Semiconductor Technician Quick Start

Frequently Asked Questions (FAQs)

What is a Semiconductor Technician?

A Semiconductor Technician works in a manufacturing environment and can have a number of different jobs or roles within that organization. The main role of a semiconductor manufacturing technician is to maintain and assess manufacturing equipment and the products made at a semiconductor facility. This may include performing inspections and conducting experiments on products. You may also collect data, perform analysis, and evaluate products to verify they meet the engineering and design standards set out in the blueprints and schematics. Other duties could include maintaining and calibrating production equipment, as well as troubleshooting any issues.

What is the Semiconductor Technician Quick Start program?

The Semiconductor Technician Quick Start program offers a broad overview of industry processes and skills, many of which are transferable to other advanced manufacturing fields. No prior experience is necessary. The 10-day training program is taught by an industry professional and includes a dynamic mix of video lectures, quizzes, and hands-on labs.

When is the program being offered?

This is an open enrollment, in-person class (AIT132) that starts every 2 weeks (minus holiday weeks). The class will meet for 10 days over a 2-week period, Monday - Friday.

Where are classes held?

Classes are offered on the campuses of Mesa Community College (MCC), Chandler-Gilbert Community College (CGCC), Glendale Community College (GCC), and Estrella Mountain Community College (EMCC). You should pick the class time and location that is most convenient for you (i.e. closest to where you live or work to make attendance easier).

How much does the program cost?

The normal cost of the program for those who meet Maricopa residency requirements is $306, but the tuition will be sponsored by a grant for those successfully completing the 10-day program. For students that would pay the out-of-state tuition rate, it would be $372 per credit hour, and there is a different grant to cover out-of-state rates for eligible participants. Additional grant funding may be available to those who qualify and will provide a monthly stipend to cover the additional costs of attending the class (transportation, child care, lost wages, etc.). The class will be filled on a first-come, first-served basis with any additional students being put on a waitlist until seats in the next class are available or until grant funding is no longer available. _**Students who do not successfully complete the course and pass the NIMS Technician Certification test will be responsible for paying the $306 tuition.**_

What does this program cover?

Competencies	Description
Introduction	Describe basic semiconductor manufacturing concepts, processes, and employment opportunities.
1) Basic Schematics	Students explain basic industrial electrical principles. Students learn what a schematic is, the characteristics of schematics, and common symbols used for; Electrical, Fluid, Hydraulic, and Pneumatic.
2) Hand Tools	Introduction of hand tools commonly associated with preventative and corrective maintenance activities in semiconductor factories. Students get hands on with common hand tools to learn the safe and proper use. Students apply knowledge on custom made fixtures with different types of fasteners.
3) Safety	Students will learn workplace safety practices and clean room protocols and gowning. Students will also learn about proper Personal Protective Equipment (PPE) such as: A. Face and eye protection B. Respiratory protection C. Skin and body protection (head, foot & hand) D. Hearing protection
4) Model Based Problem Solving (MBPS)	Model based problem solving - lecture - Introduce students to MBPS concepts and review case studies of application.
	Students get to apply hands-on MBPS concepts on a Mechatronics Training Station, where the instructor will introduce errors that will require them to apply MBPS principles to diagnose issues.
5) Lean Foundation	Students will learn Lean Foundations for Lean Manufacturing, including: A. Lean rules B. Five principles C. Lean philosophy D. Lean mindset
6) Vacuums Technology	Vacuum Basics WBT will introduce the students to the chemistry and physics of vacuum, how it is measured, and how it is achieved in an industrial setting. Students will also apply MBPS principles to discuss common issues with vacuum systems.

Will I incur additional expenses for this program?

No, there are no additional expenses. You may choose to purchase a laptop or other related equipment, but these items are not required and are at your discretion.

What happens if I have to drop or withdraw from this course?

If you wish to withdraw from the course without penalty, you must initiate the drop by contacting your Campus Navigator on or before the first day of class. Students who withdraw after the first day or do not successfully complete the course will be responsible for the cost of tuition and a grade of "W"/ Withdrawal will be applied to their transcript.

Do I receive college credit for this program?

Yes, this is an accelerated 3-credit hour program.

What is the class size?

The maximum class size is 12-14 students.

How much homework will I have in this program?

Participants will be required to complete an estimated 8-12 hours of additional homework outside of the class.

Do I need to be in class to participate? What is the attendance policy?

Yes, attendance is mandatory. This is a 10-day accelerated program and it is highly recommended that you are in attendance every day.

What will be required to take the class?

- Participants will be required to attend class every day.
- Participants will be required to complete an estimated 8-12 hours of additional homework outside of the class.
- Participants will need access to a computer with internet access.
- Participants will also be required to submit an image of a government-issued ID card into the Coursera learning system and to the Maricopa Community Colleges admissions office.
- Participants will be required to wear clean room personal protection equipment, which could include bunny suits, masks, gloves, and ear and eye protection as required in the semiconductor manufacturing environment. For a complete list or additional information:
     https://www.osha.gov/semiconductors/standards
- Participants will be required to complete a pre-class readiness module in the Canvas Learning Management System.

What are the next steps if I passed the pre-assessment and I am unable to enroll into the class?

You will be contacted via email as classes become available based on a first-come, first-served basis.

How do I know where I am on the waitlist?

Once you passed the pre-assessment, you will be added to our waitlist. We'll be reaching out via email once we reach your position on the waitlist to offer enrollment in our next set of classes.

What is causing the delay for me to be enrolled?

Once you have passed the pre-assessment, you will need to make sure you have completed the admissions process to one of the three colleges and submitted the necessary ID authentication. These items must be completed in order to be invited to enroll in a class when they become available.

I am having trouble submitting my ID online. Is it possible to go to the college and get assistance from them?

Yes, you may go to the enrollment center on any campus to assist you with submitting your ID to complete the admissions process. Some common problems include copies that are not clear and readable for the system or the copy has been associated with the wrong college. Returning students may also be required to resubmit their ID to reactivate their account after 1 year.

Why am I not able to enroll into this program on my own online through the colleges?

1. Department consent is required for this class and there are additional requirements for enrollment
2. Submit an interest form at maricopa.edu/semico
3. Pass the pre-assessment
4. Determine grant eligibility
5. Complete admissions process to the college as a credit-seeking student
6. Complete the request enrollment form (select dates/times/campus)
7. Receive confirmation via email
8. Complete pre-class readiness assignment
9. Participate in post-class hiring fairs
10. Participate in post-class employment survey

I currently live out of state (or out of country), may I attend the program and what assistance do you offer?

You must currently reside in Arizona in order to qualify for state funding, but you may self-pay and attend the 2-week, in-person program in Arizona. Out-of-state/country students would be required to pay for the cost of the 3-credit-hour program and fees per the college's tuition schedule. International students can receive additional information by visiting **https://www.mesacc.edu/international-education** or emailing **questions@mesacc.edu**. MCCCD does not currently offer assistance with relocation, living arrangements, or visas to attend a single class, but may be able to assist you with documentation required if you are enrolled in a degree program.

Why is having a Semiconductor Pre-Apprentice certificate beneficial?

The semiconductor industry recognizes this certificate as a validation of foundational skills and knowledge. In addition, the industry-recognized certification through the National Institute of Metalworking Skills (NIMS) validates your knowledge and skills.

Are there additional education opportunities once I complete the program?

This class (AIT132) is a technical elective class for an Automated Industrial Technology (AIT) associate's degree.

Why should I take this program through Maricopa Community Colleges?

We provide:

- Small in-person classes
- Instructional support by qualified industry professionals
- Career readiness training

How much assistance will I receive in finding a job?

Participants who complete the program will have an opportunity to meet with local employers at job fairs on campus. In addition, our career navigators on campus will provide resources to assist with your job search. Maricopa Community Colleges will also provide additional resources and job leads to help you continue forward on your career path through our Career Services centers located on each campus, Pipeline AZ, and AZ Job Connection.

Are there additional requirements to working in a manufacturing environment?

Every employer has different requirements depending on their company culture, dangers associated with manufacturing processing, and what is being manufactured. In general, most large employers in this industry may require:

- Background Check
- Drug Screening
- Level 1 Fingerprint Card
- Immunizations (Depending on the facility there may be a possible requirement of the COVID-19 vaccination.)
- Personal Protective Equipment (Clean room suit, masks, eye and ear protection)
- Authorization to work in the U.S.

What is the career outlook and typical salary for a Semiconductor Technician?

- **Job Prospect:** Over 2,200 unfilled Semiconductor Technician jobs in Arizona
- **Median Annual Wage:** $45,660

Please research salaries and jobs available in the area you live. Here are some websites that can assist you: **Bureau of Labor Statistics** and **ZipRecruiter.**

Ready to join our Semiconductor Technician Quick Start program?

Take the next step and fill out the interest form: **maricopa.edu/semico**

email: **semico@domail.maricopa.edu**