ENGINEERING TECHNOLOGY (B.S.TECH.)

The Engineering Technology Bachelor of Science degree is designed to provide students with the opportunity to develop in-depth knowledge and hands-on experience in basic and advanced industrial processes, procedures, planning, and management.

To graduate in this program, all students are required to take the Certified Technology Manager (CTM) exam. Passing the CTM exam is not a requirement; students only need to show proof that they have taken the exam.

Required coursework includes the university requirements (regulation J-3 (https://catalog.uidaho.edu/general-requirements-academic-procedures/j-general-requirements-baccalaureate-degrees/)) and the following:

Code	Title	Hours
ENGL 3170	Technical Writing II	3
PSYC 1101	Introduction to Psychology	3
ECON 2202	Principles of Microeconomics	3
MATH 1160	Survey of Calculus	4
or MATH 1170	Calculus I	
PHYS 1111	General Physics I	3
PHYS 1111L	General Physics I Lab	1
PHYS 1112	General Physics II	3
PHYS 1112L	General Physics II Lab	1
CHEM 1111	General Chemistry I	3
CHEM 1111L	General Chemistry I Laboratory	1
STAT 2510	Statistical Methods	3
or STAT 3010	Probability and Statistics	
ENGR 1050	Engineering Graphics	2
INDT 3100	Introduction to Engineering Technology	3
INDT 3320	Introduction to Analog and Digital Electronics	3
INDT 3330	Industrial Electronics and Control Systems	3
INDT 3500	Introduction to Materials Science	3
INDT 3530	Manufacturing Systems	3
INDT 3620	Behavior-Based Safety	3
INDT 4200	Leadership and Conflict Resolution in a Technological Environment	3
INDT 4340	Power Generation and Distribution	3
INDT 4350	Network Administration	3
INDT 4420	Systems Integration	3
INDT 4430	Government Contract Law	3
INDT 4440	Quality Assurance Organization and Management	3
INDT 4460	Labor Law	3
INDT 4480	Project and Program Management	3
INDT 4500	Comprehensive Exam Preparation	1
INDT 4530	Computer Integrated and Robotics Manufacturing Technology	3
INDT 4620	Industrial Safety	3
INDT 4840	Industrial Technology Capstone I	3
INDT 4850	Industrial Technology Capstone II	3
Select Technical and Free Electives (not limited to the following): [1]		12
INDT 4570	Lean to Green Sustainable Technology	
INDT 4640	Human Performance Fundamentals	
INDT 4660	Human Performance Field Investigation	
INDT 4700	Homeland Security	
INDT 4720	National Incident Management Systems	
Total Hours		**97**

[1] Elective credits can also be obtained through Technical Competency. Up to 24 credits can be obtained in this manner.

Courses to total 124 credits for this degree.

Fall Term 1		Hours
ENGL 1101	Writing and Rhetoric I	3
MATH 1143	Precalculus I: Algebra	3
PSYC 1101	Introduction to Psychology	3
PHYS 1111	General Physics I	3
PHYS 1111L	General Physics I Lab	1
Oral Communication Course		3
	Hours	**16**
Spring Term 1		
ECON 2202	Principles of Microeconomics	3
ENGL 1102	Writing and Rhetoric II	3
MATH 1160	Survey of Calculus	4
or MATH 1170	or Calculus I	
PHYS 1112	General Physics II	3
PHYS 1112L	General Physics II Lab	1
STAT 2510	Statistical Methods	3
or STAT 3010	or Probability and Statistics	
	Hours	**17**
Fall Term 2		
CHEM 1111	General Chemistry I	3
CHEM 1111L	General Chemistry I Laboratory	1
ENGR 1050	Engineering Graphics	2
INDT 3100	Introduction to Engineering Technology	3
INDT 3320	Introduction to Analog and Digital Electronics	3
Humanistic and Artistic Ways of Knowing Course		3
	Hours	**15**
Spring Term 2		
INDT 3330	Industrial Electronics and Control Systems	3
INDT 4620	Industrial Safety	3
Humanistic and Artistic Ways of Knowing Course		3
American Experience Course		3
Elective Course		4
	Hours	**16**
Fall Term 3		
ENGL 3170	Technical Writing II	3
INDT 3500	Introduction to Materials Science	3
INDT 3620	Behavior-Based Safety	3
INDT 4340	Power Generation and Distribution	3
INDT 4350	Network Administration	3
	Hours	**15**
Spring Term 3		
INDT 3530	Manufacturing Systems	3
INDT 4200	Leadership and Conflict Resolution in a Technological Environment	3
INDT 4420	Systems Integration	3
INDT 4440	Quality Assurance Organization and Management	3
International Course		3
	Hours	**15**

Fall Term 4

INDT 4430	Government Contract Law	3
INDT 4480	Project and Program Management	3
INDT 4840	Industrial Technology Capstone I	3
Technical, Major Elective Course		3
Technical, Major Elective Course		4
	Hours	**16**

Spring Term 4

INDT 4460	Labor Law	3
INDT 4500	Comprehensive Exam Preparation	1
INDT 4530	Computer Integrated and Robotics Manufacturing Technology	3
INDT 4850	Industrial Technology Capstone II	3
Technical, Major Elective Course		3
Technical, Major Elective Course		3
	Hours	**16**
	Total Hours	**126**

The degree map is a guide for the timely completion of your curricular requirements. Your academic advisor or department may be contacted for assistance in interpreting this map. This map is not reflective of your academic history or transcript and it is not official notification of completion of degree or certificate requirements. Please contact the Registrar's Office regarding your official degree/certificate completion status.

1. Graduates are prepared to design, implement, and improve processes and systems in the manufacturing, research, and development, service or government sectors. The students will be able to:
   a. Apply theories and principles from mathematics, physical science, and computer applications and information technology to solve practical technology problems;
   b. Apply quality, safety, and industrial technology skills in a professional work environment within real-world constraints;
   c. Demonstrate proficiency in the use of robotics and manufacturing equipment to solve practical technology and engineering problems;
   d. Apply the principles of cognitive systems and human performance to perform task analyses and evaluate human-computer/machine interfaces;
   e. Interpret, describe, and implement information contained in typical project specifications.
2. Our graduates are prepared to succeed in managerial and leadership positions. The students will be able to:
   a. Demonstrate project management skills by applying time value of money, select and implement cost-effective solutions and understand cost-accounting and effective scheduling principles;
   b. Develop, motivate, direct, and assist teams in applying critical thinking concepts to solve technology and engineering problems;
   c. Identify customer project goals, financial needs, timeline constraints, and other customer service based efforts.
3. Our graduates are prepared to communicate with team members, work in teams, customers, and suppliers in the global environment. The students will be able to:
   a. Demonstrate good written and oral communication skills and use current multimedia tools to convey information;
   b. Draw conclusions from and explain information synthesized from several sources;
   c. Manage dispute resolution to mutually beneficial accord.
4. Our graduates are prepared to engage in today's evolving market place. The students will be able to:
   a. Analyze contemporary issues for pertinence and potential impacts;
   b. Describe and evaluate professional and ethical responsibilities;
   c. Demonstrate the ability to adapt emerging technologies;
   d. Recognize and evaluate the impact of engineering decisions in a global and societal context;
   e. Put into practice the concepts of service learning.