

NATIONAL CENTER FOR URBAN SOLUTIONS, TEC

NCUS Tec

“Life Works When You Work”

Student Catalog

2020

3405 MARKET STREET YOUNGSTOWN, OH 44507



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The National Center for Urban Solutions, Tec (hereto in “NCUS Tec”) is an urban Information Technology (IT) training initiative founded to address the digital divide experienced by minority and underserved groups that are underrepresented in IT jobs and related occupations throughout Central Ohio. NCUS Tec is dedicated to providing industry specific certification training and courses that equip and prepare students with in-demand skills for higher wage occupations. Our motto - Life Works When You Work – is grounded in our fundamental believe that credentialed education/training leads employment, and living wage employment leads to ultimate self-sufficiency.

Mission

Our mission to provide “cutting-edge” customized certification training to assist individuals in obtaining employment and achieving economic self-sufficiency. Content for this Catalog was current as of July 1, 2016. NCUS Tec reserves the right to make changes without prior notice. The Catalog is not a contract, but rather it is a guide for the convenience of our students. NCUS Tec reserves the right to change or withdraw courses or eliminate departments or programs, without notice. NCUS Tec also retains the discretion to change fees, registration, graduation and other rules affecting the student body, at any time.

The National Center for Urban Solutions, Tec welcomes you to attend NCUS Tec!

Course Offerings

- Microsoft Office Specialist
- CompTIA A+
- Fanuc Handling & Tool Programming
- Instructor Information

Facilities

NCUS Tec is located at 3405 Market Street Youngstown, OH 44507. The facility has five classrooms equipped with full computer lab and classroom functionality and settings.

Administration, Staff, and Faculty

Our Institute is proud of its selective staff and faculty members who bring varied educational and career experiences from their perspective fields. It is an added bonus that many are still involved in their profession and contribute firsthand knowledge and skills from today's current work trends. A list of NCUS Tec staff can be provided upon request.

Equipment

NCUS Tec provides our students with state of the art equipment that will be utilized in their professional careers of choice. Many students' will have the opportunity to work on advanced PC's to increase their knowledge in their perspective career choices.

Admission Requirements and Procedures

Specific admission requirements and procedures are listed below:

1. An applicant must be:
 - A high school graduate or possess a General Education Development (GED) certificate evidence of high school graduation must be presented. Acceptable evidence includes a certified copy of original high school diploma, a copy of a high school transcript indicating date of high school graduation, a copy of DD214 military record indicating the applicant is high school graduate or equivalent, a GED certificate or official notification that a GED has been earned. If applicant is currently in high School must participate through dual enrollment program.
 - At least 18 years of age and demonstrate the ability to benefits from the training by completing pre-admission program testing and evaluations.
2. All applications must complete the required admission documents and submit the necessary fee(s) stated on the Tuition and Fee Schedule.
3. Applicants must complete an Educational Life Plan with NCUS Tec Life Coach and complete an informal interview.
4. All applicants are encouraged to visit the facility prior to starting classes.



5. All classes taught in English. Students must be able to speak, read, and write English fluently. English abilities will be determined through the application process, interview and completion of necessary documents.
6. Applications for credit for previous education, training, work experience must be completed prior to first day of class for which transfer credit is being determined. Acceptance of credit may require examination to determine if the credit will be accepted by NCUS Tec.
7. All applicants must complete financial arrangements prior to admission. If applicable, financial aid, government funded application information must be completed prior to first day of class.
8. All applicants must sign an Enrollment agreement and pay registration fee of \$100.00.
 - Applicants are required to undergo criminal background check before a student can be placed in an internship or take professional licensing, certification or registration exams. Applicants are responsible for asking the requirements prior to enrolling in the program of their choice. Applicants who have prior felony convictions or serious misdemeanors may be denied the opportunity to take professional licensing, certification, or registration exams or may be denied a license or certification to practice in some states even if the exam is taken and successfully completed.

**NCUS has open enrollment. Students must complete all necessary steps prior to first day of program classes.*

Transfer Policy

Any student transferring to NCUS Tec from another institution must meet the following criteria for enrollment:

- Submit a transcript from the previous institution or trade school
- Complete and sign all enrollment forms including credit for previous training form
- Demonstrate evidence of competency by passing all administered test
- Take a written test in program curricula if applicable

NCUS Tec will consider awarding credit from accredited postsecondary institutions, various certification exams, and military training experience. When evaluation is made of the student's transcript credit may be awarded for courses successfully completed with a grade of "C" or better at another accredited postsecondary institution where course and credit values are comparable to those offered by the institute.

Policy and Non-Discrimination

NCUS Tec encourages diversity and welcomes applications from all minority groups. The instituted does not discriminate on the basis of race, color, religion, ancestry, national origin, age,



non-disqualifying disability, gender, sexual orientation, marital status, or veteran status in the recruitment of students, or in the implementation of its policies, procedures and activities. Information pertaining to an applicant's disability is voluntary and confidential. Information obtained that includes disclosure of a disability will be used to overcome the effects of conditions that limit the participation of qualified disabled students. If you believe that you have been discriminated against, please promptly notify the Executive Directory.

Student Services

Student Rules

Students admitted to the institute have certain rights and responsibilities which are our student code of professional conduct. The code of conduct provides an environment free from interference in the students learning process.

1. Students have the right to impartial objective evaluation of their academic performance. Each student will be provided in writing, information outlining the method of evaluating the student progress, course goals and objectives, including the grading system by which determines the students pass/fail status.
2. Students will be free from threats of intimidation, harassment, insult or physical aggression.
3. Students are expected to conduct relationships with NCUS Tec staff, consultants, peers and clients with honesty and respect.
4. Students are to comply with directions of staff members who are acting within the scope of their employment, subject to their rights and responsibilities.
5. Students will be notified in writing and explanation all fees and financial responsibilities of attending NCUS Tec.
6. Students are encouraged to be the best student they can be by applying creativity to their learning process to achieve their career goals.
7. Students will have the right to participate in course and instructor evaluation to give constructive criticism of the services provided by NCUS Tec.
8. Students have the responsibility to conduct themselves in a professional manner within the institution, externships, and lab settings, and to abide by the policies and procedures of the career center.

Reasonable Accommodations

Reasonable accommodations will be made on individual basis. It is the responsibility of the persons with disabilities to seek available assistance and to make their needs known at the time of enrollment. Documents supporting the disability must be presented at time of enrollment. All requests should be made to the Executive Director.

Life Coach & Employment Service Assistance

NCUS Tec offers career placement services to all eligible graduates. Any student successfully completing all graduation, certificate of achievement requirements as stated in the "Graduation



Requirements” of each program, will have access to the career placement services. The service will include resume writing assistance, job search activities, interviewing skills and one-on-one Life Coaching assistance.

English as a Second Language Instruction

NCUS Tec does not offer English as a Second Language Instruction. Students will be referred to learning institutions that offer this service.

Attendance/Tardiness Policy

NCUS Tec emphasizes the need for all students to attend classes on consistent basis to develop the skills and attitude that is necessary to be successful in today’s competitive job market. The classroom is designed to imitate a work environment and arriving on-time, every day is essential to maintaining employment. Therefore, attendance is critical for skill building at NCUS Tec.

The Following are our attendance guiding principles:

1. Students who miss more than 3 days from a program, arrives late more than 3 times will be dismissed from that program for that quarter.
2. Students dismissed due to lack of attendance may be readmitted only at the discretion of the Program Director and the Executive Director. Admission will not occur any sooner than the beginning of the next program session.
3. Students may appeal to the Executive Director if they feel an error has been made in dismissal from the program.

*Note: Tardiness disrupts the class and is discouraged. Continued excessive tardiness or absences in any class could lead to disciplinary action up to and including expulsion from the institute.

Student Conduct

NCUS Tec will maintain the highest level of academic standards and code of conduct for our students. Today’s competitive job market, professional conduct is mandatory in obtaining the job of choice and retaining that job. NCUS Tec consistently focuses on regular attendance, promptness, honesty and good work ethic. Students will be held accountable for any violation of the student code of conduct while at the career center, on externship or on school property.

Dismissal

NCUS Tec is a professional educational training institute and it is our expectation that all students adhere to our rules and classroom procedures. Our program is designed to prepare our student’s for the competitive workforce, therefore our instructors and staff treats the students like they are employees of a company.

We reserve the right to terminate any student who does not abide by the institute’s policies and procedures.

Dismissal Process:

- Step 1: Student is not in compliance with NCUS Tec rules will receive verbal warning



- Step 2: If the behavior continues, the student is issued a written warning
- Step 3: NCUS Tec reserves the right to expel the student from the program at its discretion

The following will result in automatic expulsion without any warning:

- Insubordination
- Fighting
- Threatening physical harm
- Stealing
- Destroying property

Guidance Services

Students are assigned a Life Coach to assist them with personal, educational, financial or career problems during their enrollment at NCUS Tec. The Life Coaches and staff welcome the opportunity to assist our students in identifying and working through the obstacles preventing them from meeting their educational goals.

Students needing additional assistance beyond the scope of our Life Coaching services will be referred to outside counselors or agencies.

Communications Policy

All computer equipment, email accounts, facsimile equipment, and internet access are provided to students at NCUS Tec exclusively for educational activities.

Downloading, viewing, distributing or sending pornographic materials is prohibited. This includes bookmarking any such websites, opening, forwarding, faxing, and voicemail messages. Any communications by students via e-mail, instant messenger, voice mail, or fax that may constitute slander, defamation or may be considered abusive, offensive, harassing, vulgar, obscene or threatening is prohibited. This includes any content referring to sexual comment that would offend someone on the basis of age, race, sex, color, religion, national origin, ancestry, physical challenge sexual orientation or veteran status.

NCUS Tec licenses software to support our educational services. Students are not permitted to copy, removed or install software. Violation is grounds for expulsion from NCUS Tec.

Grievance Policy & Procedure

NCUS Tec students can resolve any questions or concerns by communicating the issue to the appropriate staff. The following steps can help to resolve issues

1. Talk to your instructor or staff member
2. Talk with your Life Coach or Director
3. Talk with the Executive Director
4. Unresolved concerns can be submitted in writing and scheduled to appear in front of a Review Committee
5. Contact the President of NCUS Tec at 614.857.1811



6. If problem is not resolved contact: Ohio State Board of Career Colleges and Schools at 30 East Broad Street, Suite 2481 Columbus, Ohio 43215. 614.466.2752 or 1.877.275.4219.

Academic Information

Required Study Time

Outside study is required to successfully complete the required course assignments. All assignments assigned by classroom instructors must be completed and submitted on time. Students are responsible for reading all study materials issued by their instructor.

Changes in Programs/Policies

NCUS Tec reserves the right, at its discretion, to make reasonable changes in program content, materials, schedules, sequences of courses in programs, or locations in the interest of improving the educational services provided.

Dropping or Adding Programs/Courses

Students may drop or add courses according to the following guidelines:

Dropping Program Courses

- Students may drop a program/course prior to or during the first week of classes. Dropping a program/course could affect financial aid. Must be notified in writing.
- Students dropping course beyond first week of classes will incur 100% financial responsibility for the course. Reimbursement of fees according to reimbursement schedule.

Adding a program/courses

- Students may add a course through the first week classes of based on the availability of scheduling by the Institute.

All schedule changes must be documented on a Student Change Form. Failure to do may result in a failing grade. Students who withdraw from their entire program will receive refunds according to the refund policy in this catalog.

Make-Up Standards

Students are encouraged to be in class every day. If the student misses class time, it is their responsibility to learn the material covered and to submit all missed work in compliance with the Institute's and Program guidelines.

Graduation Requirements

In order to graduate, students must:

1. Earn the required total number of clock hours for the program and pass all required courses with minim grades as prescribed in catalog; and
2. Complete all required course work within the timeframe assigned, and'
3. Return all property belonging to NCUS Tec, and:



4. Fulfill all financial obligations to NCUS Tec prior to graduation; unless previous financial arrangements have been made and approved, and;
5. Attend exit interview with assigned Life Coach.

Note: students who feel prepared to sit for a certification text prior to the actual completion of the program, and who have passed the certification text, will be considered as having successfully completed the program.

Certification, State, & National Board Exams

Understanding the requirements of Certification, state board, or national board licensing exams is the individual student’s responsibility. Certification requirements may change during the course of the program. No student is automatically certified upon program completion. The programs are designed to prepare the student to take the various certification and licensing exams; however, NCUS Tec cannot guarantee students will pass these exams. Our Institute makes a very strong effort to provide accurate, up to date information about dates and fees for exams.

Note: It is the responsibility of the student to research each certification field to explore GED, background checks and or drug tests are determinations for acceptance or denial to be licensed or certified in that particular field.

Transcripts

Current or former students may request one free copy of their official transcript by submitting a written request to the Institute with the name and address where the transcript will be mailed. For additional copies, a fee will be charged and must be paid in advance before the request is processed. Transcripts will not be released if student has a past due account with NCUS Tec.

Transfer of Credits to other Schools

NCUS Tec does not accept, nor transfer, credits from and to other institutions

Grading System

Satisfactory Academic Standards

The grading system below is used for all program courses:

| | |
|-----------------|----|
| 100%-90% | A |
| 89%-80% | B |
| 79%-70% | C |
| 69%-60% | D |
| 59%-Below | F |
| Transfer Credit | TC |
| Incomplete | I |
| Withdraw | W |

At the end of each program student’s grades will be compiled and the student will receive a report card/progress report.



Satisfactory progress will be determined for each student at this time. Students must maintain a 2.0.

TC: Transfer credit. Students transferring from another institution may be eligible for credit for courses they have already taken. A grade of “TC” will be given for transferred courses.

I: Incomplete. This grade will be given if the student does not complete required class work, assignments, and test within the program period.

W: Withdraw. The student is given a “W” if they withdraw during the first 25% off the program term.

Grading Assessment

Student’s academic progress in the academic class will be measured according to the standard’s set forth in the grading system in this catalog.

Reinstatement Procedures

Student’s dismissed from a program due to attendance, academic performance or any other reason, must seek approval from the Executive Director in writing.

Leave of Absence

The Executive Director may grant a leave of absence on a limited basis. If a leave of absence is granted during a program; the student is required to make up the required class work and required materials required for program completion. LOA’s must be submitted in writing.

Financial Information

Financial Aid Services

NCUS Tec is currently not approved for loans or Grants.

Students may seek funding from the local workforce agency’s approved programming funding. NCUS Tec will assist students in searching and completing necessary forms and will provide any required information to the agency; however, it is ultimately the student’s responsibility to ensure the agency’s requirements are met.

Refund Policy

If the student is not accepted into the training program, all monies paid by the student shall be refunded. Refund for books, supplies and consumable fees shall be made with Ohio Administrative Code section 3332-1-1-1. Refunds for tuition is established by Ohio Administrative Code section 332-1-10.

1. A student who withdraws before the first class and after the 5th day cancellation period shall be obligated for the registration fee.
2. A student who starts class and withdraws before the term is 15% completed will be obligated for 20% of the tuition and refundable fees plus the registration fee.
3. A student who starts and withdraws after the academic term is 25% complete but before the academic term is 40% completed will be obligated for 75% of the tuition and refundable fees plus the registration fee.



4. A student who starts and withdraws after the academic term is 40% completed will not be entitled to refund of the tuition and fees.

NCUS Tec shall make the appropriate refund within thirty days of the date the school is able to determine that a student has withdrawn or has been terminated from a program. Refunds shall be based on the last date a student's attendance or participation in an academic school activity.

Tuition and Fees

A complete list of course costs is provided a supplement to this catalog.

Programs offered at NCUS Tec are designed to prepare students for career-oriented curricula. The programs offered are industries recognized as "high demand" jobs and provide the students with the educational training and skills necessary to afford them the opportunity to obtain employment and advance in their selected profession.



Microsoft Office Specialist 2016

Course Overview

The Microsoft Office Specialist 2016 training program prepares you to sit for the Microsoft Office Specialist Certification Exams, which cover Word, Excel, PowerPoint, Outlook, and Access. This course typically requires 105 clock hours per learning module.

Certification Process

Upon completion of this course students will be prepared for Microsoft Office Specialist Certification exams 77-727 and 77-728 (Excel), 77-725 and 77-726 (Word), 77-729 (PowerPoint), 77-731 (Outlook), and 77-730 (Access). Registration fee for these exams are included with this program.

Prerequisites

Candidates must have a high school diploma or equivalent. Basic usage of the Internet and an e-mail account is required.

Make-up Work

Students who have excused absences may make up the work they missed. It is the student's responsibility to make arrangements with the instructor for specific make-up dates for the submission of completed course work and rescheduled quizzes/tests, if any tests have been missed. Individual circumstances will be taken into consideration. Please refer to registration agreement.

Class/Clock Hours

This is an eleven (11) week course. Classes will be held Monday, Tuesday, and Thursday from 6p to 9:30 pm (Subject to change).

Course Objectives

Upon completion of this course, students will be able to:

- Create and edit formulas, audit equations, and present information in charts and tables
- Create and format professional business documents, including mail merges, Web pages, and interactive forms
- Create and modify slide presentations, including editing graphics, formatting text and text boxes, and animating objects and transitions
- Create and edit Outlook objects, such as e-mail, meetings, tasks, and contacts
- Create and manage databases, including creating tables, forms, reports and strategies for archiving data with Action Queries



Course Outline

Excel

I. Introduction to Microsoft Excel

- A. Creating a Microsoft Excel Workbook
- B. The Ribbon
- C. The Backstage View (The File Menu)
- D. Entering Data in Microsoft Excel Worksheets
- E. Formatting Microsoft Excel Worksheets
- F. Using Formulas in Microsoft Excel
- G. Working with Rows and Columns
- H. Editing Worksheets
- I. Finalizing Microsoft Excel Worksheets
- J. Microsoft Excel Features that Were New in 2013
- K. Features New in 2016
- L. Introduction to Microsoft Excel 2016 Exam

(2 class sessions, 3.5 hours each)

II. Intermediate Microsoft Excel 2016

- A. Advanced Formulas
- B. Working with Lists
- C. Working with Illustrations
- D. Visualizing Your Data
- E. Working with Tables
- F. Advanced Formatting
- G. Microsoft Excel Features that Were New in 2013
- H. Features New in 2016
- I. Intermediate Microsoft Excel 2016 Exam

(2 class sessions, 3.5 hours each)

III. Advanced Microsoft Excel 2016

- A. Using Pivot Tables
- B. Auditing Worksheets
- C. Data Tools
- D. Working with Others

- E. Recording and Using Macros
- F. Random Useful Items
- G. Microsoft Excel Features that Were New in 2013
- H. Features New in 2016
- I. Advanced Microsoft Excel 2016 Exam

IV. Microsoft Excel Final Exam

(2 class sessions, 3.5 hours each)

V. Introduction to Microsoft Word 2016

- A. Creating a Microsoft Word Document
- B. The Ribbon
- C. The File Tab
- D. The Quick Access Toolbar
- E. Formatting Microsoft Word Documents
- F. Editing Documents
- G. Finalizing Microsoft Word Documents
- H. Introduction to Microsoft Word 2016 Exam

(2 class sessions, 3.5 hours each)

VI. Intermediate Microsoft Word 2016

- A. Advanced Formatting
- B. Working with Tables
- C. Working with Images
- D. Page Layout
- E. Working with Illustrations
- F. Viewing Your Document(s)
- G. Intermediate Microsoft Word 2016 Exam

(2 class sessions, 3.5 hours each)

VII. Advanced Microsoft Word 2016

- A. Working with Long Documents
- B. Reviewing and Collaborating on Documents
- C. Comparing and Combining Documents
- D. Managing Mailings
- E. Protecting Documents



- F. Random Useful Items
- G. Advanced Microsoft Word 2016 Exam

Microsoft Word 2016 Final Exam

(2 class sessions, 3.5 hours each)

PowerPoint

IX. Introduction to Microsoft PowerPoint 2016

- A. Creating a PowerPoint Presentation
- B. The Ribbon
- C. The Quick Access Toolbar
- D. The Backstage View (The File Menu)
- E. Formatting Microsoft PowerPoint Presentations
- F. Working with Images
- G. Working with Tables and Charts
- H. Finalizing Microsoft PowerPoint Presentations
- I. Introduction to Microsoft PowerPoint 2016 Exam

(2 class sessions, 3.5 hours each)

X. Advanced Microsoft PowerPoint 2016

- A. Customizing Presentations
- B. Presentation Masters
- C. Working with Special Effects
- D. Using SmartArt
- E. Multimedia
- F. Setting up the Slide Show
- G. Outlines and Slides
- H. Managing Multiple Presentations
- I. Sharing and Securing a Presentation
- J. Features New in 2016
- K. Advanced Microsoft PowerPoint 2016 Exam

Microsoft PowerPoint 2016 Final Exam

(2 class sessions, 3.5 hours each)

Outlook

XII. Introduction to Microsoft Outlook 2016

- A. The Outlook 2016 Interface
- B. Performing Popular Tasks in Outlook

2016

- C. Working with Messages
- D. Working with the Calendar
- E. Organizing Contacts
- F. Introduction to Microsoft Outlook

2016 Exam

XIII. Advanced Microsoft Outlook 2016

- A. Working with Tasks and Notes
- B. Using Signature and Themes
- C. Managing Your Inbox
- D. Working with Multiple Email

Accounts

- E. New Features in 2016
- F. Advanced Microsoft Outlook 2016

Exam

Microsoft Outlook Final Exam

(2 class sessions, 3.5 hours each)

Access

XV. Introduction to Microsoft Access 2016

- A. Quick Overview of the Access User Interface
- B. Fundamentals
- C. Tables and Their Views
- D. Tables
- E. Queries
- F. Forms
- G. Reports
- H. Databases and Access Terms
- I. Introduction to Microsoft Access 2016 Exam

XVI. Advanced Microsoft Access 2016

- A. Relationships
- B. Queries
- C. Table Functions
- D. Forms
- E. Reports
- F. Macros
- G. Completing the Desktop Application
- H. Advanced Microsoft Access 2016

Exam

XVII. Microsoft Access Final Exam



CompTIA A+

Course Overview

The CompTIA™ A+ Certification is a critical first step in opening the door to your IT career. This course will prepare you obtain a CompTIA A+ Certification designation. This course will students will install, configure, optimize, troubleshoot, repair, upgrade, and perform preventive maintenance on personal computers, digital devices, and operating systems.

CompTIA™ A+ Certification is vendor neutral and internationally recognized credential. This course typically requires 105 clock hours.

Certification Process

This program will prepare you for CompTIA A+ certification. You can earn this certification after you pass two exams. The CompTIA A+ Certification Exam 220-1001, covers the foundational hardware knowledge a PC support technician should know. The CompTIA A+ Certification Exam 220-1002 covers the operating system, virtualization, mobile device management and hardware troubleshooting skills. After completing the course, you're encouraged to set up your own exam dates and times at a testing center close to you. A total of three test fees within six months of class completion are covered in course fee. Please schedule dates/times for exam at NCUS Tec.

Prerequisite

Candidates must have a high school diploma or equivalent. Students should have basic knowledge of computer hardware and operating systems—for example, how to power up and log on to a machine, how to use a mouse and keyboard, and basic Microsoft Windows navigation skills.

Make-up Work

Students who have excused absences may make up the work they missed. It is the student's responsibility to make arrangements with the instructor for specific make-up dates for the submission of completed course work and rescheduled quizzes/tests, if any tests have been missed. Individual circumstances will be taken into consideration. Please refer to registration agreement

Class/Clock Hours

This is an eleven (11) week course. Classes will be held Monday, Tuesday, and Thursday from 6p to 9:30p.

Course Objectives

At the end of this course, students will be able to:

- Identify the components of standard desktop personal computers.
- Identify fundamental components and functions of personal computer operating systems.



- Install and configure computer and system components.
- Maintain and troubleshoot peripheral and system components.
- Install and configure operating systems and maintain and troubleshoot installations of Microsoft Windows.
- Identify network technologies.
- Install and manage network connections.
- Support laptops and portable computing devices.
- Support printers and scanners, identify personal computer security concepts.
- Support personal computer security.

Course Outline

Lesson 1: Personal Computer Components • Personal Computer Components • System Unit Components • Storage Devices • Personal Computer Connection Methods
(2 class sessions, 3.5 hours each)

Lesson 2: Operating System Fundamentals • Personal Computer Operating Systems • Windows User Interface Components • Windows File System Management • Windows System Management Tools
(2 class sessions, 3.5 hours each)

Lesson 3: PC Technician Professional Best Practices • Tools of the Trade • Electrical Safety • Environmental Safety and Materials Handling • Perform Preventative Maintenance • Diagnostics and Troubleshooting • Professionalism and Communication
(2 class sessions, 3.5 hours each)

Lesson 4: Installing and Configuring Peripheral Components • Install and Configure Display Devices • Install and Configure Input Devices • Install and Configure Adapter Cards • Install and Configure Multimedia Devices
(2 class sessions, 3.5 hours each)

Lesson 5: Installing and Configuring System Components • Install and Configure Storage Devices • Install and Configure Power Supplies • Install and Configure Memory • Install and Configure CPUs • Install and Configure System Boards
(2 class sessions, 3.5 hours each)

Lesson 6: Maintaining and Troubleshooting Peripheral Components • Troubleshoot Display Devices • Maintain and Troubleshoot Input Devices • Troubleshoot Adapter Cards • Troubleshoot Multimedia Devices
(2 class sessions, 3.5 hours each)

Lesson 7: Troubleshooting System Components • Troubleshoot Storage Devices • Troubleshoot Power Supplies • Troubleshoot Memory • Troubleshoot CPUs • Troubleshoot System Boards
(2 class sessions, 3.5 hours each)

Lesson 8: Installing and Configuring Operating Systems • Install Microsoft Windows • Upgrade Windows • Add Devices to Windows • Optimize Windows
(2 class sessions, 3.5 hours each)



Lesson 9: Maintaining and Troubleshooting Micro- soft Windows • Operating System Utilities • Maintain Microsoft Windows • Troubleshoot Microsoft Windows • Recover Microsoft Windows
(2 class sessions, 3.5 hours each)

Lesson 10: Network Technologies • Network Concepts • Network Communications • Network Connectivity • Internet Technologies
(2 class sessions, 3.5 hours each)

Lesson 11: Installing and Managing Network Connections • Create Network Connections • Install and Configure Web Browsers • Maintain and Troubleshoot Network Connections
(2 class sessions, 3.5 hours each)

Lesson 12: Supporting Laptops and Portable Computing Devices • Laptop and Portable Computing Device Components • Install and Configure Laptops and Portable Computing Devices • Maintain and Troubleshoot Laptops and Portable Computing Devices
(2 class sessions, 3.5 hours each)

Lesson 13: Supporting Printers and Scanners • Printer and Scanner Technologies • Printer and Scanner Components • Printer and Scanner Processes • Install and Configure Printers and Scanners • Maintain and Troubleshoot Printers and Scanners
(2 class sessions, 3.5 hours each)

Lesson 14: Personal Computer Security Concepts • Security Fundamentals • Security Protection Measures • Data and Physical Security • Wireless Security • Social Engineering
(2 class sessions, 3.5 hours each)

Lesson 15: Supporting Personal Computer Security • Install and Configure Security Measures • Maintain and Troubleshoot Security Measures
(2 class sessions, 3.5 hours each)



Fanuc Handling Tool Operations & Programming

Course Overview

The Handling Tool Operations and Programming Certification course is an approved FANUC curriculum that prepares operators, technician and programmers to set up and record programs on a robot. The course covers the robot operations with the specific tasks required to set up applications, test and run programs. This course requires 32 clock hours for completion.

Certification Process Upon completion of this course students will be prepared to take the FANUC certification exam. The exam fee is included in course fee.

Prerequisites Candidates must have a high school diploma/GED or be enrolled in high school with 85% coursework completed.

Make-up Work Students who have excused absences may make up the work they missed. It is the student's responsibility to make arrangements with the instructor for specific make-up dates for the submission of completed course work and rescheduled quizzes/tests, if any tests have been missed. Individual circumstances will be taken into consideration. Please refer to registration agreement.

Class/Clock Hours This is a three (3) week course. Classes will be held Monday, Tuesday, and Thursday from 9:00 am to 12:30 PM. *Note: Course days and time are subject to change.

Course Objectives Upon completion of this course, students will be able to:

- Recognize the importance of actively participating in company-provided product training as well as follow-up training
- Identify all components of the cell that are part of the power up sequence
- Describe the correct sequence for powering up the cell
- Execute production operations
- Clear servo alarm faults
- Safely turn on and jog the robot
- Create/edit robot programs including robot logic
- Master the robot
- Manipulate files

Course Outline

Module 1: Safety (E-Stop, Work Cell, Jog Speed), **ROBOT Overview** (Axis, Controller, Pendant) **ROBOT Power** (Safe Start, Safe Power Down) **ROBOT Movement** (Joint, Tool, World)

Module 2: Programming



What is a program • Calling up programs • How to check the software limits and changes as needed • Tool Frame Set up • **Programming movements** (Linear, point to point, Touch up points) • Running a program (Step, TP Run, Cycle start, Hold, Abort) (2 class session, 3.5 hours each)

Module 3: Editing a Program Edit Commands (Insert, Delete, Copy, Rename, Renumber) • Status Display (Led on TP, User Screen, I/O, Current pos, System Variables) • Mastering (Zero degree, Quick) (2 class sessions, 3.5 hours each)

Module 4: Maintenance Mechanical Maintenance (Mechanical Unit Overview, Preventative Maintenance Schedule, Greasing points, Trouble shooting), • Electrical Maintenance (Controller Overview, Diagnostic Screens, Lights and Led's, Trouble Shooting) • Program (Single axis, Setting Data) (2 class sessions, 3.5 hours each)

Module 5: Course Review Program and File manipulation • posttest • review • evaluations (1 class session, 4 hours)

NCUS Tec Instructor Information

1. Instructor Name: Michelle Flemming

Over 5 years engineering experience working with project management experience. Current engineer instructor for high school facilitating stem and robotics courses.

Education Experience and Qualifications: Bachelor of Science in Engineering Youngstown State University , Current High School Robotic Instructor

Assigned Courses: Fanuc Handling & Tool Programming

2. Instructor Name: Keith Logan

10 years' experience in Information Technology. Currently Information Technology Director at the Academy for Scholars and Adjunct Professor at Eastern Gateway Community College for the past 6 years.

Education Experience and Qualifications

Master of Computer Information Systems, May 2008

Assigned Courses: Microsoft Office and CompTIA A

3. Instructor Name: Anthony Jackson



10 years' experience in Information Technology. Currently technology instructor with The Academy For Urban Scholars facilitating courses in CompTIA A+ and computer science.

Education Experience and Qualifications

Associate degree in Information Technology Eastern Gateway, 2008