Courses primarily for undergraduates:

CON E 112. Orientation to Learning and Productive Team Membership. (Cross-listed with AER E, NREM, FS HN, HORT) (2-0) Cr. 2. F.
Introduction to developing intentional learners and worthy team members. Learning as the foundation of human enterprise; intellectual curiosity; ethics as a personal responsibility; everyday leadership; effective team and community interactions including team learning and the effects on individuals; and growth through understanding self, demonstrating ownership of own learning, and internalizing commitment to helping others. Intentional mental processing as a means of enhancing learning. Interconnectedness of the individual, the community, and the world.

CON E 114. Developing Responsible Learners and Effective Leaders. (Cross-listed with NREM, FS HN, HORT) (2-0) Cr. 2. S. Prereq: Hort 112 or NREM 112
Focus on team and community. Application of fundamentals of human learning; evidence of development as a responsible learner; intentional mental processing as a habit of mind; planning and facilitating learning opportunities for others; responsibility of the individual to the community and the world; leading from within; holding self and others accountable for growth and development as learners and leaders.

CON E 121. Cornerstone Learning Community: Orientation to Academic Life. (0-2) Cr. 1. F.
Integration of first-year and transfer students into the engineering profession and the Construction Engineering program. Assignments and activities completed both individually and in learning teams involving teamwork, academic preparation, and study skills. Introduction to construction industry professionals. Teamwork topics include interdisciplinary teamwork, skills for academic success, diversity issues and leadership. Introduction to organization of program, department, college, and university. Overview of faculty, staff, policies, procedures and resources.

CON E 122. Cornerstone Learning Community: Orientation to Professional Life. (0-2) Cr. 1. S.
Continuation of Con E 121. Integration of first-year and transfer students into the engineering profession. Career preparation, professional ethics, construction research, leadership. Introduction to construction industry professionals including how they interact with engineers in other disciplines. Continued introduction to program, department, college, and university organization. Overview of faculty, staff, policies, procedures and resources.

CON E 222. Contractor Organization and Management of Construction. (3-0) Cr. 3. S. Prereq: Completion of basic program
Entry level course for construction engineering: integration of significant engineering and management issues related to construction company operations. Company organization and operations; construction and project administration; construction contracts; delivery systems; insurance and bonding; construction safety; construction labor relations; contract documents.

CON E 241. Construction Materials and Methods. (2-3) Cr. 3. S. Prereq: CON E 222
Introduction to materials and methods of building construction and to construction drawings. Foundation, structural framing, floor, roof, and wall systems. Blueprint reading and quantity takeoff techniques.

CON E 251. Mechanical/Electrical Materials and Methods. (0-3) Cr. 1. S. Prereq: Credit or enrollment in CON E 241
Introduction to the materials and methods for mechanical and electrical construction systems and drawings. HVAC, water and waste water, power distribution, lighting, and fire protection. Blueprint reading and quantity takeoff.

CON E 298. Cooperative Education. Cr. R. F. S. S. Prereq: Permission of department and Engineering Career Services
First professional work period in the cooperative education program. Students must register for this course before commencing work.

CON E 322. Construction Equipment and Heavy Construction Methods. (2-2) Cr. 3. S. Prereq: CON E 241
Selection and acquisition of construction equipment. Application of engineering fundamentals and economics to performance characteristics and production of equipment. Heavy construction methods and economic applications. Nonmajor graduate credit.
CON E 381F. Bidding Construction Projects I: Miscellaneous.
(0-3) Cr. 1. F. Prereq: Permission from the instructor
Team development of construction process designs and cost estimates for transportation construction projects under closely simulated conditions. Examine project sites, consult with construction industry mentors, obtain subcontractor and supplier quotations, and submit bids. Offered in the following specialties:.

CON E 396. Summer Internship.
Cr. R. Repeatable. SS. Prereq: Permission of department and Engineering Career Services
Summer professional work period. Students must register for this course before commencing work.

CON E 397. Engineering Internship.
Cr. R. Repeatable. F.S. Prereq: Permission of department and Engineering Career Services
Professional work period, one semester maximum per academic year. Students must register for this course before commencing work.

CON E 398. Cooperative Education.
Cr. R. F.S.SS. Prereq: CON E 298, permission of department and Engineering Career Services
Second professional work period in the cooperative education program. Students must register for this course before commencing work.

(2-2) Cr. 3. F.S. Prereq: CON E 241, Junior classification

CON E 441. Construction Planning, Scheduling, and Control.
(2-2) Cr. 3. F.S. Prereq: Credit or enrollment in CON E 421
Integration of previous construction coursework into the planning, scheduling, and management of time, costs, and other resources. Emphasis on preparation and analysis of network schedules. Comprehensive planning and scheduling project. Computer project management applications. Nonmajor graduate credit.

CON E 481. Bidding Construction Projects II.
(0-3) Cr. 1. F. Prereq: Permission from the instructor
Similar to Con E 381, except students with previous experience attempt projects with larger scope or lead students with less experience.

CON E 481A. Bidding Construction Projects II: Heavy and Highway.
(0-3) Cr. 1. F. Prereq: Permission from the instructor
Similar to Con E 381, except students with previous experience attempt projects with larger scope or lead students with less experience.

CON E 481B. Bidding Construction Projects II: Building.
(0-3) Cr. 1. F. Prereq: Permission from the instructor
Similar to Con E 381, except students with previous experience attempt projects with larger scope or lead students with less experience.

CON E 481C. Bidding Construction Projects II: Mechanical.
(0-3) Cr. 1. F. Prereq: Permission from the instructor
Similar to Con E 381, except students with previous experience attempt projects with larger scope or lead students with less experience.

CON E 481D. Bidding Construction Projects II: Electrical.
(0-3) Cr. 1. F. Prereq: Permission from the instructor
Similar to Con E 381, except students with previous experience attempt projects with larger scope or lead students with less experience.

CON E 481E. Bidding Construction Projects II: Mechanical and Electrical.
(0-3) Cr. 1. F. Prereq: Permission from the instructor
Similar to Con E 381, except students with previous experience attempt projects with larger scope or lead students with less experience.

CON E 481F. Bidding Construction Projects II: Miscellaneous.
(0-3) Cr. 1. F. Prereq: Permission from the instructor
Similar to Con E 381, except students with previous experience attempt projects with larger scope or lead students with less experience.