

Technical Elective Requirements for CE Students

1. **Total credit requirement:** CE students must complete thirty (30) credits of technical electives. The technical elective plan of study must be consistent with career objectives. For instance, one can elect to emphasize a particular area of civil engineering by taking several courses in that area, or one can choose a general program in civil engineering by taking courses in several emphasis areas.
2. **Minimum CE credit requirement and associated rules:** A minimum of twenty-one (21) credits of technical electives must come from CE-designated courses. The remaining nine (9) credit hours required may come from a combination of courses that are not CE-designated but have been approved for technical elective credit and from additional CE-designated courses. See below for details regarding approved technical electives that are not CE-designated courses. All technical electives must be selected in support of the career objectives of the student and be approved by the advisor.
3. **Breadth requirement: (B)** At least four (4) courses must be completed from the following list, guaranteeing sufficient breadth of study in at least four of the emphasis areas:

ARC: CE 31100	CON: CE 22200	ENV: CE 35000	GEM: CE 40800/50801
GEO: CE 38300	HYD: CE 44000	STR: CE 37100	TRA: CE 36100

4. **Design content requirement: (D)** At least three (3) courses must be completed from the following list, guaranteeing sufficient design content:

ARC: CE 41300, 41400	CON: CE 52200, CE 52300, 52700
ENV: CE 45600, 45700	GEM: CE 30300
GEO: CE 48300, 58300, 58400, 58500	HYD: CE 44000, 54300, 54600, 54900
MAT: CE 53000, CE 53500	STR: CE 47000, 47300, 47900
TRA: CE 36100, 46100, 56200, 56300, 56500, 56700	

5. **Sequence requirement:** A sequence is defined as a minimum of two (2) technical elective courses from a given CE emphasis area. Each student must complete at least two (2) such sequences of technical electives. Note that completing four courses from a single CE area of emphasis does not meet this requirement; the emphasis areas must be distinct. CEM and EEE courses may be used to satisfy the sequence requirement for technical electives in the areas of Construction Engineering and Environmental Engineering, respectively. No other non-CE courses may be used to satisfy the sequence requirement.
6. **CE Variable title courses:** CE 49700 and CE 59700 variable title courses are generally allowed for CE technical electives but require approval from your advisor. Maximum of 6.0 credits of the following variable title courses: CE 49900 Independent research (maximum 3.0 credits), CE 49700 Independent study courses that require instructor permission (maximum 6.0 credits), CE 49700 Short term study abroad variable titled course (maximum 3.0 credits)
7. All technical elective courses must be taken for a grade.
8. **Technical Elective Policies for non-Civil Engineering Courses:**

Students in the School of Civil Engineering are encouraged to choose technical electives that are consistent with their career objectives. In many cases, this can involve courses that are offered outside of the School. The purpose of the policies below is to provide general criteria for appropriate technical elective courses offered by other departments.

Pre-Approved Non-CE Technical Electives

Chemistry (CHM) & Physics (PHYS)

CHM 25500 - Organic Chemistry For The Life Sciences I
CHM 25600 - Organic Chemistry For The Life Sciences II
CHM 25700 - Organic Chemistry
CHM 26100 - Organic Chemistry I
CHM 26200 - Organic Chemistry II
CHM 26505 - Organic Chemistry I
CHM 26605 - Organic Chemistry II
PHYS 34200 - Modern Physics

EPICS (EPCS) Maximum of 3 credits

EPCS 10100 - First Year Participation In EPICS
EPCS 10200 - First Year Participation In EPICS
EPCS 20100 - Sophomore Participation In EPICS
EPCS 20200 - Sophomore Participation In EPICS
EPCS 30100 - Junior Participation In EPICS
EPCS 30200 - Junior Participation In EPICS
EPCS 40100 - Senior Participation In EPICS
EPCS 40200 - Senior Participation In EPICS

Entrepreneurship (ENTR)

ENTR 20000 - Introduction To Entrepreneurship And Innovation
ENTR 31000 - Marketing And Management For New Ventures
ENTR 31500 - Business Planning For Social Entrepreneurship
ENTR 48000 - Entrepreneurial Leadership And Careers

College of Engineering

CEM 32400 - Human Resource Management In Construction
CEM 45500 - Temporary Structures In Construction
CEM 45600 - Design-Build Project Delivery Method For Engineers
CEM 45700 - Inland Navigation Engineering
CEM 48500 - Legal Aspects Of Construction Engineering
ECE 20001 - Electrical Engineering Fundamentals I
ECE 20100 - Linear Circuit Analysis I
EEE 30000 - Environmental And Ecological Systems Modeling
EEE 36000 - Environmental And Ecological Engineering Laboratory
EEE 38500 - Environmental Soil Chemistry
ENGR 30500 - Fundamentals Of Innovation Theory And Practice
ENGR 31000 - Engineering In Global Context
IE 34300 - Engineering Economics
ME 41300 - Noise Control
ME 43000 - Power Engineering

VIP (maximum of 3 credits)

VIP 27920 - Sophomore Participation In Vertically Integrated Projects (VIP)
VIP 37920 - Junior Participation In Vertically Integrated Projects (VIP)
VIP 47920 - Senior Participation In Vertically Integrated Projects (VIP)

Polytechnic Institute (AFT/MSL/NS) - Maximum of 6 credits (only for students who have completed four (4) semesters in Purdue ROTC)

AFT 35100 - Leading People And Effective Communication I
AFT 35200 - Air Force ROTC Leadership Laboratory V
AFT 36100 - Leading People And Effective Communication II
AFT 36200 - Air Force ROTC Leadership Laboratory VI

[AFT 40220 - Air Force ROTC Leadership Laboratory](#)
[AFT 47100 - National Security/Commissioning Preparation I](#)
[AFT 47200 - Air Force ROTC Leadership Laboratory VII](#)
[AFT 48100 - National Security/Commissioning Preparation II](#)
[AFT 48200 - Air Force ROTC Leadership Laboratory VIII](#)
[MSL 30100 - Training Management And The Warfighting Function](#)
[MSL 30200 - Applied Leadership In Small Unit Operations](#)
[MSL 35000 - American Military History And Leadership](#)
[MSL 40100 - The Army Officer](#)
[MSL 40200 - Company Grade Leadership](#)
[MSL 49000 - Directed Studies In Military Science](#)
[NS 31000 - Naval Navigation](#)
[NS 31100 - Naval Operations And Seamanship](#)
[NS 33000 - Evolution Of Warfare](#)
[NS 35000 - Naval Ship Systems-Engineering](#)
[NS 41300 - Naval Leadership And Ethics](#)
[NS 44000 - Fundamentals Of Maneuver Warfare](#)

School of Management

[MGMT 20000 - Introductory Accounting](#)
[MGMT 20100 - Management Accounting I](#)
[MGMT 35000 - Intermediate Accounting I](#)
[MGMT 37000 - Real Estate Fundamentals](#)
[MGMT 37500 - Real Estate Law](#)
[MGMT 44428 - Human Resources Management](#)
[MGMT 45500 - Legal Background For Business I](#)

NOTE: Generally these are approved as Technical Electives, however, if a course is **not on the above list** a student may send a written request to the CE Undergraduate Office to initiate the process to have a specific course from these prefixes and levels be considered for Technical Elective credit.

- College of Engineering 30000-59999
- College of Science 30000-59999
- ENTR 20000-59999
- MGMT 20000-59999

Technical Elective No Count List

- All courses outside of Civil Engineering having the Coop or Internship course attribute or associated with cooperative education, internships, industrial practice, etc. are **not eligible** to be considered as technical electives.
- Courses not included in the approved courses list - A student may send a written request to the CE Undergraduate Office to initiate the process to have a specific course considered for technical elective credit.

Not Approved

The following courses are considered to be substantially equivalent to courses required for the BSCE degree and thus are **not eligible** to be considered as technical electives.

- [AAE 33300 - Fluid Mechanics](#)
- [AAE 33301 - Fluid Mechanics Laboratory](#)
- [ECE 30200 - Probabilistic Methods In Electrical And Computer Engineering](#)
- [EEE 38000 - Environmental Chemodynamics](#)
- [IE 33000 - Probability And Statistics In Engineering II](#)

- [MA 30300 - Differential Equations And Partial Differential Equations For Engineering And The Sciences](#)
- [MA 35100 - Elementary Linear Algebra](#)
- [ME 30800 - Fluid Mechanics](#)
- [ME 30801 - Fluid Mechanics Laboratory](#)
- [ME 32300 - Mechanics Of Materials](#)
- [MGMT 30500 - Business Statistics](#)
- [NUCL 32000 - Introduction To Materials For Nuclear Applications](#)
- [PHYS 31000 - Intermediate Mechanics](#)
- [STAT 30100 - Elementary Statistical Methods](#)
- [STAT 35000 - Introduction To Statistics](#)
- [STAT 50100 - Experimental Statistics I](#)
- [STAT 50200 - Experimental Statistics II](#)
- [STAT 50300 - Statistical Methods For Biology](#)