

Assessment of degree project

	_	
Course:		
Points	weight	Points x
	1	weight
	5	
	3	
	3	
	5	
	1	
		+
	5	
	5	
	_	
Date		
Date	5	
	5	
	oints for e	Points Weight 1 5 3 3

Department of Materials and Environmental Chemistry

Stockholm university 106 91 Stockholm Sweden

Visiting adress: Svante Arrhenius väg 16C FAX: +46 8 15 21 87 Arrhenius laboratory www.mmk.su.se

Phone: +46 8 16 20 00

E-mail:@mmk.su.se

Marking Criteria Degree Project in Materials Chemistry (Advanced Level)

For passing the degree project at least 1 point is required in all assessments.

Understanding the project (weight 1)

Points	Assess- ment	Criteria
1	Yes/No	The student is able to restate the aims of the project in her/his own words and to discuss how the chosen approach relates to them.
3	Yes/No	The student is able to explain why the approach is suitable for the aims of the project and how all phases of the project relate to the aims.
5	Yes/No	The student is able to discuss the approach in a wider perspective, in addition to the requirements for 3 points.

Points:		

Execution of the project (weight 5)

Points	Assess- ment	Criteria
	All	of the criteria below must be fulfilled to obtain 1 point
1	Yes/No	The student executes the project thoroughly
	Yes/No	The student documents the project in a laboratory notebook such that it can be repeated by others. The notebook must be written in a language that the supervisor understands.
	Yes/No	The student applies experimental techniques / computational or theoretical approaches adequately.
	Yes/No	The student is able to search and critically interpret relevant literature.
	Yes/No	The student is able to plan adequate experiments/computations.
Each fulfilled criterion below gives one additional point, but only if all criteria for 1 point above have been fulfilled		
2-5	Yes/No	The student actively drives the project forward.
	Yes/No	The student documents the project in a clear and structured way.

Yes/No	The student is able to identify problems with the chosen approach or the planned experiments / computations.
Yes/No	The student shows great experimental / computational skills.

Theoretical background /knowledge (weight 3)

Points	Assess- ment	Criteria			
	All of the criteria below must be fulfilled to obtain 1 point				
1 Yes/No The student has extended knowledge regarding the characteristics the project		The student has extended knowledge regarding the chemical context of the project			
	Yes/No	The student has extended knowledge regarding the methods used in the project			
	Yes/No	The student has insight into current research related to the project			
Each fulfi have been		below gives one additional point, but only if all criteria for 1 point above			
2-5	Yes/No	The student has done an extensive literature search and has deep insight into current research in the field of the project.			
	Yes/No	The student has deep insight into the relevant system			
	Yes/No	The student has deep insight into the method(s) used in the project and is able to reflect about the choice of the method(s)			
	Yes/No	The student is able to discuss strengths and limitations of the used methods regarding application to the chemical system studied			

D .		
Dointe		
Points:		
T OIIIIO.		

Evaluation and analysis of results (weight 3)

Points	Assess- ment	Criteria		
	All of the criteria below must be fulfilled to obtain 1 point			
1	1 Yes/No The student is able to discuss strengths and limitations of the approach			
	Yes/No	The student draws correct conclusions from the obtained results		
	Each fulfilled criterion below gives one additional point, but only if all criteria for 1 point above have been fulfilled			
2-5 Yes/No The student analyses the data thoroughly.				
	Yes/No	The student is able to explain also those aspects of the results that are difficult to interpret or has otherwise critically evaluated the data.		

Yes/No	The student builds relevant hypotheses bases on her/his data.
Yes/No	The student develops evaluation methods or tests several methods.

Independence (weight 5)

Points	Assess- ment	Criteria	
	All of the criteria below must be fulfilled to obtain 1 point		
1	Yes/No	The student is able to perform the experiments / computations independently after an introduction	
	Yes/No	The student is able to plan adequate experiments / computations	
Each fulfilled criterion below gives one additional point, but only if all criteria for 1 point above have been fulfilled			
2-5	Yes/No	The student is able to deal with upcoming problems in an independent way.	
	Yes/No	The student contributes with own ideas that are relevant for the execution of the project or suggests approaches to solve particular problems.	
	Yes/No	The student shows initiative in the practical execution of the project.	
	Yes/No	The student takes a leading role in the planning of the second half of the project.	

Points:	
---------	--

Keeping the time schedule (weight 1)

Points	Assess- ment	Criteria
1	Yes/No	The student keeps the agreed time schedule in the experimental / computational work
3	Yes/No	In addition, the student holds the oral presentation in time
5	Yes/No	In addition, the student hands the different versions of the written report in time

Note that the final version (accepted by the examiner) must be handed in at latest 30 days of term time after the oral presentation (not counting the time it takes the examiner to read the supervisor accepted version) to qualify for marks A and B.

Points:	

The oral presentation (weight 5)

Points	Assess- ment	Criteria	
	ment		
	All of the criteria below must be fulfilled to obtain 1 point		
1	Yes/No	The presentation introduces the system studied AND the method(s) used. The information given is correct.	
	Yes/No	Relevant results are presented and correct conclusions drawn from the obtained results.	
	Yes/No	The results are discussed in the context of previous research from the literature.	
	Yes/No	Most illustrations are relevant, clear and have correct axis labels.	
	Yes/No	The presentation is clear and structured.	
	Yes/No	The presentation lasts between 20 and 30 min.	
Yes/No Language and pronunciation are understandable		Language and pronunciation are understandable	
	Yes/No	Language and technical terms are largely correct	
	Yes/No	The student answers correctly to most relevant questions.	
Each fulfi have been		below gives one additional point, but only if all criteria for 1 point above	
2-5	Yes/No	The introduction places the project into a wider context	
	Yes/No	The presenter holds good contact wit the audience	
	Yes/No	The presentation has a clear structure, language and technical terms are correct and the pronunciation is clear.	
	Yes/No	The student gives qualified answers to all questions	

\mathbf{r}	• .	
v	oints:	
	mms.	

The written presentation (weight 5)

Points	Assess- ment	Criteria
	All of the criteria below must be fulfilled to obtain 1 point	
1	Yes/No	The report contains the required number of pages
	Yes/No	The report is written entirely in the student's own words without plagiarism.
	Yes/No	The text is clear and spelling, grammar, and formalities are largely correct.
	Yes/No	The <i>Popular science description</i> puts the project in a wider perspective, can be understood by someone with school knowledge in science and has the required length

	Yes/No	The <i>Abstract</i> is understandable on its own
	Yes/No	The <i>aims</i> are clearly stated in the <i>Introduction</i>
	Yes/No	The <i>Introduction to the system</i> has the required length; correctly states the present knowledge and is based on scientific reviews and articles
	Yes/No	The <i>Introduction into the method(s)</i> has the required length; correctly states its/their scientific background and summarizes previous results obtained with this/these methods on the studied system or similar systems. The later is based on scientific reviews and articles
	Yes/No	The <i>Materials and Methods</i> section is detailed enough for other scientists to repeat the study.
	Yes/No	The <i>Results</i> section reports the obtained results in a clear way and gives a reasonable interpretation based on the obtained data. All figures are referred to in the text, they have correct axis labels and units. All work is mentioned, i.e. also those parts of the project that did not work. If results were obtained by others, this is clearly stated.
	Yes/No	The <i>Discussion</i> section discusses appropriately the obtained results in the light of previous original research articles.
	Yes/No	Benefits and limitations of the approach as well as possible alternative interpretations are appropriately discussed and the respective section has the required length
	Yes/No	The role of similar approaches and research topics for the society and possible ethical aspects are appropriately discussed and the respective section has the required length
	Yes/No	The report identifies <i>further questions</i> worth studying and outlines how this can be done.
	Yes/No	The report cites and lists relevant literature correctly and references are given for all figures not produced by the student her/himself.
Each fulfi have been		below gives 1/2 additional point, but only if all criteria for 1 point above
1.5-5	Yes/No	The above criteria for 1 point were already met in the first draft handed in to the supervisor
	Yes/No	The text contains little irrelevant material.
	Yes/No	The results are discussed in a wider context.
	Yes/No	The text discusses whether the aims were reached or not.
	Yes/No	The analysis and discussion of the results it thorough.
	Yes/No	The text is well structured.
	Yes/No	Spelling, grammar, and technical terms are correct throughout the text.
	Yes/No	The text is easy to read
	Yes/No	The illustrations are helpful for the understanding and are easy to perceive

Points:	
---------	--

Final mark

The final mark is calculated as follows:

1x points for Understanding the project

- + 5x points for Execution of the project
- + 3x points for Theoretical background/knowledge
- + 3x points for Evaluation and analysis of results
- + 5x points for Independence
- + 1x points for Keeping the time schedule
- + 5x points for The oral presentation
- + 5x points for The written presentation
- = Total number of points (min 28, max 140)

Mark	Total number of points
E	28 - 41
D	42 - 69
С	70 - 97
В	98 - 125
A	126 - 140

<u>In addition:</u> In order to qualify for marks A and B, the final version (accepted by the examiner) must be handed in <u>at latest 30 days</u> of term time after the oral presentation (not counting the time it takes the examiner to read the supervisor accepted version)