# CIVIL ENGINEERING TECHNOLOGY (RENEWABLE ENERGY TECHNOLOGIES) - BACHELOR OF SCIENCE IN ENGINEERING TECHNOLOGY

Students must complete all university degree requirements, which include: General Education requirements, Viewing a Wider World requirements, and elective credits to total at least 120 credits with 48 credits in courses numbered 300 or above. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

| Prefix | Title | Credits |
|---|---|---|
| **General Education** | | |
| *Area I: Communications* | | |
| *English Composition - Level 1* | | |
| ENGL 1110G | Composition I | 4 |
| or ENGL 1110H | Composition I Honors | |
| *English Composition - Level 2* | | |
| ENGL 2210G | Professional and Technical Communication | 3 |
| or ENGL 2210H | Professional and Technical Communication | |
| *Oral Communication* | | *3* |
| COMM 1115G | Introduction to Communication | |
| or HNRS 2175G | Introduction to Communication Honors | |
| *Area II: Mathematics* | | |
| MATH 1511G | Calculus and Analytic Geometry I [1] | 4 |
| or MATH 1511H | Calculus and Analytic Geometry I Honors | |
| *Area III: Laboratory Sciences* | | *8* |
| CHEM 1120G | Introduction to Chemistry Lecture and Laboratory (non majors) | |
| or GEOL 1110G | Physical Geology | |
| Choose one sequence from the following for four credits: | | |
| PHYS 1230G & PHYS 1230L | Algebra-Based Physics I and Algebra-Based Physics I Lab | |
| or PHYS 1310G & PHYS 1310L | Calculus -Based Physics I and Calculus -Based Physics I Lab | |
| *Area IV: Social/Behavioral Sciences* [2] | | *3* |
| *Area V: Humanities* [2] | | *3* |
| *Area VI: Creative and Fine Arts* [2] | | *3* |
| *General Education Elective* | | |
| MATH 1521G | Calculus and Analytic Geometry II [1] | 4 |
| or MATH 1521H | Calculus and Analytic Geometry II Honors | |
| **Viewing A Wider World** [3] | | **6** |
| **Departmental/College Requirements** | | |
| E T 101 | Introduction to Engineering Technology | 1 |
| E T 109 | Computer Drafting Fundamentals | 3 |
| E T 143 | Civil/Survey Drafting I | 3 |
| E T 154 | Construction Methods and Communications | 3 |
| E T 254 | Concrete Technology | 3 |
| E T 308 | Fluid Technology | 3 |
| E T 308 L | Fluid Technology Lab | 1 |
| E T 310 | Applied Strength of Materials | 3 |
| E T 310 L | Applied Strength of Materials Lab | 1 |
| E T 332 | Applied Design of Structures I | 4 |
| E T 354 | Soil and Foundation Technology | 4 |
| E T 355 | Site/Land Development and Layout | 3 |
| E T 410 | Senior Seminar | 1 |
| E T 412 | Highway Technology | 3 |
| E T 418 | Applied Hydraulics | 3 |
| E T 421 | Senior Project | 3 |
| E T 432 | Applied Design of Structures II | 4 |
| E T 459 | Construction Technology and Management | 3 |
| SUR 222 | Introduction to Geomatics | 3 |
| or DRFT 222 | Introduction to Geomatics | |
| ENGR 120 | DC Circuit Analysis | 3-4 |
| or PHYS 1240G | Algebra-Based Physics II | |
| or PHYS 1320G | Calculus -Based Physics II | |
| ENGR 190 | Introduction to Engineering Mathematics | 4 |
| ENGR 233 | Engineering Mechanics I | 3 |
| ENGR 234 | Engineering Mechanics II | 3 |
| I E 451 | Engineering Economy | 3 |
| A ST 311 | Statistical Applications | 3 |
| or MATH 1350G | Introduction to Statistics | |
| *Concentration Coursework* [4] | | |
| E T 381 | Renewable Energy Technologies | 3 |
| E T 382 | Solar Energy Technologies | 3 |
| E T 384 | Wind and Water Energy Technologies | 3 |
| SUR 328 & 328L | Construction Surveying & Automation Technologies and Construction Surveying & Automation Technologies Lab | 3 |
| **Second Language: (not required)** | | |
| **Electives, to bring the total credits to 120** | | **0** |
| **Total Credits** | | **124-125** |

1. Students may need to take any prerequisites needed before enrolling in MATH 1511G Calculus and Analytic Geometry I or MATH 1521G Calculus and Analytic Geometry II. These courses satisfy both the Area II and General Education Elective requirements.
2. See the General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/) section of the catalog for a full list of courses
3. See the Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) section of the catalog for a full list of courses
4. Concentration-specific coursework. These twelve credits add three credits to the No-Concentration CET program option.

## A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1511G Calculus and Analytic Geometry I and ENGL 1110G Composition I. The contents and order of this roadmap may vary depending on initial student placement in mathematics and English. It is only a suggested plan of study for students and is not intended as a contract. Course availability may vary from fall to spring semester and may be subject to modification or change.

**First Year**

| Fall | | Credits |
|---|---|---|
| ENGL 1110G | Composition I | 4 |
| or ENGL 1110H | or Composition I Honors | |

| | | |
|---|---|---|
| E T 101 | Introduction to Engineering Technology | 1 |
| E T 154 | Construction Methods and Communications | 3 |
| ENGR 120<br>or PHYS 1240G<br>or PHYS 1320G | DC Circuit Analysis [5]<br>or Algebra-Based Physics II<br>or Calculus -Based Physics II | 3-4 |
| ENGR 190 | Introduction to Engineering Mathematics | 4 |
| | **Credits** | **15-16** |
| **Spring** | | |
| E T 109 | Computer Drafting Fundamentals | 3 |
| MATH 1511G<br>or MATH 1511H | Calculus and Analytic Geometry I [1]<br>or Calculus and Analytic Geometry I Honors | 4 |
| CHEM 1120G<br>or GEOL 1110G | Introduction to Chemistry Lecture and Laboratory (non majors)<br>or Physical Geology | 4 |
| PHYS 1230G<br>& PHYS 1230L<br>or PHYS 1310G ***and*** PHYS 1310L | Algebra-Based Physics I<br>or Calculus -Based Physics I ***and*** Calculus - Based Physics I Lab | 4 |
| | **Credits** | **15** |
| **Second Year** | | |
| **Fall** | | |
| E T 143 | Civil/Survey Drafting I | 3 |
| ENGR 233 | Engineering Mechanics I | 3 |
| ENGL 2210G<br>or ENGL 2210H | Professional and Technical Communication<br>or Professional and Technical Communication | 3 |
| MATH 1521G<br>or MATH 1521H | Calculus and Analytic Geometry II [1]<br>or Calculus and Analytic Geometry II Honors | 4 |
| COMM 1115G<br>or HNRS 2175G | Introduction to Communication<br>or Introduction to Communication Honors | 3 |
| | **Credits** | **16** |
| **Spring** | | |
| E T 254 | Concrete Technology | 3 |
| E T 308 | Fluid Technology | 3 |
| E T 308 L | Fluid Technology Lab | 1 |
| SUR 222 | Introduction to Geomatics | 3 |
| ENGR 234 | Engineering Mechanics II | 3 |
| Area IV: Social Behavior Sciences [2] | | 3 |
| | **Credits** | **16** |
| **Third Year** | | |
| **Fall** | | |
| E T 310 | Applied Strength of Materials | 3 |
| E T 310 L | Applied Strength of Materials Lab | 1 |
| E T 354 | Soil and Foundation Technology | 4 |
| Viewing a Wider World [3] | | 3 |
| Area V: Humanities [2] | | 3 |
| | **Credits** | **14** |
| **Spring** | | |
| E T 332 | Applied Design of Structures I | 4 |
| E T 355 | Site/Land Development and Layout | 3 |
| E T 382 | Solar Energy Technologies [4] | 3 |
| SUR 328<br>& 328L | Construction Surveying & Automation Technologies<br>and Construction Surveying & Automation Technologies Lab [4] | 3 |
| Area VI: Creative and Fine Arts [2] | | 3 |
| | **Credits** | **16** |
| **Fourth Year** | | |
| **Fall** | | |
| E T 432 | Applied Design of Structures II | 4 |
| E T 381 | Renewable Energy Technologies [4] | 3 |
| E T 384 | Wind and Water Energy Technologies [4] | 3 |
| E T 459 | Construction Technology and Management | 3 |
| I E 451 | Engineering Economy | 3 |
| | **Credits** | **16** |
| **Spring** | | |
| A ST 311<br>or MATH 1350G | Statistical Applications<br>or Introduction to Statistics | 3 |
| E T 410 | Senior Seminar | 1 |
| E T 412 | Highway Technology | 3 |
| E T 418 | Applied Hydraulics | 3 |
| E T 421 | Senior Project | 3 |
| Viewing a Wider World [3] | | 3 |
| | **Credits** | **16** |
| | **Total Credits** | **124-125** |

1. Students may need to take any prerequisites needed before enrolling in MATH 1511G Calculus and Analytic Geometry I or MATH 1521G Calculus and Analytic Geometry II. These courses satisfy both the Area II and General Education Elective requirements.
2. See the General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/) section of this catalog for a full list of courses
3. See the Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) section of the catalog for a full list of courses.
4. Concentration-specific coursework. These twelve credits add three credits to the No-Concentration CET program option.
5. The ENGR 120 DC Circuit Analysis requirement can be met by taking three credits of Physics II, such as PHYS 1240G Algebra-Based Physics II, or PHYS 1320G Calculus -Based Physics II