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# **Mechanical Engineering Technology - AS-T**

## 2021-22

# Program map for Mechanical Engineering Technology Associate in Science-Transfer (AS-T)

Complete basic background studies for transfer to a bachelor's degree program in engineering technology disciplines. Careers may be found in research, development, design, operations management, teaching, sales and consulting.

#### See also:

- Degree Requirements for Science, Technology, Engineering and Math programs
- Course descriptions in LCC Catalog
- Distribution lists in LCC Catalog

Please note that many course sequences only begin in fall quarter. Please check with your program advisor for more information.

Please review both the "By Quarter Overview" and "Detailed Class Sequence" tabs below.

#### By Quarter Overview First Quarter

- COLL 101: College Success 101 (2 credits)
- CHEM& 161: General Chemistry w/ Lab I (5 credits)
- ENGR 106: Engineering Problems (3 credits)
- ENGR& 121: Engineering Graphics I (3 credits)

#### Second Quarter

- Choose one:
  - ECON 201: Micro Economics (5 credits)
  - ECON 202: Macro Economics (5 credits)
- MATH& 141: Precalculus I (6 credits)
- ENGL& 101: English Composition I (5 credits)
- ENGR& 122: Engineering Graphics II (3 credits)

#### **Third Quarter**

- ENGR& 123: Engineering Graphics III (3 credits)
- MATH& 142: Precalculus II (5 credits)
- CS 170: Computer Programming (5 credits)

#### **Fourth Quarter**

- MATH& 151: Calculus I (5 credits)
- PHYS& 221: Engineering Physics I w/ Lab (5 credits)
- CMST& 220: Public Speaking (5 credits)

#### Apply for financial aid at transfer institution

#### **Fifth Quarter**

- MATH& 152: Calculus II (5 credits)
- PHYS& 222: Engineering Physics II w/ Lab (5 credits)
- · Choose one:
  - ART& 100: Art Appreciation (5 credits)
  - CMST 250: Intercultural Communication (5 credits)
  - HIST& 126: World Civilization I (5 credits)

#### **Apply for Graduation**

#### Sixth Quarter

- MATH& 153: Calculus III (5 credits)
- PHYS& 223: Engineering Physics III w/ Lab (5 credits)
- · Choose one:
  - ANTH& 100: Survey of Anthropology (5 credits)
  - ANTH& 206: Cultural Anthropology (5 credits)
  - HIST& 128: Western Civ III (5 credits)
  - HIST& 215: Women in US History (5 credits)
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# **Detailed Class Sequence**

1. College Success

COLL 101: College Success 101 (2 credits)

#### 2. Pre-Major Requirement

CHEM& 161: General Chemistry w/ Lab I (5 credits)

• Prerequisites: CHEM& 100 or high school chemistry and MATH 098.

#### 3. Elective

ENGR 106: Engineering Problems (3 credits)

• Prerequisite: High school or 100-level physics or chemistry, or instructor permission. Concurrent enrollment in MATH& 142.

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#### 4. Pre-Major Requirement

ENGR& 121: Engineering Graphics I (3 credits)

• It is recommended that sequence courses be completed at one institution.

#### 5. Social Science Requirement

Choose one of these recommended courses:

- ECON& 201: Micro Economics (5 credits)
  - Prerequisites: MATH 088 or TECH 088 or BUS 104 and ENGL& 101 or BUS 190.
- ECON& 202: Macro Economics (5 credits)
  - Prerequisite: ECON& 201 or instructor permission.

#### 6. Prerequisite Coursework / Elective

MATH& 141: Precalculus I (6 credits)

• Prerequisites: C or better in MATH 098, B or better in ABE 092, or placement.

#### 7. Communication Requirement

ENGL& 101: English Comp I (5 credits)

 Prerequisites: College level reading and writing skills or completion of ENGL 099 or TECH 105 with a grade of C or better.

#### 8. Pre-Major Requirement

ENGR& 122: Engineering Graphics II (3 credits)

- Prerequisite: ENGR& 121 or instructor permission.
- It is recommended that sequence courses be completed at one institution.

#### 9. Recommended Elective

ENGR& 123: Engineering Graphics III (3 credits)

- Prerequisite: ENGR& 121 and ENGR& 122 or instructor permission.
- It is recommended that sequence courses be completed at one institution.

#### 10. Prerequisite Coursework / Elective

MATH& 142: Precalculus II (5 credits)

• Prerequisites: C or better in MATH& 141.

#### 11. Pre-Major Requirement

CS 170: Computer Programming (5 credits)

• Prerequisites: MATH 088 or MATH 097 with a grade of C or better and knowledge of Windows is required; or instructor permission.

#### 12. Math Requirement

#### MATH& 151: Calculus I (5 credits)

• Prerequisites: MATH& 142 with a grade of C or better.

#### 13. Pre-Major Requirement

PHYS& 221: Engineering Physics I w/ Lab (5 credits)

• Prerequisites: Completion of or concurrent enrollment in MATH& 151 or instructor permission.

#### 14. Recommended Elective

CMST& 220: Public Speaking (5 credits)

#### 15. Math Requirement

MATH& 152: Calculus II (5 credits)

• Prerequisite: MATH& 151 with a grade of C or better.

#### 16. Pre-Major Requirement

PHYS& 222: Engineering Physics II w/ Lab (5 credits)

• Prerequisites: PHYS& 221, MATH& 152 or instructor permission.

#### 17. Humanities / Diversity Requirement

Choose one of these recommended courses:

- ART& 100: Art Appreciation (5 credits)
- CMST 250: Intercultural Communication (5 credits)
  Fulfills [DIVR] requirement at WSU
- HIST& 126: World Civilization I (5 credits)
  Fulfills [DIVR] requirement at WSU

#### 18. Math Requirement

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MATH& 153: Calculus III (5 credits)

• Prerequisite: MATH& 152 with a grade of C or better.

#### **19. Pre-Major Requirement**

PHYS& 223: Engineering Physics III w/ Lab (5 credits)

• Prerequisites: PHYS& 222 or instructor permission.

#### 20. Social Science Requirement

Choose one of these recommended courses:

- ANTH& 100: Survey of Anthropology (5 credits)
  Fulfills [DIVR] requirement at WSU
- ANTH& 206: Cultural Anthropology (5 credits)
  - Fulfills [DIVR] requirement at WSU
- HIST& 128: Western Civ III (5 credits)
- Fulfills [ROOT] requirement at WSU
- HIST& 215: Women in US History (5 credits)
  - Fulfills [DIVR] requirement at WSU

### Program Maps for Science, Technology, Engineering and Math (STEM)

- Bioengineering and Chemical Pre-Engineering AS-T (Bioengineering Option)
- Bioengineering and Chemical Pre-Engineering AS-T (Chemical Engineering Option)
- Biological Sciences AS-T
- Biology DTA/MRP
- Chemistry AS-T
- Computer and Electrical Pre-Engineering AS-T (2 Year Option)
- Computer and Electrical Pre-Engineering AS-T (3 Year Option)
- Computer Science AST
- Computer Science AST (WSUV)
- Earth Sciences AA-DTA
- Earth Sciences AS-T
- Environmental Science AS-T
- Mechanical, Civil, Aeronautical, Industrial, Materials Science Engineering (2 Year Option)
- Mechanical, Civil, Aeronautical, Industrial, Materials Science Engineering (3 Year Option)
- Mechanical Engineering Technology AS-T
- Physics AS-T
- Physics AS-T (Math Transfer Option)