

**DEGREE CHECKLIST FOR ASSOCIATE IN APPLIED SCIENCE IN CONSTRUCTION MANAGEMENT TECHNOLOGY AND
BACHELOR OF TECHNOLOGY IN CONSTRUCTION ENGINEERING TECHNOLOGY**

ASSOCIATE DEGREE

**GENERAL EDUCATION
REQUIRED AND FLEXIBLE
COMMON CORE
(24 TO 25 CREDITS)**

At least 1 course designated WI is required from the Gen Ed Flexible Common Core.

COURSE	COURSE TITLE	PRE/CO REQUISITES	CREDITS
ENG 1101	English Composition I (EC)	Prereq: CUNY Read and Write Proficiency	3 credits.
ENG 1121	English Composition II (EC)	Prereq: ENG 1101	3 credits.
MAT 1275 ²	College Algebra and Trigonometry (MQR)	Prereq: MAT 1175 or CUNY Placement	4 credits.
PHYS 1433 ² or PHYS 1441 ²	General Physics I: Algebra Based (LPS, WI) or General Physics I: Calculus Based (LPS,WI)	Prereq or Coreq: MAT 1275 Prereq or Coreq: MAT 1475 or higher	4 to 5 credits.
ECON 1101 ²	Macroeconomics (USED)	Prereq: CUNY Read and Write Proficiency	3 credits.
MAT 1375 ²	Precalculus or higher (SW)	Prereq: MAT 1275 or CUNY Placement	4 credits.
	Flexible Common Core Course: WCGI, IS, CE		3 credits.

**PROGRAM-SPECIFIC
DEGREE REQUIREMENTS
(40 CREDITS)**

At least 1 course designated WI is required from the program-specific required and elective courses.

Double Duty² Specific courses listed indicate double duty courses, i.e., program degree requirements that also meet general education requirements in that category.

CMCE 1110	Construction Drawings I		2 credits.
CMCE 1114	Materials and Methods of Construction I		3 credits.
CMCE 1115	Statics (WI)	Prereq: MAT 1275 with grade C or higher Prereq or Coreq: PHYS 1433 or 1441	3 credits.
CMCE 1211	Construction Drawings II – Computer Aided Drawing (CAD)	Prereq: CMCE 1110	2 credits.
CMCE 1215	Strength of Materials	Prereq: CMCE 1115 with grade C or higher	2 credits.
CMCE 1221	Introduction to the Built Environment	Prereq: CMCE 1110, 1114 CUNY Read, Write Proficiency	3 credits.
CMCE 1222	Surveying I	Prereq: MAT 1275 with grade C or higher Prereq or Coreq: CMCE 1211	3 credits.
CMCE 1224	Materials and Methods of Construction II	Prereq: CMCE 1110, 1114 CUNY Read, Write Proficiency	2 credits.
CMCE 2306	Materials Testing Laboratory (WI)	Prereq: CMCE 1215	2 credits.
CMCE 2315	Elements of Structural Design-Steel	Prereq: CMCE 1215 with grade C or higher	3 credits.
CMCE 2319	Building Service Systems	Prereq: CMCE 1224 or CMCE 2457	2 credits.
CMCE 2321	Fundamentals of Construction	Prereq: CMCE 221	3 credits.
CMCE 2410	Construction Drawings III	Prereq: CMCE 1211 Prereq or Coreq: CMCE 2315	2 credits.
CMCE 2412	Construction Estimating	Prereq: CMCE 1224 or CMCE 2457	2 credits.
CMCE 2416	Elements of Structural Design-Concrete	Prereq: CMCE 2315	3 credits.
CMCE 2421	Planning and Scheduling	Prereq: CMCE 2321	3 credits.

ASSOCIATE IN APPLIED SCIENCE IN CONSTRUCTION MANAGEMENT TECHNOLOGY: 64 TO 65 CREDITS.

MINIMUM REQUIRED LIBERAL ARTS AND SCIENCES CREDITS: 20 CREDITS.

BACHELOR'S DEGREE

**GENERAL EDUCATION FLEXIBLE
COMMON CORE AND COLLEGE
OPTION REQUIREMENTS
(24 TO 25 CREDITS)**

¹ Students must take at least one advanced liberal arts course or choose two sequential courses in a foreign language.

At least 1 course designated WI is required from the College Option or Gen Ed Flexible Common Core.

COURSE	COURSE TITLE	PRE/CO REQUISITES	CREDITS
	Flexible Common Core Course: WCGI, IS, CE		3 credits.
	Flexible Common Core Course: WCGI, IS, CE		3 credits.
PHYS 1434 ² or PHYS 1442 ²	General Physics II: Algebra Based or (sw) General Physics II: Calculus Based (sw)	Prereq: PHYS 1433 Prereq: PHYS 1441	4 to 5 credits.
COM 1330	Public Speaking or higher Interdisciplinary course	Prereq: CUNY Read, Write Proficiency	3 credits. 3 credits.
MAT 1475	Calculus I or higher	Prereq: MAT 1375	4 credits.
MAT 1575 ³	Calculus II	Prereq: MAT 1475	4 credits.

**PROGRAM-SPECIFIC
DEGREE REQUIREMENTS
(27 CREDITS)**

At least 1 course designated WI is required from the program-specific required and elective courses.

Double Duty² Specific courses listed indicate double duty courses, i.e., program degree requirements that also meet general education requirements in that category.

CMCE 2322	Surveying II	Prereq: CMCE 1222	3 credits.
CMCE 2456	Soil Mechanics (WI)	Prereq: CMCE 1215 or CMCE 2321	3 credits.
CMCE 3501	Steel Fabrication Detailing	Prereq: CMCE 2315, CMCE 2410, MAT 1475	3 credits.
CMCE 3602	Heavy Construction Practices	Prereq: CMCE 2421 or CMCE 3520, CMCE 2456	3 credits.
CMCE 4700	Construction Law	Prereq: CMCE 3520 or CMCE 2421	3 credits.
CMCE 4701	Construction Field Management	Prereq: CMCE 3602	3 credits.
CMCE 4702	Construction and Site Safety Management	Prereq: CMCE 3602	3 credits.
CMCE 4800	Senior Capstone Project (WI)	Prereq: Department Approval	3 credits.
ARCH 3551	Sustainability: History and Practice	Prereq: ENG 1101	3 credits.

**PROGRAM-SPECIFIC
ELECTIVE COURSES
(9 CREDITS)**

CMCE TECH	4400 Series		3 credits.
CMCE TECH	4400 Series		3 credits.
CMCE TECH	4400 Series		3 credits.

BACHELOR OF TECHNOLOGY IN CONSTRUCTION ENGINEERING TECHNOLOGY: 124 TO 126 CREDITS.

MINIMUM REQUIRED LIBERAL ARTS AND SCIENCES CREDITS: 42 CREDITS.

DEPARTMENT OF CONSTRUCTION MANAGEMENT AND CIVIL ENGINEERING TECHNOLOGY

CMCE TECHNICAL ELECTIVES

4400 SERIES

Choose three courses. Courses are 3 credits.

- CMCE 4400 Bridge Building Technology (Prereq: CMCE 2416, 3501)
- CMCE 4401 Special Topics (Prereq: CMCE 3602)
- CMCE 4402 Fundamentals of Engineering (Prereq: CMCE 3602)
- CMCE 4403 Professional Practice & Ethics (Prereq: CMCE 32321 or CMCE 3520)
- CMCE 4410 Land Development and Design (Prereq: CMCE 2322, 2410)
- CMCE 4415 Real Estate Development Fundamentals (Prereq: CMCE 1224 or 2457)
- CMCE 4422 Geographic Information Systems (Prereq: CMCE 2410)
- CMCE 4423 Transportation Engineering Technology (Prereq: CMCE 2322, 2410)
- CMCE 4456 Foundation Analysis and Design (Prereq: CMCE 2315, 2416, 2456)
- CMCE 4458 Earth Retaining Structures (Prereq: CMCE 2315, 2416, 2456)
- CMCE 4460 Design of Temporary Structures (Prereq: CMCE 2315, 2416, 2456)
- CMCE 4461 Instrumentation and Condition Assessments
(Prereq: PHYS 1434, PHYS 1442, CMCE 2456)
- CMCE 4471 Quality Assurance (Prereq: CMCE 3520)
- CMCE 4472 Risk Management in Construction (Prereq: CMCE 3602)
- CMCE 4473 Advanced Building Information Modeling (BIM) (Prereq: CMCE 2410)

The Bachelor of Technology degree in Construction Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org/>.

Progression and Graduation

To meet prerequisites for required classes in the AAS degree in Civil Engineering Technology, AAS degree in Construction Management Technology, and BTech degree in Construction Engineering Technology, students must earn a C or higher in MAT 1275, CMCE 1115, and CMCE 1215.

SAMPLE COURSE OF STUDY

For Associate in Applied Science in Construction Management Technology and Bachelor of Technology in Construction Engineering Technology

SEMESTER 1

(Total Credits 16)

CMCE 1110	Construction Drawings I	2 credits.
CMCE 1114	Materials and Methods of Construction I	3 credits.
CMCE 1115	Statics	3 credits.
MAT 1275	College Algebra and Trigonometry	4 credits.
PHYS 1433	General Physics I: Algebra Based	4 credits.

SEMESTER 2

(Total Credits 15)

CMCE 1211	Construction Drawings II – Computer Aided Drawing (CAD)	2 credits.
CMCE 1215	Strength of Materials	2 credits.
CMCE 1221	Introduction to the Built Environment	3 credits.
CMCE 1222	Surveying I	3 credits.
CMCE 1224	Materials and Methods of Construction II	2 credits.
ENG 1101	English Composition I	3 credits.

SEMESTER 3

(Total Credits 17)

CMCE 2306	Materials Testing Laboratory	2 credits.
CMCE 2315	Elements of Structural Design-Steel	3 credits.
CMCE 2319	Building Service Systems	2 credits.
CMCE 2321	Fundamentals of Construction	3 credits.
MAT 1375	Precalculus or higher	4 credits.
FlexCore		3 credits.

SEMESTER 4

(Total Credits 16)

CMCE 2410	Construction Drawings III	2 credits.
CMCE 2412	Construction Estimating	2 credits.
CMCE 2416	Elements of Structural Design – Concrete	3 credits.
CMCE 2421	Planning and Scheduling	3 credits.
ENG 1121	English Composition II	3 credits.
ECON 1101	Macroeconomics	3 credits.

SEMESTER 5

(Total Credits 16)

CMCE 2322	Surveying II	3 credits.
CMCE 2456	Soil Mechanics	3 credits.
CMCE 3501	Steel Fabrication Detailing	2 credits.
MAT 1475	Calculus I or higher	4 credits.
PHYS 1434	General Physics II: Algebra Based	4 credits.

SEMESTER 6

(Total Credits 13)

CMCE 3602	Heavy Construction Practices	3 credits.
ARCH 3551	Sustainability: History and Practice	3 credits.
MAT 1575	Calculus II	4 credits.
COM 1330	Public Speaking or higher	3 credits.

SEMESTER 7

(Total Credits 15)

CMCE 4700	Construction Law	3 credits.
CMCE 4701	Construction Field Management	3 credits.
CMCE 4702	Construction and Site Safety Management	3 credits.
ID	Interdisciplinary Course	3 credits.
CMCE TECH		3 credits.

SEMESTER 8

(Total Credits 15)

CMCE 4800	Senior Capstone Project	3 credits.
CMCE TECH		3 credits.
CMCE TECH		3 credits.
FlexCore		3 credits.
Add. FlexCore		3 credits.

Footnotes

¹ In meeting their general education requirements overall, students must take at least one advanced liberal arts course or choose two sequential courses in one of the foreign language (FL) course offerings, such as Arabic (ARB), Spanish (SPA), Chinese (CHN), or French (FREN).

² Specific courses listed indicate double duty courses, i.e., program degree requirements that also meet general education requirements in that category.

³ Students who have already completed MAT 1575 may select another mathematics or flexible core course instead.