SCI / Typical characterization of theses grades

| | Grade 0 | Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade 5 |
|---|---|--|---|--|--|--|
| Definition of research scope and goals | Thesis goals not reported or cannot be recognized Narrow or poorly defined research scope Poorly defined goals for the thesis Irrelevant research question | - Vague description of research scope or goals | | Clearly and appropriately defined goals and scope Carefully planned thesis Relevance justified appropriately | | Precisely defined and justified research scope Demonstration of mature thinking in the definition of goals and research questions Topic is very relevant |
| Command of the topic | - Poor command of the research topic and its theoretical framework - Few or irrelevant references - Source evaluation is lacking and the bibliography contains errors. | -References are few or of poor scientific quality. - Notable shortcomings in the referencing. - weak source evaluation | | - Good command of the research topic and its theoretical framework - Student has found the relevant reference materials on the topic | The thesis combines the cited works and empirical data consistently and clearly. The cited works consist primarily of high-quality scientific publications (journals, other referred forums), which are sufficiently numerous and appropriately chosen. Thesis demonstrates critical evaluation of existing knowledge | Broad-based knowledge of the background material and the research topic References throw light on the topic from a variety of perspectives Thesis provides insightful synthesis of the existing knowledge on the subject |
| Methods | - Research or engineering methods not recognizable - False or inappropriate methods | Weak and vague or non-existing reasons given for the methodological choices Significant shortcomings in the application of methods | -Empirical data is scarce or there are shortcomings in its collection or analysis. -Critical analysis is scarce or non- existent. -Although methodological choices have been made, methods are used inconsistently. | - Research questions answered using justified methods | - Appropriate methods have been used in a well-founded manner. Reliability and validity or trustworthiness of the study/results are evaluated. | - Methodological choices thoroughly justified - Excellent command of methods |
| Results and contribution | - No results can be recognized | Results not in line with the goals or they are insignificant from the goal point of view Minor independent input from the student Few or poorly justified conclusions Clearly erroneous results | -Goals and results of the thesis do not clearly match each other. -The student may have difficulties in comprehending the goal or scope of the research or in defining the research questions. - Thesis may also depend excessively on the cited works, i.e. the results are not based on independent research but rather on the references. - Little significance for the field of research or industry in question, and no contribution to knowledge | Results in line with the goals Conclusions drawn appropriately from the material Cited works evaluated critically | -Results are of theoretical interest or have high practical relevance, and they answer the research questions. -Research process has been described at least on a general level while the transferability of the results has been evaluated to some extent. -Empirical data has been presented well and its relevance to the results is clear. The empirical data is sufficiently extensive to | Thesis produces new results of interest to academia or industry or otherwise relevant to professionals in the field - Results evaluated critically and examined from a variety of perspectives - Use of appropriate references of high scientific quality while paying attention to source evaluation |

Typical characterization of theses grades

| Presentation, language and | -Text has a lot of language errors | - Language needs considerable revision - | can be clearly identified in the thesis. - Conclusions drawn are few and may contain minor factual errors. -Thesis is not a coherent, well- organised whole, its parts are out | - The language is appropriate | justify the conclusions drawn, and the line of reasoning behind the conclusions is easily followed. - The thesis is a consistent written presentation of the topic and a | - Written in fluent, formal |
|----------------------------|--|--|---|--|--|--|
| structure | - Thesis structure is unclear and the language does not facilitate the understanding of the content | Overall appearance needs improvement | of balance. thesis contains inconsistencies or unexplained conclusions | The text is easily understood and the structure is sufficiently clear Overall appearance is appropriate | coherent and balanced whole. -Language of the thesis is fluent and may contain only a few mistakes. The language facilitates the understanding of the content, arguments are consistent throughout the thesis Figures and tables are illustrative | - Impeccable and coherent overall appearance |
| Thesis process | | Time used to complete the thesis disproportionate to the difficulty of the topic Severe thesis delay due to actions or inactivity of the student Needed particularly lot of guidance | The time to complete the thesis was considerably longer than the expected time frame six months. Needed more than average level of guidance | Thesis mostly progressed according to the thesis schedule (max six months) Average level of guidance needed | The thesis has been completed within the target time in six months, or at least within an otherwise agreed upon. - Little process guidance is needed - Student has utilized feedback constructively | The thesis has been completed within the target time in six months, or at least within an otherwise agreed upon - Student demonstrates solid skills in working independently |
| Other | | | | | | Thesis includes a discovery or an invention for which a patent application has been filed A scientific publication will be / has been made of the thesis Thesis has considerable societal impact |