



OTC DAIHEN INC.
ADVANCED WELDING & ROBOTIC SYSTEMS
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FD21 Cobot Training and Operation Course Syllabus

- A.
 - 1. Course Title: FD21 Cobot Training and Operation
 - 2. Course Number: Cobot
 - 3. Class hours: Thursday & Friday 9:00 AM to 12:00 PM, 1:00 PM to 4:30 PM
- B.
 - 1. Prerequisites: none
- C. The **FD Cobot Training and Operation** course provides operators with the essential skills to program OTC Cobots using both the multifunctional flange and tablet teaching methods. This two-day course focuses on developing practical programming abilities while building confidence in safely moving and operating the cobot. While there are no prerequisites for this course, **OTC strongly recommends completing the FD21 Basic Training and Operation course** beforehand to ensure a solid foundation. *Please note: This is a non-welding course.*
- D.
 - 1. Textbooks (1): Instruction manual for Robot Programming and Operation
- E.
 - 1. Other required materials: none
- F.
 - 1. Course objectives
 - The student shall be able to perform the following after completion of the course:
 - a. Safely power up the robot and controller from a fully shutdown position
 - b. Know the purpose and operation of the teach pendant
 - c. Know the purpose and operation of the start box
 - d. Know the purpose and operation of the Multifunction flange.
 - e. Know the Purpose and operation of the Tablet.
 - f. Move the manipulator using different coordinate systems
 - g. Create and test a simulated welding programs.
 - h. Create programs using Direct teach, Rough teach, and AR teaching.
 - i. Manage programs using copy, delete, and rename commands
 - j. Modify, delete, and add program steps
 - k. Create and use arc commands
 - l. Create and use weave commands
 - m. Learn basic operation of Daihen Cobot systems

G. Grading: A grade of 72% or greater is required to successfully complete the course

H. Course outline

1. Thursday: First Cobot programming concepts, use of the multifunctional flange.
2. Friday: Robot programming and classroom discussion, final exam, course critique, closing comments

I. Other requirements and notes

1. Smoking is not permitted in the building. A designated outdoor smoking area is available at the back of the building.
2. Class participation and completion of all exercises is recommended
3. All safety rules must be followed at all times
 - a. Eye protection must be worn at all times in the lab area
 - b. Leather closed-tip shoes are to be worn at all times
4. Lunch break will be 1 hour each day. Normal lunch hours will be from 12:00 PM – 1:00 PM. Students are responsible for lunch.
5. A student who misses more than $\frac{1}{2}$ day of instruction may be removed from the class at the discretion of Daihen, Inc. management and asked to return to their normal workplace.
6. Please arrive no earlier than 15 minutes before class
7. Proper attire is required at all times. Please do not wear clothing bearing slogans or sayings that could be offensive to others.