BS – Industrial Engineering with Applied Math minor

2022 Catalog year: College of Science and Engineering

**Freshman Fall semester**
- MATH 2471 (F,S,Su) Calculus I
  - TCCNS: MATH 2413
- ENGR 1304 (F,S,Su) Engineering Design Graphics
  - (replaced ENGR 1313)
- CHEM 1335 (F,S)
  - Engineering Chemistry
  - TCCNS: CHEM 1109
- CHEM 1135 (F,S)
  - Engineering Chemistry lab
  - TCCNS: CHEM 1109

**Freshman Spring semester**
- MATH 2472 (F,S,Su) Calculus II
  - TCCNS: MATH 2414
- PHYS 1430 (F,S)
  - Mechanics
  - TCCNS: PHYS 2425/2225
- ENGR 1300 (F,S,Su)
  - Materials Engineering
- CS 1342 (F,S)
  - Programming for Scientists & Engineers

**Sophomore Fall semester**
- MATH 3377 (F,S,Su) Linear Algebra
  - TCCNS: MATH 2210
- PHYS 2425 (F,S,Su)
  - Electricity & Magnetism
  - TCCNS: PHYS 2226/2226
- ENGR 2301 (F,S,Su)
  - Statics
  - (replaced ENGR 3375)
- MFGE 2332 (F,S,Su)
  - Material Selection

**Sophomore Spring semester**
- MATH 3323 (F,S,Su) Differential Equations
  - TCCNS: MATH 2200
- ENGR 2332 (F,S,Su)
  - Engineering Economic Analysis
- ENGR 3314 (F,S,Su)
  - Engineering Management
- ENGR 3315 (F,S,Su)
  - Engineering Economic Analysis

**Junior Fall semester**
- MATH 2393 (F,S,Su)
  - Calculus III
  - (Replaced MATH 3373)
- ENGR 3373 (F,S,Su)
  - Circuits & Devices
  - Also requires CS 1428 or CS 1342
- IE 3320 (F,S,Su)
  - Engineering Statistics
- IE 3330 (F,S)
  - Quality Engineering

**Junior Spring semester**
- IE 3340 (F,S)
  - Operations Research
- IE 4302 (F,S)
  - Industrial Design I
  - Coreqs are 2 from: IE 4320 (F,S), IE 4350 (F,S), and MFGE 4306 (F,S)
- IE 3345 (F,S)
  - Facilities Planning
  - Also requires MFGE 2312

**Senior Fall semester**
- IE 4301 (F,S)
  - Facilities Planning
  - Also requires MFGE 2312

**Senior Spring semester**
- IE 4336 (F,S)
  - Manufacturing Systems Design
- IE 4310 (F,S)
  - Statistical Design of Experiments
  - (Also requires IE 3320)

**IE required course:**
- ECO 2301

**IE required courses:**
- PHYS 1430 + CHEM 1335/1135
- MATH 2472 + PHYS 2425

**Additional WI courses:**
- IE 4393 (F,S)
  - Industrial Design II
  - Coreqs are 2 from: IE 4320 (F,S), IE 4350 (F,S), and MFGE 4306 (F,S)
- IE 4350 (F,S)
  - Supply Chain Engineering
- IE 4320 (F,S)
  - Integrated Production Systems

**Choose 9 hours from:**
- IE 3326
- EE 4331
- ENGR 3190/3290
- ENGR 4390
- ENGR 4395

**Core courses must be completed:**
- 6 credits Core 010
- 3 credits Core 020
- 6 credits Core 030
- 3 credits Core 040
- 3 credits Core 050
- 6 credits Core 060
- 6 credits Core 070
- 3 credits Core 080
- 6 credits Core 090
- 091, 092, 093, and 094

**Notes:**
- In addition to major courses, students must also complete all core and minor requirements (if applicable) and any other requirements for graduation.
- This is not an official degree audit and it is subject to change. This chart is intended to be used by students who start out at Texas State. Please contact the Undergraduate Advising Center for advising.

**Key:**
- Arrows indicate prerequisites.
- Arrows with dotted lines indicate co-requisites.
- Arrows with dash lines are recommended prerequisites.
- Courses taught in specific semesters are indicated with the following codes:
  - F-Fall
  - S-Spring
  - Su-Summer Session I or II

**Required WI courses:**
- IE 4392, IE 4393, MFGE 4396
- Additional WI courses: IE 4360

**Required WI courses:**
- IE 4392, IE 4393, MFGE 4396
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- Required WI courses: IE 4392, IE 4393, MFGE 4396

**US 1100 may be required for some students. Consult with an advisor regarding course choices.**