# MSAECM – Fast track

## Master of Science in Architecture–Engineering–Construction Management

### 1 Fall 1st Year (48 units)
- **Core:** (12 units)
  - 12-794 Graduate Seminar, Section D (0) [P/N]
  - 48-725* Real Estate Design & Development (12)

### Sustainability Assessment: (12 units)
- 48-768* Indoor Environmental Quality (12)

### Quantitative Modeling: (12 units)
- 12-706 Civil Systems Investment & Planning (12)
- 48-733 Environmental Performance Simulation (12)

### Approved Fall Electives:
- 12-712 Sustainable Eng. Principles (12)
- 12-741 Data Management (6)
- 48-749 Parametric Modelling with BIM (6/12)
- 48-798 HVAC & Power Supply for Low-Carbon Buildings (9/12)
- 48-763 Protean Systems (9)
- 62-706 Generative Systems for Design (12)

### 2 Spring 1st Year (48 units)
- **Core:** (12 units)
  - 12-794 Graduate Seminar, Section D (0) [P/N]
  - 48-759* Value Based Design (12)

### Management: (12 units)
- 12-750 Infrastructure Management (12)
  - Or/And+
    - 48-756 Project Planning & Reporting (12)

### Computational Skills: (12 units)
- 12-711 BIM for Eng, Construct & Facility Management (12)
  - Or/And+
    - 48-781 Spatial Analysis in Infrastructure Planning (12)

### Approved Spring Electives:
- 12-803 Construction Estimating (9)
- 12-714 Environmental LCA (12)
- 12-718 EES&S Project (12)
- 12-737 Innov. Built & Natural Environ. (12)
- 12-745 Advanced Infrastructure Project (12)
- 48-711 Paradigms Research in Arch. (9/12)
- 48-722 Building Performance Modeling (12)
- 48-752 Zero Energy Housing (9)

### Program Description:
The Master of Science in Architecture–Engineering–Construction Management (MSAECM)–Fast track program is jointly offered by the School of Architecture and the Department of Civil & Environmental Engineering. Admission to the MSAECM-Fast track program is contingent upon resume review documenting a minimum of 8 years of experience in Architecture, Engineering, and/or Construction Management.

The program prepares building-delivery professionals for careers in capital project delivery dealing with the entire life-cycle of capital projects, from pre-design to design, construction, commissioning, operation, and maintenance stages. It focuses on the integration of design and technology, particularly advanced information systems, as a means of both improving building performance and enhancing environmental performance and sustainability.

Graduates of our program are educated to become effective decision makers who can positively impact economic, environmental, and ethical aspects of the built environment through professional management strategies.

Our graduates have successful careers in government, industry, business and NGO (non-governmental organization) sectors, prospering in positions where design professionals continuously make large-scale capital project design, construction, and operations decisions.

### Program Requirements:
In addition to the standard requirements for all graduate students in the School of Architecture, students in the MSAECM-Fast track program must satisfy the following:

- 96 units of coursework are required for graduation. Course substitutions and prerequisite waivers will be reviewed on a case-by-case basis.
- Students must complete a minimum residency requirement of two (2) academic semesters at full-time status (minimum 36 units per semester).
- A maximum of 54 units per semester.

+ Students must choose one of these two courses and are encouraged to take the other as an elective.
+ Courses below this line are outside of the SoA and CEE. Registration is limited.

* Minimum grade of B required.