HÖGSKOLAN I GÄVLE

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	**2017-08-28**

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

	• Presentation techniques • Ethics and plagiarism
Teaching	Lectures, assignments, seminars, project.
Prerequisites	90 hp with relevance to one of the degree subjects at the Faculty of Engineering and Sustainable Development.
Examination	Assignments, seminars, literature review and project proposal. To pass the course, all assignments, seminars, etc. must receive a passing grade.
Module	0040 Assignments, seminars 3.5 credits, Grade: UG 0050 Literature Review and Project Proposal 4 credits, Grade: AF
Grade	A, B, C, D, E, Fx, F
Other regulations	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).
Sustainable environment	Content with sustainable development is not relevant to this course.

Course Literature	Biggam, J. (Latest edition) *Succeeding with Your Masters Dissertation: A Practical Step-by-Step Handbook*. McGraw-Hill/Open University Press. Murray, N. and Hughes, G. (Latest edition) *Writing up Your University Assignments and Research Projects.*. McGraw-Hill/Open University Press. Neville, C. (Latest edition) *The complete guide to referencing and avoiding plagiarism*. McGraw-Hill/Open University Press.