



The following concepts will help you construct and refine a search when using library databases.

Boolean Operators

The boolean operators AND, OR, NOT are used to connect multiple word searches.

- AND** is used to retrieve the intersection of two search terms. For example, searching for *lunar and eclipse* will retrieve records containing BOTH *lunar AND eclipse*.
- NOT** Totally eliminates unacceptable or irrelevant terms from a search. To retrieve information about *eclipses* but exclude *solar eclipses*, one would search for *eclipses not solar*.
- OR** is used for synonyms. The search *moon or lunar* will retrieve information either about the *moon* or about *lunar*.

Nesting

If several terms are entered and nesting is not used, the computer will search “according to boolean operator precedence”. In other words, terms connected by AND typically will be searched first, those by NOT second, and OR last.

As a rule of thumb, synonyms are nested or put in parenthesis. For example, if one inputs the search *computer and security or protection*, the computer will retrieve records about *computer and security*, and all the records ONLY about *protection*. The correct way to search this would be: *computer and (security or protection)*. This will retrieve records about *computer and security*, as well as records about *computer and protection*. Some other examples of correctly nested searches:

education and (child or children or elementary)
(cancer or carcinoma) and (pulmonary or lung)
AIDS not (teachers or nurses)

Truncation

Truncators are used to find plurals or to search variant word endings. Different systems use different symbols: FirstSearch databases uses # ? + * for truncation; the Bishop Library Catalog uses \$.

Bishop Library Catalog truncation examples:

The \$ symbol can represent a single characters, many characters, or no characters. For example:

Bicyc\$ Retrieves bicycle, bicycling, bicycled, bicycles....

FirstSearch truncation examples

The ? truncator retrieves zero to nine letters. A limit of 50 index terms will be retrieved--if more than 50 are retrieved, an error message will be displayed. For example:

psychi? Retrieves psychic, psychiatric, psychiatrist, psychiatry.

FirstSearch truncation examples

The + truncator retrieves zero to two letters. The # retrieves one letter. For example:

Wax+ Retrieves wax or waxes
wom#n Retrieves women or woman

The * truncator retrieves an unlimited number of letters. Truncation can only be used after the third letter; also, a limit of 50 index terms will be retrieved--if more than 50 are retrieved, an error message will be displayed

Proximators (positional searching)

Proximators are used to specify the position or order of two terms.

Bishop Library Catalog proximators:

SAME	The two terms appear in the same field.
WITH	The two terms appear in the same sentence within a field.
NEAR	The two terms are adjacent to each other but are in any order.
ADJ	The two terms are adjacent to each other in the order used.

The search *mountain adj bike* would find *mountain bike* right next to each other, in this exact order. ADJ is most precise, SAME the least precise.

FirstSearch proximators:

W	Aluminum w wiring -- words appear in this exact order, no words in between
W2	Aluminum w2 wiring -- words appear in this exact order, with no more than two other words between them.
N	Overview n 1998 -- words appear together in any order, with no words in between them (could be 1998 overview, or overview 1998)
N2	Overview n2 1998 -- words appear together in any order, with no more than two words between them.

Stopwords

Stopwords are words that the computer ignores. The following words are typically ignored in computer searches: A, an, are, as, at, be, but, by, do, for, from, if, had, have, he, her, his, in, is, it, of, on, that, the, this, to, was, which, with, you.

If any of these words are part of your search string in the Bishop Library Catalog, put them in “quotation marks” so they are searched literally. Additionally, in the Catalog, the following words also need “quotation marks”:

And, or, not, same, with, near.

The book title Death Be Not Proud should be searched as: “*Death Be Not Proud*” in the Bishop Library Catalog; in FirstSearch, search Death Be Not Proud as either a title phrase or with “ “.

Exact phrase searching

If you have an exact phrase you wish to search *exactly* as you input it, use quotation marks in the Bishop Library Catalog and FirstSearch, or in FirstSearch choose a “phrase” search by clicking on the keyword box and changing it to article type phrase or any other phrase searches,

Bishop Library Catalog:
FirstSearch

“only in America”
“Earthquake prediction in California”