ELECTRO-MECHANICAL ENGINEERING TECHNOLOGY, B.S. (BERKS)

Begin Campus: Any Penn State Campus
End Campus: Berks

Degree Requirements
For the Bachelor of Science degree in Electro-Mechanical Engineering Technology, a minimum of 130 credits is required:

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24 of the 45 credits for General Education are included in the Requirements for the Major. This includes: 6 credits of GQ courses; 9 credits of GN courses; 6 credits of GWS courses; 3 credits of GH or GS courses.

Requirements for the Major
To graduate, a student enrolled in the major must earn a grade of C or better in each course designated by the major as a C-required course, as specified by Senate Policy 82-44 (https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44).

Code     Title                                  Credits
Prescribed Courses
CMPET 211  Embedded Processors and DSP         3
EDSGN 100  Cornerstone Engineering Design       3
EET 105    Electrical Systems                    3
EET 275    Introduction to Programmable Logic Controls 3
EGT 114    Spatial Analysis and Computer-Aided Drafting 2
EMET 100   Computation Tools for Engineering Synthesis 1
EMET 215   Manufacturing Engineering           3
EMET 225   Applied Dynamics                     3
EMET 325   Electric Drives                      3
EMET 326   Mechanical Drives                    3
EMET 350   Quality Control, Inspection, and Design 3
EMET 403   Electromechanical Design Project Preparation 1
EMET 405   Introduction to Thermal Science Systems 3
EMET 410   Automated Control Systems           4
EMET 440   Electro-Mechanical Project Design    3
IET 101    Manufacturing Materials, Processes, and Laboratory 3
IET 333    Engineering Economics for Technologists 2

Additional Courses: Require a grade of C or better
MATH 83    Technical Calculus 1                    4
or MATH 140  Calculus With Analytic Geometry I    3
MATH 250   Ordinary Differential Equations 2      3
or MATH 211  Intermediate Calculus and Differential Equations with Applications 3
Select 3 credits from the following: 3
CMPSC 121  Introduction to Programming Techniques
CMPSC 131  Programming and Computation I: Fundamentals
CMPSC 200  Programming for Engineers with MATLAB
CMPSC 201  Programming for Engineers with C++

Select 3-5 credits from the following: 3-5
MATH 26    Plane Trigonometry and Applications of Trigonometry
MATH 40    Algebra, Trigonometry, and Analytic Geometry
MATH 82    Technical Mathematics II 3

Supporting Courses and Related Areas
Select 3-4 credits of science courses, in consultation with an adviser, from the approved department list 3-4
Select 6 credits of General Technical Elective courses, in consultation with an adviser, from the approved department list 6

Students taking MATH 83 must take MATH 210 and MATH 211.
2 Note that MATH 250 does not carry a C-requirement.
3 Students taking MATH 81 and MATH 82 must take MATH 83.

General Education
Connecting career and curiosity, the General Education curriculum provides the opportunity for students to acquire transferable skills necessary to be successful in the future and to thrive while living in interconnected contexts. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. These are requirements for all baccalaureate students and are often partially incorporated into the requirements of a program. For additional information, see the General Education Requirements (https://bulletins.psu.edu/undergraduate/general-education/baccalaureate-degree-general-education-program/) section of the Bulletin and consult your academic adviser.

The keystone symbol appears next to the title of any course that is designated as a General Education course. Program requirements may also satisfy General Education requirements and vary for each program.

Foundations (grade of C or better is required and Inter-Domain courses do not meet this requirement.)
- Quantification (GQ): 6 credits
- Writing and Speaking (GWS): 9 credits

Breadth in the Knowledge Domains (Inter-Domain courses do not meet this requirement.)
- Arts (GA): 3 credits
- Health and Wellness (GHW): 3 credits
- Humanities (GH): 3 credits
- Social and Behavioral Sciences (GS): 3 credits
- Natural Sciences (GN): 3 credits

Integrative Studies
- Inter-Domain Courses (Inter-Domain): 6 credits

Exploration
- GN, may be completed with Inter-Domain courses: 3 credits
- GA, GH, GN, GS, Inter-Domain courses. This may include 3 credits of World Language course work beyond the 12th credit level or the requirements for the student’s degree program, whichever is higher: 6 credits

University Degree Requirements

First Year Engagement
All students enrolled in a college or the Division of Undergraduate Studies at University Park, and the World Campus are required to take 1 to 3 credits of the First-Year Seminar, as specified by their college First-Year Engagement Plan.

Other Penn State colleges and campuses may require the First-Year Seminar; colleges and campuses that do not require a First-Year Seminar provide students with a first-year engagement experience.

First-year baccalaureate students entering Penn State should consult their academic adviser for these requirements.

Cultures Requirement
6 credits are required and may satisfy other requirements
- United States Cultures: 3 credits
- International Cultures: 3 credits

Writing Across the Curriculum
3 credits required from the college of graduation and likely prescribed as part of major requirements.

Total Minimum Credits
A minimum of 120 degree credits must be earned for a baccalaureate degree. The requirements for some programs may exceed 120 credits. Students should consult with their college or department adviser for information on specific credit requirements.

Quality of Work
Candidates must complete the degree requirements for their major and earn at least a 2.00 grade-point average for all courses completed within their degree program.

Limitations on Source and Time for Credit Acquisition
The college dean or campus chancellor and program faculty may require up to 24 credits of course work in the major to be taken at the location or in the college or program where the degree is earned. Credit used toward degree programs may need to be earned from a particular source or within time constraints (see Senate Policy 83-80 (https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#83-80)). For more information, check the Suggested Academic Plan for your intended program.