COSC 620 Construction Company Operations  
Credits 3.3 Lecture Hours.  
Running a construction company; strategic planning; business planning; organizational theory; competitor analysis; risk management; financial analysis; human resources; management information systems; leadership; codes of ethics; best practices.

COSC 621 Advanced Project Management  
Credits 3.3 Lecture Hours.  
Theoretical, practical, and strategic development in the management of contemporary construction projects; advanced techniques used in scheduling and evaluating progress in construction project control; exploration of state-of-the-art management principles and practices, and development of additional insights.  
Prerequisite: COSC 603 or COSC 475.

COSC 622 Construction Economics  
Credits 3.3 Lecture Hours.  
Foundation in Life Cycle Cost Analysis computation within the context of current issues in environmental sustainability and evidence-based thinking; lean construction as a strategy to overcome the hurdle of first cost.

COSC 631 Advanced Productivity and Lean  
Credits 3.3 Lecture Hours.  
Introduction to lean history, concepts and methods; deduction of basic training modules in lean project delivery; application of lean management in construction projects.

COSC 642 Construction Information Technology  
Credits 3.3 Lecture Hours.  
Exploration of emerging technologies for the construction industry including hardware and software systems such as BIM, RFID, Wireless/Mobile, information systems, construction specific programs, and information strategy planning; using information strategy planning by owners and contractors to effectively enhance the management of business entities and projects in construction.

COSC 644 Advanced Construction Systems  
Credits 3.3 Lecture Hours.  
Theoretical, practical, and strategic development in contemporary construction systems; exploration of state-of-the-art innovations in environmental control systems, structural principles and practices; integration of innovations with information technologies, and development of additional insights.

COSC 650 Advanced Construction Visualization  
Credits 3.3 Lecture Hours.  
Introduction to the theory and application of 3-D computer models in the design/build construction process; creation, positioning in 3-D space, and linking of building components to a database record; creation of a wide range of construction related information useful in controlling project quality.

COSC 663 Sustainable Construction  
Credits 3.3 Lecture Hours.  
Contribution of materials and methods to meeting the needs of the present without compromising the ability of future generations to meet their own needs; overview of international, national and local programs promoting sustainable construction; characteristics of the components of successful sustainable construction projects; theories and practices through case studies.

COSC 670 Facilities Asset Management  
Credits 3.3 Lecture Hours.  
Fundamentals of facility asset management and property management including concepts, theories, and principles of design, construction, accounting, finance, and management of the built environment; an overview of a project throughout its entire life cycle from various perspectives including the owner, users, designers, constructors and facility management personnel.

COSC 681 Seminar  
Credit 1.1 Lecture Hour.  
Discussion and review of degree requirements, career opportunities, and current research activities in construction management.  
Prerequisite: Graduate classification.

COSC 684 Professional Internship  
Credits 3 to 6.3 to 3 Other Hours.  
Approximately 400-600 hours with a construction or construction-related company that exposes the student to construction-related activities; an initial report, monthly progress reports, a final report, and a final completion letter are required.  
Prerequisites: Graduate classification; approval of graduate coordinator; approval of internship coordinator.

COSC 685 Directed Studies  
Credits 1 to 6.1 to 6 Other Hours.  
Individual problems in the area of building construction involving the application of theory and practice.  
Prerequisite: Approval of instructor.

COSC 689 Special Topics in...  
Credits 1 to 4.1 to 4 Lecture Hours.  
Selected topics in an identified field of construction management. May be repeated for credit.  
Prerequisite: Approval of instructor.

COSC 690 Theory of Research in Construction Management  
Credits 3.3 Lecture Hours.  
Introduction to research, research tools, proposal writing and research reports; emphasis on research planning and design, conducting a comprehensive review of literature, quantitative and qualitative research methodologies, defining research problems in construction science, and the development of research proposals.  
Prerequisite: STAT 651 or concurrent enrollment.

COSC 691 Research  
Credits 1 to 23.1 to 23 Other Hours.  
Research for thesis.  
Prerequisites: COSC 690 or concurrent enrollment; approval of graduate coordinator.
COSC 693 Professional Study
Credits 1 to 6. 1 to 6 Other Hours.
Approved professional study of project undertaken as terminal requirement for Master of Science, non-thesis option. Preparation of a record of study summarizing the rationale, procedure and results of the completed study. May be repeated for credit.
Prerequisite: COSC 690 or concurrent enrollment; approval of graduate coordinator.