

SEMICONDUCTOR MANUFACTURING TECHNOLOGY - ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)

Explore More About This Program: <https://cwi.edu/program/semiconductor-manufacturing-technology>

Degree Quick Facts

- **Instructional School:** Industry, Engineering, and Trades
- **Department:** Engineering
- **Program Code:** SMT.AAS
- **Program Type:** Career and Technical Education
- **Available Fully Online:** No
- **Eligible for Federal Financial Aid:** Yes

NOTE: Courses required for this program *may* have an additional fee; more information can be found on the [Special Course Fees](#) web page.

Degree Requirements

| Course | Course Title | Min Credits |
|---|---|-------------|
| General Education Requirements | | |
| ENGL 101 | Writing and Rhetoric I (GEM 1) | 3 |
| COMM 101 | Fundamentals of Oral Communication (GEM 2) | 3 |
| MATH 143 | Precalculus I: Algebra (GEM 3) ¹ | 3 |
| <u>GEM 6 - Social & Behavioral Ways of Knowing course</u> | | 3 |
| PHYS 111 | General Physics I (GE Elective) | 3 |
| PHYS 111L | General Physics I Lab (GE Elective) | 1 |
| Major Requirements | | |
| AMET 121 | DC Circuits and Application | 5 |
| AMET 131 | AC Circuits and Application | 5 |
| AMET 136 | Industrial Tools and Fabrication | 3 |
| AMET 141 | Analog Circuits and Application | 5 |
| AMET 151 | Digital Circuits and Application | 4 |
| Select one of the following options: | | 4 |
| Option 1: | | |
| CHEM 101 | Introduction to Chemistry ² | |
| CHEM 101L | Introduction to Chemistry Lab ² | |
| Option 2: | | |
| CHEM 111 | General Chemistry I ² | |
| CHEM 111L | General Chemistry I Lab ² | |
| MATH 144 | Precalculus II: Trigonometry ¹ | 2 |
| SMT 200 | Programming for Semiconductor Manufacturing | 2 |
| SMT 210 | Nanofabrication I | 2 |
| SMT 220 | Quality Control and Statistical Processing | 3 |

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| SMT 230 | Automated Control Systems | 3 |
| SMT 260 | Nanofabrication II | 2 |
| SMT 240 | Vacuum Technology | 2 |
| SMT 250 | Radio Frequency Energy and Plasma | 2 |

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| Minimum Credit Hours Required | 60 |
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¹ Students who have prior experience with chemistry are strongly encouraged to take the Chemistry Placement exam at the CWI Assessment Center. Passing the Chemistry Placement exam will allow students to register directly into CHEM 111 General Chemistry I, which is the recommended Chemistry option for SMT majors.

² If students would prefer to complete their GEM 3 math requirement in a single semester, they may take MATH 147 Precalculus (5 credits) instead of MATH 143 Precalculus I: Algebra (3 credits) and MATH 144 Precalculus II: Trigonometry (2 credits).