

**BS in Industrial Technology (ITEC) to BS in Engineering Technology (ETEC) Major Change Consideration
Check List of Allowed Substitutions**

Student Name: _____
 Student ID: _____
 Adviser Name: _____

Catalog: Semester Catalog 2022-2023
 Program: Engineering Technology, BS
 Minimum Credits Required: 120 units

Major Change from ITEC to ETEC criteria:

In general, students changing major from ITEC to ETEC must have no more than 24 units of extra requirements necessary to meet the new major; i.e. their new total must not exceed 144 units.

Maintain 2.0 GPA

| Lower Division Core Courses (34 units) | | | | | | |
|--|--|---|-----------------|----------------------|-------------------|--------------|
| Course Name | Prerequisites | Allowed Substitution | Credits: | Substitutions | Term Taken | Grade |
| CHEM 1000 Molecules Matters | | CHEM 1100 or CHEM 1040 *Chem course must contain a lab | 3 | | | |
| ENGR 1500 Intro to Eng. and Technology | | | 3 | | | |
| ETEC 1000 Intro. To Automotive Systems | | TECH 1000 | 3 | | | |
| ETEC 1020 Industrial Safety | | TECH 1010 | 3 | | | |
| ETEC 1100 Intro. to Engineering Design | | TECH 1100 | 3 | | | |
| ETEC 1200 Practical Electronics | PHYS 1560/1570 both with minimum C- | TECH 1200 plus PHYS 1560/1570 | 3 | | | |
| ETEC 1600 Intro. to Metalworking | Co-Requisite ETEC 1020 | TECH 1600 & Tech 1010 | 3 | | | |
| ETEC 2070 Eng. Tech. Materials | CHEM 1000 or CHEM 1040 with a minimum C grade | ME 2070 | 3 | | | |
| MATH 2110 Calculus I | Math 1040 or (Math 1081 & 1083) or STEP placement or AP Calc | Calculus equivalent to Math 2110 | 4 | | | |
| PHYS 1560 Physics for the 21 st Century | Corequisite: PHYS 1570 | PHYS 2100 Or equivalent | 2 | | | |

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|---|-------------------------------|-------------------------|---|--|--|--|
| PHYS 1570 Physics for the 21 st Century Lab_____ | Pre/Co- requisite: 1560 | PHYS 2100 Or equivalent | 1 | | | |
| TECH 1300 Intro. to Graphics Communications | None | | 3 | | | |

Upper Division Core Courses (26 units)

| Course Name | | | Credits | Substitutions | Term Taken | Grade |
|--|--|--|---------|---------------|------------|-------|
| ETEC 3600 Lean Manufacturing | PHYS 1560, PHYS 1570, MATH 2110 all three with a minimum grade C- ; and ETEC 1600. | TECH 3600 + Summer Bridge Course (Special Topics) | 3 | | | |
| ETEC 3700 Sustainable Energy and Transportation | PHYS 1560, 1570 and MATH 2110 all with a minimum grade C- | TECH 3700 + Summer Bridge Course (Special Topics) | 3 | | | |
| ETEC 4210 Internetworking Technology | ETEC 1200 | TECH 4210 plus TECH 1200 | 3 | | | |
| ETEC 4880 Fluid Power | PHYS 1560, 1570 and MATH 2110 all with a minimum grade C- | TECH 4880 + Summer Bridge Course (Special Topics) | 3 | | | |
| ETEC 4890 Industrial Training Methods | ETEC 3600, ETEC 3700 | TECH 4890 | 2 | | | |
| ETEC 4950 Engineering Technology Senior Project I | ETEC 3600, ETEC 3700, and Senior Standing. | | 3 | | | |
| ETEC 4951 Engineering Technology Senior Project II | ETEC 4950 graded C or better. | | 3 | | | |
| TECH 3300 Graphic Communications Processes and Materials | Junior standing | | 3 | | | |

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|---|--|----------|---|--|--|--|
| TECH 4000 Written Communication Skills for Technology | | BUS 3050 | 3 | | | |
|---|--|----------|---|--|--|--|

Related Core Courses (9 units)

| Course Name | | | Credits: | Substitutions | Term Taken | Grade |
|--|---------------------------------|--|----------|---------------|------------|-------|
| ACCT 2100 Principles of Financial Accounting | | | 3 | | | |
| ECON 3060 Statistics for Business Analysis and Decision Making | GE 4 basic subjects | ECON 2090 & ECON 3090 Note: ECON 3090 does not satisfy UD GE Block B | 3 | | | |
| ME 3000 Economics for Engineers | Junior or Senior Standing | CE/EE 3000 Note: Satisfy LD GE Block D | 3 | | | |

Electives (15 units from any category)

Category 1: Elective Courses in Manufacturing Systems & Processes

| Course Name | | | Credits: | Substitutions | Term Taken | Grade |
|--|---|-----------------------|----------|---------------|------------|-------|
| ETEC 3130 Product Design and Development | ETEC 1100 | TECH 3130 & TECH 1100 | 3 | | | |
| ETEC 3150 Project Management and Document Control | ETEC 3130 | TECH 3150 | 3 | | | |
| ETEC 3820 Metrology and Statistical Process Control | MATH 2110, ETEC 1600 | | 3 | | | |
| ETEC 4600 Advanced Manufacturing Processes | MATH 2110, ETEC 3600 | | 3 | | | |
| ETEC 4620 Digital Manufacturing | ETEC 1100, ETEC 3600 | | 3 | | | |
| ETEC 4660 Additive Manufacturing | Prerequisite: ETEC 1100. Corequisite: ETEC 3600. | | 3 | | | |
| ETEC 4670 Emerging Manufacturing | Prerequisite: ETEC 1100. Corequisite: ETEC 3600. | | 3 | | | |

Category 2: Sustainable Energy and Transportation Technologies

| Course Name | | | Credits: | Substitutions | Term Taken | Grade |
|---|-----------|--|-----------------|----------------------|-------------------|--------------|
| ETEC 4700 Electric and Hybrid Vehicles | ETEC 3700 | | Spring 2024 | 3 | | |
| ETEC 4710 Engine Design and Performance | ETEC 3700 | | | 3 | | |
| ETEC 4720 Photovoltaic Applications | ETEC 3700 | | | 3 | | |
| ETEC 4740 Fuel Cell Applications and Hydrogen Infrastructure | ETEC 3700 | | | 3 | | |
| ETEC 4760 Measurement, Instrumentation and Control | ETEC 3700 | | | 3 | | |
| ETEC 4780 Emerging Sustainable Technologies | ETEC 3700 | | | 3 | | |

Category 3: Management

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|---------------------------------------|--|--|--|---|--|--|
| MGMT 3060 Operations Management | | | | 3 | | |
| MGMT 4505 Project Management | | | | 3 | | |