



COURSE SCHEDULE

FIRST YEAR, 1ST SEMESTER

ABBR	NO.	DESCRIPTION	PREREQUISITES	CREDIT
UNIV	1001	University Seminar	None	1
CONS	1003	Construction Graphics	Co-requisite MATH 1011	2
CONS	1004	Construction Graphics Laboratory	Co-requisite MATH 1011	1
CONS	1020	Materials & Testing	Co-requisite MATH 1011	2
CONS	1021	Materials & Testing Laboratory	Co-requisite MATH 1011	1
ENGL	1001	Composition I		3
MATH	1011	College Algebra		3
CORE		Fine Arts Elective (Core)		3
TOTAL				16

FIRST YEAR, 2ND SEMESTER

CONS	1040	Construction Practices	Co-requisite MATH 1011	2
CONS	1041	Construction Practices Laboratory	Co-requisite MATH 1011	1
CONS	2008	Construction Documents	CONS 1003/1004 or approval	2
CONS	2009	Construction Documents Studio	CONS 1003/1004 or approval	1
ENGL	1002	Composition II	Grade of "C" or better in ENG 1001	3
MATH	1012	Trigonometry	Grade of "C" or better in MATH 1011	3
CORE		Humanities Elective (Core)		3
TOTAL				15

SECOND YEAR, 1ST SEMESTER

CONS	2011	Construction Surveying	MATH 1011, MATH 1012	2
CONS	2012	Construction Surveying Laboratory	MATH 1011, MATH 1012	1
CONS	2026	MEP Plan Reading	CONS 2008/2009	2
CONS	2027	MEP Plan Reading Laboratory	CONS 2008/2009	1
COMM	2001	Public Speaking (Core Humanities)		3
CORE		Natural/Physical Science		3
CORE		Literature (Humanities Elective)		3
TOTAL				15

SECOND YEAR, 2ND SEMESTER

CONS	2015	Structures 1	MATH 1011, MATH 1012	3
CONS	2016	Construction Computer Applications	CONS 2008/2009, MATH 1011	1
CONS	2017	Construction Computer Applications Laboratory	CONS 2008/2009, MATH 1011	2
CONS	2030	Soils & Testing	CONS 1020/1021, MATH 1012	2
CONS	2031	Soils & Testing Laboratory	CONS 1020/1021, MATH 1012	1
ECON	2001	Macroeconomics		3
CORE		Social Science Elective (Core)		3
TOTAL				15



COURSE SCHEDULE (CONT'D)

THIRD YEAR, 1ST SEMESTER					
ABBR	NO.	DESCRIPTION	PREREQ.	CREDIT	
CONS	3015	Temporary Structures	CONS 2015, MATH 1012	3	
CONS	3018	Construction Quantity Estimating	CONS 1020/1021, CONS 1040/1041, CONS 2008/2009, CONS 2016/2017, MATH 1012	2	
CONS	3019	Construction Quantity Estimating Laboratory	CONS 1020/1021, CONS 1040/1041, CONS 2008/2009, CONS 2016/2017, MATH 1012	1	
RMIN	2005	Risk & Insurance		3	
MATH	1016	Elementary Statistics	Grade of "C" or better in MATH 1011	3	
CORE		Natural/Physical Science Elective		3	
				TOTAL	15
THIRD YEAR, 2ND SEMESTER					
CONS	3020	Mechanical & Electrical Systems	Junior; CONS 2008/2009	3	
CONS	3030	Construction Administration	CONS 3018/3019	3	
CONS	4030	Construction Safety	Junior	3	
ACCT		Accounting Elective		3	
CORE		Natural/Physical Science Elective		3	
				TOTAL	15
FOURTH YEAR, 1ST SEMESTER					
CONS	4005	Advanced Construction Scheduling	CONS 2016/2017, CONS 3018/3019	2	
CONS	4006	Construction Scheduling Laboratory	CONS 2016/17, CONS 3018/3019	1	
CONS	4008	Construction Cost Estimating	CONS 2016/2017, CONS 3018/3019	2	
CONS	4009	Construction Cost Estimating Laboratory	CONS 2016/2017, CONS 3018/3019	1	
CONS	4040	Construction Contracts	CONS 3030	3	
BUSN	3005	Business Communications	Grade of "C" or better in ENGL 1001 and 1002	3	
BIOL		Biological Science Elective		3	
				TOTAL	15
FOURTH YEAR, 2ND SEMESTER					
CONS	4020	Associate Constructor Prep & Soft Skills	CONS 3030, CONS 4005/4006, CONS 4008/4009, CONS 4030	3	
CONS	4045	Digital Site Management	Senior; CONS 2016/2017, CONS 3030	2	
CONS	4046	Digital Site Management Laboratory (3 hours)	Senior; CONS 2016/2017, CONS 3030	1	
CONS	4047	Advanced Construction Projects	Senior; CONS 2016/2017, CONS 2026/2027, CONS 3020	2	
CONS	4048	Advanced Construction Projects Laboratory	Senior; CONS 2016/2017, CONS 2026/2027, CONS 3020	1	
BLAW	4001	Business Law		3	
MGMT		Management Elective		3	
				TOTAL	15



PROGRAM OUTLINE

▶ CONSTRUCTION GRAPHICS

CONS 1003/1004 • 3 CR. (2+3)

This course familiarizes the student with fundamental principles of construction graphics and drafting using hard line and sketching techniques. This course includes the development of orthographic presentations, isometric drawings, perspectives, presentation theory, graphic techniques, freehand drawings, sectioning, and dimensioning. **PREREQUISITE:** Co-requisite MATH 1011

▶ MATERIALS PROPERTIES AND TESTING

CONS 1020/1021 • 3 CR. (2+2)

The application and properties of construction materials. The sampling, testing and applications of the physical properties of aggregates and Portland cement concrete; bituminous materials, metals, and wood. **PREREQUISITE:** Co-requisite MATH 1011

▶ CONSTRUCTION PRACTICES

CONS 1040/1041 • 3 CR. (2+3)

Principles, methods, materials, and systems for assembling construction projects. The Laboratory projects are focused on practices. **PREREQUISITE:** Co-requisite MATH 1011

▶ CONSTRUCTION DOCUMENTS

CONS 2008/2009 • 3 CR. (2+2)

Introduction to the plans and specifications for both commercial/industrial buildings and highway/bridge projects. Plan reading skills, construction document components, basic construction codes and quantity takeoffs. **PREREQUISITES:** CONS 1003/1004 or approval

▶ CONSTRUCTION SURVEYING

CONS 2011/2012 • 3 CR. (2+3)

Fundamentals of construction surveying, including taping, leveling, angular measurement, traversing, topographic surveying, bridge layout, circular curves, building layout, and grade staking. **PREREQUISITES:** MATH 1011, MATH 1012

▶ STRUCTURES I

CONS 2015 • 3 CR. (2+2)

Resolution of forces, equilibrium, application of statics for simple structures, centroids, moments of inertia; stress and strain. **PREREQUISITES:** MATH 1011, MATH 1012

▶ CONSTRUCTION COMPUTER APPLICATIONS

CONS 2016/2017 • 3 CR. (2+2)

The application of spreadsheets, Microsoft® Excel™, Microsoft® PowerPoint™, Microsoft® Access™, and Microsoft® Word™ processing to solve construction problems. **PREREQUISITES:** CONS 2008/2009, MATH 1011

▶ MECHANICAL, ELECTRICAL & PLUMBING PLANS & SPECS

CONS 2026/2027 • 3 CR. (2+2)

Construction documents used for mechanical and electrical systems of building and process/power plant construction. Drawings and specifications, construction concerns, system isometrics, building codes, specialty diagrams and quantity takeoff. **PREREQUISITES:** CONS 2008/2009

▶ SOILS AND TESTING

CONS 2030/2031 • 3 CR. (2+2)

Introduction to soil mechanics. The origin and engineering characteristics of soil, soil classification systems, the strength of soil masses, control of structural embankments and design of foundations. **PREREQUISITES:** CONS 1020/1021, MATH 1012

▶ TEMPORARY STRUCTURES

CONS 3015 • 3 CR. (3+0)

Design, erection, use of concrete formwork, and scaffolding. Plus, the crane lifting capacity based upon various sling configurations. **PREREQUISITE:** CONS 2015, MATH 1012

▶ CONSTRUCTION QUANTITY ESTIMATING

CONS 3018/3019 • 3 CR. (2+2)

The elements involved in the preparation of the contractor's bid proposal. Quantity takeoff, crew sizes, daily outputs, unit costs and organization of the bid packages into general contracted and subcontracted work. **PREREQUISITES:** CONS 1020/1021, CONS 1040/1041, CONS 2008/2009, CONS 2016/2017, MATH 2012

▶ MECHANICAL AND ELECTRICAL SYSTEMS

CONS 3020 • 3 CR. (3+0)

Covers equipment, code requirements and building applications of the heating, ventilating, and air conditioning systems, water supply sanitary and storm sewers, fire protection, electrical distribution, lighting and acoustical systems for buildings. Emphasis is placed upon systems integration, sustainability, energy considerations and LEED construction. **PREREQUISITES:** Junior; CONS 2008/2009

▶ CONSTRUCTION ADMINISTRATION

CONS 3030 • 3 CR. (3+0)

Field documentation and report development, including a project logic network, schedule, field reports, contract documents, contract change orders, subcontract agreements, purchase orders, field planning, filing system, ledgers and cost control reports. The student will be introduced to planning methods, procuring materials, completing a subcontract agreement, maintaining field records and developing progress reports. **PREREQUISITES:** CONS 3018/3019



PROGRAM OUTLINE (CONT'D)

▶ **ADVANCED CONSTRUCTION SCHEDULING**

CONS 4005/4006 • 3 CR. (2+2)

Develops advanced construction planning and scheduling techniques, building on previous experience with the critical path method. Includes work breakdown, crew analysis and productivity, activity time-cost relationships, leveling, overlapping activity relationships and lag, and project cash flow. Integrates throughout the use of computer software as a scheduling tool. **PREREQUISITE:** CONS 2016/2017, CONS 3018/3019

▶ **CONSTRUCTION COST ESTIMATING**

CONS 4008/4009 • 3 CR. (2+2)

Covers the content areas on the Associate Constructor examination and prepares each student to take the required exam. Writing, behavior styles, motivation, listening styles, communication barriers, coaching, time management and meeting skills are also stressed. **PREREQUISITES:** CONS 2016/2017, CONS 3018/3019

▶ **ASSOCIATE CONSTRUCTOR PREP & SOFT SKILLS**

CONS 4020 • 3 CR. (3+0)

Covers the content areas on the Associate Constructor examination and prepares each student to take the required exam. Writing, behavior styles, motivation, listening styles, communication barriers, coaching, time management and meeting skills are also stressed. **PREREQUISITES:** CONS 3030, CONS 4005/4006, CONS 4008/4009, CONS 4030

▶ **CONSTRUCTION SAFETY**

CONS 4030 • 3 CR. (3+0)

Focuses on hazard identification, avoidance, and control, and safety planning. Emphasis will be to recognize and abate hazards and to provide job instructional training to correct all safety hazards. This includes searching the Construction Industry Regulations, identifying common causes of accidents and fatalities and be able to determine the abatement techniques to eliminate or reduce the hazard. If the student attends all sessions and completes the safety activities they will earn the OSHA 30 hour Construction Safety Certificate. **PREREQUISITE:** Junior

▶ **CONSTRUCTION CONTRACTS**

CONS 4040 • 3 CR. (3+0)

Legal principles used to avoid or resolve construction misunderstandings or disputes. Basic principles involved in private and public construction, the contractual relationships and writing effective contract documents. **PREREQUISITE:** CONS 3030

▶ **DIGITAL SITE MANAGEMENT**

CONS 4045/4046 • 3 CR. (2+2)

Introduces the latest digital applications utilized on the construction site covering planning and layout of temporary site facilities, field engineering, field documentation and regulatory requirements. Overall management of the construction process including computer techniques for document control, scheduling, cost control, and closeout. **PREREQUISITES:** Senior; CONS 2016/2017, CONS 3030

▶ **ADVANCED CONSTRUCTION PROJECTS**

CONS 4047/4048 • 3 CR. (2+2)

Develops 3-D model-based input and access skills used on engineering, procurement and construction projects, including the process equipment associated with these projects. Emphasis is on on-site management of the construction process. **PREREQUISITES:** Senior; CONS 2016/2017, CONS 2026/2027, CONS 3020

“ULM consistently produces quality graduates of integrity, good character and a strong work ethic, excellent construction education ... in functions critical to our success. ”

— Don Greenland
Chief Operating Officer, IAC
ULM Class of 1983