AMT Academy Syllabus

Course Details

AMT's Automation Academy is an 8-10 week series of coursework that will provide the foundation for a career in automation.

Course Description

Fundamentals of mechatronics, electronics, robot programming, and PLC programming are taught through lectures, labs, and one-on-one, and on-the-job-training. The program also addresses the soft skills necessary for a successful career

Objectives

Prepare students for placement on client assignments. Most students will be paired with experienced engineers for their first few assignments.

Resources

- AMT will provide a laptop and the software required
- AMT provides GRS and GCCS self-study materials
- Access to the AMT lab

Performance Questions

Can the vehicles pick from between equivalent destinations if the destination itself is blocked or offline? Can queues for payload transfer points and vehicle chargers be specified to fit with your existing facility constraints?

Course Calendar

The course is a nine-week program with some flexibility based on trainer availability. In the first two weeks, students have lunch in the lunchroom with AMT employees.

Week 1

Week 1: Covers company onboarding, safety training, and industry overview. Introduces AMT 101, VMware, and engineering tools.

Weeks 2-6

Weeks 2 to 6 (non-consecutive): Instructor-assisted PLC training with over 50 labs on controls, hardware, software, communication, and more.

Week 7

Week 7: Instructor-led robot programming training covering robot basics, motion, I/O, programming, and advanced techniques.

Week 8

Week 8: Begins the Capstone project and self-study for GRS and GCCS, followed by testing.

Week 9

Week 9: Extra training on topics of interest, including motion control, networking, HMI design, robot programming, and Capstone project completion.

The course concludes with a graduation ceremony, featuring Capstone project presentations. Course order may vary based on trainer availability for flexible learning.

Attendance Policy

Students are expected to arrive prior to class start time and be prepared to begin work/study at the appointed time.

Students must make every effort to attend all classes. Absences must be approved by the manager. Excessive absences may result in failure to complete required coursework and exams in the time allotted. Unapproved absences may be cause for removal from the Academy and termination.

Electronic Device Policy

Personal use of cell phones during work/Academy hours is highly discouraged and may result in disciplinary actions.

Food and Drink Policy

Food and drink are permitted while working independently at the student's assigned desk. Food and drink are not permitted in the lab.

Course Requirements

- Labs must be completed and signed off by an Academy Leader
- The capstone project must be completed and presented to the leadership
- GRS and GCCS exams must be passed (no more than 1 retake will be allowed)

Policies and Procedures

Students are encouraged to support one another on assignments.