



Request for Quotation (RFQ)
Pre-Vocational Program Provider
RFQ No. 17-0124

A. SUMMARY

WorkNet Pinellas, Inc. dba Career Source Pinellas and Tampa Bay Workforce Alliance, Inc. dba Career Source Tampa Bay (Career Source) is currently seeking a qualified individual/organization to instruct several of its pre-vocational programs both in its St. Petersburg location (7701 N. 22nd Ave.) and Tampa (2605 N. 43rd Street). The program length, number of students and student outcome are detailed in the Scope of this document.

CareerSource Pinellas and CareerSource Tampa Bay, 501(c)(3) non-profit organizations, are the regional workforce boards for Pinellas County and Hillsborough County, respectively. The governing board for each organization is appointed and designated by each local Board of County Commissioners to act as the Workforce Development Board under the provisions of the Workforce Innovation and Opportunity Act.

B. PROPOSAL GUIDELINES AND EVALUATION

To be considered, a Respondent is not required to submit a quotation for all 5 programs. For each program the Respondent is submitting a quotation, the following is required to be included in the RFQ:

1. Provide Program Name
2. Provide statement on the Respondent's ability to meet the **Program Requirements** set forth in this document.
3. Provide a statement on whether the respondent has existing curricula in place to address the **Program Content and Outline** set forth in this document or if curricula will need to be developed.
4. Provide a statement of the Respondent's expertise in the instruction of the pre-vocational program.
5. Provide the cost of the program.
6. The RFQ is to be submitted no later than October 21st, 5 p.m. EST to rfp@careersourcetampabay.com . Please **reference RFQ No. 17-0124 in the subject line**. Late submissions will not be considered.

7. Questions may be submitted to rfp@careersourcetampabay.com until October 12th, 5 p.m. EST. Answers will be posted to the Organizations website by October 14th, 5 pm EST. c.
8. RFQ will be evaluated on the following criteria:
 - a. Cost 0-50 points
 - b. Curricula 0-30 points
 - c. Expertise 0-20 points

C. SCOPE

The quotation shall be for the following 5 programs:

1. Intro to Maintenance
2. MSSC Certified Production Technician (CPT)
3. Introduction to 3-D Digital Fabrication
4. 3-D Digital Fabrication
5. Advanced 3-D Digital Fabrication

All programs are conducted at both the Tampa and the Pinellas location. The program hours are M-F 8:00 am to 5:00 pm (40 Hours per week).

The following outcomes/evaluations are to be measured:

1. All Program: Instructor Evaluation
2. Intro to Maintenance: NOCTI Exam at conclusion of Programs
3. MSSC CPT: Module exams (4) and the CPT designation
4. Introduction to 3-D Digital Fabrication: Successful completion of final project
5. 3-D Digital Fabrication: NOCTI CAD Exam/Successful completion of final project
6. Advanced 3-D Digital Fabrication: Fanuc Certification

The following is the overall number of hours per program:

- Intro to Maintenance: 120 Hours/8 Students maximum
- MSSC Certified Production Technician (CPT): 120 Hours/15 Students Maximum
- Introduction to 3-D Digital Fabrication: 20 Hours Instruction/40 Hours self-paced learning/ 15 Students Maximum
- 3-D Digital Fabrication: 120 Hours/12 Students Maximum
- Advanced 3-D Digital Fabrication: 120 Hours/6 Students Maximum

D. PROGRAM REQUIREMENTS

The following are the requirements for program delivery:

- Course materials require the CareerSource Pinellas and CareerSource Tampa Bay approval prior to delivery
- Instructors require CareerSource Pinellas and CareerSource Tampa Bay approval.

- Reporting Requirements:
 - First Day Sign In Sheet Scanned and emailed to distribution list
 - Weekly Sign In Sheet Scanned and uploaded in designated Drop Box Location
 - Certificates uploaded in designated Drop Box Location
 - Student Evaluations/Student Summary uploaded in designated Drop Box Location
 - Instructor Evaluations/Student Summary uploaded in designated Drop Box Location
 - Proctoring of both the MSSC and NOCTI Exams
 - Communication to all parties regarding any student/classroom issues.
- Career Source shall provide
 - Projector
 - Room
 - 3-D Printers
 - Table Top Routers
 - Fanuc Simulators
 - Exam Vouchers
 - Text Books (CPT, 3D and Advanced 3D)
 - Computers/Software (as needed)
 - Student Roster Friday before class start
 - Approved class schedule
 - Two (2) weeks advanced notice of class cancellation
- Instructor(s) shall provide
 - Course Materials (power point slides, student guides, etc.)
 - Hands-on lab materials/equipment

E. PROGRAM CONTENT AND OUTLINE(S)

The following is the suggested program outline for each course.

Intro to Maintenance Course Outline:

- I. Introduction to Maintenance (2 Days)
 - a. Math Review
 - i. Algebra
 - ii. Geometry
 - iii. Metric Conversion
 - iv. Ratios & Proportions
 - v. Graphs & Charts
 - b. Print Reading
 - i. Types of drawings
 - ii. Assembly drawings
 - iii. Mechanical drawings
 - iv. Electrical drawings
 - v. Intro to geometric tolerances
 - vi. Terminology
 - c. Measurement
 - i. Measurement Systems

- ii. Measurement tools
 - d. Hand tools
 - i. Types
 - ii. Selection
 - iii. Storage
 - iv. Care & Maintenance
 - v. Function
 - e. Safety
 - i. HazComm
 - ii. OSHA requirements
 - iii. Common hazards
 - iv. Fire safety
 - v. PPE
 - f. Maintenance Overview
 - i. Types of maintenance
 - ii. Record keeping
 - iii. Manufacturing systems
- II. Introduction to Mechanical Systems (5 Days)
 - a. Mechanical Systems
 - i. Basic mechanics
 - ii. Material properties
 - iii. Use and Types of fasteners
 - b. Mechanical Drive Components
 - i. Electric Motors
 - ii. Direct Drive
 - iii. Belt Drive
 - iv. Chain Drive
 - v. Gear Drive
 - c. Maintenance & Troubleshooting Drive Systems
 - i. Lubrication
 - ii. Bearing types and application
 - iii. Bearing installation
 - iv. Troubleshooting bearing
 - v. Alignment of shafts
 - vi. Hands-on lab
 - d. Pneumatic & Hydraulic Systems
 - i. Basics of fluid mechanics
 - ii. Components & Application
 - iii. Schematics & Symbols
 - iv. Troubleshooting
- III. Intro to Industrial Electricity (3.5 Days)
 - a. Electrical Safety
 - i. Arc Flash Protection
 - ii. Electricity and the human body

- iii. Common electrical hazards
 - iv. Lock Out Tag Out (LOTO)
 - v. Grounding
- b. Basics of Electricity
 - i. Intro to electrical theory
 - ii. Conductors vs. Insulators
 - iii. Electric charge & current
 - iv. Resistance & resistors
 - v. Measuring voltage, current & resistance
 - vi. Types of electricity
 - vii. Electrical power
- c. Measurement
 - i. DMM
 - ii. Other measuring devices
- d. Electrical Prints
 - i. Schematics
 - ii. Wire diagrams
 - iii. Symbols
- e. The Laws
 - i. Ohm's Law
 - ii. Kirchoff's law
 - iii. Hands-on Lab
- f. Circuits
 - i. Series
 - ii. Parallel
 - iii. Series-Parallel
 - iv. Hands-on lab
- g. Electrical Wiring Basics
 - i. Wire size
 - ii. Wire color
 - iii. Wire splicing
 - iv. Wire connections
 - v. Hands-on Lab
- h. Transformers
 - i. Types
 - ii. Wiring
 - iii. Application
 - iv. Hand-on Lab
- i. Resistance, Inductance & Capacitance
 - i. Series Circuit
 - ii. Parallel Circuit
 - iii. Application
- j. Basics of Motors
 - i. DC Motors

- ii. AC Motors
 - iii. Wiring
 - iv. Troubleshooting
 - v. Hands-on lab
 - k. System Control Devices
 - i. Relays
 - ii. Breakers
 - iii. Switches
 - iv. Application
 - l. Troubleshooting Electrical Circuits
 - i. Hand-on Lab
- IV. Intro to PLC's (4 Days)
 - a. Basic Number System
 - i. Binary
 - ii. Decimal
 - iii. Hexidecimal
 - b. PLC Fundamentals
 - i. History of PLC's
 - ii. PLC components
 - iii. PLC Wiring
 - iv. Basic Operation
 - c. Fundamentals of Logic
 - i. Basics of logic
 - ii. Relay logic
 - iii. Ladder logic
 - iv. Hands-on lab
 - 1. Wire relay logic panel
 - 2. LogixPro Software
 - d. PLC Operation
 - i. Memory
 - ii. Communication
 - e. Application
 - i. Automation
 - ii. SCADA
 - iii. Advantages & Disadvantages of PLC's
 - f. Troubleshooting
 - i. Hands-on lab
- V. NOCTI Exam: Mechatronics Level 1 (.5 Days)

Certified Production Technician (CPT): Manufacturing TDI (Polk State College) Courseware

Introduction to 3-D Digital Fabrication

- I. Introduction to Manufacturing

- II. Math Review
 - a. Algebra
 - b. Geometry
 - c. Metric Conversion
- III. Introduction to manufacturing drawings
- IV. TinkerCad
 - a. Tutorial
 - b. Basic drawing tools
 - c. TinkerCad project

3-D Digital Fabrication

- I. Introduction to Manufacturing
- II. Computer Basics
- III. Math Review
 - a. Algebra
 - b. Geometry
 - c. Metric Conversion
- IV. Introduction to manufacturing drawings
 - a. Tolerances
 - b. Symbols
- V. 3D Equipment
 - a. Printers
 - b. CNC (Mill, Lathe, Router)
- VI. CAD/CAM Systems
 - a. Rhino, On Shape, Solid Works
 - b. madCAM
- VII. 3D Modeling
- VIII. Hand-on Activities
 - a. 3D project – printed
 - b. 2D Drawing
 - i. Dimension lines
 - ii. Sections
 - c. 3D Model from 2D Drawing
 - d. Create Drawing of 2 mated parts

Advanced 3-D Digital Fabrication

- IX. Machining Basics
 - a. Basic Machining Practices
 - b. Proper Tools selection
- X. Introduction to Fanuc CNC
 - a. machine configurations
 - b. control designations

- c. manufacturing process
- d. CNC functions
- XI. CNC Screen
 - a. Terminology
 - b. function keys
 - c. soft keys
 - d. operator's panels
- XII. Memory Operations
 - a. parameter write enable
 - b. memory backup
 - c. memory restore
- XIII. System Hardware
 - a. CNC hardware
 - b. servo hardware
 - c. spindle hardware
 - d. hardware alarms
- XIV. PMC Ladder Logic
 - a. basic ladder logic
 - b. PMC
 - i. status display
 - ii. alarm display
 - iii. parameter display
- XV. CNC Troubleshooting
 - a. general troubleshooting
 - b. CNC alarm categories
 - c. CNC alarm troubleshooting
 - d. CNC system alarms
 - e. Operation failures
- XVI. G-code Programming
 - a. basic G codes
 - b. part program format
 - c. mill canned cycles
 - d. lathe canned cycles
 - e. common program alarms
- XVII. Final Project
 - a. CNC Program
 - b. 3D Print

F. PROGRAM SCHEDULE

The following is the currently approved schedule by course and location.

Mechatronics Level 1

Class Title	Location	Schedule	Start Date	End Date
Industrial Machine Maintenance	CPC	Day	TBD	TBD

Industrial Machine Maintenance	STEIC	Day	1/16/17	2/3/17
Industrial Machine Maintenance	CPC	Day	2/20/17	3/10/17

MSSC Certified Production Technician (CPT)

Class Title	Location	Schedule	Start Date	End Date
Certified Production Technician	CPC	Day	TBD	TBD
Certified Production Technician	STEIC	Day	2/6/17	2/24/17
Certified Production Technician	CPC	Day	4/3/17	4/21/17

Introduction to 3-D Digital Fabrication (TBD)

No classes scheduled. Expected start 4th quarter 2016

3-D Digital Fabrication

Class Title	Location	Schedule	Start Date	End Date
3D Digital Fabrication	CPC	Day	TBD	TBD
3D Digital Fabrication	STEIC	Day	1/9/17	1/27/17
3D Digital Fabrication	STEIC	Day	3/6/17	3/24/17
3D Digital Fabrication	STEIC	Day	5/8/17	5/26/17

Advanced 3-D Digital Fabrication (TBD)

No classes scheduled. Expected start 4th quarter 2016