NOCTI
Partner Credential Blueprint

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FANUC Certified Robot Technician

Code: 9285 / Version: 01

General Assessment Information

Blueprint Contents

Test Type: The FANUC Certified Robot Technician national credentialing assessment is based on FANUC's industry recognized CERT Program, inclusive of FANUC's Robot Operations with instruction provided by a FANUC certified academic instructor. Eligible participants will earn the FANUC Certified Robot Technician certification.

CIP Code

48.0501 Machine Tool Technology/Machinist

Learning that works for America CTE™

Career Cluster - Science, Technology, Engineering, and Mathematics

O*NET™ in*it

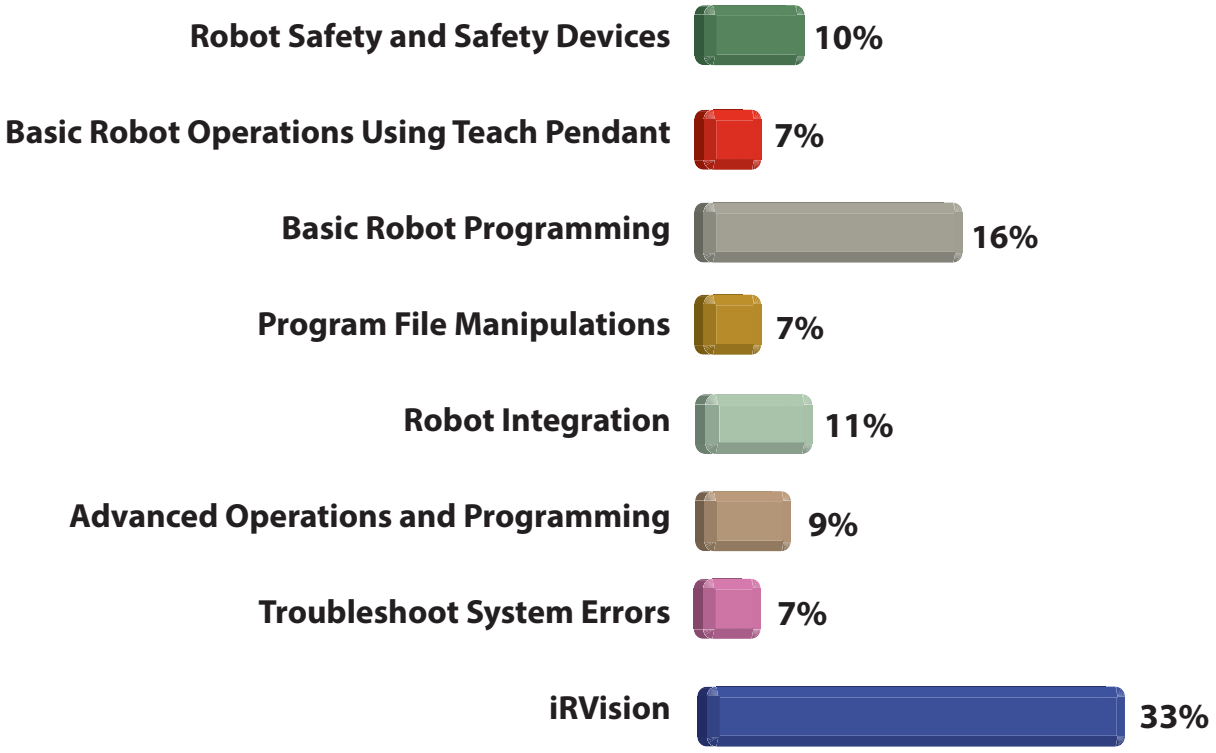
51-4011.00 - Computer-Controlled Machine Tool Operators, Metal and Plastic

Written Assessment

Written assessments consist of questions to measure an individual's factual theoretical knowledge.

Administration Time: 3 hours
Number of Questions: 100
Number of Sessions: This assessment may be administered in one, two, or three sessions.

Areas Covered



Specific Standards and Competencies Included in this Assessment

Robot Safety and Safety Devices

- Demonstrate knowledge of internal robot safety devices and functions
- Demonstrate knowledge of external safety devices

Basic Robot Operations Using Teach Pendant

- Master and re-master robot
- Setup robot coordinate frames

Basic Robot Programming

- Create various robot programs
- Program non-motion logic structures

Program File Manipulations

- Backup individual and system files
- Restore individual and system files
- Perform image backup and restore

Robot Integration

- Establish communication to peripheral devices
- Configure Input/Output
- Set end-of-arm tool parameters

Advanced Operations and Programming

- Apply advanced program functions and options
- Program auxiliary axis
- Program advanced motion and non-motion statements

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Specific Standards and Competencies (continued)

Troubleshoot System Errors

- Troubleshoot configuration errors
- Troubleshoot Dual Check Safety (DCS) errors

iRVision

- Identify iRVision application requirements
- Demonstrate knowledge of iRVision components
- Demonstrate knowledge of iRVision system hardware setup
- Identify iRVision processes
- Determine and establish frame locations
- Perform iRVision setup
- Perform 2D Calibration (automatic and manual)
- Perform Error Proofing process
- Apply 2D Vision process
- Program instructions for 2D Vision

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Sample Questions

This marks the location in a program that is the destination of a program branch.

A. LBL
B. POINT
C. JMP LBL
D. CALL

Which of the following is NOT an advantage of using DCS?

A. reduce robot cell footprint
B. decrease cycle time
C. increase maximum payload of the robot
D. enhance safety

The Inspection Vision Process

A. stores positional offsets in Vision Register 1 unless otherwise indicated
B. stores positional offsets in a Position Register
C. requires a properly calibrated vision system
D. none of the above

A TP instruction with the motion option TB will

A. set the timed position
B. stop the motion a specified time before a programmed location
C. can set an output at a desired time before a programmed location
D. sets a temporary position on the fly

On the TP you can view

A. Vision Setup, Vision Log, Vision Runtime
B. Only Vision Log, Vision Runtime
C. Only Vision Setup, Vision Runtime
D. Only Vision Runtime

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Sample Questions (continued)

A basic E-stop circuit will

A. stop all permissible devices
B. stop only devices in the zone
C. stop all devices in the work cell
D. stop only devices in the robot work envelope

Which backup type will backup F-ROM and S-ROM controller memory modules?

A. Image backup
B. File backup, then select all of the above
C. INIT backup
D. SRAM backup

The program instruction "get_nfound"

A. returns the number of trained objects found
B. negates the number of trained objects found
C. is an invalid instruction
D. cancels the number of found objects

What is the Binary decimal equivalent if digital outputs 1 through 5 are all on?

A. 0
B. 1
C. 8.5
D. 31

What should the technician do before changing the backup batteries on the robot?

A. Make sure the power is on to the robot.
B. Make sure the power is off to the robot.
C. Unplug the robot.
D. Move the robot to a safe location.