Preparing for Graduate Research: Using Scientific Literature
EMS-ECH-200: Library Assignment and Session Outline

Library Session Goals
- Understand the basics about library tools available to you
- You get an idea of what is possible
- You know how to get help

OUTLINE: First Hour

1. INTRO  
   Subject Guides: Library Resources for your discipline
   - List resources, instructions, and your assignment
   - Materials Science:  https://www.library.ucdavis.edu/guide/ems/
   - Chemical Engineering: https://www.library.ucdavis.edu/guide/ech/
   ▪ You do NOT have to remember details about all tools covered
   ▪ Focus on what is possible, how to get to Subject Guides, how to get help

2. PROFESSIONAL IDENTITY  
   In This Guide: Author ID/Profile
   - Google Scholar
   - ORCID
   - Altmetrics

3. ARTICLES  
   In This Guide: Articles
   - Databases: Web of Science, Compendex, SciFinder, Google Scholar
   - Citation Alerts

4. LIBRARY 101  
   Every page at top: Access VPN
   Quick Links: Connect From Off Campus
   - Books
   - Journals
   - ILL
   Quick Links: ILL Request Forms

5. MENDELEY  
   In This Guide: Mendeley & Citing the Literature
   - Quick Look
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Last 20 Minutes:
Library Assignment: Pick 3 of the tasks listed below and complete them.

1) FIND: REVIEW ARTICLE & Identify Journals and publication years for a topic
   - For all 3 databases: Web of Science, SciFinder, Compendex and Google Scholar:
     o Create a search statement on a topic you choose. Do the same search in each resource.
     o How many hits do you get for each?
     o Why you get different results & what are the strengths of each database?
   - From your results:
     o Identify the most cited review article (not possible with Compendex & Google Scholar)
     o What journals publish on this topic? (not possible with Google Scholar)
     o How long have articles been published on this topic? (not possible with Google Scholar)

2) Create A Citation Alert
   - Pick 1 or more databases (Web of Science, SciFinder, Compendex).
   - Create a search statement on a topic of your choice
   - Create an Citation Alert
     o WOS: 3 kinds possible: topic (saved search), Journal Table of Contents, Cited Paper
     o SciFinder: topic
     o Compendex: topic

3) Locate a Standard and Patent
   - Use the ASTM (American Society for Testing and Materials) database to locate standard(s) on a topic of interest
     o Examples: silicon nanowires, water based nanofluids, etc.
   - Locate a patent on a topic relevant to you. Use Patents Guide.

4) ORCID: Create an ORCID iD for yourself

5) MENDELEY/Altmetrics: If you have your laptop
   - Create a Mendeley account and install the desktop version on your computer
   - Install the Almetrics Bookmarklet