

# **Graduate Program Handbook**

**Department of Civil and  
Environmental Engineering**

**Rowan University**

**Spring 2016**

Version 2.0

03/03/16

\* This document is pending approval. We reserve the right to make changes with notification.

---

## 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 ( <i>Pending approval by Senate Curriculum Committee</i> ) .....	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
3.9 Dissertation submission .....	6
5. Form A: CEE Request for Thesis/Dissertation Committee .....	7
6. Form A-1: Change of Dissertation Committee Form .....	8
7. Form B: Qualifying Examination Form .....	9
8. Form C: Candidacy Examination Form .....	10

---

---

## 1. Master of Science in Civil Engineering

---

### 1.2 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.

### 1.3 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**

### **2.2 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.

### **2.3 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 (Pending approval by Senate Curriculum Committee)**

---

#### **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 /research credits.
- It is recommended that 12-15 credits of the coursework should be 600 level courses within. ***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. 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 TA 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 5 members of which at least 4 are tenure track faculty at Rowan University (including Cooper & SOM) and at least 3 are in the Department of Civil and Environmental Engineering. Your primary research adviser will be one of the 5 committee members.

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. 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 9 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 B 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 C 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:

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

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 Dissertation submission**

The candidate will submit signed (by entire committee) copy of the dissertation to the library as per the guidelines as listed below.

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



**5. Form A: CEE Request for Thesis/Dissertation Committee**

All fields are required

<b>Name:</b>	<b>Degree</b> (MS or PhD )
<b>ID:</b>	<b>Date of Request</b> (MM/DD/YYYY) __/__/____

- For MS Degree: The student must form the thesis committee after the first year in consultation with his/her adviser.
- For PhD Degree: The student must form the dissertation committee after the first semester (6-9 credits) in consultation with his/her primary research adviser.

**Thesis Title:****PROPOSED COMMITTEE MEMBERS**

Last Name, Initial (Chairperson)	Department/University	Tenure Track?
		<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> Yes <input type="checkbox"/> No

- ☐ I am aware that research involving human subjects (including surveys) requires Institutional Review Board (IRB) approval. I will comply with current applicable Rowan University regulations pertaining to research on human subjects or animals before and during all stages of my research.

Last Name, Initial (Requesting Student)	Signature	Date (MM/DD/YYYY)
		__/__/____
(Adviser of the Requesting Student)		__/__/____

**Approved By**

(Director of Graduate Studies)		__/__/____
(Dean of Graduate School)		__/__/____

**6. Form A-1: Change of Dissertation Committee Form**

All fields are required

<b>Name:</b>	<b>Degree</b> (MS or PhD )	
<b>ID:</b>	<b>Date of Request</b> (MM/DD/YYYY) _/_/____	

**Thesis Title:****Member(s) to be removed**

Last Name, Initial	Department/University	Tenure Track?
		<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> Yes <input type="checkbox"/> No

**Member(s) to be added**

Last Name, Initial	Department/University	Tenure Track?
		<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> Yes <input type="checkbox"/> No

**Reason for change:**

Last Name, Initial	Signature	Date (MM/DD/YYYY)
(Requesting Student)		_/_/____
(Adviser of the Requesting Student)		_/_/____

I certify that all members of the committee, including members being added and/or removed, have been informed of this change to the committee.

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

**7. Form B: Qualifying Examination Form**

All fields are required

<b>Name:</b>	<b>Attempt</b> (1 <sup>st</sup> or 2 <sup>nd</sup> )	
<b>ID:</b>	<b>Exam Date:</b> ____/____/____ (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"/>	<b>Satisfactory</b> The student can continue with the doctoral program
<input type="checkbox"/>	<b>Unsatisfactory</b> The student has to re-appear for the exam
<input type="checkbox"/>	<b>Failed</b>

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

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

**Approved By**

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

## 8. Form C: Candidacy Examination Form

All fields are required

<b>Name:</b>	<b>Attempt</b> (1 <sup>st</sup> or 2 <sup>nd</sup> )	
<b>ID:</b>	<b>Expected Graduation Date</b> (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"/>	<b>Satisfactory</b> The student is granted a 'Candidate' status and can continue with the dissertation
<input type="checkbox"/>	<b>Unsatisfactory</b> The student has to comply with recommendations provided by the committee.
<input type="checkbox"/>	<b>Unsatisfactory</b> The student has to comply with recommendations provided by the committee and has to re-appear for the candidacy exam
<input type="checkbox"/>	<b>Failed</b>

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

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

### Approved By

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