BIO122: Fundamentals of Biological Science (Corven)

Libguide: [http://libguides.bristolcc.edu/bio122/corven](http://libguides.bristolcc.edu/bio122/corven)

Research and Instruction Librarian: Kelly Faulkner
kelly.faulkner@bristolcc.edu
774.357.2648

**Finding Help**

**Chat:** Chat reference service are available online. A librarian is available to chat during research help hours.

**Telephone:** Contact the research help desk at 508-678-2811 ext. 2108.

**In person:** A librarian is available at the research help desk at the following times:
- Monday through Thursday: 9:00 am - 8:00 pm
- Friday: 9:00 am - 4:00 pm
- Saturday: 10:00 am - 5:00 pm
- Sunday: 12:00 - 5:00 pm

**Book-A-Librarian (appointment):** This service is open to all BCC students, faculty, and staff. You can "book" time with a librarian (up to 60 minutes) so that we can sit down and help you, one-on-one, with your research.

**E-mail:** Complete the form on the help page, and a librarian will e-mail you back with answers and suggestions. You will receive a reply within 2 business days.

**Resource Overview**

For your assignment you will need to use at least to find several credible sources. Here’s what we'll be covering today.

- Peer Reviewed Scholarly Articles
- Finding Scholarly Articles
- Reading Scholarly Articles
PEER REVIEW

What is Peer Review?

Peer review is a term covering a set of practices that collect and apply the judgment of expert reviewers (identified as expert, not just knowledgeable—so the designation is a political justification as well as a substantive one) to decisions about which manuscripts to publish, which proposals to fund, and which programs to sustain or trim.

Understanding peer review requires reflection on both its purposes and values. Peer review circulates research ideas in their formative stages to key gatekeepers in a field. Sometimes this signals others to avoid duplication of effort. Other times it calls attention to a problem that is promising, attracting other researchers and setting off a race for priority (for example, work on cancer genes). Thus, by the time new research is finally published, aspects of its findings and methods may be generally familiar to many in the field, speeding its acceptance and utilization while drawing constructive criticism.

FINDING ARTICLES

Periodicals
What is a periodical? Magazines, journals, and newspapers are called periodicals - and they do, in fact, come periodically. They are published at regular, periodic intervals throughout the year. Periodical articles are generally shorter, more current, and more focused on specific topics than books.

<table>
<thead>
<tr>
<th>Audience</th>
<th>Magazines &amp; Newspapers</th>
<th>Trade Journals*</th>
<th>Scholarly &amp; Peer Reviewed Articles**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Level</td>
<td>General Public</td>
<td>Professionals</td>
<td>Academics</td>
</tr>
<tr>
<td>Documentation</td>
<td>High School or Lower</td>
<td>High School or College</td>
<td>College or Graduate School</td>
</tr>
<tr>
<td>Authorship</td>
<td>None or Minimal</td>
<td>Some Documentation, but not Consistent</td>
<td>Fully Documented</td>
</tr>
<tr>
<td>Examples</td>
<td>Newsweek, Psychology</td>
<td>Progressive Grocer, School Administrator</td>
<td>Journal of Beckett Studies, the Lancet, New England Journal of Medicine</td>
</tr>
</tbody>
</table>

*Trade journals contain information for people working in a particular profession

**Scholarly or Peer Reviewed Articles have been reviewed by professionals in the same field as the author.

Finding Articles
BCC Libraries offer a variety of databases in which you can locate magazine, newspaper, trade, and scholarly journal articles. Please check our Databases by Subject, Research Subject Guides, and Databases A-Z in order to choose the most appropriate database.

-> BCC students have access to several subject specific databases through BCC Libraries. Subject specific databases enable you to search specific journals within your topic of research.

-> BCC Librarians have created multiple Research Subject Guides that will help you to choose the correct subject specific database.

-> Interlibrary Loan: Articles
As with books, BCC students can use Interlibrary loan to request journal, magazine, or newspaper articles.

The process is the same, though you would select “Periodicals” when choosing the format of your request. Several BCC Library databases allow you to place an Interlibrary Loan request directly through the database itself.
KEYWORD SEARCHING

Phrase Searching
Phrase searching allows you to search for a phrase, as opposed to individual words. To complete a phrase search, use quotation marks around two or more word phrases. This will give you far more specific results.

Example: African Wild Dog = 7,163 results    “African Wild Dog” = 489 results

Truncation
Truncation allows a researcher to search for multiple endings for a single word in a single search instead of trying spelling variations in multiple searches. Most databases require the use of the asterisk (*) as the truncation symbol. If you’re not sure what a database requires, consult a librarian or the Help Menu of the database.

Example: conserv* finds items with the words conserve, conserves, conserving, conservation, etc.

Choosing Keywords
Choosing your search words, or keywords, correctly can mean the difference between relevant and irrelevant results. Start with your thesis statement or question for inspiration on choosing keywords.

Example: What are threats to free-ranging African Wild Dogs, and how might conservation efforts aid the survival of the species?

-> If this were your thesis statement, logical keywords and alternative keywords could be:

<table>
<thead>
<tr>
<th>“African Wild Dog”</th>
<th>Conservation</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Painted Dog” OR “Lycaon Pictus”</td>
<td>Preservation OR Protection OR Endangered</td>
</tr>
</tbody>
</table>

*Alternative keywords help to identify other words that may be used in articles to say the same thing. Choosing alternative keywords is almost as important as choosing your main search terms.

Boolean Logic
Using Boolean Logic in your advanced search means that you are using command words (Boolean operators) to connect your search terms. Boolean Logic allows you to conduct a more specific search and find relevant and specific information. The three Boolean operators are AND, OR, and NOT.

<table>
<thead>
<tr>
<th>AND</th>
<th>OR</th>
<th>NOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search Results will contain all terms used.</td>
<td>Search results will contain at least 1 term used.</td>
<td>Search results will not contain the eliminated word.</td>
</tr>
</tbody>
</table>
READING SCHOLARLY ARTICLES

Reading Scholarly Articles
Scholarly articles are written with a specific audience in mind—academic peers. Meaning, if a neuropsychologist is writing a peer reviewed journal article, the intended audience is other neuropsychologists.

Since there is an implicit level of academic comprehension in peer reviewed articles, they can be dense and sometimes difficult to read for early researchers. The language will be tied to the field, and not meant for the general population.

Anatomy of a Scholarly Article
Most scholarly articles follow a specific format:

Abstract: A summary of the article.

Introduction: The introduction is used to explain the hypothesis or reason for the study. Previous research may be discussed in this section.

Methodology: A precise accounting of how the study was implemented—subjects are identified, testing conditions are listed, and parameters for the study are set out.

Results: This section describes the results of the study—the data. Often this data is represented with charts, tables, graphs, and other visual representations.

Discussion: The discussion reviews the data in a narrative way. If the data proved or disproved the thesis or hypothesis it is discussed in this section.

Conclusion: The conclusion restates the results succinctly. Possible ventures for further research are discussed.

Bibliography or References: The bibliography is a list of all of the research the authors consulted and quoted and built upon during their study.