

M.S. IN ARCHITECTURAL ENGINEERING

Overview

The Department of Civil, Architectural, and Environmental Engineering (CAE) offers a Master of Science degree in Architectural Engineering (MSAE).

The educational objectives of the Master of Science program in Architectural Engineering are to produce graduates whom:

1. Have advanced technical knowledge in at least one specialty area of Architectural Engineering
2. Have advanced capability to apply knowledge to engineering problems

The degree program has the following options:

- Thesis option
- Non-Thesis option
- 5-Year B.S./M.S. option available for qualified undergraduate students enrolled within the CAE Department

For all options, a minimum of 30 graduate-level credits are required with an average of "B" or better and no grade below "C". A total of 6 credits of transfer and/or exchange coursework (not counted towards the B.S. degree, and with grades of "B" or above) may be taken at another institution (with pre-approval) to satisfy the requirements for the M.S. degree. The M.S. degree can be typically completed within one calendar year.

The Program of Study is the student's specific set of coursework that defines the course requirements for graduation and must be approved by an advisory committee (known as the Supervisory Committee).

Curriculum Requirements - Thesis Option

A minimum of 30 graduate-level credits are required with an average of "B" or better and no grade below "C". Of the 30 credits:

- At least 24 credits of lecture-based courses
- At least 15 credits in CAE courses
- At least 6 credits of lecture-based CAE courses at the 700 level (not Independent Study)
- 6 credits of Master's Thesis (CAE 810) and an oral examination in defense of the thesis

The table presents an overview of the course selection:

Code	Title	Credit Hours
CAE 810	Master's Thesis	6
2 CAE 700 Level Lecture-Based Courses		6
1 CAE Elective Course		3
5 Elective Courses		15
Total Credit Hours		30

- Notes:
1. All courses are 3 credit hours unless otherwise indicated
 2. Independent Study/Special Problems (CAE 595, CAE 695, CAE 795) *will not* count towards the degree requirements
 3. Master's Design Project (CAE 604) *will not* count towards the degree requirements

The M.S. thesis must be defended to, approved by, and signed by the student's Thesis Committee, which is typically the same as the student's Supervisory Committee or, if not, has a composition that is equivalent to the Supervisory Committee.

Refer to the Additional Details section (below) for additional options and restrictions.

Curriculum Requirements - Non-Thesis Option

Code	Title	Credit Hours
2 CAE 700 Level Lecture-Based Courses		6
2 Courses 700 Level		6
3 CAE Elective Courses		9
3 Elective Course		9
Total Credit Hours		30

- Notes:
1. All courses are 3 credit hours unless otherwise indicated
 2. Up to 6 credits can be Independent Study/Special Problems (CAE 595, CAE 695 CAE 795)
 3. Master's Design Project (CAE 604) *will not* count towards the degree requirements
 4. Master's Thesis (CAE 810) *will not* count towards the degree requirements

Refer to the Additional Details section (below) for additional options and restrictions.

Additional Details

- There is also a 5-Year B.S./M.S. option available for qualified undergraduate students enrolled within the CAE Department. For this combined degree programs only, students are allowed to transfer up to 9 credit hours of graduate coursework from a semester spent abroad. The coursework resulting in the 9-credit hour transfer is to be approved by the student's M.S. Supervisory Committee **prior** to initiating a study abroad program. With the exception of the dual M.S. program with UniBo (<http://www.coe.miami.edu/departments/cae-engineering/graduate/dual-ms/>), transferred credits cannot be used to satisfy the requirements of an external degree.
- Admissions requirements for the M.S. degree are listed in this Bulletin under Engineering (<http://bulletin.miami.edu/graduate-academic-programs/engineering/>) and under Master's Degree.
- A total of 6 credits of transfer and/or exchange coursework (not counted towards the B.S. degree, and with grades of "B" or above) may be taken at another institution (with pre-approval) to satisfy the requirements for the M.S. degree.
- Internships, Practical Training, workshops, or other types of practicum are neither required nor optional credit-earning components in the established graduate curriculum (Program of Study). Credit earned through these experiences (such as UMI 605) *will not* count towards any CAE degree requirement. CAE 665 - 669 and CAE 765 - 769 shall not count towards the degree.
- The Supervisory Committee must have a minimum of 3 members, including:
 1. Committee Chair (Advisor) shall be full-time CAE faculty and a member of the Graduate Faculty.
 2. Full-Time or Part-Time CAE Faculty
 3. Non-CAE member with an earned Ph.D.

In addition to the Committee Chair, at least one member must be tenured/tenure-earning or a member of the Graduate Faculty.

Mission

The mission of the Department of Civil, Architectural, and Environmental Engineering is to:

- Provide high-quality undergraduate and graduate education in civil, architectural, and environmental engineering that will prepare graduates for professional careers and a lifetime of learning;
- Conduct high-quality research that will advance the body of knowledge and improve the quality of human life; and
- Serve the engineering profession and society through active involvement in professional organizations and contribution of professional expertise.

Goals

The educational objectives of the M.S. program in Architectural Engineering are to produce graduates whom:

- Have advanced technical knowledge in at least one specialty area of architectural engineering; and
- Have advanced capability to apply knowledge to engineering problems.

Student Learning Outcomes

- Students will demonstrate an advanced knowledge of the discipline (mathematics, science, and engineering), including methodology relevant to a specialty area.
- Students will demonstrate an advanced ability to identify, formulate, and solve engineering problems.
- Students will demonstrate an advanced ability to generate technical contributions and effectively communicate them to the scientific community.