

How to do science... (2018)

Sources, Peer review journals and Academic databases: HANDOUT

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Some notes about:

1. **Find Literature:** Your portal to “master-thesis-literature” (*Waffle-menu at Innsida*)
2. **Academic writing** – Get help with your writing
3. **Oria.no:** our ‘One Search’ portal
4. **NTNU Open:** NTNU’s repository of master thesis, PhDs, scientific articles and other Open Access publications
5. **Recourses in biology** (A webpage with all important acad. databases you need - with links)
6. **Boolean operators** – building up a search string: some samples
7. **Journal Impact Factor (IF):** Is a way to rank journals
- A measure of the annual average citations of a journal
8. **h-Index:** a measure of a researcher’s productivity and impact
9. **Open Access (OA) literature:** Short about OA
10. **Fake or predatory Open Access journals/publishers exists... Be aware!!!:** How to find out?
11. **Cristin:** a database of research activity in Norway
12. **DOI (Digital object identifier):** What is it?
13. **Software for students:** Download EndNote, Word,... and much more
14. **Orakeltjenesten (Oracle Support Service):** Support students with more or less any problem
15. **EndNote courses:** Search databases, export references to EndNote and use them in Word.

1. Find Literature: ([Waffle-menu](#) > Find literature)

This should be your portal to “master-thesis-literature” and help with your writing.

The screenshot shows the NTNU University Library Literature search page. At the top, it says "Literature search" and "FOR STUDENTS (GO TO PAGE FOR EMPLOYEES)". Below this is a search bar with the text "The library in one search - Oria" and a search button. To the right of the search bar is a red box containing the text "Databases Advanced search". Below the search bar is a link to "To access the library's collections outside of the NTNU network: use VPN or software farm".

On the left side, there are two sections: "Resources in your subject area" and "Publications and collections from NTNU". The "Resources in your subject area" section has a red box around the text "Find databases, literature, reference books, patents, standards etc." and "Tailored information for many subjects at the library's subject pages". The "Publications and collections from NTNU" section has a red box around the text "NTNU Open - Master theses, doctoral theses and academic publications" and "Gunnerus - Historical maps, photographs and manuscripts".

On the right side, there is a "Need help?" section with a red box around the text "How to search for literature", "Borrow, order and renew", "Use e-books | Dictionaries | Standards", "Courses in literature search and reference tools", "Writing your master's thesis", and "How to use references".

At the top right, there is a "Waffle-menu" icon (a waffle) and a "Finn litteratur" icon (a book). A blue arrow points from the "Need help?" section to a box that says "See point 2 (next page)".

As a master student at NTNU, **THIS IS A VERY GOOD PAGE!**


2. Academic writing – Get help with your academic writing

Use some time looking at this page, a lot of useful information here (it will pay off).

Academic writing

GET HELP WITH YOUR ACADEMIC WRITING

See also: [Writing your master's thesis](#)



? Defining a research topic

- Courses, modules and research topics
- Methods for formulating and choosing a module
- Revising research topics
- Writing a thesis for a company?

🔍 Finding sources

- Where to search
- How to search
- How to critically evaluate sources

📖 Using and Citing sources

- How to cite sources: APA | Chicago | Harvard | Vancouver
- Reference management tools: BibLaTeX | EndNote | Mendeley | Zotero
- How to avoid plagiarism

✍ Structuring your text

- Structuring an assignment
- Tools for Academic Writing

Check list
[Check this before you hand in your thesis or paper](#)

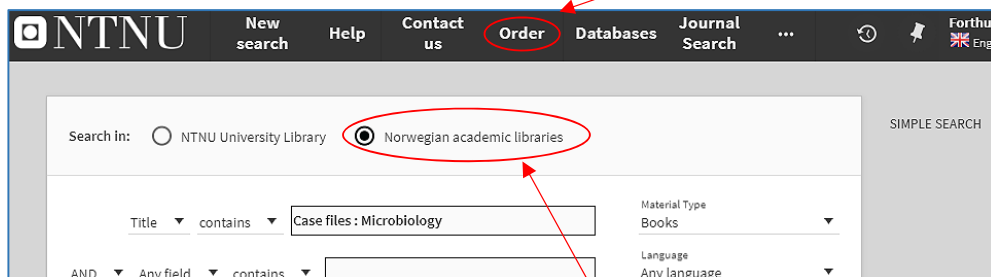
Glossary
[Glossary of terms for academic writing](#)

Contact
[For more information contact your local library](#)

3. Oria.no

Oria.no is our main portal, where you can search in the library's resources in “One search”

- Books, articles, journals, theses,... and more
- Renew your own loans
- If you want a book or an article you can't find in Oria, click the Order-link on top and fill in the form – for book or article.



- You can search and order books from any of NTNU's many libraries, and from most of the other academic libraries in Norway as well. Mark “Norwegian Academic Libraries” before you do your search, then order the book you want to request (free of charge). You will get a text message from the library when the book has arrived.
(Problems? - Ask the library staff)

- Pensum bok** = Course book
Trykt utg. = Printed format

- Your **student card** = your **lending card**

4. NTNU Open is NTNU's repository of master thesis, doctoral thesis, scientific articles and other Open Access publications.

- Look at **other master theses** in biology to get an idea of how to build up your own master theses. At NTNU Open, restrict by choosing faculty and institute ([Fakultet for naturvitenskap \(NV\)](#) > [Institutt for biologi](#)). Then restrict on the right side to [Master thesis](#).

5. Resources in Biology:

On this page you can find a list with links to all academic databases which cover the biology area:

<https://www.ntnu.no/blogger/ub-realfag/fagressurser/biologi/>

Databases:

- Web of Science, Biological abstracts (BIOSIS), Medline (PubMed)
- Scopus
- Biological science collection (ProQuest)
- SciFinder (very strong in chemistry)
- PubMed



6. Boolean operators – building up a search strings: some samples

SEARCH OPERATORS AND WILDCARDS:

Wildcards: asterisk *, question mark ?

- **enzym*** = **enzymes, enzymatic, enzymes, enzymic**
- **colo\$r** = **color, colour**

Boolean operators: AND, OR (and NOT)

*Use **OR** to broaden your search and get more results. **OR** is very useful when searching for synonyms meaning the same.*

If you get to many hits (hits not interesting for you) use AND and add one more keyword.

Searching restricted to the TITLE - field give better and fewer hits.

- **(ethic* OR moral*) AND (cloning OR bioengineering)**
- **cloning NOT sheep**

Phrases: enclose a phrase with "quotation marks":

- **"green algae"**

PARENTHESES: to group compound boolean operators:

- **(antibiotic OR antiviral) AND (alga* OR seaweed)**
- **(periphylla OR "helmet jellyfish" OR kronemanet) AND (trondheimsfjord* OR norskekysten OR norway OR norwegian)**
(in Oria you can search with Norwegian words too)

PROXIMITY OPERATOR (not possible in Oria): (*Nærhetsoperator*)

In Web of Science (WoS): **NEAR/n**

- **(salmon OR trout) NEAR/10 virus**
This find records containing salmon or trout within 10 words of virus

In Scopus: **W/n** (within): **W/n**

- **(salmon OR trout) W/10 virus**

7. What is Journal Impact Factor (IF) (Innflytelsesfaktor)

IF (or JIF) is a measure of the annual average citations of a journal.

- The higher value, the more important journal
- 5% of the journals has an IF higher than 6, 20% higher than 3, and 60% lower than 2.
(5 journals has IF more than 50, 35 more than 20)
- IF can be found on Web of Science' web site → Journal Citation Reports
- A sample from the journal: **Oikos** (ISSN 1600-0706)

Citations in 2018 to articles published in:	2016 = 688	Number of citable articles published in:	2016 = 182
	<u>2017 = 550</u>		<u>2017 = 175</u>
	Sum: 1 238		Sum: 357

$$IF_{\text{Oikos}}(2018) = \frac{\text{Citations in 2018 to articles published in 2016 + 2017}}{\text{Number of citable articles in 2016 + 2017}} = \frac{1\,238}{357} = 3.468$$

8. h-index: a measure of a researcher's productivity and impact

- **h-index** is a combined measure of the number of articles and number of citations
- A high h-index indicates that the researcher has written many articles that have influenced the field
 - An h-index of 12 means that exactly twelve of the author's articles have been cited no less than twelve times

9. Open Access (OA) literature

OA refers to free, unrestricted online access to research outputs. OA literature is open to all, with no access fees.

There are two main routes to making research outputs openly accessible:

1. One involves publishing articles via the OA route on a publisher's platform, often referred to as **Gold Open Access**.
2. The other involves archiving a version of the manuscript in an OA repository, often described as **Green Open Access**.

Content published via the gold OA route is accessible immediately on publication, while manuscripts deposited via the green OA route may, in many cases, be made accessible only once a self-archiving embargo period has elapsed.

10. Fake or predatory Open Access journals/publishers exists... Be aware!!!

After Open Access was introduced, many fake or predatory journals offer places to publish. Be aware:

- Does the journal have any **ISSN** number?
- **DOAJ** – Directory of Open Access Journals is a register of serious Open Access Journals (<https://doaj.org>)
- Look for the journal in **Journal Citation Reports** (in Web of Science)
- Can you find it in **NSD** (the Norwegian register for scientific journals?)
<https://dbh.nsd.uib.no/publiseringsskanaler>

NB! Many articles from predatory journals can be found using Google Scholar

11. Cristin: is a database of research activity in Norway, and offers an easy way to find what persons at NTNU have published.

- See: <https://www.cristin.no/as/WebObjects/cristin.woa/8?la=en>
(Also linked up from the library's subject page in biology)



Find out what your supervisor (or others at NTNU) have done of research activity. He or she may have some interesting publications for you as well (and... you might even get the chance to impress him/her with your knowledge 😊)

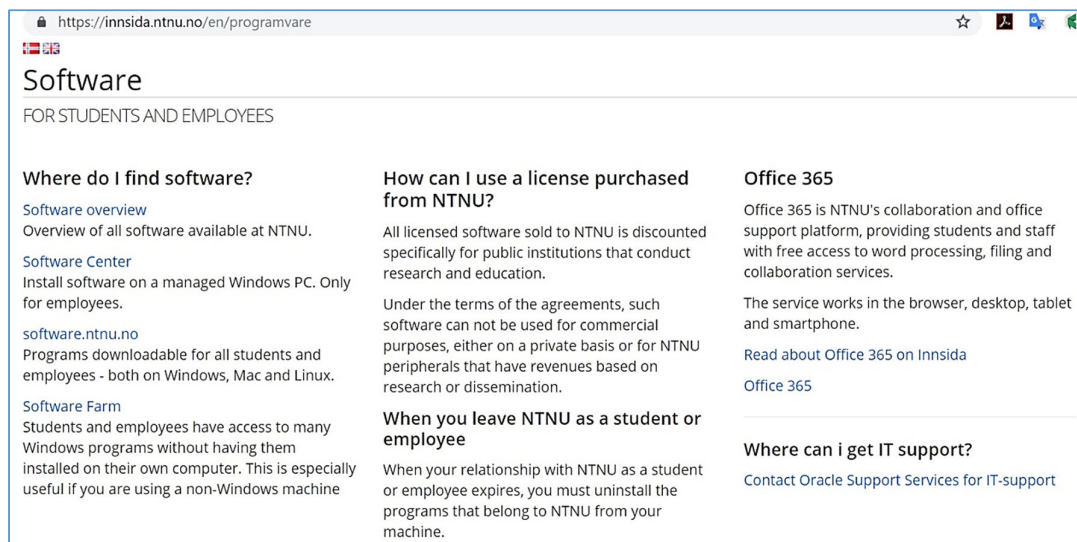
12. DOI-number - What is it?

- DOI is a “Digital object identifier system”. It is a character string used to uniquely identify an object such as an online article. The DOI for a document remains fixed over the lifetime of the document, whereas its location may change.
 - Example of two DOI-numbers:
 - 10.1016/0022-0981(73)90052-x
 - 10.1098/rstb.2011.0066
 - www.doi.org: search the DOI-numbers at www.doi.org and you will find the article (and read it if NTNU have access (subscription))

13. Software for students:

EndNote, Word, Excel and many other programs available.

Any problem with installing: Orakeltjenesten (inside Realfagbiblioteket) will help you if problem.



<https://innsida.ntnu.no/en/programvare>

Software

FOR STUDENTS AND EMPLOYEES

Where do I find software?

[Software overview](#)
Overview of all software available at NTNU.

[Software Center](#)
Install software on a managed Windows PC. Only for employees.

software.ntnu.no
Programs downloadable for all students and employees - both on Windows, Mac and Linux.

[Software Farm](#)
Students and employees have access to many Windows programs without having them installed on their own computer. This is especially useful if you are using a non-Windows machine

How can I use a license purchased from NTNU?

All licensed software sold to NTNU is discounted specifically for public institutions that conduct research and education.

Under the terms of the agreements, such software can not be used for commercial purposes, either on a private basis or for NTNU peripherals that have revenues based on research or dissemination.

When you leave NTNU as a student or employee

When your relationship with NTNU as a student or employee expires, you must uninstall the programs that belong to NTNU from your machine.

Office 365

Office 365 is NTNU's collaboration and office support platform, providing students and staff with free access to word processing, filing and collaboration services.

The service works in the browser, desktop, tablet and smartphone.

[Read about Office 365 on Innsida](#)

[Office 365](#)

Where can I get IT support?

[Contact Oracle Support Services for IT-support](#)

Search “*Software for students*” at innsida to find this page, or type this link:

<https://innsida.ntnu.no/en/programvare>

14. Orakeltjenesten ("Orakel Support Services")

Inside Realfagbiblioteket you will find "Orakeltjenesten". They will help you with all kind of technical problems like: user accounts, printing, blackboard, how to download programs, network problems,... etc.

Orakel Support Services

Orakel Support Services (Orakeltjenesten in Norwegian) helps all students and employees at NTNU.

Support offered for these systems

Orakeltjenesten offers support for NTNU IT's systems, including but not limited to:

- [Blackboard](#)
- [Innsida](#)
- [Create user account](#)
- [Email provided by NTNU IT](#)
- [Printing](#)
- [Home pages, local storage and group storage](#)
- [Connecting to NTNU's network, local area network, \[wireless network\]\(#\) and VPN](#)
- [Software](#) installation help for software provided by NTNU IT

Looking for something else, see the topic page [IT services](#).

Contact Orakeltjenesten

All students and employees can contact Orakeltjenesten by telephone or email. Students can also visit one of our [help desks](#).

- Tel: (735) 91500
- [FAQ: Frequently asked questions](#)

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3. Help desks
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- 5.

Search "[Orakel support](#)" at [Innsida](#) to find them on internet, or visit them at Realfagbiblioteket.

15. EndNote in less than two hours: Courses autumn 2018

Overview of courses in EndNote at Natural Science Library (Realfagbiblioteket) this autumn (English and Norwegian):

<http://www.kurspaamelding.no/ntnu-ub/gls-mmarn-kunst33>

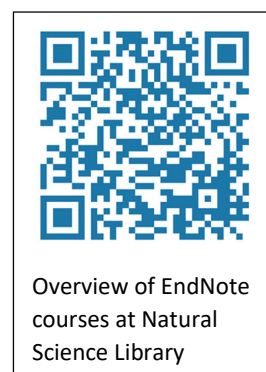
(Also linked up from the **Waffle menu** → **Find Literature** page)

ABOUT THE COURSE:

You will learn how to create an EndNote-library for your references, use the different databases of interest for you, export references from these databases into your EndNote-library, as well as adding references manually.

Then, how to insert references from EndNote into a manuscript. We will also look at styles, how to change, how to edit... and more.

The courses are held in the Course-room at Natural Science Library (Realfagbiblioteket). (Room C1-126).



Help us become better, use two minutes and answer this short evaluation please:

- Linked up from: <http://folk.ntnu.no/jofo/>

Thanks and good luck! If anything, you find me/us in the library 😊

