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#OPEN LE MOYNE
Greatness meets Goodness

Open Educational Resources
Tom Keays, Falcone Library

Introduction...

#OpenLeMoyne

- Open source.
- Open access.
- Open society.
- Open education.
- Open data.
- Open government.

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Pomerantz, Jeffrey; Peek, Robin. Fifty shades of open.
First Monday, Vol.21, No.5, Apr. 2016. ISSN 1396-0466.
<<http://firstmonday.org/ojs/index.php/fm/article/view/6360>>.
doi:10.5210/fm.v21i5.6360.

- The term “Open Source” was coined in 1998 as a way to communicate “the pragmatic, business-case grounds” for free software. (Bruce Perens and Eric Raymond, Open Source Initiative). The Free Software Definition (1985) defines the “free” in free software as being about liberty, not price: it is consistent with the principles of free software to sell copies. What makes software “nonfree” (proprietary) is if it restricts any of the four essential freedoms, thereby exerting control over the user. As Stallman writes, “you should think of ‘free’ as in ‘free speech,’ not as in ‘free beer’.”
- “Open Access” is defined most commonly in terms of scholarly literature and has to do (usually) with free online access to written works. Like “open source” before, one way it can accomplish this is through licensing.
- The term “Open Society” was coined prior to World War I, to indicate a society tolerant of religious diversity. A more recent spin is the Open Society Foundations, a philanthropic organization headed by George Soros, to advancing justice, education, public health and independent media by creating open societies in place of authoritarian forms of government.
- “Open Education” -- “sharing is probably the most basic characteristic of education: education is sharing knowledge, insights and information with others,

upon which new knowledge, skills, ideas and understanding can be built” (Open Education Consortium, n.d.). MIT Open Courseware. MOOC (Massive Open Online Courses) s.a. Coursera, Udacity, MITx, etc., OER (Open Educational Resources).

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Open Educational Resources

Last Updated: Sep 29, 2016 | URL: <http://resources.library.lemoyne.edu/oer> | [Print Guide](#) | [Email Alerts](#)

OER **OER at other campuses** Search: This Guide

OER general sites

- Boundless Textbooks
- Community College Consortium for Open Educational Resources
- Creative Commons' Education
- Lumen
- Merlot
- OER Commons

Readings

Allen, I. E. & Seaman, J. (2016). Opening the Textbook: Educational Resources in U.S. Higher Education, 2015-16. Babson Survey Research Group <http://www.onlinelearningcenter.com/reports/openingthetextbook2016.pdf>
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Pending: Affordable College Textbook Act

The Affordable College Textbook Act (originally proposed in 2013) was re-introduced in October 2015, would establish a grant program to lease open textbooks to students.

Fact sheet & bill & advocacy from SPARC: <http://sparcopen.org/our-work/2016-act-bill/>

Read more <http://www.ecampusnews.com/top-news/grant-textbook-costs-765/>

Read more: <http://www.sparc.acf.org/advocacy/nationalact>

<http://resources.library.lemoyne.edu/oer>

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- I'll refer to the Open Educational Resources library guide in lieu of a handout.
- It has a short bibliography of articles about OER as well as a number of useful links.
- Open Educational Resources depend on Open Access.
- But to understand Open Access, you need to understand the basics of Copyright.

The screenshot shows the 'Copyright Essentials' page of the Noreen Reale Falcone Library. The page is designed with a green and white color scheme. At the top, there is a navigation bar with links for Home, Find Books, Find Articles, Research Guides, Course Reserves, About Us, and Ask Us!. Below this, the page title 'Copyright Essentials' is displayed, along with a last updated date of Feb 2, 2016, and a URL: <http://resources.library.lemoyne.edu/pubserv-copyright>. A search bar is located on the right side of the page. The main content area is divided into several sections: 'Copyright Officer' featuring a photo of Inga H. Barnello, M.L.S., and her contact information; 'Start here... "Know Your Copy Rights"' with a link to a PDF brochure; 'What can faculty safely place in Canvas?' providing best practices for submitting library reserve requests; and an 'RSS feed from Duke Univ Kevin Smith' with a list of recent posts. At the bottom, there is a footer with contact information for the library and college, including the address: Le Moyne College, 1419 Salt Springs Road, Syracuse, NY 13214, and phone/fax numbers: 315-445-4153 and 315-445-4642.

- Inga Barnello is the Copyright Officer for the College. She maintains a series of pages designed to help faculty with questions regarding the use of intellectual property in teaching and research. I'm showing the Copyright Essentials library help guide, <http://resources.library.lemoyne.edu/pubserv-copyright>, but she has many others that you might wish to consult.
- Both Inga, myself, and all of the librarians can be found in the Noreen Reale Falcone Library and are available for consultation.

Copyright Management

The Library is available to assist faculty, students, and staff who own the copyright to work produced at the College to:

- Understand what U.S. copyright law protects.
- Understand their exclusive rights under the law, and the legal exceptions and limitations on their exclusive rights.
- Manage their copyrights effectively.

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- So first principles, you can't talk about open resources without first understanding copyright. And specifically, understanding your role in managing copyright for the works that you create. It all starts with copyright.
- Also, by understanding how copyright applies to your work, it will help you better understand how you can use other author's work in your teaching and research.
- The Copyright Management section is derived from Carnegie Mellon Library's "Guidelines on Author Rights and Preservation"
https://libwebspaces.library.cmu.edu/libraries-and-collections/Services/Copyright/CMU_AuthorRights_Preservation_Guidelines_May2013.pdf

Copyright Management

- In the United States, copyright protects
 - “original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.”
 - Copyright does not protect facts, ideas, procedures, processes, systems, methods, concepts, principles, or discoveries, “regardless of the form in which these are described, explained, illustrated, or embodied” in a copyrighted work (U.S.C. 17 §102).
<http://www.copyright.gov/title17/92chap1.html#102>

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- Copyright owners should understand what the U.S. Copyright Act protects. Basically, if you create it, you automatically own the copyright.
- Copyright does not protect mathematical or physical observations, including formulas or data derived from observations or calculations. It means that charts of such data in published works might not themselves be protected by the copyright that covers the rest of your book or article.
- Commercial publishers, of course, will be glad to resell your work and, in fact, make a good business licensing works that are probably public domain.

Copyright Management

- Copyright owners have the exclusive rights to copy and distribute their work, to perform or display it publicly, and to make derivative works.
- If someone else wants to use the work, the copyright owner's permission is required...
- unless the use is granted by a licensing agreement or an exception or limitation in the Copyright Act – e.g., "fair use", TEACH Act, or other exceptions.
(U.S.C. 17 §106).
<http://www.copyright.gov/title17/92chap1.html#106>

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- Copyright owners should understand their exclusive rights under the law, and the legal exceptions and limitations on their exclusive rights.
- In scholarly works, the right that matters most is attribution – you don't want somebody else appropriating your work as their own.
- Fair use is the common exception in teaching – you can put a physical book on reserve. You can also place a scan of an article or scan of a chapter from a book on reserve.
- The TEACH (Technology, Education and Copyright Harmonization) Act of 2002 expands the scope of educators' rights to perform and display works and to make the copies integral to such performances and displays for digital distance education, making the rights closer to those we have in face-to-face teaching. Section 110(1) of the Copyright Act already provides educators with a separate set of rights in addition to fair use, to display (show) and perform (show or play) others' works in the classroom. These rights are in Section 110(1) of the Copyright Act and apply to any work, regardless of the medium. <https://copyright.lib.utexas.edu/teachact.html> Licensing can extend your rights: You can LINK to entire books from Books24x7 or ProQuest Academic Complete since the library pays for a commercial license that allows just that. You can link to articles in our e-journal and full-text database collections because our licenses allow that. You can't download that book or article and put it in Canvas or email it a colleague.

Copyright Management

- Copyright owners can legally transfer their exclusive rights, individually or grouped, to someone else.
- The transfer can be exclusive or non-exclusive.
- With an exclusive transfer of a right, the author loses that right and cannot transfer or license that right to others.
- With a non-exclusive transfer, the author still retains the transferred right and can transfer or license that right to others.

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- Scholarship has always been an open process; the idea of open science dates back to the very origin of modern science. One of the foundations of the scientific method is that all work must be reproducible, and the only way for that to happen is if all processes are performed openly.
- The legal scholar Lawrence Lessig has documented the expansion of copyright under U.S. law over the past 40 years. Lessig argues that this expansion, far from promoting “the Progress of Science and useful Arts” (as specified in the U.S. Constitution, Article I, Section 8), actively inhibits it, and that the modern U.S. is becoming a “permissions culture” rather than a “free culture”: in other words, that the default legal position is that one must gain permission to make use of a creative work, rather than the default being that one is free to do so.
- The culture of scholarly publication has been to assign copyright exclusively to publishers.
- Open Access wants to overturn this so non-exclusive rights transfers become the new norm.

Copyright Management

- Manage your copyright effectively.
- With rare exception, the interests of authors, academic disciplines, funding agencies, and the College are best served by open access and open licensing.
 - Le Moyne Library encourages authors to be wary of exclusive transfer of their copyrights, particularly to commercial publishers.

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- Exclusive transfer of all copyrights to a publisher can yield odd outcomes, for example, authors having to request permission or pay to use their own work.

What is “Open Access”?

- Minimum: content is freely available online

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- Firstly, OA materials have to be published in electronic format – PDF, Word, LaTeX, etc.
- Secondly, they have to be placed on a networked server – i.e., on the world-wide web, on an FTP server, or some other internet server – accessible without restrictions – without passwords or other DRM – to anyone who wants it.

What is “Open Access”?

- Minimum: content is freely available online
- Best: content freely available online
+
non-exclusive usage rights granted by owner of the work.
 - Author defines a license for use.
 - Removes two barriers to access: price and permission.

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- Peter Suber, Director of the [Harvard Office for Scholarly Communication](#) and Director of the [Harvard Open Access Project](#), suggests that OA removes two types of barriers: price and permission.
- In 2002 the Budapest Open Access Initiative issued the first formal declaration on Open Access: referring specifically to scholarly literature, OA is defined as “its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself” (Budapest Open Access Initiative, 2002).
- The Bethesda Statement on Open Access Publishing (2003) promotes OA for scientific literature, though with a narrower focus on biomedical research specifically.
- The Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (2003) was written to promote OA for scientific knowledge and cultural heritage broadly, and so includes not only scholarly literature, but also data, metadata, source materials, and multimedia material.

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- The other two rights articulated by CC licenses (Non-commercial and Share-alike) are restrictions to the first two rights, articulating what the user can or cannot do with derivative works. Share-alike is essentially the same as the concept of “Copyleft;” both restrict the future rights of others.

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- Mix and match rights

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THE FEDERATION OF STATE PIRGS

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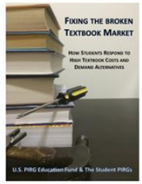
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REPORT: MAKE HIGHER EDUCATION AFFORDABLE



FIXING THE BROKEN TEXTBOOK MARKET

How Students Struggle to Afford Textbook Costs and Other Academic Expenses

RELEASED BY: U.S. PIRG EDUCATION FUND AND THE STUDENT PIRGS

RELEASE DATE: MONDAY, JANUARY 27, 2014

> [DOWNLOAD REPORT \(PDF\)](#)

The cost of college textbooks has skyrocketed in recent years. To students and families already struggling to afford high tuition and fees, an additional \$1,200 per year on books and supplies can be the breaking point.

As publishers keep costs high by pumping out new editions and selling books bundled with software, students are forced to forgo book purchases or otherwise undermine their academic progress.

1. High textbook costs continue to deter students from purchasing their assigned materials despite concern for their grades.

65% of students said that they had decided against buying a textbook because it was too expensive.

The survey also found that 94% of students who had foregone purchasing a textbook were concerned that doing so would hurt their grade in a course. More than half of the students fell

2. High textbook costs can have a ripple effect on students' other academic decisions.

PRIORITY ACTION

We're teaming up with big restaurant chains to stop the overuse of antibiotics on factory farms. Call on KFC to stop selling meat raised on routine antibiotics.

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> <http://www.uspirg.org/reports/usp/fixing-broken-textbook-market>

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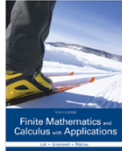


Fixing the Broken Textbook Market

- College textbook prices have increased by 82% in the past ten years – 3x the rate of inflation
- Though alternatives to the new print edition textbooks exist, the costs of these alternatives (such as rental programs, used book markets and e-textbooks) are still dictated by publishers who re-issue editions every few years
- On average students spend \$1,200 a year on textbooks which = 14% of tuition at a four-year, public college; 39% of tuition at community college
- 65% of students choose not to buy a college textbook because it's too expensive
- 94% report that they suffer academically because of this choice
- 48% say they altered which classes they took based on textbook costs, either taking fewer classes or different classes

<http://www.uspirg.org/reports/usp/fixing-broken-textbook-market>

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MYLAB & MASTERING

Finite Mathematics and Calculus with Applications, 10th Edition

Margaret L. Lial, American River College
 Raymond N. Greenwell, Hofstra University
 Nathan P. Ritchey, Edinboro University of PA

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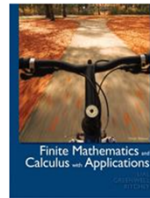
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RECORD#

Author [Lial, Margaret L.](#)
Title Finite mathematics and calculus with applications / Margaret L. Lial, Raymond N. Greenwell, Nathan P. Ritchey
Publisher Boston : Pearson, c2012
Edition 9th ed
Rating ☆☆☆☆☆



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[Calculus -- Textbooks](#)
ISBN 9780321749086 (hc.)
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OER

- Open Educational Resources
 - Educause OER resources (2016)
<http://tinyurl.com/educause-oer-2016>
 - Open Textbooks – textbooks released with some sort of CC or PD license.
 - "Opening the Textbook: Educational Resources in U.S. Higher Education, 2015-16" (Babson Survey Research Group, 2016)
<http://www.onlinelearningsurvey.com/>

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- Survey of 3,000 full-time and part-time professors
- Awareness of free or openly licensed educational resources, including textbooks and other teaching materials, has increased slightly over the past year, but still only 6.6 percent of faculty members are "very aware" of them.
- 87 percent [of faculty surveyed] said the cost to the students had been important or very important to them. But the survey also found that only about 5 percent of those professors had assigned a free or openly licensed textbook.
- professors who teach large-enrollment introductory courses were adopting openly licensed materials at twice the rate of the general faculty population
- perceived barriers to using the materials: 49 percent said "there are not enough resources for my subject"; 48 percent said it is "too hard to find what I need"; and 45 percent said "there is no comprehensive catalog of resources."
- Source: Blumenstyk, Goldie . More Professors Know About Free Textbook Options, but Adoption Remains Low. Chronicle of Higher Education, July 26, 2016. <http://chronicle.com/article/More-Professors-Know-About/237252>



Opening the Textbook

- Survey of 3,000 full-time and part-time professors
- Increased awareness in past year, but only 6.6% of faculty are “very aware” of OER textbooks.
- 87% said cost to student very important, but only 5% of them had assigned an open textbook.
- Large enrollment classes adopting twice the rate of general faculty population.
- Perceived barriers:
 - Not enough resources for my subject (49%)
 - Too hard to find what I need (48%)
 - No comprehensive catalog of resources (45%)

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

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OER general sites

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- Community College Consortium for Open Educational Resources
- Creative Commons' Education
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- Merlot
- OER Commons

Readings

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Textbook facts

as reported by the U.S. PIRG Education Fund and the Student PIRGs

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Fact sheet & bill & advocacy from SPARC: <http://sparcopen.org/our-work/2016-act-bill/>

Read more <http://www.ecampusnews.com/top-news/grant-textbook-costs-765/>

Read more: <http://www.sparc.acf.org/advocacy/nationalact>

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- There may not yet be an answer to the supposition that there are “not enough resources for my subject” but there are ways to find out what exists.

Open Textbooks



<https://oerconsortium.org/find-oer/>



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



<http://collegeopentextbooks.org/>



<http://textbooks.opensuny.org/>



<https://openstax.org/>

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- Open Education Consortium – aimed at community colleges but useful for all. Lots of good finding aids. MIT is a sponsor. 300 higher education institutions and related organizations have freely shared many thousands of courses, open textbooks and other resources, and collaborated to foster widespread adoption of OERs.
- College Open Textbooks – partnership with Open Education Consortium . 750+ open textbooks with 150+ content or accessibility reviews.
- OpenSUNY -- leverages the expertise of the SUNY campuses that are successfully using OER. 17 textbooks, but growing.
- Open Stax – a nonprofit based at Rice University, with mission to improve student access to education. 20+ books K-12 and college.
- WikiBooks – “open-content textbooks collection that anyone can edit.”

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 **Applied Calculus**
Rating ★★★★★
Applied Calculus instructs students in the differential and integral calculus of elementary ...
More
Subject: Calculus
Material Type: Full Course, Textbooks
Provider: Lumen Learning
Provider Set: Candela Courseware
Author: Dale Hoffman, David Lippman, Shana Calaway
Conditions of Use: No Strings Attached

 **Finite Math**
Rating ★★★★★
Mathematics
Provider Set: Candela Courseware
Conditions of Use: No Strings Attached

COURSE OVERVIEW

This course is based on *Applied Calculus*, by Shana Calaway, Dale Hoffman, and David Lippman. The full textbook can be downloaded for free [here](#). Students will learn to apply calculus in economic and business settings, like maximizing profit or minimizing average cost, finding elasticity of demand, or finding the present value of a continuous income stream. Additionally students will apply calculus in life and social science settings, like determining the rate at which drug concentration in the body is changing, or exploring the rate at which a subject learns.

Some of the differences between the content in this course and a calculus course for engineering, science or math majors is:

- No trigonometry
- The applications are different
- Fewer theorems, no proofs

COURSE ACCESS

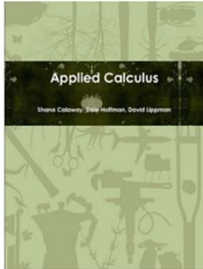
The course materials and on-line homework sets are housed in MyOpenMath. You can [access the course](#) as a guest student to see how the course is set up and view the online homework system, simply enter the username "guest" – no password required. Should you choose to use this course, MyOpenMath can be integrated into your school's LMS for ease of access.

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Applied Calculus



Shana Calaway, Dale Hoffman, David Lippman
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Summary | **Table of Contents** | Supplements

An openly licensed applied calculus textbook, covering derivatives, integrals, and an intro to multivariable calculus. This book is heavily remixed from Dale Hoffman's Contemporary Calculus textbook, and retains the same conceptual focus from that text.

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- **PDF**. A Portable Document Format (PDF) file is can be opened using the free Acrobat Reader. It is not an editable format.

Openness Rating (0-4): 4

Openness Comments: This book is under the most permissive license, and is easily editable in the Word format.



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Applied Finite Mathematics

Book by: Rupinder Sekhon



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1 Linear Equations

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Page by: Rupinder Sekhon

Summary

Chapter Overview

In this chapter, you will learn to:

- Graph a linear equation.
- Find the slope of a line.
- Determine an equation of a line.
- Solve linear systems.
- Do application problems using linear equations.

Graphing a Linear Equation

Equations whose graphs are straight lines are called **linear equations**. The following are some examples of linear equations:

$$2x - 3y = 6, 3x = 4y - 7, y = 2x - 5, 2y = 3, \text{ and } x - 2 = 0.$$

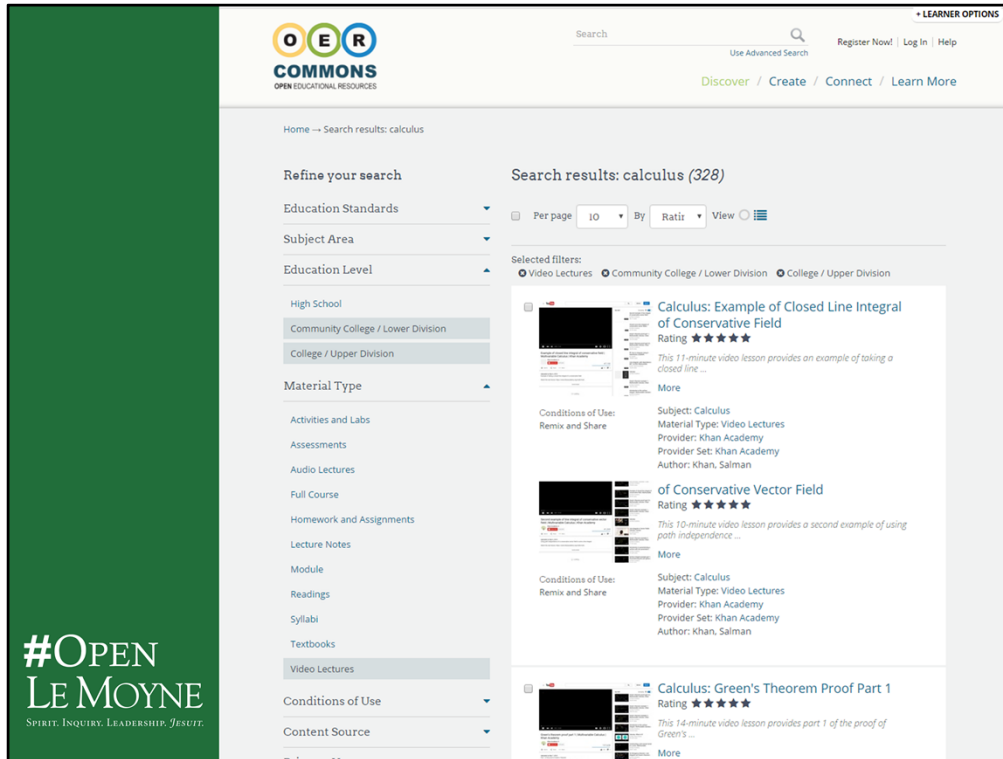
A line is completely determined by two points, therefore, to graph a linear equation, we need to

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10.569	Synthesis of Polymers	Graduate

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The screenshot shows the MERLOT website interface. At the top, there is a navigation bar with links for Home, Search, Communities, My MERLOT, Membership, Add to Collection, Create Materials, News & Info, and About MERLOT. A search bar is positioned on the right side of the header. Below the navigation bar, the page title is "Search > Material Results". On the left side, there is a sidebar with a "Refine Your Search:" section. This sidebar includes a "Materials" section with a "Disciplines" dropdown menu listing various fields like Academic Support, Arts, Business, Education, Humanities, Mathematics and Statistics, Science and Technology, Social Sciences, and Workforce Development. Below this are sections for "Material Types", "Mobile Filters", "Other Filters", "Members", "Learning Exercises", "Comments", "Course ePortfolios", and "Peer Reviews". The main content area displays a list of materials, each with a title, a brief description, author information, and a "Bookmark this material" button. The materials listed are "DNA from the Beginning", "Mathematical Visualization Toolkit", "Crisis at Fort Sumter", and "Music Acoustics". At the bottom left of the screenshot, there is a logo for "#OPEN LE MOYNE" with the tagline "SPIRIT. INQUIRY. LEADERSHIP. JESUIT." and a URL "https://www.merlot.org/".

- The MERLOT project began in 1997, when the California State University Center for Distributed Learning (CSU-CDL at www.cdl.edu) developed and provided free access to MERLOT (www.merlot.org).
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Questions?

Tom Keays

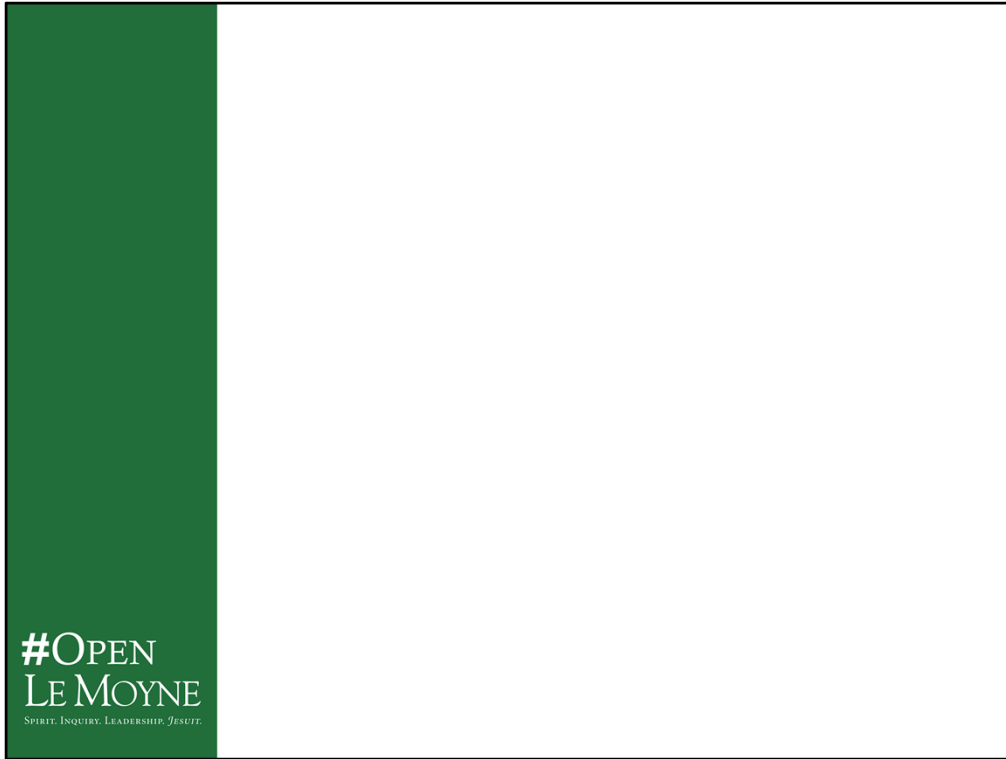
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- OA Policy – for instance, would give a better context for subsidizing Article Processing Costs (APC) and specifying the types of items that will be subsidized.

Missing Pieces

- Two things that would increase the success of Open Access at LMC:
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 - The Senate working with the Provost
 - Subsidizing Article Processing Charges
 2. Institutional Repository
 - Showcase for Le Moyne scholarship
 - Provost Office and the Library

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