

BS Elect Engr
Bachelor of Science in Electrical Engineering
Under Review | Spring 2026

Proposal Information

Status

Active

Workflow Status

In Progress

Refresh  **Form Submission, Proposer**

collapse ▼

Submitted for Approval | Proposer

✓ Ali Bidram | 11/05/2025 1:52 PM

Department Chair Approval, Electrical & Computer Engineering

Approved | Department Chair

✓ Tim Kane | 11/05/2025 11:24 PM

Registrar Technical Check Approval, Registrar Technical Check

Approved | Registrar Technical Check

✓ Michael Raine | 11/10/2025 2:15 PM

— Maggie Sumruld

College/School Approval, School of Engineering

Approved | College or School approver

✓ Shuang Luan | 11/13/2025 7:03 PM

Library Approval, Main Campus Library

Approved | Library Approval

— Sever Bordeianu

✓ Caitlin Wells | 11/14/2025 5:00 PM

FSCC Member notification, Faculty Senate Curriculum Committee

Notification Sent | Faculty Senate Curriculum Committee Member

☑ Joe Anderson

☑ Laura Belmonte

☑ Sara Ice

☑ Mary Rice

☑ John Russell

☑ SueNoell Stone

☑ Jonathan Wheeler

☑ Kirsten Thomson

☑ Paulo Dutra

☑ Randi Archuleta

☑ Joan Lucas

☑ Julia So

☑ Jennifer Henry

☑ Christopher Holden

☑ Justine Ponce

☑ Isabella Goss

☑ Vanessa Ferguson

☑ Lauren McQuistion

☑ Jennifer Laws

Faculty Senate Curriculum Committee Approval, Faculty Senate Curriculum Committee

Approved | Faculty Senate Curriculum Committee Chair

— Janet Vassilev

✓ Nicole Capehart

The FSCC voted to approve. Thank you!

2/24/2026 1:07 PM

Provost Approval, Main Campus Provost

Approved | Provost

✓ Pamela Cheek | 3/08/2026 1:29 PM

Faculty Senate Approval, Faculty Senate

Waiting for Approval | Faculty Senate Approval

Nancy Middlebrook

Theresa Sherman

HLC Notification

Notification

Joseph Suilmann

External Review - HED CIP code approval, External Review

Approval | HED CIP code approval

Michael Raine
Anna Gay

Reg. Final Approval/Processing, Registrar
Approval | Registrar final approval

Michael Raine
Maggie Sumruld

Notification, Proposer
Notification | Proposer

Ali Bidram

IDI Notification
Notification

IDI

EMRT notification, EMRT users
Notification | EMRT user

Enrollment Mgt Reporting Team

Notification, LoboTrax Team
Notification | LoboTrax Staff

Sherri DeLeve
Paula Freitag
Hannah Epstein
Allie Martinez
Glenda Johnson

Changes

- Requirements
- Program
- Program
- Proposed Effective Term and Year
- Sponsoring faculty/staff member

Show All ▼

Proposal Information

Proposed
Sponsoring faculty/staff member
Ali Bidram

Existing
Sponsoring faculty/staff member
Maggie Sumruld

College
School of Engineering

Department
Electrical & Computer Engineering

Proposed
Sponsoring faculty/staff email
bidram@unm.edu

Existing
Sponsoring faculty/staff email
msumruld@unm.edu

Campus
Main Campus

Effective Term and Year

Proposed

Proposed Effective Term and Year

Spring 2026

Existing

Proposed Effective Term and Year

Fall 2024

Justification

Proposed

Program Justification

The list of courses has ECE338L mistakenly. This should be replaced with ECE321L.

Existing

Program Justification

MS 5/22/24 Adding major code to match BANP

Program Category and Level

Program Category	Program Level	Degree, Minor, or Certificate Name
Degree	Undergraduate	Bachelor of Science in Electrical Engineering
Certificate or Degree Type		
Bachelor of Science		
Degree/Certificate Level		
Undergraduate		
Is this program also offered online?		
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File Uploads

Document uploads

Associated Quali Forms

Select any associated course forms that exist

Select any associated program forms that exist

Shared Credit and Dual Degree information

Interdepartmental Program

Yes

How many departments are impacted?

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Catalog Information

Program Description

Bachelor of Science in Electrical Engineering

Electrical Engineering has been and continues to be a very dynamic field that provides exciting and excellent career opportunities. Electrical engineers use mathematics, physics and other sciences, together with computers, electronic instrumentation and other tools to create a wide range of systems such as integrated circuits, telecommunication networks, wireless personal communication systems, diagnostic medical equipment, robots, radar systems and electrical power distribution networks. Their involvement has changed the way people live and work.

The continuous need to improve and discover new systems makes the electrical engineering profession more sought after than ever before. The Bachelor of Science in Electrical Engineering (B.S.E.E.) program provides the student with the necessary skills to compete in such a rapidly changing discipline.

Program Educational Objectives

The principal goal of this program is to provide students with the fundamentals of electrical engineering, thereby providing an excellent base for a successful engineering career. This includes building a sufficient knowledge and analytical capability so that the graduates can continue to expand their knowledge as their fields of interest and the scope of electrical engineering changes. The department's core courses are intended to provide a broad base so that those who terminate their formal education with the Bachelor's degree can continue to grow. Likewise, the base provides insight into fields that students may choose to study at the graduate level. This goal is met by a curriculum in which there is a progression in coursework and in which fundamental knowledge of earlier years is applied in later engineering courses.

The educational objectives of the electrical engineering program are to educate students to become resourceful practitioners of engineering who:

- Are capable of utilizing their engineering skills in industry, nonprofit organizations, and national laboratories, or in pursuit of graduate education;
- Are knowledgeable of the professional responsibilities and social context associated with being an engineer; can work in teams and effectively communicate the results of their work;
- Develop their knowledge and skills throughout their careers; and,
- Function well in a diverse environment.

Dual Degrees

Students in this program may earn a dual degree with a Bachelor of Science in Physics or a Bachelor of Arts in Physics and Astrophysics. Consult the dual degree program listing for requirements.

Admissions Requirements

Interested students must be admitted for study at the University of New Mexico as pre-majors in either of the department's baccalaureate programs.

The criteria for admission to the Bachelor of Science in Computer Engineering or the Bachelor of Science in Electrical Engineering programs include 18 credit hours of freshman-year technical subjects required by the School of Engineering for admission, which include MATH 1512 and MATH 1522. With department approval, the remaining courses may be selected from Electrical and Computer Engineering, Physics, or from other sciences required for the degree. A minimum grade point average of 2.50 is required for these courses.

Applicants must also have completed ENGL 1110 or the equivalent and achieved a minimum cumulative GPA of 2.30. All courses required in a baccalaureate degree program in the ECE Department must have grades of "C" or better for satisfying both admission and graduation requirements.

Policy on Passing Grades

Students admitted or readmitted to the department's baccalaureate programs may not apply a course toward the Bachelor of Science in Computer Engineering or Electrical Engineering degrees if the grade earned in the course is not a "C" or better, regardless of where that grade was earned.

Students are not permitted to enroll in an undergraduate Electrical and Computer Engineering course without first earning a grade of "C" or better in all prerequisites for the course.

Residence Policy

Students admitted to the B.S.Cp.E or B.S.E.E. degree programs in the ECE Department must complete a minimum of 30 semester credit hours of work applicable to the degrees after admission to the program.

Courses Numbered 300 or Above (8-Credit Hour Rule)

The policy on courses numbered 300 or above is defined by the School of Engineering policy in this Catalog. This policy is commonly referred to as the 8-Credit Hour Rule. Briefly, this policy states that a student may not enroll in courses in the junior year of the curriculum (300-level or above) unless the student is within 8 credit hours of meeting all requirements of the first two years and is enrolled in the remaining courses to satisfy those requirements.

ECE courses numbered 300 through 499 are designed primarily for undergraduate majors in the ECE Department; courses numbered 500 and above are designed primarily for M.S. and Ph.D. students in the ECE department. Therefore, students who have not been admitted to one of the degree programs in the ECE department may take a maximum of four ECE courses numbered 300 or above. This restriction does not apply to students who are taking an approved minor in the ECE department or who are enrolled in an approved dual degree program. Non-degree students who already have a B.S. or M.S. degree and are making up deficiencies for entrance into the ECE graduate program or are engaged in continuing education are given special consideration, but are expected to obtain advising from the ECE Graduate Director each semester.

Graduation Requirements

Policy on Passing Grades

Students admitted or readmitted to the department's baccalaureate programs may not apply a course toward the Bachelor of Science in Computer Engineering or Electrical Engineering degrees if the grade earned in the course is not a "C" or better, regardless of where that grade was earned. Students are not permitted to enroll in an undergraduate Electrical and Computer Engineering course without first earning a grade of "C" or better in all prerequisites for the course.

Residence Policy

Students admitted to the B.S.Cp.E or B.S.E.E. degree programs in the ECE Department must complete a minimum of 30 semester credit hours of work applicable to the degrees after admission to the program.

Courses Numbered 300 or Above (8-Credit Hour Rule)

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Professional Credential/Licensure Program Information

License/Certification associated with program
No

Professional Accrediting Bodies
The Bachelor of Science program in Electrical Engineering is accredited by the Engineering Accreditation Commission (ABET).

Degree Information

Degree Hours	Minimum Major Hours
120	

Degree Requirements

Requirements

- Complete all of the following
 - Complete the following:
 - ECE101 - Introduction to Electrical and Computer Engineering (1)
 - ECE131L - Programming Fundamentals (4)
 - ENGL1120 - Composition II (3)
 - MATH1512 - Calculus I (4)
 - PHYS1310 - Calculus-Based Physics I (3)
 - ENGL2210 - Professional and Technical Communication (3)
 - MATH1522 - Calculus II (4)
 - PHYS1320 - Calculus-Based Physics II (3)
 - PHYS1320L - Calculus-Based Physics II Laboratory (1)
 - ECE203 - Circuit Analysis I (3)
 - ECE238L - Computer Logic Design (4)
 - MATH2531 - Calculus III (4)
 - PHYS2310 - Calculus-Based Physics III (3)
 - ECE206L - Instrumentation (2)
 - ECE213 - Circuit Analysis II (3)
 - ECE300 - Advanced Engineering Mathematics (4)
 - ENG220 - Engineering, Business, and Society (3)
 - ~~ECE338 - Intermediate Logic Design (3)~~
 - ECE340 - Probabilistic Methods in Engineering (3)
 - ECE371 - Materials and Devices (3)
 - ECE322L - Electronics II (4)
 - ECE344L - Microprocessors (4)
 - ECE360L - Electromagnetic Fields and Waves (4)
 - ECE381 - Introduction to Electric Power Systems (3)
 - ECE341 - Introduction to Communication Systems (3)
 - ECE345 - Introduction to Control Systems (3)
 - ECE419 - Senior Design I (3)
 - ECE420 - Senior Design II (3)
 - ECE314L - Signals and Systems (4)
 - **ECE321L - Electronics I (4)**
 - Earn at least 9 credits from the following types of courses:
Technical Electives developed in consultation with an academic advisor ; can be taken from ECE 231L or 300-level or above CS, ECE, MATH, PHYS, or other engineering-related courses. Electives must include at least 3 credit hours from ECE courses numbered 400 or higher.
 - Earn at least 3 credits from the following types of courses:
Basic Science or Mathematics Elective.
 - Complete at least 1 of the following:
 - ECON2110 - Macroeconomic Principles (3)
 - ECON2120 - Microeconomic Principles (3)
 - Earn at least ~~43~~ **12** credits from the following types of courses:
In addition to the program-specific requirements outlined here, all undergraduate students are required to fulfill UNM's General Education Program requirements and other general undergraduate degree requirements to earn a minimum of 120 credits. In some instances, courses included in an undergraduate degree program's requirement may also fulfill a General Education requirement. Please review the General Education Program in this Catalog for General Education information.

Grand Total Credits: 120

Concentrations

Program Concentrations

Code	Title
Concentration Required	
No	

Emphases

Emphasis required N/A	Emphasis Hours
Emphasis Rules No Rules	

Sample Degree Plan

Sample Degree Plan Upload

Program Learning Outcomes

Learning Outcomes

Registrar Office Only

CM Program Code BS Elect Engr	BANP	Banner Program Code BSEE-EE-EN	Major Code EE
Online Program Code	Online Major Code	Pre-major Program Code BSEE-FEE-EN	Pre-major Major Code FEE
CIP Code 14.1001	Concentration Inheritance No		
Catalog Main Campus		Catalog Activation Date 08/01/24	
Notes AG 8/4/22 MS 5/22/24 Adding major code to match BANP			