

# Master of Science in Civil Engineering

## Program Study Plan

The following 4-semester model study plan assumes that a student takes 3 courses every semester in the first year and 2 courses every semester in the second year.

### General Concentration

#### Semester 1 (Fall)<sup>\*</sup>

Course	Course Title	Pre-req.
CIV502	Advanced Engineering Mathematics	Graduate standing
CIV503	Finite Element Analysis	Graduate standing
CIV561	Construction Project Management	Graduate standing

#### Semester 2 (Spring)<sup>\*\*</sup>

Course	Course Title	Pre-req.
CIV518	Pre-stressed Concrete Design	Graduate standing
CIV521	Advanced Foundation Engineering	Graduate standing
CIV531	Urban Transportation Planning	Graduate standing

#### Semester 3 (Fall)

Course	Course Title	Pre-req.
CIV5xx	A Course in Water Resources or Environmental Engineering	Graduate standing
CIV599	Research Thesis <sup>3</sup> (3 credit hours)	Graduate standing

#### Semester 4 (Spring)

Course	Course Title	Pre-req.
	Major Elective 1	Graduate standing
CIV599	Research Thesis <sup>3</sup> (3 credit hours)	Graduate standing

<sup>3</sup> A student may replace the 6 credit hours of CIV599 indicated in semesters 3 and 4 with the following:

- One Major Elective, and
- CIV598 Profession Project

## Structural Engineering Concentration

### Semester 1 (Fall)

Course	Course Title	Pre-req.
CIV502	Advanced Engineering Mathematics	Graduate standing
CIV503	Finite Element Analysis	Graduate standing
CIV517	Advanced Steel Design	Graduate standing

### Semester 2 (Spring)

Course	Course Title	Pre-req.
CIV518	Pre-stressed Concrete Design	Graduate standing
CIV521	Advanced Foundation Engineering	Graduate standing
CIV511	Structural Dynamics I	Graduate standing

### Semester 3 (Fall)

Course	Course Title	Pre-req.
CIV516	Structural Bridge Design	Graduate standing
CIV599	Research Thesis <sup>3</sup> (3 credit hours)	Graduate standing

### Semester 4 (Spring)

Course	Course Title	Pre-req.
	Major Elective 1	Graduate standing
CIV599	Research Thesis <sup>3</sup> (3 credit hours)	Graduate standing

<sup>3</sup> A student may replace the 6 credit hours of CIV599 indicated in semesters 3 and 4 with the following:

- One Major Elective, and
- CIV598 Profession Project

## Construction Engineering Concentration

### Semester 1 (Fall)

Course	Course Title	Pre-req.
CIV502	Advanced Engineering Mathematics	Graduate standing
CIV561	Construction Project Management	Graduate standing
CIV517	Advanced Steel Design	Graduate standing

### Semester 2 (Spring)

Course	Course Title	Pre-req.
CIV518	Pre-stressed Concrete Design	Graduate standing
CIV563	Building Construction Equipment & Methods	Graduate standing
CIV562	Construction Scheduling & Resource Management	Graduate standing

### Semester 3 (Fall)

Course	Course Title	Pre-req.
CIV565	Construction Financial Management	Graduate standing
CIV599	Research Thesis <sup>3</sup> (3 credit hours)	Graduate standing

### Semester 4 (Spring)

Course	Course Title	Pre-req.
	Major Elective 1	Graduate standing
CIV599	Research Thesis <sup>3</sup> (3 credit hours)	Graduate standing

<sup>3</sup> A student may replace the 6 credit hours of CIV599 indicated in semesters 3 and 4 with the following:

- One Major Elective, and
- CIV598 Profession Project