide to Grammar and Writing](#) – Grammar and writing techniques, lessons and quizzes.
- [Purdue Online Writing Lab](#) – Over 200 free resources including lessons on: writing, research, grammar, and style guides.

Foreign and Sign Languages

- [BBC Languages](#) – Teach yourself a new spoken language online.
- [American Sign Language Browser](#) – Teach yourself sign language online.
- [Livemocha](#) – Start learning a new language online for free.
- [Learn10](#) – Gives you a language learning habit that’s hard to kick. 10 new words; everywhere, every day.
- [One Minute Languages](#) – Learn a new language via podcasts that are updated regularly.
- [Mango Languages](#) – Over 100 lessons, shown to you in PowerPoint style with interstitial quizzes, to move you through any language without cracking a book.
- Recommended by a Tweeter:
 - www.Duolingo.com
 - www.Codeacademy.com
- They have nice interfaces and I have been learning languages (spoken and computer ones) on these sites now for awhile. Free and awesome!

Multiple Subjects and Miscellaneous

- [OpenLearn](#) – The OpenLearn website gives free access to Open University course materials. Multiple subjects are covered.
- [Capilano University OpenCourseWare](#) – The Capilano University OpenCourseWare site is a free and open educational resource for faculty, students, and self-learners throughout the world.
- [University of Southern Queensland’s OpenCourseWare](#) – Provides access to free and open educational resources for faculty members, students, and self-learners throughout the world.

- [YouTube EDU](#) – Educational videos on YouTube organized by subject matter.
- [LearnHub Test Prep](#) – Raise your test scores with free practice tests & counseling on various subjects.
- [iTunes U](#) – Hundreds of universities — including Stanford, Yale and MIT — distribute lectures, slide shows, PDFs, films, exhibit tours and audio books through iTunes U. The Science section alone contains content on topics including agriculture, astronomy, biology, chemistry, physics, ecology and geography.
- [United Nations University OpenCourseWare](#) – Showcases the training and educational programs implemented by the University in a wide range of areas relevant to the work of the United Nations.
- [Brigham Young Independent Study](#) – BYU Independent Study now offers free courses in different areas of study. These areas include Family History, Family Life, and Religious Scripture Study, Personal Dev elopement, etc. Use these courses as a starting point for your personal studies or just to add insight to an area of interest.
- [University of Utah OpenCourseWare](#) – Provides access to free and open educational resources for faculty members, students, and self-learners throughout the world.
- [United States Nation Archives](#) – The National Archives and Records Administration (NARA) is the nation’s record keeper. Valuable records are preserved and are available to you, whether you want to see if they contain clues about your family’s history, need to prove a veteran’s military service, or are researching an historical topic that interests you.
- [Wikiversity](#) – Wikiversity is a Wikimedia Foundation project devoted to learning resources, learning projects, and research for use in all levels, types, and styles of education from pre-school to university, including professional training and informal learning.
- [UMass Boston OpenCourseWare](#) – Various online classes provided free by UMass Boston.
- [About U](#) – A collection of free online educational courses from About.com.

- [Academic Earth](#) – Online degrees and video courses from leading universities.
- [Free-Ed](#) – Clusters of courses that support your preparation for today’s fastest-growing careers and critical academic disciplines.
- [Connexions](#) – A place to view and share educational material made of small knowledge chunks called modules that can be organized as courses, books, reports, etc. Anyone may view or contribute.
- [TED](#) – Motivational and educational lectures from noteworthy professionals around the world.
- [Intute](#) – Provides free access to high quality resources on the Internet. Each resource has been evaluated and categorised by subject specialists based at UK universities.
- [Boston College Front Row](#) – Boston College Front Row is a Web site that offers free access through streaming media to tapes of cultural and scholarly events at Boston College.

Free Books and Reading Recommendations

- [LibraryThing](#) – LibraryThing connects you to other people who are reading what you’re reading and allows you to see which books are popular in various categories of reading.
- [Textbook Revolution](#) – Links to free online textbooks and other educational materials.
- [Book TV](#) – This is the companion site to Book TV on C-Span2. The site holds some current interviews with authors, many past interviews, opinions, reviews, and featured programs through online video.
- [Bookboon](#) – Bookboon provides online textbooks for students in PDF format. The free ebooks can be downloaded without registration. Our books are legal and written exclusively for Bookboon. They are financed by a few in-book ads.
- [Scribd](#) – Scribd, the online document sharing site which supports Word, Excel, PowerPoint, PDF and other popular formats. You can download a document or embed it in your blog or web page.

- [BookYards](#) – BookYards is a web portal in which books, education materials, information, and content will be freely to anyone who has an internet connection.
- [Planet eBook](#) – Free classic literature to download and share.
- [E-Books Directory](#) – Thousands of ebooks on various subjects to download and share.
- [Read Print Library](#) – Free online books library for students, teachers, and the classic enthusiast. [GoodReads](#) – Get great book recommendations and keep track of what you want to read.
- [The Online Books Page](#) – University of Pennsylvania database with over 30,000 books.
- [Public Literature](#) – Thousands of familiar classics, children’s books, plays and poems, as well as books by new authors.
- [Full Books](#) – Thousands of full-text nonfiction and fiction books.
- [Many Books](#) – Free fiction and nonfiction ebooks for your PDA, iPod or ebook reader.
- [Get Free Books](#) – Thousands of free ebooks to download.
- [Project Gutenberg](#) – More than 20,000 free books from the first producer of free e-books.
- [Bibliomania](#) – Thousands of classic books, poems, short stories and plays.
- [Classic Reader](#) – Large collection of free classic books, plays, and short stories from more than 300 authors.
- [Bartleby Fiction](#) – Classic anthologies and volumes.
- [The Personal MBA Recommended Reading List](#) – MBA programs don’t have a monopoly on advanced business knowledge: you can teach yourself everything you need to know to succeed in life and at work. The Personal MBA features the very best business books available, based on thousands of hours of research.
- [Books Should Be Free](#) – Free audio books from the public domain.

Educational Mainstream Broadcast Media

- [BBC Learning](#) – Online learning, support, and advice. This site offers internal and offsite links to a vast amount of materials.
- [Biography](#) – The site holds videos to past interviews and biographies on people in topics that range from Black history to women’s history.
- [Book TV](#) – This is the companion site to Book TV on C-Span2. The site holds some current interviews with authors, many past interviews, opinions, reviews, and featured programs through online video.
- [CBC Archives](#) — Relive Canadian history through thousands of available radio and television clips.
- [Discovery](#) — This channel is home to several different networks that focus on the military, animals, travel, etc. The Discovery site offers a “Video of the Day” from its home page, a separate online [video section](#), and a [Discover Education](#) center where teachers can accumulate materials for [K-12 teaching](#). It’s impossible to list all their offerings here, so go discover!
- [History Channel](#) – Visit the [Video Gallery](#) for a selection on historical topics. Like the Discovery Channel, this network provides many opportunities for you to gain access to information and reference materials.
- [NOVA](#) — Watch current science shows or browse by category. PBS sponsors this channel.
- [Research Channel](#) — Speakers, researchers and professors present revolutionary thoughts and discoveries. Use their Webstreams and an extensive video-on-demand library for research.
- [Weather Channel](#) – You can learn about weather all over the world, but the Weather Channel also offers dynamic content based upon seasons and special conditions and a special [multimedia](#) and [education](#) section.

Online Archives

- [American Memory](#) – The Library of Congress provides extensive multimedia offerings on various topics through their American Memory Collection, including their outstanding [Built in America](#) project that showcases historical buildings through photographs.

- [Fathom](#) – This archive, provided by Columbia University, offers access to the complete range of free content developed for Fathom by its member institutions. The archives include online learning resources including lectures, articles, interviews, exhibits and seminars.
- [Internet Archive Open Educational Resources](#) – A digital library of Internet sites and other cultural artifacts in digital form.
- [National Archives](#) – Provides primary source materials from NARA along with lesson plans for teaching with those sources.
- [National Climatic Data Center](#) – The NCDC, a division of NOAA, maintains climatic archives, including lists of storms in given counties, and records about global extremes, etc.
- [The Rosetta Project](#) – A global collaboration of language specialists and native speakers building a publicly accessible online archive of all documented human languages.
- [September 11 Digital Archive](#) – This site uses electronic media to collect, preserve, and present the history of the 9/11 attacks.
- [U.S. Census Bureau](#) – If you think the Census Bureau is all about numbers, you might be surprised to learn about their archived photographs, daily radio features, and more available through their [Newsroom](#).

Directories of Open Education

- [Google Scholar](#) – Provides a simple way to broadly search for scholarly literature. From one place, you can search across many disciplines and sources: articles, theses, books, abstracts and court opinions, from academic publishers, professional societies, online repositories, universities and other web sites.
- [OpenCourseWare Consortium](#) – This site provides a portal to search through hundreds of free courses or to add new courses you know about to the database.
- [iBerry](#) – Check out this site for a huge directory of open courseware organized by school and subject matter that can point you in the right direction for any type of learning.
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- [Self Made Scholar Directory](#) – Free online directory of web-based classes and courses.