

FINAL THESIS REPORT RUBRIC – ESC499 – 2019-20

**Student Name:**

**Supervisor:**

**Grade:**

**/100**

Component	1	2	3	4	Requirement	Comments (Use back if necessary)
Introduction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establishes context necessary to facilitate thorough understanding of thesis work in a concise manner	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establishes a clear research gap/design problem, makes a convincing case for the significance of proposed research work	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identifies goal for thesis work that explicitly addresses this gap/problem; provides clear purpose statement	
Literature Review / Background	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Explains theoretical concepts important to understanding of thesis work	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identifies, summarizes, and synthesizes relevant research in constructing an understanding of current state of field	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enables deeper understanding of research question/design problem through analysis of research in the field, indicating a path for moving research forward	
Methods and Findings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Describes methods or design in sufficient detail to enable understanding of work done	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Provides justification for methods chosen or design decisions made	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Results displayed clearly in organized manner, using appropriate figures or graphics; key results highlighted	
Discussion and Conclusions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Engages with and explains results intelligently	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identifies key claims to be drawn from results of research or design evaluation, qualifies them appropriately	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Outlines significance of research done, identifies potential future work that arises from thesis work	
Overall Document Design:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Abstract concisely summarizes purpose, methods, key results of research, and presents conclusions clearly	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Document length, formatting, structure meets stated requirements, and specific demands of thesis topic	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Organized well, with content in discrete and appropriate positions in paper, structure clearly laid out, transitions that create flow in document	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrates grammatically correct, coherent prose that concisely and clearly communicates complex topics in well designed paragraphs and sentences	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Uses and integrates well-designed visuals effectively to communicate key concepts / results	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Provides clear attribution of ideas throughout paper using a known referencing standard; uses references effectively to help establish context, back claims, or justify decisions	
Project Experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Work has contributed to scholarship in field / made a measurable impact	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrated initiative, ability to work independently, time management skills and ownership of work throughout thesis project	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Thesis work posed a significant challenge, requiring superb engineering & scientific knowledge and skills	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Quality of effort and thesis work indicative of potential for future research success	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has incorporated feedback and additional research on initial deliverables to improve final thesis document and work	

\*1 - Fails (0-60%); 2 - Adequate (60-70%); 3 - Good (70-80%); 4 - Exceeds expectations (80-100%). These numerical equivalents are only approximate; final grade and value of each component is up to the supervisor.

# A ROUGH GUIDE TO THE FINAL THESIS REPORT RUBRIC GUIDE – ESC499 – 2019-20

Component	Fails	Adequate	Good	Exceeds Expectations
Introduction	Missing key elements of context necessary to understand thesis work	Establishes just sufficient context necessary to facilitate a basic understanding of thesis work	Establishes context necessary to facilitate understanding of thesis work	Develops context appropriately and concisely in facilitating thorough understanding of thesis work
	Research gap or design problem remains unarticulated or unclear	Research gap or design problem is identified, but too broad or general to define project clearly	Identifies a clear research gap/design problem	Establishes a clear research gap or design problem, makes a convincing case for the significance of proposed research work
	Goal of thesis work is difficult to identify, or unrelated to gap or problem statement	Stated goal for thesis work is vague, imprecise, or not clearly related to gap/ problem statement	Identifies goal for thesis work that addresses this gap/problem	Explicitly identifies goal for thesis work in a clear purpose statement for the project that addresses gap/problem
Literature Review / Background	Missing key explanations of theoretical concepts important to thesis work	Most theoretical concepts important to work are identified and briefly explained	Identifies and explains theoretical concepts important to understanding of thesis work	Explains theoretical concepts clearly, concisely, in context of thesis work
	Fails to acknowledge or reference key research/prior work in the field	Identifies some important research/prior work in the field, but misses a few essential developments	Identifies and summarizes most of the key research/prior work in developing an understanding of the field	Identifies, summarizes, and synthesizes relevant research in constructing a nearly complete understanding of current state of field
	Analysis of field is incomplete and fails to further develop the research gap/design problem	Analysis of field provides limited help to further develop the research gap/design problem	Enables understanding of research question/ design problem through analysis of research in the field	Enables deep understanding of research question/design prob. via thorough analysis of research in the field, indicating path for moving forward
Methods and Findings	Fails to explain key elements of methods or design	Most elements of methods or design are explained in sufficient detail; missing elements may hamper understanding of work done	Describes methods or design in sufficient detail to enable understanding of work done	Detailed description of methods or design helps facilitate a thorough understanding of project
	Fails to justify key elements of method or design decisions	Provides some justification for most methods chosen/design decisions made	Provides sufficient justification for methods chosen / design decisions made	Justification for methods chosen/design decisions clearly and convincingly articulated, warranting validity of project
	Results not displayed in organized or appropriate manner	Most results are displayed in an organized manner, using some appropriate figures or graphics	Results displayed clearly in organized manner, using appropriate figures or graphics	Results displayed clearly in organized manner, using appropriate visuals that help highlight key results and findings
Discussion and Conclusions	Engages with results only superficially, without explanation of significance	Engages with and provides explanation for most results	Engages with and explains key results intelligently	Employs and explain results clearly in the context of research / design claims made
	Fails to make key claims from results of research or design evaluation	Makes appropriate claims from results of research or design evaluation, though claims may not be fully warranted	Identifies and explains key claims to be drawn from results of research or design evaluation	Identifies and warrants key claims to be drawn from results of research or design evaluation, qualifies them appropriately
	Fails to identify significance of research or design work done	Summarizes research / design work done, but fails to place it in context of prior or future work	Clearly identifies significance of research/ design work done in context of past work	Outlines significance of research/design work done, identifies potential future work that arises from thesis work
Overall Document Design:	Abstract fails to adequately describe nature and conclusions of project	Abstract provides a vague description of nature and conclusions of project	Abstract summarizes key elements of thesis sufficiently	Abstract concisely and completely summarizes purpose, methods, key results of research, presenting conclusions clearly
	Document length or formatting fails to meet many of the stated requirements	Some inconsistencies in formatting, but mostly meets the stated requirements	Document length, formatting, structure meets stated requirements	Document length, formatting, structure meets stated requirements, and specific demands of thesis topic

\*1 - Fails (0-60%); 2 - Adequate (60-70%); 3 - Good (70-80%); 4 - Exceeds expectations (80-100%). These numerical equivalents are only approximate; final grade and value of each component is up to the supervisor.

# A ROUGH GUIDE TO THE FINAL THESIS REPORT RUBRIC GUIDE – I – ESC499

Component	Fails	Adequate	Good	Exceeds Expectations
	Poorly organized throughout, lacking clear structure and flow throughout document	A few organizational problems detract from an otherwise well structured thesis	Organized well, with content in discrete and appropriate positions in paper, and structure clearly laid out	Organized well, with logical and explicit structure, and transitions that create flow throughout document
	Grammatical problems hamper understanding of key elements of the document	Some grammatical problems hamper readability of prose, but not understanding of document	Demonstrates grammatically correct, coherent prose throughout	Demonstrates grammatically correct, coherent prose that concisely and clearly communicates complex topics in well designed paragraphs and sentences
	Visuals not used appropriately or well integrated into document	Visuals employed appropriately, but may not be well integrated into document	Uses and integrates visuals effectively to communicate key concepts / results	Uses and integrates well-designed visuals effectively to communicate key concepts / results
	Poor attribution of ideas throughout, missing key references and failing to use an appropriate referencing standard	Provides clear attribution of ideas throughout paper using a known referencing standard, with only a few gaps or errors	Provides clear and thorough attribution of ideas throughout paper using a known referencing standard	Provides clear attribution of ideas throughout paper using a known referencing standard; references used effectively to help establish context, back claims, or justify decisions
Project Experience	Work makes no contribution to the field, and is only marginally relevant to current good scholarship	While no significant impact is made, work is relevant to good scholarship in the field	Work advances the possibility for future advancements in the field	Work has contributed to scholarship in field / made a measurable impact
	Student lacks the ability to take initiative, work independently, manage their time and/or take ownership over the project, negatively impacting the thesis experience	Student sometimes shows the ability to take initiative, work independently, manage their time and take ownership over the project	Student takes initiative and works independently, demonstrating good time management skills and project ownership	Demonstrated excellence in taking initiative, ability to work independently, time management skills and ownership of work throughout thesis project
	Thesis work completed did not meet expectations, nor showcase the knowledge and skills expected from an undergraduate engineering student	Thesis work required the knowledge and skills expected of an undergraduate engineering student	Thesis work posed a reasonable challenge, requiring engineering & scientific knowledge typical of a senior undergraduate or junior graduate student	Thesis work posed a significant challenge, requiring superb engineering & scientific knowledge and skills
	Student does not demonstrate potential for future research work	Quality of effort and thesis work indicative of some potential for future research work, with more study and experience	Quality of effort and thesis work indicative of some potential for future research success	Quality of effort and thesis work indicative of strong potential for future research success
	Student does not incorporate feedback or additional research from initial deliverables in the final thesis document or project work	Student incorporates some feedback and/or additional research from initial deliverables in the final thesis document or project work	Student incorporates most feedback and/or additional research from initial deliverables in the final thesis document or project work	Student has incorporated all relevant feedback from initial deliverables, and has actively incorporated new research or analysis to improve final thesis document and project work

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