M.S. IN CONSTRUCTION MANAGEMENT

Overview

The University of Miami's MS in Construction Management program is a practice-oriented advanced graduate degree that offers a blend of construction and business management courses. This degree program is designed to develop leaders and managers for complex building projects, with mastery in best practices related to resiliency, sustainability, building information modeling, project delivery and decision-making. The University is uniquely situated in a booming metropolis where commercial and residential construction is a large and important industry.

Admission Requirements

To be eligible for admission, a student must hold a bachelor's degree from a regionally accredited institution in engineering, architecture, environmental / physical sciences, environmental science and policy, business, management, economics, or construction management. Other admission requirements will be consistent with those of UM Graduate School; GRE / GMAT are not required.

Curriculum Requirements

Code	Title	Credit Hours
CORE COURSES		
Core 1 Construction Management Principles:		**3**
Choose one of these options:		
CAE 762	Construction Project Management	
CMA 601	Fundamentals of Construction Management	
RED 670	Construction and Project Management	
ISE 763	Project Management Techniques	
Core 2 BIM and Construction Documents: [1]		**3**
Choose one of these options:		
CAE 661	Computer Aided Architecture Engineering Design	
CMA 640	Virtual Design and Construction (VDC/BIM)	
CAE 761	Building Information Modeling II	
Core 3 Construction Economics: [1]		**3-4**
Choose one of these options:		
CAE 765	Construction Accounting and Finance	
ISE 761	Advanced Economics of Systems	
ACC 671 & FIN 672	Accounting for Decision Making and Sustainable Finance	
ACC 666 & FIN 672	Accounting for Sustainability and Sustainable Finance	
Core 4 Contracting and Risk Management: [1]		
CMA 636	Legal Issues in Building Construction	3
Core 5 Sustainable Construction: [1]		
Choose one of these options:		3
CAE 660	Sustainable Construction	
ARC 630	Building Technology: Materials and Methods	
CMA 644 & ARC 659	Sustainable Development and Sustainability and LEED Exam Prep	
Core 6A Professional Practice:		
CAE 769	Construction Management Capstone Internship	3
or CMA 674	Capstone Project	
Core 6B Professional Practice:		
CAE 669	Construction Management Seminars	1
or CMA 694	Codes, Standards and Regulations	
or CMA 702	Professional Leadership Seminar	
ELECTIVES		**10-11**
Global Awareness/Management:		
CMA 722	Case Studies in Risk Management [2]	

CMA 726	Case Studies in Construction Management [2]
ISE 670	Engineering Management
MGT 617	Leading Across Cultures
MGT 621	High Performance Leadership
MGT 624	Negotiation Strategies
MGT 646	Sustainable Supply Chains
MGT 667	Leadership for Sustainable Organizations
MGT 691	International Management
MKT 653	Sustainable Marketing of Goods and Services
Technical:	
ACC 666	Accounting for Sustainability
ARC 617	Construction Documents
ARC 621	Housing, Infrastructure and Transportation
ARC 659	Sustainability and LEED Exam Prep
ARC 649	Construction and Project Management
CAE 665	Facilities Operation and Management
CAE 681	Energy-Efficient Building Design
CAE 690	Special Topics
CAE 691	Special Topics
CAE 695	Special Problems
CAE 744	Risk Management and Resilience
CAE 766	Forensic Engineering
CAE 791	Advanced Topics in Construction Management
CAE 795	Special Problems
CMA 603	Critical Thinking and Communications in Design and Construction
CMA 610	Financial Management and Accounting for Construction
CMA 630	Contract Documents
CMA 632	Construction Risk Analysis and Control
CMA 642	Emerging Technologies in Design and Construction
CMA 654	Introduction to Health and Safety
CMA 680	Directed Studies
CMA 681	Special Topics in Construction
CMA 682	Special Topics in Construction
CMA 684	Special Problems
CMA 690	Advanced Productivity and Lean Construction
CMA 691	Quality Management and Performance
CMA 692	Construction Forensics
CMA 701	Operating and Managing a Construction Organization
CMA 708	Preconstruction Services
CMA 710	Construction Finance, Planning and Analysis
CMA 720	Advanced Planning and Scheduling
CMA 724	Human Resource Management
CMA 730	Managing Legal Issues in Building Construction
CMA 734	Prevention and Resolution of Contract Disputes
CMA 740	Project Feasibility Analysis and Valuation
CMA 799	Capstone Research
ECO 613	Microeconomics of Sustainability
ECO 614	Valuing Public Goods
ISE 612	Quality Management Systems
ISE 671	Engineering Entrepreneurship
ISE 672	Management of Technological Innovation
ISE 761	Advanced Economics of Systems

RED 601	Introduction to Real Estate Development and Urbanism	
RED 610	Financing Urban Real Estate Development	
RED 630	Real Estate Economics and Market Analysis	
RED 660	Urban Redevelopment	
RED 699	Capstone: Real Estate Development and Urbanism Charrette	
Total Credit Hours		**30**

[1] These courses make up the required Sustainable and Resilient Construction track.
[2] May be substituted as a Technical elective if not taken as a Global Awareness/Management elective.

MS Path through Certificates

Code	Title	Credit Hours
Certificate in Construction Management [1]		12
Certificate in Sustainable Construction [1]		12
Practicum 1		
CMA 674	Capstone Project	3
or CAE 769	Construction Management Capstone Internship	
Practicum 2		
CMA 670	Construction Site Practicum (Materials and Methods Health and Safety)	3
or CAE 791	Advanced Topics in Construction Management	
Total Credit Hours		**30**

[1] Students in the certificate programs must take the specified electives in order to be able to complete the master's degree in 30 credit hours.

Sample Plan of Study: 1 Year Path

This is a just a sample of how a student might complete the program in one year. Consult with the program director to determine your individual plan of study.

Year One		
Fall		**Credit Hours**
CMA 601	Fundamentals of Construction Management	3
CMA 702	Professional Leadership Seminar	1
RED 601	Introduction to Real Estate Development and Urbanism (Elective)	3
CAE 766	Forensic Engineering (Elective)	3
ACC 666	Accounting for Sustainability (Elective)	2
	Credit Hours	**12**
Spring		
CAE 761	Building Information Modeling II	3
CAE 765	Construction Accounting and Finance	3
CMA 636	Legal Issues in Building Construction	3
CAE 660	Sustainable Construction	3
CAE 669	Construction Management Seminars	1
MGT 617	Leading Across Cultures (Elective)	2
	Credit Hours	**15**
Summer		
CMA 674	Capstone Project	3
	Credit Hours	**3**
	Total Credit Hours	**30**

Sample Plan of Study: 1.5 Year Path

This is a just a sample of how a student might complete the program in one and a half years. Consult with the program director to determine your individual plan of study.

Year One		
Fall		**Credit Hours**
CMA 601	Fundamentals of Construction Management	3
RED 601	Introduction to Real Estate Development and Urbanism	3
CAE 766	Forensic Engineering	3
	Credit Hours	**9**
Spring		
CAE 765	Construction Accounting and Finance	3
CAE 660	Sustainable Construction	3
CAE 681	Energy-Efficient Building Design (Elective)	3
	Credit Hours	**9**
Summer		
CMA 674	Capstone Project	3
	Credit Hours	**3**
Year Two		
Fall		
CMA 702	Professional Leadership Seminar	1
CMA 640	Virtual Design and Construction (VDC/BIM)	3
CMA 636	Legal Issues in Building Construction	3
MGT 621	High Performance Leadership (Elective)	2
	Credit Hours	**9**
	Total Credit Hours	**30**

Mission

The vision of the MS CM program is to provide an interdisciplinary, flexible and state--of-the-art curriculum that provides students with knowledge and marketable skills to become future leaders of construction related organizations worldwide, by utilizing existing infrastructure resources at University of Miami, with program-generated additional resources as necessary.

Student Learning Outcomes

- Students will develop technical professional proficiency
- Students will acquire financial knowledge
- Students will develop entrepreneurial skills