

Graduate Program Handbook

**Department of Civil and
Environmental Engineering**

Rowan University

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Contents

1. Master of Science in Civil Engineering	1
1.1 Thesis option	1
Thesis committee	1
Thesis defense.....	1
1.2 Minimum Satisfactory Academic Progress	1
2. Master of Science in Civil Engineering	2
2.1 Non-thesis option.....	2
2.2 Minimum Satisfactory Academic Progress	2
3. Doctor of Philosophy in Engineering, with Specialization in Civil Engineering.....	3
3.1 Coursework	3
3.2 Minimum Satisfactory Academic Progress	3
3.3 Students with a non-civil engineering undergraduate degree	3
3.4 Teaching Requirement.....	3
3.5 Dissertation committee	4
3.6 Qualifying exam	4
3.7 Candidacy exam	4
3.8 Dissertation defense	5
4. Form A: Qualifying Examination Form.....	7
5. Form B: Candidacy Examination Form.....	8

1. Master of Science in Civil Engineering

1.1 Thesis option

**21 Credits of coursework required + 9 research credits*

- At least one graduate level math course is required.
- One graduate management course is recommended. However, it can be substituted by a graduate level engineering course.
- A maximum of two senior level engineering or science courses are allowed, upon approval from thesis adviser or graduate coordinator. However, a grade of B or better is required to be counted towards graduation.

*The coursework must be approved by thesis adviser or graduate coordinator.

Thesis committee

The student must form the thesis committee after the first year in consultation with his/her adviser. The student must submit Form A to graduate school for final approval. If there is a change in the thesis committee, the student must submit Form A-1 to graduate school for final approval.

Thesis defense

The candidate has to finish the minimum number of credits required for graduation in the semester he/she decides to defend.

The thesis should be submitted according to the following requirements:

<http://rowanu.com/sites/default/files/documents/thesis-dissertation/thesis-dissertation-manual.pdf>

The candidate must defend his/her final thesis and address all comments/corrections provided by the committee. Upon completion of the thesis defense, the committee will provide 'Satisfactory' OR 'Unsatisfactory' recommendation.

Satisfactory: The candidate will address all corrections for final submission and receive required signatures. The thesis defense form (link below) must be signed by all committee members:

<http://rowanu.com/sites/default/files/thesis-approval.pdf>

Unsatisfactory: The following action may be recommended:

- The candidate is terminated from the program, or
- The committee provides corrective actions and recommendations,
 - If the committee recommends the candidate to defend again, the candidate must defend his/her thesis within one semester.

1.2 Minimum Satisfactory Academic Progress

To maintain Minimum Satisfactory Academic Progress in and to successfully graduate from a Category 3 program students must:

- Earn no more than two total grades of any combination of “C+” or “C”. (C- grades are not acceptable)
- Earn no grades lower than a “C”
- Earn an official cumulative GPA (according to matriculation level) of at least 3.0 on Rowan’s 4.0 scale.

2. Master of Science in Civil Engineering

2.1 Non-thesis option

**30 credits of coursework required*

- At least one graduate level math course is required.
- One graduate management course is recommended. However, it can be substituted by a graduate level engineering course.
- A maximum of two senior level course are allowed, upon approval from thesis adviser or graduate coordinator however, a grade of B or better will be required to be counted towards graduation.

*The coursework must be approved by thesis adviser or graduate coordinator.

Program allows incoming matriculated students to transfer up to 12 graduate credits. Transfer credit (thesis and non-thesis option) is considered on a case-by-case basis. Please submit transcripts and a proposal describing and supporting your request for course replacement to the graduate program chair for review. Include course catalog descriptions and syllabuses if available.

2.2 Minimum Satisfactory Academic Progress

To maintain Minimum Satisfactory Academic Progress in and to successfully graduate from a Category 3 program students must:

- Earn no more than two total grades of any combination of “C+” or “C”. (C- grades are not acceptable)
- Earn no grades lower than a “C”
- Earn an official cumulative GPA (according to matriculation level) of at least 3.0 on Rowan’s 4.0 scale.

3. Doctor of Philosophy in Engineering, with Specialization in Civil Engineering

3.1 Coursework

- Required 72 credits beyond BS or 42 Credits beyond MS degree.
- 30 of the 72 credits must be obtained from coursework and the rest could be from dissertation credits or Special topics.
- It is recommended that 12-15 credits of the coursework should be 600 level courses. ***However, the primary research adviser can amend this requirement if appropriate courses are not available.***

Program allows incoming matriculated students to transfer up to 12 graduate credits beyond the Master of Science. Transfer credit is considered on a case-by-case basis. Please submit transcripts and a proposal describing and supporting your request for course replacement to the graduate program chair for review. Include course catalog descriptions and syllabuses if available.

3.2 Minimum Satisfactory Academic Progress

- To maintain Minimum Satisfactory Academic Progress in and to successfully graduate from a Category 3 program students must:
 - A grade of B- or above is required in each core or elective course. Lower grades result in probation and course retake. Core courses must be retaken. Electives can be retaken or substituted.
 - Cumulative 3.0 GPA must be maintained. A lower cumulative GPA results in probation.
 - Cumulative 3.0 GPA is required for graduation.
 - Students on probation will develop a remediation plan with their primary research adviser and the graduate program chair. Any consequences of probation including transfer to Master's track or termination from the program will be addressed within the Qualifying Examination.

3.3 Students with a non-civil engineering undergraduate degree

- Students who do not have an undergraduate degree in Civil and Environmental Engineering may be required to complete prerequisite undergraduate coursework in addition to regular requirements. Non-traditional students must schedule a meeting with the graduate program chair and their primary research adviser as soon as possible to formulate a plan of prerequisite coursework.
- Basic Courses: Chemistry I, Physics I, Calculus I, II, and III, Linear Algebra, and Differential Equations
- Additional courses: Statics, Solid Mechanics, rest of the courses dependent on specialization and primary research adviser feedback/project needs.

3.4 Teaching Requirement

- Students will be required to either be a teaching assistant or teach at least two courses in total.

3.5 Dissertation committee

The student must form the dissertation committee after the first semester (6-9 credits) in consultation with his/her primary research adviser. In the rest of the document, the word 'committee' or 'dissertation committee' includes the adviser. The committee will be of five members of which at least four are tenure track faculty at Rowan University (including Cooper & SOM) and at least three are in the Department of Civil and Environmental Engineering. Your primary research adviser will be one of the five committee members.

The student must submit form in the link of Section 3.9 for final approval. If there is a change in the thesis committee, the student must re-submit form for final approval. However, the thesis committee member(s) cannot be changed after the candidacy exams except under extraordinary circumstances, such as death, or committee member leaving the university, or other personal reasons of the committee member.

3.6 Qualifying exam

The student must attempt the exam after completing nine credits and within the first academic year of admission into the doctoral program. The exam must be administered by the dissertation committee. The committee can decide the length and scope of the exam (written and/or oral), and time required to complete the exam. Upon completion of the exam, the committee will provide 'Satisfactory' OR 'Unsatisfactory' recommendation.

Satisfactory: The student can continue with the doctoral program.

Unsatisfactory: The following action may be recommended:

- The student is terminated from the program or
- The committee provides corrective actions and recommendations. The student has to re-appear for the exam within two semesters.

If the student gets an Unsatisfactory after two attempts, they will be terminated from the program or recommended for the Master's Program.

The student must submit Form A to graduate school for final approval.

3.7 Candidacy exam

The student can attempt the candidacy exam after successfully completing the qualifying exam and at least one semester before defending his/her thesis.

- Submit a formal proposal that details the dissertation research plan, at least 14 days prior, that conforms to the guidelines (pg. limits, font, etc.) provided by the thesis adviser and includes preliminary data to demonstrate feasibility
- Submit a current CV that details the student's accomplishments since beginning the program
- Submit a current transcript
- Present the proposal to the Dissertation Committee

The committee will review the student based on

- Coursework/Grades
- Other accomplishments
- Publications/presentations/internships/IP/etc.
- The proposal, its presentation, and the student's response to questions

The student will receive detailed feedback about the proposal from the committee and it will serve as a guideline to completing his/her dissertation. Upon completion of the exam the committee will provide 'Satisfactory' OR 'Unsatisfactory' recommendation.

Satisfactory: The student is granted a 'Candidate' status and he/she can continue with dissertation.

Unsatisfactory: The following action may be recommended:

- The student is terminated from the program or
- The committee provides corrective actions and recommendations.
 - If there is a significant change in the scope of thesis, the candidate must meet with the committee to discuss and seek the approval.

An 'Unsatisfactory' recommendation does not automatically trigger a repeat proposal presentation; however, the corrective actions required by the committee may require one. The student must complete the required corrective actions within an academic year. If the student gets an unsatisfactory after two attempts, they will be terminated from the program.

The student must submit Form B to graduate school for final approval.

3.8 Dissertation defense

The candidate has to finish the minimum number of credits required for graduation in the semester he/she decides to defend. The dissertation should be submitted according to the following requirements:

The candidate must defend his/her dissertation and address all comments/corrections provided by the committee. The student must:

- Successfully defend by the end of 5th year
- Submit a written Dissertation to the committee at least 14 days in advance of the defense
- Submit a current CV that details the student's accomplishments since beginning the program (including copies of all publications)
- Present the dissertation to the Committee

The Committee will review the student based on

- The dissertation, its presentation, and the student's response to questions
- Other accomplishments
 - Publications/presentations/internships/IP/etc.

Upon completion of the thesis defense, the committee will provide 'Satisfactory' OR 'Unsatisfactory' recommendation.

Satisfactory: The candidate will address all corrections for final submission and receive required signatures. The Dissertation defense form must be signed by all committee members:

<http://rowanu.com/sites/default/files/dissertation-approval.pdf>

Unsatisfactory: The following action may be recommended:

- The candidate is terminated from the program or
- The committee provides corrective actions and recommendations, or
 - The candidate must defend dissertation again within an academic year. If the candidate gets an unsatisfactory after two attempts, they will be terminated from the program.
- Recommends conferment of Master's degree, if the candidate does not already have a MS degree from Rowan University

3.9. Thesis and dissertation Requirements

The thesis and dissertation requirements are provided in the link below:

<https://rowanu.com/academic-resources/thesis-dissertation>

All students are required to follow all the instructions outlined in the link above and get all appropriate approvals in a timely fashion in consultation with the thesis /dissertation adviser.

4. Form A: Qualifying Examination Form

All fields are required

Name:		Attempt (1 st or 2 Nd)	
ID:	Exam Date: ___/___/___ (MM/DD/YYYY)		

The student must attempt the qualifying exam after completing 9 credits of graduate course work. In the following table provide list of completed courses to be considered for the qualifying exam.

CRN#	Title of course as listed in catalog	Semester Credit Hrs.	Date Completed (MM/DD/YYYY)
			___/___/___
			___/___/___
			___/___/___
			___/___/___
			___/___/___

Decision

The committee recommends following based on the results of qualifying exam.

<input type="checkbox"/>	Satisfactory The student can continue with the doctoral program
<input type="checkbox"/>	Unsatisfactory The student has to re-appear for the exam
<input type="checkbox"/>	Failed

Examining Committee (This form must be signed by all committee members)

Last Name, Initial	Department	Signature	Date (MM/DD/YYYY)
(Chairperson)			___/___/___
			___/___/___
			___/___/___
			___/___/___
			___/___/___

Approved By

Last Name, Initial	Signature	Date
(Director of Graduate Studies)		___/___/___

5. Form B: Candidacy Examination Form

All fields are required

Name:	Attempt (1 st or 2 nd)
ID:	Expected Graduation Date (MM/DD/YYYY) _/_/____

The student must attempt the candidacy exam after successfully completing the qualifying exam and at least one semester before defending his/her thesis.

Thesis Title:

Candidacy Exam Date (MM/DD/YYYY):

Decision

The committee recommends following based on the careful review of Coursework/Grades, Written Proposal, Presentation & response to questions and other accomplishments.

<input type="checkbox"/>	Satisfactory The student is granted a 'Candidate' status and can continue with the dissertation
<input type="checkbox"/>	Unsatisfactory The student has to comply with recommendations provided by the committee.
<input type="checkbox"/>	Unsatisfactory The student has to comply with recommendations provided by the committee and has to re-appear for the candidacy exam
<input type="checkbox"/>	Failed

Examining Committee (This form must be signed by all committee members)

Last Name, Initial	Department	Signature	Date (MM/DD/YYYY)
(Chairperson)			_/_/____
			//____
			//____
			//____
			//____

Approved By

Last Name, Initial	Signature	Date
(Director of Graduate Studies)		_/_/____
(Dean of Graduate School)		_/_/____