For assistance searching the Library’s databases, contact

Bette Finn, Subject Librarian
Georgia Tech Library
Email: bette.finn@library.gatech.edu
Phone: 404-894-1790

PMASE Research Guide

- http://libguides.gatech.edu/ PMASE
- Library home page http://www.library.gatech.edu/
  Left column, "Research Tools" -- "Research Guides" -- “By Type” -- “Course Guide”
Writing Literature Reviews
Where Research Starts

Acknowledgement: Writing Literature Reviews slides are provided by William Baer
Writing Literature Reviews

A literature review is “the process of reading, analyzing, evaluating, and summarizing scholarly materials about a specific topic.”

Writing Literature Reviews

A literature review will:

- Demonstrate that you **understand** the topic
- Add **credibility**
- Explain how your research **relates** to the field
- Shows **why** your research is needed
Writing Literature Reviews

Remember that a literature review is more than a summary and/or list of the relevant literature.

It needs to include your expertise.
Analyze the literature.
Compare and contrast the works of others.
Writing Literature Reviews

Topic → Research & Collect Information → Distilling the Information

Keep Track of Citations → Write Review/Paper
Writing Literature Reviews

Find the appropriate balance between selective and exhaustive.
Writing Literature Reviews

Boolean Operators

AND

Use between concepts to narrow the search and eliminate unwanted hits.

OR

Use within a concept to broaden a search to include other relevant articles.
Writing Literature Reviews

Research Question: What effect does violence in the media have on the home?

Possible Search String:

violence AND (media OR television OR movies) AND (home OR families)
Writing Literature Reviews

Where do I start looking?

If you know some seminal works on the subject, start there.

Find resources using the appropriate Research Guide obtained from the library’s webpage, starting with the PMASE Research Guide.
Writing Literature Reviews

Some tips on finding additional articles:

- Use bibliographies
- Revise searches based on what you learn
- Use citation searching (such as Web of Science)
Writing Literature Reviews

When have I found enough articles?

When you can intelligently and completely answer the research question.

When your advisor says you’re done.
Writing Literature Reviews. Compare and contrast the works of others. Use a variety of sources to support your concepts.
Writing Literature Reviews

Keep track of citations.

Use EndNote or other citation software.

Take notes. Don’t just highlight.

Choose how to organize your literature review.
Writing Literature Reviews

This is not a linear process. You can repeat steps.
**Topic:** Spend time to carefully select and analyze your topic. What is the scope of your project? How selective can you be? By taking the time to understand what you are really researching you will save yourself time in the long run.

**Research & Collect Information:** Organize your search with Boolean logic to enable you to sift through irrelevant articles to find the best literature. Use the Library’s Research Guides to find databases; start with the PSME Guide.

**Distilling the Information:** Read the articles and take notes. Remember to describe, summarize, compare and contrast, analyze, and organize. As a graduate student you are becoming an expert in your discipline. Formulate educated opinions and use them to make your literature review better.

**Keep Track of Citations:** Use EndNote or some other bibliographic software.

**Write Paper:** Remember you can revisit previous steps if a section of your paper is weak.

**Don’t be afraid to get help!**

Acknowledgement: Process is provided by William Baer
Library Resources:
Find materials for your literature review

“Research Tools”
- GT Catalog
- Find Articles/Databases
- Research Guides

“Services”
- Borrow

http://www.library.gatech.edu/
Research Tools (Research Guides)

• **Writing Literature Reviews: Where Research Starts**
  [http://libguides.gatech.edu/litreviews](http://libguides.gatech.edu/litreviews)
  Includes “Class Materials” by William Baer (Home tab)
  - PowerPoint for Writing Literature Reviews
  - Handout for Writing Literature Reviews

• **Research/ Writing/ Citing Sources** (includes Endnote tab) [http://libguides.gatech.edu/research](http://libguides.gatech.edu/research)

• **Citation Styles, Tutorials, and Tools** [http://libguides.gatech.edu/citationtools](http://libguides.gatech.edu/citationtools)

PMASE Research Guide

- **PMASE Research Guide** – find books, articles and other materials on your topic

- Access the PMASE Research Guide through the Library home page at [http://www.library.gatech.edu/](http://www.library.gatech.edu/)
  - “Research Guides”
    (left column, under “Research Tools”)
    - **By Type**
      - **Course Guide**
        - Professional Master's in Applied Systems Engineering (PMASE) program
Research Guides
http://libguides.gatech.edu/

Course Guide
For assistance searching the Library's databases contact: Bette Finn, Subject Librarian, e-mail: bette.finn@library.gatech.edu

Databases arranged by subject/topic (additional databases that are not listed below). Database search hints. Database Tutorials. Borrowing and Requesting from Other Libraries. Library Services to Students (GIL Express for USG books, interlibrary loan, book recalls, book locates, etc.)

### Primary Databases

- **Inspec and Compendex**
  - **Inspec** 1896+ Over 3,500 scientific and technical journals and some 1,500 conference proceedings, as well as selected books, reports and dissertations in the areas of electrical engineering, computer engineering, physics, electronics, communications, computers and control, mechanical and production engineering, and information technology in business. *Combine with Compendex* (20% overlap).
  - **Compendex** 1894+ Contains almost 7.5 million records referencing 5,000 major engineering journals and major engineering conference materials. *Combine with Inspec* (20% overlap).

- **Georgia Tech Library Catalog**
  - The newer **GT Catalog** (Finder/VUFind) is an overlay to the **Catalog** and contains selected non-catalog records not in the **Classic Catalog**.
  - The **Classic Catalog** Tip Sheet Can limit records to “serial” (journal format).

### Related Databases (arranged alphabetically)

- **AB/INFORM Complete (ProQuest)** Management science and business periodicals and news sources.
Books

http://libguides.gatech.edu/PMASE/Books

Professional Master's in Applied Systems Engineering (PMASE) program: Books

Georgia Tech Library resources for the Professional Master's in Applied Systems Engineering (PMASE) program

Home  Databases  Books  Other Resources

Books

- Catalog - GT Catalog, Georgia Tech Library's online catalog
  The GT Catalog or (Finder/UFind) is the Georgia Tech Library's online catalog (overlay)

- Catalog - Classic GT Catalog, Georgia Tech Library's classic online catalog
  The Classic Catalog is Georgia Tech Library's classic version of the online catalog. Classic Catalog contains books, journals, conference proceedings, maps, and other materials owned by the Georgia Tech Library. A Tip Sheet is available at http://www.library.gatech.edu/search/giltips.pdf

- GIL Universal Catalog (University System of Georgia)
  Catalog for the University System of Georgia (USG) Libraries and the State's Department of Archives & History. GIL - GALILEO Interconnected Libraries for the University System of Georgia, funded by the Governor and the General Assembly of Georgia. Can use GIL Express (https://giluc.usg.edu or http://gilfind.uc.usg.edu/) for requesting circulating books through the Universal Catalog. Check your "My Account" for book order status.

- WorldCat
  World's most comprehensive collection of bibliographic records from library catalogs worldwide, containing over 52 million records cataloged by OCLC member libraries. Includes books, manuscripts, websites and internet resources, maps, computer programs, musical scores, films and slides, newspapers, journals and magazines (not articles), sound recordings, and videotapes. Includes records representing 400 languages. approx. 1000 A.D. to present

Borrowing & Requesting Books and Photocopies from Other Libraries, Books on Course Reserves, Recalls and Locates

- Borrowing & Requesting from Other Libraries
  - GIL Express: Borrow books held by the 34 libraries of the University System of Georgia (USG) and the Gwinnett University Center. GIL Express online requests can be made from the GIL Universal Catalog
  - ILLiad Interlibrary Loan System: Photocopies of articles and book loans from other libraries. Service is available to currently enrolled students and currently employed faculty and staff. Distance Learning

- Course Reserves: Professors can place books (textbooks, recommended readings etc.) and other materials on Course Reserves, to make them available to all students in their classes.

- Recalls: Recall books that are checked out. Contact the Library Services Desk (1st floor west) to recall a book, or use the Request link in the Library Catalog record ("Recall this item from your Local Library").

- Locates can be requested at the 1st floor west Library Services Desk for items that have been missing from the shelves for an extended period of time.
Professional Master's in Applied Systems Engineering (PMASE) program: Other Resources

Georgia Tech Library resources for the Professional Master's in Applied Systems Engineering (PMASE) program

Other Resources

- Citation Styles, Tutorials, and Tools
- Writing Literature Reviews
- The Research Process
- Technical Reports
- Patents
- Dissertations and Theses
- Standards and Specifications
- Electronic Handbooks
- Scholarly Communication and Digital Curation

- ILIiad request form (interlibrary loan, photocopies and book loans)
- Gil Express (https://giloc.usq.edu/ or http://gilfindusq.edu/) for requesting circulating books through the Gil Universal Catalog. Check your "My Account"
- Borrowing and Requesting from Other Libraries
- Distance document delivery

- PMASE Databases, Listed Alphabetically (such as Inspect/Compendex, GT Catalog, etc.)
- Databases arranged by subject/topic
- Library Services to Students (book recalls, book locates, etc.)
- Search Hints for GT Catalog and Databases (Inspect/Compendex, NTIS and others).
- Mobile site for the Georgia Tech Library

http://libguides.gatech.edu/PMASE/Other_Resources
### Databases organized by Subject

[http://www.prism.gatech.edu/~bw21/databases.htm](http://www.prism.gatech.edu/~bw21/databases.htm)

#### Georgia Tech Library Databases

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<th>Document Delivery</th>
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<th>Automotive</th>
<th>Associations and Research Centers</th>
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<tr>
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<td>All Databases (all topics)</td>
<td>All Research Guides (all topics)</td>
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<td>Research Tools: The Research Process; Citation Styles, Tutorials, and Tools; Writing Literature Reviews</td>
<td></td>
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</tbody>
</table>

#### Sample topics:

- **“Systems Engineering”**
- **“Books”**
- **“Citation Indexes”**

- Company … Industry … Patents
- Technical reports, etc.
Services to graduate students

http://www.prism.gatech.edu/~bw21/databases-ser.htm

Circulation, Recalls, Printing, Scanning, GIL Express for USG Books, ILLiad Interlibrary loan (photocopies & book loans), etc.
Selected Library Databases

http://libguides.gatech.edu/PMASE

• **GT Library Catalog** -- records for print and electronic books, journals, conferences and other materials

• **Inspec and Compendex** -- combined index to engineering, physics, electronics, and computing journal and conference papers

• **Applied Science and Technology** database – index to applied journals

• **Business Abstracts** with Full Text (EBSCO/Wilson)

• **Knovel Library** (handbook database)

• **Cited References** -- Web of Science

• **MathSciNet** – mathematics literature index
Selected Library Databases (Continued)
http://libguides.gatech.edu/PMASE

• ProQuest databases (can be combined together). Use “ALL” when searching full text ProQuest databases (avoid searching full text)
  ➢ ABI / Inform -- Management Science and business
  ➢ ProQuest Dissertations & Theses (selected full text)
  ➢ NTIS -- technical reports
  ➢ Other databases, such as Aerospace Database, Materials Research, etc.

• Management, Statistical and Company/Industrial Research Guide

• Patents -- Derwent Innovations Index
Search Hints
http://www.prism.gatech.edu/~bw21/chart.htm
http://www.prism.gatech.edu/~bw21/databases-guides.htm

• Databases such as Compendex/Inspec, ProQuest databases, and Web of Science databases provide powerful search software:
  - Complex searches using nested **Boolean** operators (**AND** or **OR** **NOT**)
  - **Multiple search statements** (Search history, Recent searches). Recombine with statement numbers and keywords
  - **Proximity operators**, such as **NEAR/ #** (within # words) or **quotes** (“**exact phrase**”)
  - **Truncation** (often *), wildcards
  - **Limit to Title/ Subject** headings fields, Author, etc.
  - **Avoid searching full text** fields (ProQuest – use “**ALL**”)
  - **Combine multiple databases together** into one search

• Most databases have **tutorials**
Library Services
Books and Photocopies

Library Services to Graduate Students

Such as:

- **Borrowing and Requesting from Other Libraries**
  - GIL Express for USG books
  - ILLiad Interlibrary Loan, photocopies and book loans
  - ILLiad for in-house article photocopies

- **Book Recalls**, Book Locates, etc.
Ask for Help!

- For **in-depth and quick assistance** searching the Library databases, please contact
  
  **Bette Finn**, Subject Librarian  
  Email: [bette.finn@library.gatech.edu](mailto:bette.finn@library.gatech.edu)  
  Phone: 404-894-1790

- For **immediate brief assistance**, a librarian is available at the **Expert Consultation Center**, Monday through Friday noon to 5 PM (except during intercession and some holidays). The Center is located on the 1st floor west of the Library, nearby the Library’s Clough building entrance.