<table>
<thead>
<tr>
<th>Course Title</th>
<th>Intermediate PubMed: Advanced Search and MeSH</th>
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<tbody>
<tr>
<td>Department</td>
<td>Louisiana Public Health Institute</td>
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<tr>
<td>University</td>
<td>N/A</td>
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<table>
<thead>
<tr>
<th>Instructor Name</th>
<th>Elaine R. Hicks, MS, MPH, MCHES, Public Health Librarian</th>
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<tbody>
<tr>
<td>Department</td>
<td>Rudolph Matas Library of the Health Sciences</td>
</tr>
<tr>
<td>University</td>
<td>tel 504.988.2785 <a href="mailto:ehicks2@tulane.edu">ehicks2@tulane.edu</a> <a href="http://matas.tulane.edu">http://matas.tulane.edu</a></td>
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<th># of students</th>
<th>Date, Time, Place</th>
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<td>Date and time TBC</td>
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<tr>
<th>Preparation</th>
<th>Print and fold NLM handouts Revise Guide Page Review NLM tutorials</th>
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<td></td>
<td>• Advanced search builder</td>
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<td><a href="https://www.youtube.com/watch?v=dncRQicobdc">https://www.youtube.com/watch?v=dncRQicobdc</a></td>
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<td>• Use MeSH to build a better PubMed Query</td>
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<td>• MeSH on Demand:</td>
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<td>• MeshProblem Article:</td>
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<td><a href="http://www.kevinmd.com/blog/2015/02/pubmed-misses-big-picture-comes-nutrition.html">http://www.kevinmd.com/blog/2015/02/pubmed-misses-big-picture-comes-nutrition.html</a></td>
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**Problem of public health subjects not easy to search**  
Nutrition as a concept is hard to search in PubMed because the term nutrition is broken out into many different places. Relevant Medical Subject Headings (MeSH) for the subject are scattered widely. In MeSH, compare food to nutrition.  

**Go to MeSH Browser and search for Nutrition in text words in annotation and scope notes**  

Search hedge: http://1.usa.gov/16wy4na food OR foods OR beverages OR diet OR dietary OR vitamin OR vitamins OR nutrition OR nutritional OR nutrition disorders OR food industry OR nutritional physiological phenomena OR dietary fats OR dietary proteins OR feeding behavior

Reference article:  
http://www.kevinmd.com/blog/2015/02/pubmed-misses-big-picture-comes-nutrition.html

| Course Objectives | 1. Use PubMed Advanced Search to navigate PubMed  
|                  | 2. Use MESH to navigate PubMed  
|                  | 3. Use MyNCBI to organize bibliographic information |

| ACRL Standards | 1, PI 2  
|                | • Constructs and implements effectively-designed search strategies  
|                | 2, PI 5  
|                | • Creates a system for organizing the information |

| Tier 2 Core Competencies | 1B4. Uses information technology in accessing, collecting, analyzing, using, maintaining, and disseminating data and information.  
|                         | 6B5. Retrieves evidence |
Intermediate PubMed Class Lesson Plan

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<td></td>
<td>Advanced search</td>
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<td></td>
<td>Searching with MESH using term ‘vending machines’ or “texting”</td>
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<tr>
<td></td>
<td>Using MyNCBI</td>
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Lesson Plan (with links) stored on the Public Health Portal and here: http://libguides.tulane.edu/ph

Remember survey

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<table>
<thead>
<tr>
<th>Teaching Strategy 2: Live PubMed demonstration to explain MeSH</th>
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<tr>
<td>PubMed is an interface which provides access to MEDLINE, the National Library of Medicine’s premier bibliographic database containing @23 M citations and abstracts from @5,500 biomedical journals published in U.S. and 80 other countries.</td>
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**Searching with MESH: subject searching**

In the More Resources section of the PubMed Interface, click on the link to the MeSH database

**Topic:** problems associated with giving flu vaccines to individuals with egg allergies.

Segment your topic into concepts. Every term that occurs may be thought of as representing a concept.

**Concept:**

1st concept: flu vaccines

“flu vaccines’ returns the MeSH term, ‘influenza vaccines’

The page displays a definition and additional information about the term. Terms are arranged hierarchically by subject categories with more specific terms arranged beneath broader terms. Influenza vaccine is below Viral vaccines which is under Vaccines. Select ‘Vaccines’ to display the variety of terms available under this concept. One or more terms, comprising one or more concepts, grouped together for important reasons, form a descriptor class (i.e, Vaccines). The descriptor class is the basic building block of the thesaurus in the database.

**Entry terms**

MeSH is designed to make it possible to search broad subjects easily by searching by concepts (terms which are strictly synonymous with one another). There are over 218,000 entry terms which are synonyms, near-synonyms, and closely related concepts to help users find the most relevant MeSH descriptor for the concept they are seeking. During the
indexing process, the most specific MeSH terms are applied to a journal article. During your PubMed search, MeSH terms recognized in the query are automatically mapped to the most specific terms and those and those are included in your search. A search for “cancer” finds thousands of citations on all types of cancer, from melanoma to leukemia, whether the word “cancer” appears in the citation or not.

2nd Concept: negative effects (use of subheadings):
We’re interested in the negative effects of the flu vaccine, so select the subheading ‘adverse effects’ and click “Add to search builder”.

3rd Concept: egg allergies
Return to search Mesh for ‘egg allergy” in the search box at the top of the page. The database displays the term “Egg Hypersensitivity”

Search PubMed
The search retrieves a relatively small number of targeted citations.

[PubMed-indexed for MEDLINE]: the citation has been indexed with MeSH terms
- Not all PubMed citations are slated to be MeSH indexed
- It may take several weeks for a new citation to be indexed
- Using MeSH terms limits your results to a subset of PubMed citations

To see all the MeSH terms used to index an article
- click on the article title and then click on MeSH Terms label.
- Each MeSH term includes a menu that can be used to search the term in PubMed or MESH

Not all terms are equally search-able
Nutrition is broken out into many different places in the MeSH classification or “tree.” Relevant MeSH terms are scattered widely. The largest group of related citations is not under “nutrition,” but under “food.” The second largest bundle is under “diet.”

Compare food to nutrition
MeSH Browser (compare Food All Terms to Nutrition All Terms)
Select Nutrition in Text words & Annotation & Scope Notes. Go to page 2 and select Elder Abuse.

Use the hedge. Add elder abuse as an additional concept
Hedge:
“food OR foods OR beverages OR diet OR dietary OR vitamin OR vitamins OR nutrition OR nutritional OR nutrition disorders OR food industry OR nutritional physiological phenomena OR dietary fats OR dietary proteins OR feeding behaviour”

Hint: Save the search in your My NCBI account.
Intermediate PubMed Class Lesson Plan

Article:
http://www.kevinmd.com/blog/2015/02/pubmed-misses-big-picture-comes-nutrition.html

Advanced search builder
https://www.youtube.com/watch?v=dncRQicobdc
Select Advanced from Interface
Select MeSH fields from All Fields Menu
   Autocomplete feature engages when you enter your first term to offer possible MeSH terms
Enter Hyperglycemia
   Notice that term is added to the search builder
Add another term on the 2nd line (newborn All Fields).
   Default Boolean operator is AND. If you want OR, select it from the pull-down menu
Click Add to History for the result count so-far.
   • Allows you to temporarily store the search for use in subsequent searches.
   • To permanently store the search, click on the search number in History. You can then choose save in MyNCBI and you will be directed to a MyNCBI window.
   • If I click ADD, my search is added to the Search Builder
Continue adding terms by choosing MESH Subheading in the next builder box.
   To see an alphabetical list of all terms in this search field, click ‘Show Index List’.
   Scroll until you find the correct term; highlight it and add it to the search. Select drug therapy
To clean up the page, mouse over the phrase ‘show index list’ to see ‘hide index list’
If you are ready to retrieve records, Select SEARCH.
If you are not ready to retrieve records, you can edit the search:
   • Continue to add terms
   • Use the ‘-’ icon to remove a specific term
   • Use ‘Clear’ link to completely start over
If you want to manually change the Search Builder field, use ‘Edit’.
Note that when you select ‘Edit’, the Builder section disappears because it can no longer control the search. However, your previous work is not lost. You can click ‘Cancel’ to add the Builder back. History is still available.

NyNCBI:
Sign into MyNCBI
Run a search
Save Search
You may edit the name of the search. The maximum size for the search name is 100 characters. The name of the saved search will be included in the Subject line of the automatic e-mail update messages.
If the database you searched supports e-mail updates, you will be prompted to set up your automated e-mail preferences at this time. Or, if you prefer, this can be set up at a later time.
- Your saved searches will be listed in the “Saved Searches” section of My NCBI. Searches are grouped by database and listed by the date they were saved for the first time.

**Setting up Automatic E-mail Updates**

Automatic e-mail updates of search results are sent according to:
- Frequency (none, once a month, once a week, or daily)
- Format (Summary, Abstract, Summary-plain text, Abstract-plain text, MEDLINE), optional text (up to 200 characters)
- Number of items to be sent (1, 5, 10, 20, 50, 100 or 200 items)

**Changing the E-mail Schedule of Your Updates**

**Running Saved Searches and Checking for New Results**

In the Saved Searches portlet, click on the name of your search. This will not change the date displayed in the Last Searched column. To see the exact date when a search was last run on a database, place your mouse over the date shown under “Last Searched.”

To check for new results, click on the hyperlinked number next to your saved search and under the What's New column (B). The hyperlinked number indicates how many new items were found since the last time the search was run. This action will change the date in the Last Searched column.

**Sorting Searches**

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**For more information:**

- From the homepage, PubMed training resources are listed in the Using PubMed box. Range from a Quick Start Guide to FAQs and numerous PubMed Tutorials.
- Public Health Portal Instruction Page: [http://libguides.tulane.edu/ph/Instruction](http://libguides.tulane.edu/ph/Instruction)

**Closing**

- [Complete the survey](http://tulane.co1.qualtrics.com/jfe/form/SV_ePdJnRodiwp62Y4)

**Notes to self:**