



Open Educational Resources for the Kingdom

My Journey into OER

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Getting Started

What is OER?



From the Creative Commons group:

Open Educational Resources (OER) are teaching, learning, and research materials that are either (a) in the public domain or (b) licensed in a manner that provides everyone with free and perpetual permission to engage in the 5R activities.

The **Five R's** are:

- 1 Retain
- 2 Reuse
- 3 Revise
- 4 Remix
- 5 Redistribute

Key Idea: an OER is more than just a “free” textbook.



Claim: Adoption of open resources promotes values compatible with the Kingdom of God.

- Stewardship
- Love of neighbor
- Community
- And others!

My OER Work



- Math 149: Explorations in Modern Math **Math 149: Explorations in Modern Math**
- Math 152: Calculus I
- Math 153: Calculus II
- Math 203: Elementary Linear Algebra
- Math 212: Discrete Structures **Math 212: Discrete Structures**
- Math 303: Advanced Linear Algebra
- Math 304: Abstract Algebra I **Math 304: Abstract Algebra I**
- Math 305: Abstract Algebra II
- Math 311: Real Analysis
- Stat 203: Generalized Linear Models

Technical Details

Caveat: There are lots of ways to do this!



- Text/code editor (can be free)
- A web server (free or paid)
- An installation of `pretext-cli`, a Python package (free), which enables writing in **PreTeXt**: “an authoring and publishing system for authors of textbooks, course materials, research articles, and monographs, especially in STEM disciplines, with a strong focus on accessibility.”
- New resource: **PreTeXt.Plus** (<https://pretext.plus>), including L^AT_EX-style PreTeXt and (soon!) Markdown-style PreTeXt



Theorem 2.2.17.

Every PID is a UFD.



Aside

HTML output.



```
1 <theorem xml:id="thm_pidisufd">
2   <idx>
3     <h>unique factorization domain (UFD)</h>
4     <h>PIDs are UFDs</h>
5   </idx>
6   <statement>
7     <p>
8       Every PID is a UFD.
9     </p>
10  </statement>
11 </theorem>
12 <p>
13   <aside>
14     <p>
15       For part 2 of the definition, use induction on the number of
16         irreducible divisors of an arbitrary nonzero nonunit.
17       Mimic the proof of <xref ref="theorem_FTA uniqueness" />.
18     </p>
19   </aside>
20 </p>
```

How could I get started?



- Find an OER and consider using (part of?) it in a class for the fall!
- Polish something you've made and put it online!
- Find others who are interested on your campus or in your region
- Look for grant opportunities!

Thank you!

Resources and links:
mkjanssen.org/acms26.html





OER:

- Contribute positively to retention
- Provide similar learning outcomes compared to traditional commercial texts
- Significantly lower DFW rates
- Are well-regarded by students
- Promote faculty engagement with course materials and implementation of “transformative” pedagogies
- Lower the costs of course materials without sacrificing quality or learning outcomes