



## Scientific Theory and Writing 7.5 credits

*Vetenskaplig teori och skrivande 7.5 hp*

Set by Faculty of Engineering and Sustainable Development

Version	Set at	Valid from
	2010-09-17	2011-01-24
	2014-02-19	2014-02-19
	2017-03-14	<b>2017-08-28</b>

<b>Level</b>	G2F
<b>Education level</b>	First cycle
<b>Identifier</b>	TMG500
<b>Credits</b>	7.5 credits
<b>Main field of study</b>	Geography, Building Engineering, Computer Science, Geomatics, Surveying Technology, Applied Geographical Information Technology, Mechanical Engineering, Spatial Planning, Industrial Economics, Electronics, Energy Systems
<b>Subject group</b>	Other Subjects within Technology
<b>Disciplinary domain</b>	Technology 100%

**Learning outcomes** The purpose of the course is to prepare the students within the programmes of the Faculty of Engineering and Sustainable Development for their coming theses. The main focus of the course is on a scientific literature study and on writing a literature review paper.

On completion of the course, the student will be able to:

- describe theories of science
- select appropriate methods based on research questions
- use scientific databases to find relevant literature
- summarize and evaluate scientific literature
- make proper references and citations
- give examples on difference between good research and plagiarism
- write a scientific paper based on a literature review
- make an oral presentation and opposition on another student's review and presentation
- produce a project plan for a thesis.

**Course content**

- Scientific perspectives
- Research planning
- Qualitative and quantitative data collection methods
- Use of statistics, tables, charts
- Scientific databases (abstracts, full texts, citation indexes)
- Scientific writing
- Referencing systems

	<ul style="list-style-type: none"> <li>• Presentation techniques</li> <li>• Ethics and plagiarism</li> </ul>
<b>Teaching</b>	Lectures, assignments, seminars, project.
<b>Prerequisites</b>	90 hp with relevance to one of the degree subjects at the Faculty of Engineering and Sustainable Development.
<b>Examination</b>	Assignments, seminars, literature review and project proposal.  To pass the course, all assignments, seminars, etc. must receive a passing grade.
<b>Module</b>	0040 Assignments, seminars 3.5 credits, Grade: UG 0050 Literature Review and Project Proposal 4 credits, Grade: AF
<b>Grade</b>	A, B, C, D, E, Fx, F
<b>Other regulations</b>	This course cannot be credited for if taken parallel with Scientific methodology (IE720B or IE745D) or Scientific theory and writing for the geomatics programme (SB287C).
<b>Sustainable environment</b>	Content with sustainable development is not relevant to this course.
<b>Course Literature</b>	<p>Biggam, J. (Latest edition) <i>Succeeding with Your Masters Dissertation: A Practical Step-by-Step Handbook</i>. McGraw-Hill/Open University Press.</p> <p>Murray, N. and Hughes, G. (Latest edition) <i>Writing up Your University Assignments and Research Projects..</i> McGraw-Hill/Open University Press.</p> <p>Neville, C. (Latest edition) <i>The complete guide to referencing and avoiding plagiarism</i>. McGraw-Hill/Open University Press.</p>