ELECTRICAL ENGINEERING TECHNOLOGY - BACHELOR OF SCIENCE IN ENGINEERING TECHNOLOGY

The Electrical Engineering Technology (https://et.nmsu.edu/) (EET) program combines engineering theory and real-world industrial knowledge for the design, implementing, and testing of a wide range of innovative electrical and electronic circuits and systems. The EET program includes courses in analog electronics, digital systems, computer programming, embedded systems, renewable energy, power systems, instrumentation, automated control systems, microprocessors, computer networking, signal processing, and communications.

Our hands-on program places special emphasis on power technologies and automated manufacturing. EET graduates place into challenging positions in industry, as project engineers, applications engineers, field engineers, test engineers, control engineers, and more!

For ABET accreditation information on this program, refer to: https://et.nmsu.edu/.

Electrical Engineering Technology (No Concentration)

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 (Recommended) [2]	3
or ENGL 2210H	Professional and Technical Communication	
Oral Communication		
COMM 1115G	Introduction to Communication	3
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*
Choose a sequence from the following for eight credits: [3]		
Algebra-Based Sequence		
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-Based Physics I Lab	
PHYS 1240G & PHYS 1240L	Algebra-Based Physics II and Algebra-Based Physics II Lab	
Calculus-Based Sequence		
PHYS 1310G & PHYS 1310L	Calculus -Based Physics I and Calculus -Based Physics I Lab	
PHYS 1320G & PHYS 1320L	Calculus -Based Physics II and Calculus -Based Physics II 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 [2, 4]		**6**
Departmental/College Requirements		
A ST 311	Statistical Applications	3
E T 101	Introduction to Engineering Technology	1
E T 246	Electronic Devices I	4
E T 272	Electronic Devices II	4
E T 324	Signal Processing and Filtering	4
E T 344	Microprocessor Systems	3
E T 356	Applied Power Technologies I	4
E T 377	Computer Networking I	3
E T 381	Renewable Energy Technologies	3
E T 398	Digital Systems	4
E T 402	Introduction to Automated Control Systems	3
E T 414	Communications Systems	3
ENGR 120	DC Circuit Analysis	4
E T 452	Advanced Automated Control Systems	3
E T 456	Applied Power Technologies II	3
ENGR 130	Digital Logic	4
ENGR 140	Introduction to Programming and Embedded Systems	4
ENGR 190	Introduction to Engineering Mathematics	4
ENGR 230	AC Circuit Analysis	4
ENGR 401	Engineering Capstone I	3
ENGR 402	Engineering Capstone II	3
Technical Electives (choose 3 courses from the list below) [4]		*9*
E T 305	Introduction to Product Design	
E T 382	Solar Energy Technologies	
E T 384	Wind and Water Energy Technologies	
E T 386	Sustainable Construction and Green Building Design	
E T 420	Engineering Internship [5]	
ICT 477	Computer Networking II	
E T 480	Innovation and Product Development	
E T 483	Mobile App Programming and Development	
ICT 457	Information Security Principles	
ENGR 400	Special Topics (Choose three 1 credit courses related to the field) [5]	
Second Language: (not required)		
Electives, to bring the total credits to 120		
Total Credits		**121**

1. Students may need to take any prerequisites needed before enrolling inMATH 1511G Calculus and Analytic Geometry I and 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/#associatesbachelorsgetext) section of the catalog for a full list of courses. 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, rules, and alternative options.

[3] Students must select one of the two PHYS course sequences, from the following, in order to meet the 8 credits of the Area III: Laboratory Sciences requirement.

Algebra-Based Sequence

- PHYS 1230G Algebra-Based Physics I/PHYS 1230L Algebra-Based Physics I Lab
- PHYS 1240G Algebra-Based Physics II/PHYS 1240L Algebra-Based Physics II Lab

Calculus-Based Sequence

- PHYS 1310G Calculus -Based Physics I/PHYS 1310L Calculus -Based Physics I Lab
- PHYS 1320G Calculus -Based Physics II/PHYS 1320L Calculus -Based Physics II Lab

[4] Electives offer students the flexibility to explore specialized interests within or beyond their major. By selecting electives strategically, students may also be able to complete a minor with little or no additional coursework beyond degree requirements.

[5] Verify with your faculty advisor for pre-approval of ENGR 400 Special Topics that are related to the field and for discussion of E T 420 Engineering Internship limitations and specifications.

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**
COMM 1115G or HNRS 2175G	Introduction to Communication [2] or Introduction to Communication Honors	3
E T 101	Introduction to Engineering Technology	1
ENGL 1110G or ENGL 1110H	Composition I or Composition I Honors	4
ENGR 120	DC Circuit Analysis	4
ENGR 190	Introduction to Engineering Mathematics	4
	Credits	**16**
Spring		
ENGR 130	Digital Logic	4
ENGR 140	Introduction to Programming and Embedded Systems	4
ENGL 2210G or ENGL 2210H	Professional and Technical Communication or Professional and Technical Communication	3
MATH 1511G or MATH 1511H	Calculus and Analytic Geometry I [1] or Calculus and Analytic Geometry I Honors	4
	Credits	**15**
Second Year		
Fall		
E T 246	Electronic Devices I	4
ENGR 230	AC Circuit Analysis	4
MATH 1521G or MATH 1521H	Calculus and Analytic Geometry II [1] or Calculus and Analytic Geometry II Honors	4
Physics I with Lab (Area III: Lab Sciences, Choose one) [3]		4
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-Based Physics I Lab [3]	
PHYS 1310G & PHYS 1310L	Calculus -Based Physics I and Calculus -Based Physics I Lab [3]	
	Credits	**16**
Spring		
Area IV: Social Behavior Sciences [2]		3
E T 272	Electronic Devices II	4
E T 398	Digital Systems	4
Physics II with Lab (Area III: Lab Sciences, from the chosen sequence) [3]		4
PHYS 1240G & PHYS 1240L	Algebra-Based Physics II and Algebra-Based Physics II Lab [3]	
PHYS 1320G & PHYS 1320L	Calculus -Based Physics II and Calculus -Based Physics II Lab [3]	
	Credits	**15**
Third Year		
Fall		
Area V: Humanities [2]		3
E T 324	Signal Processing and Filtering	4
E T 377	Computer Networking I	3
E T 381	Renewable Energy Technologies	3
Technical Elective Course (from pre-approved list) [4]		3
	Credits	**16**
Spring		
A ST 311	Statistical Applications	3
E T 344	Microprocessor Systems	3
E T 356	Applied Power Technologies I	4
Technical Elective Course (from pre-approved list) [4]		3
Viewing a Wider World [2, 4]		3
	Credits	**16**
Fourth Year		
Fall		
Area VI: Creative and Fine Arts [2]		3
Viewing a Wider World [2, 4]		3
E T 402	Introduction to Automated Control Systems	3
E T 456	Applied Power Technologies II	3
ENGR 401	Engineering Capstone I	3
	Credits	**15**
Spring		
E T 414	Communications Systems	3
ENGR 402	Engineering Capstone II	3
Technical Elective Course (from pre-approved list) [4]		3
E T 452	Advanced Automated Control Systems	3
	Credits	**12**
	Total Credits	**121**

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[2] See the General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#associatesbachelorsgetext) section of the catalog for a full list of courses. See the Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-

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- PHYS 1240G Algebra-Based Physics II/PHYS 1240L Algebra-Based Physics II Lab

Calculus-Based Sequence

- PHYS 1310G Calculus -Based Physics I/PHYS 1310L Calculus - Based Physics I Lab
- PHYS 1320G Calculus -Based Physics II/PHYS 1320L Calculus - Based Physics II Lab

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