2026 Student Catalog

Main Campus
899 E. Broad Street
Columbus, OH 43205
(614) 857-1811
School Registration NO. 2099

Branch Campus
139 E. Boardman Street
Youngstown, OH 44507
(330) 333-8600 ex 5008
School Registration NO. 2177

Branch Campus
1853 South Ave
Toledo, OH 43609
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School Registration NO. 2344

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INSTITUTION OVERVIEW

Mission

Our mission is to provide “cutting-edge” customized certification training to assist individuals in obtaining employment and achieving economic self-sufficiency.

Our core values include Stewardship, Inclusion, Sustainability, and Innovation.

History

The National Center For Urban Solutions, TEC (hereto in “NCUS TEC”) was initially licensed as a postsecondary institution under the Ohio Board of Career College and Schools (OSBCCS) in 2016. Operating under the banner of the National Center For Urban Solutions, NCUS TEC is a non-profit, urban Information Technology (IT) training initiative that was founded to address the digital divide experienced by minority and underserved groups that are underrepresented in IT jobs and related occupations throughout Central Ohio. No longer focused solely on IT training, NCUS TEC has expanded training to in-demand careers in healthcare, construction, and agriculture, providing additional opportunities for the communities it serves.

The Board of Directors, staff, and faculty are dedicated to providing industry-specific certification training and courses that equip and prepare students with in-demand skills for higher-wage occupations. NCUS TEC's motto “Life Works When You Work” is grounded in the fundamental belief that credentialed education and training lead to employment that provides a pathway to the ultimate self-sufficiency.

Ownership & Board Members

NCUS TEC is a 501(c)3 non-profit organization. It is a division of the National Center for Urban Solutions (NCUS).

The Board of Directors includes:

- John Gregory, Co-Founder & Board President
- Pamela Gregory, Co-Founder & Board Vice President
- Vanessa Jester, Board Member
- Rich Granger, Board Member
- Robin Lampkin, Board Member
- Mike Jones, Board Member

Licensing & Accreditation

Both the main and branch campuses of NCUS TEC are licensed by the Ohio Board of Career College and Schools (OSBCCS). NCUS TEC is accredited by the Accrediting Council for Continuing Education & Training.

ACCET is listed by the U.S. Department of Education as a nationally recognized accrediting agency.

NCUS TEC does not participate in federal Student Financial Aid.

Locations & Hours of Operations

NCUS TEC maintains two locations to serve students in the central Ohio area. Both locations are open Monday through Friday, from 8 am to 5 pm ET. (Locations may be open for instruction after school hours.)

Main Campus
899 East Broad Street
Columbus, OH 43205
(614) 857-1811
School Registration NO. 2099

Branch Campus
139 East. Boardman Street
Youngstown, OH 44507
(330) 333-8600 Ext. 5008
School Registration NO. 2177

Branch Campus
1853 South Ave
Toledo, Ohio 43609
(419) 214-9099
School Registration NO. 2344

Facilities & Equipment

Main Campus

NCUS TEC's Columbus campus is in a modern office facility, easily accessible by public transportation. The spacious facility is just over 9000 square feet. It includes five classrooms, six labs, and a breakroom for student use. Students also have access to free WIFI while on campus for their personal devices, and there is a library/computer lab available for student use. The entire facility is handicap accessible.

The classrooms include comfortable tables and chairs, a whiteboard, and a projection system, creating a comfortable learning environment that enables the instructors to present the curriculum effectively and engagingly. Equipment at the Columbus Campus includes a full computer lab for IT programs, robotics, construction, and agriculture equipment, as well as a healthcare lab equipped with phlebotomy, EKG, and CNA supplies.

Branch Campuses

NCUS TEC's Youngstown campus occupies approximately 2500 square feet of a large office building that is easily accessible by public transportation. The facility includes three classrooms, three labs, and a breakroom for student use. Students also have access to free WIFI while on campus for their personal devices, and there is a library/computer lab available for student use. The entire facility is on one level and fully handicap accessible.

The classrooms include comfortable tables and chairs, a whiteboard, and a projection system, creating a comfortable learning environment that enables the instructors to present the curriculum effectively and engagingly. Equipment at the Youngstown Campus includes a full computer lab for IT programs and a healthcare lab equipped with materials for the Allied Healthcare Trainings.

NCUS TEC provides students with the necessary equipment that will be utilized in their professional careers of choice to provide relevant hands-on practice that will streamline the transition from school to the workplace.

NCUS TEC's Toledo campus occupies approximately 2000 square feet of a former church school building that is easily accessible by public transportation. The facility includes three classrooms, three labs, and a breakroom for student use. Students also have access to free WIFI while on campus for their personal devices, and there is a library/computer lab available for student use. The entire facility is on one level and fully handicap accessible.

The classrooms include comfortable tables and chairs, a whiteboard, and a projection system, creating a comfortable learning environment that enables the instructors to present the curriculum effectively and engagingly. Equipment at the Toledo Campus includes a healthcare lab equipped with materials for the Allied Healthcare Trainings and a lab for Advanced Manufacturing skills.

NCUS TEC provides students with the necessary equipment that will be utilized in their professional careers of choice to provide relevant hands-on practice that will streamline the transition from school to the workplace.

Administrative Staff

Perry Gregory
President, NCUS TEC

Kristen Muenster
Sr. Vice President (Columbus, Toledo & Youngstown)
OSBCCS Licensed Director

Kevin Gadd
Director of Academics and Operations (Columbus, Toledo & Youngstown)
OSBCCS Licensed Director

LaChandra King
Director of Admissions & Career Services (Columbus, Toledo & Youngstown)
OSBCCS Licensed Agent

Andrea Wright
Admissions & Enrollment (Columbus)
OSBCCS Licensed Agent

Autumn Judge
Admissions & Enrollment (Youngstown & Toledo)
OSBCCS Licensed Agent

McKayla Rockwell
Career Coach (Youngstown)
OSBCCS Licensed Agent

Terah Campbell
Career Coach (Columbus)
OSBCCS Licensed Agent

Crystal Newman
Career Coach (Columbus)
OSBCCS Licensed Agent

Dorian Hooker
Program Coordinator (Toledo)

ACADEMIC POLICIES

Admissions Requirements

To be considered for admission at NCUS TEC, prospective students must meet the following requirements.

1. Be a high school graduate or possess a General Education Development (GED) or another equivalency document.*
    a. During the admissions process, evidence of high school graduation must be presented. Acceptable evidence includes a certified copy of the original high school diploma, a copy of a high school transcript indicating the date of high school graduation, a copy of a DD214 military record indicating the applicant is a high school graduate or equivalent, a GED certificate or official notification that a GED has been earned.
2. Be at least 18 years of age.*
3. Complete and pass pre-admission program testing and evaluations.

All programs at NCUS TEC are taught in English. Therefore, students must be able to speak, read, and write English fluently. English abilities will be determined through the admissions process, including the interview and completion of required documents.

Any additional program-specific admissions requirements are included in the program information section of this catalog.

* The CNA, Advanced Manufacturing, Construction, A+, Python Core, and Adobe Photoshop programs allow enrollment of current high-school students who are over 16 years of age, with a parent's or guardian's permission. Potential students who have completed high school or the equivalent and are at least 16 years of age may apply for those programs as well.

Additional Requirements for Distance Education

Prospective students applying for a program offered in a hybrid or 100% online format must possess the following technical skills, which are verified during the application process:

- Ability to use Microsoft Teams and Canvas LMS (an orientation is provided).
- Ability to use email to correspond with faculty, staff, and students.
- Ability to access, create, and save documents in Microsoft Office formats. At a minimum, students must be familiar with Microsoft Word.
- Ability to browse the Web, including downloading and installing common plug-ins and configuring common browser options.
- Ability to configure and run applications, including an antivirus application, to ensure that the student's system is secure and transmitted files are virus-free.

<u>Distance Education Hardware & Software Requirements</u>

In order to be accepted into a blended (hybrid) educational program, prospective students must have access to the hardware and software that meets the following specifications.

To complete program or course activities, students need regular access to a computer or laptop with the following:

- A processor of 2 GHz or faster.
- 4 GB RAM or greater.
- Current OS (Windows or Mac).

- Speakers/headphones, microphone, and camera.
- Modern web browser.
- Microsoft Office or similar productivity suite.
- PDF reader.
- Reliable high-speed internet connection with a connection speed of 1.5 MBs or better.

Students can use a computer, tablet, or smartphone with a mic, speakers/headphones, and camera to attend online lecture sessions. However, not all activities can be completed on a tablet or smartphone.

Admissions Procedure

Once admissions requirements have been verified, the prospective student completes the admissions process, which includes the following steps. In addition to the required steps, all applicants are encouraged to visit the facility before enrolling.

1. Complete the required admission documents and submit the necessary fee(s) stated on the Tuition and Fee Schedule.
2. Complete an interview and an Educational Life Plan with NCUS TEC Career Coach.
3. Undergo a criminal background check, depending on the selected program.
    - Applicants are required to undergo a 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 before 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.
4. Submit applications for credit for previous education and training. NCUS TEC requires that these applications be completed prior to enrollment. (See Transfer of Credit policy.)
5. Make financial arrangements for the program of enrollment. If applicable, financial aid and government-funded application information must be completed prior to the first day of class.
6. Upon completion of the admissions process and acceptance into the program of enrollment, prospective students must sign an enrollment agreement and pay a registration fee of $50.00. Prior to signing the enrollment agreement, all accepted applicants are provided a copy of the school catalog (posted to our website) to read and review, which is also available throughout the admissions process.

Non-Discrimination Policy

NCUS TEC 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 Vice President.

Transfer of Credit

Transfer into NCUS TEC

The acceptance of transfer credits between institutions lies within the discretion of the receiving institution. Credits earned at other institutions may or may not be accepted by NCUS TEC. Likewise, coursework completed at NCUS TEC may or may not be accepted by another institution depending upon its programs, policies, and regulations.

Transfer credits will be evaluated using the following guidelines:

- Only credits earned at an institution that is accredited by an agency recognized by the United States Department of Education and/or the Council for Higher Education Accreditation (CHEA) will be considered. Any credits earned at a foreign institution must have a credential evaluation completed indicating equivalency with NCUS TEC courses. The potential student is responsible for paying the cost of the evaluation. The student may use any reputable evaluation service. Many options can be found on the National Association of Credential Evaluation Services (NACES) website.
- An official transcript of the student's coursework must be furnished directly by the institution where the coursework was completed before any application for transfer credits can be evaluated.
- A copy of the catalog or course syllabi from the institution at which the coursework was completed, at the time that the coursework was completed, must be furnished before any application for transfer credits can be evaluated.
- A minimum grade of "B" or "3.0" must have been awarded for each course completed to be eligible for transfer. Only courses in which grades were assigned will be considered. Credits earned as a result of a "pass/fail" option are not eligible for transfer.
- Sit for and pass a written and/or practical exam related to the transfer credit curriculum, if applicable.
- Coursework completed more than three years ago is not eligible for transfer of credit.
- Transfer of credit must be completed before enrollment. Submitting an official transcript in a timely manner is the sole responsibility of the student.
- The Campus Director shall make the final determination on the acceptability of transfer credits. The above guidelines shall be used in evaluating all applications for transfer of credit; however, the institution reserves the right to accept or reject any or all transfer credits at its discretion.

Up to 50% of a program can be completed via transfer of credit. Students wishing to receive credit for courses taken at other institutions will need to provide all required documents as part of the application process.

NCUS TEC does not accept advanced placement and credit for experiential learning.

Appeals

Students who believe that their transfer credits were incorrectly evaluated or denied by NCUS TEC may file an appeal. Appeals must be based on one or more of the following grounds:

- New or additional information that was not included in the initial evaluation.
- Errors in the evaluation of submitted documents, including transcript or course equivalency.
- Discrepancies in the application of the Transfer of Credit Policy.

The student must submit a written appeal to the Admissions and Enrollment Coordinator within 7 days of receiving the transfer credit evaluation decision. The appeal must include a detailed explanation of

the grounds for appeal, along with any supporting documentation (e.g., additional transcripts, course syllabi, or credential evaluations).

The Admissions and Enrollment Coordinator will forward the appeal to the Vice President (VP) of NCUS TEC for further review. The VP will review the appeal and may consult with faculty members or external evaluators as necessary to ensure a thorough reassessment of the transfer credits. A final determination on the appeal will be made by the VP within 7 days of receiving the appeal.

The student will be notified in writing of the decision. The decision will include an explanation for the outcome, whether the appeal is approved or denied. All decisions made by the VP of NCUS TEC regarding transfer credit appeals are final. There is no further appeal process beyond this stage.

Transfer out of NCUS TEC
Transferability of coursework completed at NCUS TEC is always up to the discretion of the receiving institution. NCUS TEC does not in any way imply or guarantee the transferability of credit (clock hours) into any other institution. Once the student of the receiving institution provides notification, an official transcript and a certified copy of the catalog will be issued at no cost to the student or the receiving institution.

Student Privacy Policy/FERPA

NCUS TEC's student privacy and confidentiality policy follows the Family Educational Rights and Privacy Act (FERPA) guidelines.

FERPA was designed to protect the privacy of educational records, to establish the rights of students to inspect and review their educational records, and to provide guidelines for the correction of inaccurate or misleading information through informal and formal hearings.

NCUS TEC will not disclose a student's education records without obtaining prior written consent, except in certain instances where a student's educational records may be disclosed to school administrators with a legitimate interest. These individuals may include persons whom NCUS TEC have employed or contracted with, whose responsibility justifies access to all or part of an educational record for legal, educational, or administrative functions.

Students may inspect and review their own records pertaining to academic standing and other information at any time. Students may also seek amendment of inaccurate or misleading information in their education records.

NCUS TEC depends on the accuracy of the records submitted by its students. False information on an application as well as any act to intentionally mislead or misinform instructional personnel or administrators is grounds for disciplinary action, including dismissal from the school. Students seeking access or amendment to their educational records should contact the Vice President.

Copyright Infringement Policy
Digital Millennium Copyright Act (DMCA)

Individuals using computers and networks at NCUS TEC are responsible for complying with copyright laws and NCUS TEC's policy and procedures for computer use. The Digital Millennium Copyright Act (DMCA) of 1998 amends the federal copyright law to provide certain liability protections for online service providers when their computer systems or networks carry material that violates (infringes) copyright law.

The Digital Millennium Copyright Act specifies that all infringement claims must be in writing (either by electronic mail or paper letter) and must include all of the following elements:

- a physical or electronic signature
- identification of the infringed work
- identification of the infringed material
- contact information for the complainant, e.g. address, telephone number, electronic mail address
- a statement that the complaining party has a good faith belief that the use of the material in the manner complained of is not authorized by the copyright owner or the law
- a statement that the information contained in the notification is accurate, and under penalty of perjury, that the complaining party is authorized to act on behalf of the copyright owner.

Infringement claims should be sent to NCUS TEC's Designated Agent: *Kristen Muenster, VP*

NCUS TEC's users should not download, upload, transmit, make available, or otherwise distribute copyrighted material without authorization using NCUS TEC's computer systems, networks, and internet access or storage media. This is inclusive of utilizing unlicensed/unauthorized peer-to-peer file services that would promote copyright infringement. Users who violate this policy are subject to disciplinary action as appropriate under the circumstances. Such disciplinary action may include suspension, dismissal, and other legal actions.

In addition to the complaint being handled by NCUS TEC, copyright owners may also take direct legal action against alleged infringers, and subpoena NCUS TEC for information about people sharing files. The No Electronic Theft (NET) Act provides for serious criminal penalties, including a fine of up to $250,000 and a potential jail sentence. A lack of knowledge about copyright infringement laws will not excuse one from legal consequences, or action by NCUS TEC. It is your responsibility to be aware of the legality of your actions.

Copying Materials

Students, instructional staff, and administrative staff are not allowed to make copies of their textbooks or exams for themselves or their peers. Copying textbooks and other copyrighted material is against the law. Any student caught copying material (or in possession of copied material) will be in violation of the Student Code of Conduct and will be subjected to the full range of consequences.

NCUS TEC requires compliance with applicable copyright laws in the use of instructional materials. The Copyright Act protects all types of expression or authorship fixed in any tangible medium, including such as written works, paintings, sculptures, photographs, videos, recorded music, sheet music, computer programs, video games, architectural design, and choreography. It is important to note, however, that the Act does not protect the underlying facts or ideas in a copyrighted work -- only the "expression" of those facts or ideas.

During the applicable term of protection, the author of the work possesses certain exclusive rights (which may be assigned to another party such as the publisher or distributor). These exclusive rights include (1) the right to copy the work; (2) the right to create derivative works; (3) the right to distribute the work; and (4) the right to display, perform, or broadcast the work. Therefore, before exercising any of these rights with respect to a given work, individuals must obtain permission from the copyright holder unless a statutory exception such as "fair use" applies, or the work is in the public domain.

The Public Domain and Other "Free" Works

Copyright protection does not extend to works in the public domain, which include: (1) works for which the applicable term of protection has expired; (2) works published by the federal government (e.g., published by the Centers for Disease Control or the National Oceanic and Atmospheric Association); (3) works that lack sufficient originality or expression to qualify for copyright protection (e.g., unadorned calendars, indices, phonebooks, databases); and (4) works expressly donated to the public domain. Such works may be copied and used without the permission of the author or publisher.

NCUS TEC's students/instructors/staff who violate this policy are subject to appropriate disciplinary action. Serious violations of this policy may result in expulsion or discharge from NCUS TEC. Individuals who violate state or federal copyright laws may also be subject to criminal/civil action by the appropriate agency or by the owner of the copyright.

Definition of Clock Hours

The program is measured in clock hours. A period consisting of a 50 to 60-minute class, lecture, or recitation in a 60-minute period. A 50 to 60-minute faculty-supervised laboratory, training, or internship in a 60-minute period. Sixty minutes of preparation in a correspondence course. A clock hour is based on an actual hour of attendance, though each hour may include a 10-minute break.

Attendance

NCUS TEC emphasizes the need for all students to attend classes consistently to develop the skills and attitude necessary to be successful in today's competitive job market. The classroom is designed to emulate a work environment, and arriving on time every day is essential to maintaining employment. Therefore, attendance is critical for success at NCUS TEC.

Attendance Policy

Students are expected to be in class on time every day to achieve the learning goals for their program of study. Students, whether present or absent from class, are responsible for knowing all that is announced, discussed, and/or lectured upon in class or laboratory. In addition, students are responsible for submitting on time all assignments and examinations as required in the class. Students are expected to attend all class hours. However, students must have a cumulative attendance rate of 80% or higher at each evaluation point to remain in good standing. (See Satisfactory Academic Program policy.)

Attendance rates will be provided to students at the end of each course. If a student's attendance rate is under 80%, the student will complete an advising session with the Campus Director, Admissions & Enrollment Coordinator, Career Coach, or instructor to create a plan to improve attendance.

To graduate, students in any program must achieve a minimum attendance cumulative rate of 80% in their program. However, some programs require the completion of 100% of the program hours to graduate and be eligible to sit for licensing or certification, and/or qualify for employment. Program-specific attendance requirements are outlined in the program syllabus.

Tardiness and Early Departures

Any student arriving up to 5 minutes after the start of class will be considered tardy. Additionally, any student who leaves class up to 10 minutes before the scheduled end will be considered an early departure.

Students who are more than 5 minutes late or who depart more than 5 minutes before the end of class will be marked absent for one full class hour (60 minutes). The deduction of one class hour will be

included in the calculation of the cumulative attendance rate. There are no exceptions to this policy, whether or not the cause of the tardiness was within the student's control or not, as no exceptions will be made if an employee shows up late in the workplace.

Attendance Monitoring
Attendance is taken at the beginning of each class. Students sign in through a QR code. The instructor keeps a record of attendance and records when a student departs early.

Make-Up Hours & Work
Students are responsible for completing all required assignments, practical work, and examinations. Students who are absent are eligible to complete make-up work and/or make-up hours in accordance with NCUS TEC policy. All make-up must be completed within the agreed-upon time frame, which is based on the length of the absence and scheduling availability.

All make-up time must be arranged in advance with the instructor and must be completed outside of regularly scheduled class hours. The make-up activities assigned will be educationally sound and equivalent to the missed classes in content, clock hours, and delivery method.

To earn make-up hours, students must complete the assigned make-up activities on campus under the direct supervision of a qualified faculty or staff member, as designated by the instructor. Make-up work may be completed during an approved make-up session if the student chooses to complete make-up work and make-up hours at the same time.

Make-up work assigned will be educationally sound and equivalent to the missed classes in content, clock hours, and delivery method. Make-up hours cannot be earned for work completed at home or during regularly scheduled class hours.

All approved make-up hours completed will be documented on the student's official attendance record. NCUS TEC does not charge an additional fee for approved make-up work or make-up hours.

Administrative Attendance Termination
Any student who is absent for three (3) consecutive calendar days will be terminated from his/her program. After notifying the student of a withdrawal for violation of the attendance policy, the Vice President completes a refund calculation. Any money due back to the student or to a third-party funding source is returned per the refund policy. A student dismissed for attendance-related reasons may re-enroll in the institution only with the Campus Director's written authorization and verification that all current admissions requirements are met.

Grading

NCUS TEC uses the following grading scale for all programs and courses.

Percentage	Grade	GPA
100% - 90%	A	4.0
89% - 80%	B	3.0
79% - 70%	C	2.0
69% - 60%	D	1.0
59% - Below	F	0.0
Transfer Credit	TC	N/A
Incomplete	I	N/A
Withdraw	W	N/A
Repeat	R	N/A

TC: Transfer credit. A grade of "TC" will be given for coursework accepted for transfer credit per the Transfer of Credit policy.

I: Incomplete. A grade of "I" will be given if the student does not complete the required class work, assignments, and tests by the end of the course or program. Incomplete coursework must be completed within three (3) days of the scheduled end date of the course. If the coursework is not completed by the deadline, the student will receive the grade earned for the class with the missing work recorded as zeros.

W: Withdraw. A grade of "W" will be given if the student withdraws from a course or is administratively withdrawn from a course.

Satisfactory Academic Progress

The Satisfactory Academic Progress Policy is applied consistently to all students. Satisfactory Academic Progress is measured in two ways:

- **Qualitatively:** The Cumulative Grade Point Average (CGPA) is reviewed to ensure that the student is meeting a minimum 2.0 (C or 70%) average at the conclusion of each evaluation period.
- **Quantitatively:** The student must attend at least 80% of the scheduled clock hours cumulatively for each evaluation period, enabling completion within the maximum time frame of the program.*

**Depending on the program of enrollment, students may be required to complete up to 100% of program hours in order to graduate. Program-specific attendance policies are provided in each program syllabus.*

A student must be meeting these standards to be considered meeting Satisfactory Academic Progress and in 'Good Standing.' Any student who has not achieved a minimum cumulative GPA of 2.0 or who has

not successfully achieved a cumulative rate of attendance of at least 80% at each required evaluation period is not considered in 'Good Standing' and is subject to the consequences outlined in this policy.

Maximum Time Frame
Students must complete their program within 150% of the normal program length. This length of time is considered the Maximum Time Frame. Students who have attempted over 150% of the total program clock hours and not met the graduation requirements, will be withdrawn from the program.

Evaluation Periods
Students will receive a grade report at the end of each course which includes their final grade and attendance for the course completed, as well as the cumulative GPA and cumulative attendance percentage for all courses completed within the program. Formal evaluations will occur at the midpoint, end of program, and, if needed, at the Maximum Time Frame based on scheduled hours. Consistent with SAP measurements, the evaluations will assess each student's progress against the qualitative and quantitative standards previously identified.

Warning Period
If a student fails to meet the cumulative 80% attendance, and/or the cumulative 2.0 grade average for any evaluation period, he or she will be placed on 'Warning' for the next evaluation period.

Students will be notified in writing when placed on 'Warning.' The notification will include the steps necessary to be removed from 'Warning' status. In addition, students will receive attendance and/or academic advising from the Curriculum Coordinator. During this time, an academic improvement plan will be created to assist the student in achieving 'Good Standing' by the end of the 'Warning' period. If the student achieves 'Good Standing' by the end of the 'Warning' period, he or she will be removed from 'Warning' status.

If the student fails to achieve 'Good Standing' and meet satisfactory academic progress requirements at the end of the 'Warning' period, the student will be terminated from NCUS TEC. The institution will notify the student in writing if he or she is being terminated for unsatisfactory academic progress. The student has the option to appeal termination by following the appeal process.

Appeal Process
The student may submit a written appeal of his/her termination within five calendar days of their receipt of the notice of termination. The appeal must be accompanied by documentation of mitigating circumstances that have prevented the student from obtaining 'Good Standing' and evidence that changes have occurred to allow the student to now meet standards of Satisfactory Academic Progress. Only extraordinary circumstances will be considered, such as, but not limited to, death or severe illness in the immediate family. Supporting documentation such as a physician's statement, accident report, or other such statements must be included as part of the appeal.

The VP will assess all appeals and determine whether the student may be permitted to continue in the school on a 'Probationary' status despite not meeting the Satisfactory Academic Progress requirements. The student will be sent a written decision within ten days of the receipt of the appeal. The decision of the VP is final.

In cases where an appeal is accepted, the student is placed on 'Probation' status through the next evaluation period. During this time, an academic improvement plan will be created to assist the student in achieving 'Good Standing' by the end of the 'Probation' period.

Probation Period/Reinstatement
Students who successfully appeal their termination are reinstated in a 'Probation' status.

The 'Probation' status extends through the next evaluation period during which time the student must meet the terms and conditions set out in the letter granting the appeal. In addition, students will receive attendance and/or academic advising from the Curriculum Coordinator. An academic improvement plan will be created to assist the student in achieving 'Good Standing' by the end of the 'Probation' period.

At the end of the evaluation period, and then at the end of every evaluation period thereafter, the student's academic status will be reviewed. If the student fails to meet the Satisfactory Academic Progress requirements at the end of the 'Probation' period, the student will be terminated from the school.

Transfer and Readmitted Students
Transfer students from outside the institution will be evaluated qualitatively only on the work completed at the NCUS TEC. The maximum time frame is reduced for transfer students based on the remaining length of the program in which they enroll.

Incomplete Courses
A grade of Incomplete is not included in the calculation of the cumulative grade point average. However, the final grade issued three (3) days after the end of the course, whether or not the incomplete coursework was completed, is calculated in the cumulative grade point average. The course hours count as hours attempted for the purpose of calculating progress toward the maximum time frame.

Remedial Courses
NCUS TEC does not offer any remedial courses.

Course Repeat Policy
A failed course may be repeated in an attempt to earn a passing grade. Each attempt counts as scheduled hours toward the Maximum Time Frame. Only the highest grade earned will be included in the computation of the cumulative grade point average. The student transcript will list each course in which a student has enrolled and earned a grade. The failing grade will be changed to a grade of R on the transcript indicating that a particular course has been repeated.

Satisfactory Progress for Academic Purposes
At the end of each course, the instructor reviews the cumulative grade point average to ensure compliance with the minimum 2.0 (C or 70%) grade point average, and 80% cumulative attendance requirement. If any student is not meeting the academic progress requirements, the instructor notifies the VP and Curriculum Coordinator, who are responsible for taking further actions, as outlined in the policy.

Leave of Absence

There may be legitimate reasons such as extended illness, extended illness of close family members, or military service, in which a student needs an interruption in their training program. In such cases due to specified and approved reasons and with appropriate documentation, the student may request a leave of absence. The leave of absence is considered a temporary break in a student's attendance during which they are considered to be continuously enrolled. In order to attain a Leave of Absence (LOA), the following policy must be adhered to prior to approval of the leave:

- The Leave of Absence is limited to **180 calendar days in any 12-month period or one-half of the published program length**, whichever is **shorter**. Multiple leaves of absence may be permitted provided the total of the leaves does not exceed this limit.
- The leave of absence must be requested in writing in advance of the beginning date of the leave unless circumstances prevent the student from doing so. If the student does not request a leave of absence within a timeframe consistent with the 14-day consecutive absence policy, the student will be withdrawn.
    - If a student is unable to make the request in writing, over the phone is acceptable. The request can also be submitted by a relative or legal guardian.
- The student must sign and date the leave-of-absence request and specify a reason for the leave, providing supporting documentation, as necessary. The request must specify the specific date of return following the leave and the student must attest to understanding the consequences of not returning from an approved on the date specified.
- The Leave of Absence request must be approved and signed by the Vice President.
- Failure to return from the approved leave of absence on the exact return date as shown on the Leave of Absence written request will result in termination from the program of study.

NCUS TEC will document its decision relative to each LOA request in accordance with this policy. Documentation of each request and the related decision will be maintained in the student's file.

No additional charges will be assessed as a result of an approved LOA.

Student Conduct

NCUS TEC strives to maintain the highest level of academic standards and conduct for our students. In today's competitive job market, professional conduct is mandatory both to obtain the job of choice and to retain that job. NCUS TEC focuses consistently on regular attendance, promptness, honesty, and good work ethic. Students are held accountable for any violation of the student code of conduct while at the career center, on externship, or on school property.

<u>Dismissal</u>

NCUS TEC is a professional educational training institution, with the expectation that all students adhere to classroom rules and policies. NCUS TEC's programs are designed to prepare students for the competitive workforce, therefore instructors and staff ask students to view their role as the role of a new employee of a company.

NCUS TEC reserves the right to terminate any student who does not abide by the institution's policies and procedures.

Warning & Dismissal Process:

If a student violates the code of conduct, the following procedures are enforced.

- Step 1: If the student is not in compliance with the code of conduct or classroom/externship site rules, the student will receive a verbal warning.
- Step 2: If the behavior continues after the verbal warning, the student will be issued a written warning, a copy of which will be added to the student's file.
- Step 3: If the behavior continues after the written warning, NCUS TEC will expel the student from their program. The student has the right to appeal that decision if they so choose.

Automatic Dismissal:
The following will result in automatic expulsion without any warning:

- Insubordination
- Fighting
- Threatening physical harm
- Stealing
- Destroying property
- Harassment of any kind
- Violation of the Communications Policy

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 comments 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 educational services. Students are not permitted to copy, remove, or install software. Violation is grounds for dismissal from NCUS TEC.

Certification, State, & National Board Exams

Understanding the requirements of and qualifications for industry certification exams and state or national board licensing exams is the individual student's responsibility. Certification and/or licensure requirements may change during the student's enrollment period.

No student is automatically certified upon program completion. Students who successfully complete one of NCUS TEC's programs receive a Certificate of Completion. However, the programs are designed to prepare the student to sit for industry certification and licensing exams. NCUS TEC cannot and does not guarantee that students or graduates will pass these exams.

Graduation Requirements

In order to graduate, students must:

1. Achieve a minimum cumulative grade point average (GPA) of 2.0 (70%), unless a higher GPA is required for the program; and
2. Complete at least 80% of all scheduled program hours, unless a higher attendance rate is required for the program; and
3. Complete all required coursework for the program; and
4. Return all property belonging to NCUS TEC; and
5. Be in good financial standing with NCUS TEC; and
6. Attend an exit interview with the assigned Career Coach.

Grievance Policy & Procedure

NCUS TEC is dedicated to the fair treatment of and professional conduct with students. Should any student have a complaint, the student is asked to discuss the matter directly with an instructor or administrator. That instructor or administrator will engage in an informal process to settle the dispute in good faith. That informal process will involve three steps:

1. An effort to define the problem.
2. An effort to identify acceptable options for resolution; and
3. An attempt to resolve the conflict through the application of one or more of those options for resolution.

If the grievance is not resolved thereafter, the student may choose to file a formal written complaint directly with the institution's Vice President within 30 days of the alleged incident. The formal process will require the student's submission of a written description of the specific allegations and the desired remedy, accompanied by any available documentation. The Vice President will investigate all formal (written) complaints, attempt to resolve all such complaints, and record an entry into the institution's official log. The Vice President will notify the individual of the decision in writing within 30 days of the complaint submission. All formal complaints and details of its resolution will be maintained by the Vice President.

Please note that NCUS TEC may dismiss a complaint or allegations if the complainant informs the Vice President in writing that the complainant desires to withdraw the formal complaint or allegations therein, if the individual is no longer enrolled by the school, or if specific circumstances prevent the school from gathering sufficient evidence to reach a determination.

If a complaint cannot be resolved after exhausting the institution's grievance procedure, the student may file a complaint with the 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.

<u>Notice to Students: ACCET Complaint Procedure</u>

This institution is recognized by the Accrediting Council for Continuing Education & Training (ACCET) as meeting and maintaining certain standards of quality. It is the mutual goal of ACCET and the institution to ensure that quality educational training programs are provided. When issues or problems arise, students should make every attempt to find a fair and reasonable solution through the institution's internal complaint procedure, which is required of ACCET-accredited institutions and frequently requires the submission of a written complaint. Refer to the institution's written complaint procedure, which is published in the institution's catalog or otherwise available from the institution, upon request. Note that ACCET will process complaints that involve ACCET standards and policies and, therefore, are within the scope of the accrediting agency.

If a student has used the institution's formal student complaint procedure, and the issue has not been resolved, the student has the right and is encouraged to submit a complaint to ACCET in writing via the online form on the ACCET website (https://accet.org/about-us/contact-us). The online form will require the following information:

1. Name and location of the ACCET institution
2. A detailed description of the alleged problem(s)
3. The approximate date(s) that the problem(s) occurred

4. The names and titles/positions of all persons involved in the problem(s), including faculty, staff, and/or other students
5. What was previously done to resolve the complaint, along with evidence demonstrating that the institution's complaint procedure was followed prior to contacting ACCET
6. The name, email address, telephone number, and mailing address of the complainant. If the complainant specifically requests that anonymity be maintained, ACCET will not reveal his or her name to the institution involved
7. The status of the complainant with the institution (e.g., current student, former student)

Please include copies of any relevant supporting documentation (e.g., student's enrollment agreement, syllabus or course outline, correspondence between the student and the institution).

Note: Complainants will receive an acknowledgment of receipt within 15 business days.

Online Complaint Submission Form

Inclement Weather and Emergency Closure Policy

NCUS TEC is committed to providing continuity of instruction while prioritizing the health and safety of its students, faculty, and staff. The institution generally remains open during periods of ordinary seasonal inclement weather. However, **NCUS TEC may delay, modify, or suspend on-campus operations** when weather conditions or other emergencies pose a threat to safety or significantly impact the ability to conduct classes.

Authority to Close

The decision to delay or close NCUS TEC operations due to inclement weather or other emergency conditions is made by the Campus Director or designee.

Alignment with Columbus State Community College

Due to the nature of NCUS TEC's operations and communication capacity, **NCUS TEC will follow the closure and delay decisions of Columbus State Community College (CSCC)** for weather-related emergencies.

- **If Columbus State Community College announces a campus closure or delay due to inclement weather, NCUS TEC will also be closed or delayed for on campus instruction.**
- This alignment ensures timely, consistent, and safety-focused decision-making when conditions develop rapidly.

Types of Emergencies Covered

This policy applies to, but is not limited to:

- Severe winter weather (snow, ice, extreme cold)
- Tornadoes or severe storms
- Flooding
- Power outages or utility failures
- Other emergencies that threaten the safety of students, faculty, staff, or facilities

Notification of Closures or Delays

When NCUS TEC is closed or delayed, students and staff will be notified through available institutional communication channels, which may include:

- Email
- Learning management system announcements
- Telephone or text notification (when available)
- Reference to Columbus State Community College's public closure announcements

Because emergency conditions may develop quickly, **students are encouraged to monitor Columbus State Community College closure announcements** when severe weather is forecast.

Instructional Continuity

- **Online instruction may continue as scheduled** during campus closures unless otherwise announced.
- On-campus classes, laboratories, and campus-based activities that are canceled due to closures will be **rescheduled or made up**, as appropriate, at the discretion of the program or instructor.
- Students are responsible for completing all required coursework and assignments once normal operations resume.

Student Responsibility and Safety

Students are encouraged to exercise personal judgment regarding travel during inclement weather. **Students who reside in or must travel through areas under a Level 3 snow emergency or similar government-issued travel restriction should not attempt to travel to campus**, even if the institution remains open.

Safety is always the highest priority, and no student will be penalized for complying with official emergency closures.

STUDENT SERVICES

Guidance Services

Students are assigned a Career Coach to assist them with personal, educational, financial, or career problems during their enrollment at NCUS TEC. The Career Coaches welcome the opportunity to assist students in identifying and working through the obstacles that may prevent them from meeting their educational goals.

Career Coaches are not licensed counselors and do not provide counseling services. Students who require assistance beyond the scope of NCUS TEC's guidance services will be referred to outside counselors or agencies. A list of third-party support services is available upon request.

Placement Assistance

NCUS TEC prides itself on the quality of the career development and placement services that it offers to students and graduates. Career Coaches work with students throughout their enrollment. All graduates receive additional placement support through a Career Coach. Placement assistance includes resume writing assistance, job search activities, interviewing skills, and one-on-one coaching.

NCUS TEC does not guarantee job placement or employment.

Transcripts

NCUS TEC provides transcripts directly to other institutions as part of a transfer of credit request on behalf of students and graduates at no charge.

Upon graduation, students are provided with one copy of their official transcript, along with their certificate of completion. Additional copies of official transcripts are provided for a fee of $10. The fee must be paid before the request is processed.

Transcripts will not be released if a student or graduate is not in good financial standing with NCUS TEC.

CURRICULUM

Vocational Programs

Cloud Foundations

Clock Hours: 30 (20 Theory | 10 Lab)
Length: 6 Weeks
Credential: Certificate
Delivery Method: Hybrid
Location: Columbus & Youngstown
Prerequisites: None

Description: The Cloud Foundations program provides an overall understanding of cloud computing concepts, independent of specific technical roles. It provides a detailed overview of cloud concepts, AWS core services, security, architecture, pricing, and support.

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

- Define the Cloud
- Explain the pricing philosophy
- Identify the global infrastructure components of cloud foundations
- Describe the security and compliance measures of the Cloud, including Identity and Access Management (IAM)
- Create a virtual private cloud (VPC) by using Amazon Virtual Private Cloud (Amazon VPC)
- Demonstrate when to use Amazon Elastic Compute Cloud (Amazon EC2), AWS Lambda, and AWS Elastic Beanstalk
- Differentiate between Amazon Simple Storage Service (Amazon S3), Amazon Elastic Block Store (Amazon EBS), Amazon Elastic File System (Amazon EFS), and Amazon Simple Storage Service Glacier (Amazon S3 Glacier)
- Demonstrate when to use AWS database services, including Amazon Relational Database Service (Amazon RDS), Amazon DynamoDB, Amazon Redshift, and Amazon Aurora
- Explain the architectural principles of the Cloud
- Explore key concepts related to Elastic Load Balancing, Amazon CloudWatch, and Amazon EC2 Auto Scaling

Courses:

Module 1: Cloud Concepts Overview 2 hours theory I 1 hour lab	This module provides an Introduction to Cloud Computing, Amazon Web Services (AWS), and what AWS offers.
Module 2: Cloud Economics and Billing 2 hours theory I 1 hour lab	This module covers topics including the AWS TCO Calculator, AWS Simple Monthly Calculator, AWS Organizations, and AWS Billing Dashboard.
Module 3: AWS Global Infrastructure Overview 2 hours theory I 1 hour lab	This module provides an Introduction to the Amazon Web Services (AWS) Global Infrastructure. Students will learn to identify the difference between AWS Regions, Availability Zones, and edge locations, and to identify AWS services and service categories.

Module 4: AWS Cloud Security 2 hours theory I 1 hour lab	This module provides an Introduction to the AWS approach to security. Students will learn to recognize the shared responsibility model, identify the responsibility of the customer and AWS, recognize IAM users, groups, and roles, describe different types of security credentials in IAM, identify the steps to securing a new AWS account, explore IAM users and groups, recognize how to secure AWS data, and recognize AWS compliance programs.
Module 5: Networking and Content Delivery 2 hours theory I 1 hour lab	In this module, students will learn how to recognize the basics of networking, describe virtual networking in the cloud with Amazon VPC, label a network diagram, design a basic VPC architecture, indicate the steps to build a VPC, identify security groups, create their own VPC and add additional components to it to produce a customized network, identify the fundamentals of Amazon Route 53, and recognize the benefits of Amazon CloudFront.
Module 6: Compute 2 hours theory I 1 hour lab	This module provides an introduction to compute the services Amazon Web Services (AWS) offers. Students will learn how to provide an overview of different AWS compute services in the cloud, demonstrate why to use Amazon Elastic Compute Cloud (Amazon EC2), identify the functionality in the Amazon EC2 console, perform basic functions in Amazon EC2 to build a virtual computing environment, identify Amazon EC2 cost-optimization elements, demonstrate when to use AWS Elastic Beanstalk, demonstrate when to use AWS Lambda, and identify how to run containerized applications in a cluster of managed servers.
Module 7: Storage 2 hour theory I 1 hour lab	In this module, students will learn about Amazon Elastic Block Store (Amazon EBS), Amazon Simple Storage Service (Amazon S3), Amazon Elastic File System (Amazon EFS), and Amazon Simple Storage Service Glacier.
Module 8: Databases 2 hours theory I 1 hour lab	In this module, students will learn about the Amazon Relational Database Service (Amazon RDS), Amazon DynamoDB, Amazon Redshift, and Amazon Aurora.
Module 9: Cloud Architecture 2 hours theory I 1 hour lab	In this module, students will learn how to describe the AWS Well-Architected Framework, including the five pillars, identify the design principles of the AWS Well-Architected Framework, explain the importance of reliability and high availability, identify how AWS Trusted Advisor helps customers, and Interpret AWS Trusted Advisor recommendations.
Module 10: Automatic Scaling and Monitoring	In this module, students will learn how to distribute traffic across Amazon EC2 instances by using Elastic Load Balancing,

2 hours theory I 1 hour lab	identify how Amazon CloudWatch enables you to monitor AWS resources and applications in real time, explain how Amazon EC2 Auto Scaling launches and releases servers in response to workload changes, and perform scaling and load balancing tasks to improve an architecture.

CompTIA A+

Clock Hours: 105 (80 Theory | 25 Lab)
Length: 10 Weeks
Credential: Certificate
Delivery Method: Hybrid
Location: Columbus & Youngstown
Prerequisites: None

Description: The CompTIA™ A+ Certification is a critical first step in opening the door to your IT career. This course will prepare you to obtain a CompTIA A+ Certification designation. In this course, 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.

Objectives: Upon completion of this program, 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.

Courses:

Lesson 1: Personal Computer Components Topics 6 hours theory | 1 hour lab	In this module, students will learn about personal computer components, system unit components, storage devices, and personal computer connection methods.
Lesson 2: Operating System Fundamentals Topics 5 hours theory I 1.5 hours lab	In this module, students will learn about personal computer operating systems, windows user interface components, windows file system management, and Windows system management tools.

Lesson 3: PC Technician Professional Best Practices Topics 5 hours theory I 1 hour lab	In this module, students will learn about the tools of the trade, electrical safety, environmental safety, and materials handling, perform preventative maintenance, diagnostics and troubleshooting, and professionalism and communication.
Lesson 4: Installing and Configuring Peripheral Components Topics 5 hours theory I 1.5 hours lab	In this module, students will learn to install and configure display devices, install and configure input devices, install and configure adapter cards, and install and configure multimedia devices.
Lesson 5: Installing and Configuring System Components Topics 5 hours theory I 2 hours lab	In this module, students will learn to install and configure storage devices, install and configure power supplies, install and configure memory, install and configure CPUs, and install and configure system boards.
Lesson 6: Maintaining and Troubleshooting Peripheral Components Topics 5 hours theory I 1.5 hours lab	In this module, students will learn to troubleshoot display devices, maintain and troubleshoot input devices, troubleshoot adapter cards, and troubleshoot multimedia devices.
Lesson 7: Troubleshooting System Components Topics 6 hours theory | 1.5 hours lab	In this module, students will learn to troubleshoot storage devices, troubleshoot power supplies, troubleshoot memory, troubleshoot CPUs, and troubleshoot system boards.
Lesson 8: Installing and Configuring Operating Systems Topics 5 hours theory I 2 hours lab	In this module, students will learn to install Microsoft windows, upgrade Windows, add devices to Windows, and optimize Windows.
Lesson 9: Maintaining and Troubleshooting Microsoft Windows Topics 6 hours theory I 2 hours lab	In this module, students will learn about operating system utilities. They will also learn how to maintain Microsoft Windows, troubleshoot Microsoft Windows, and recover Microsoft Windows.

Lesson 10: Network Technologies Topics 6 hours theory | 1.5 hours lab	In this module, students will learn about network concepts, network communications, network connectivity, and internet technologies.
Lesson 11: Installing and Managing Network Connections Topics 5 hours theory I 1.5 hours lab	In this module, students will learn to create network connections, install and configure web browsers, and maintain and troubleshoot network connections.
Lesson 12: Supporting Laptops and Portable Computing Devices Topics 6 hours theory | 1.5 hours lab	In this module, students will learn about laptops and portable computing device components. They will also learn how to install and configure laptops and portable computing devices, as well as maintain and troubleshoot laptops and portable computing devices.
Lesson 13: Supporting Printers and Scanners Topics 5 hours theory I 1.5 hours lab	In this module, students will learn about printer and scanner technologies, printer and scanner components, printer and scanner processes, installing and configuring printers and scanners, and maintaining and troubleshooting printers and scanners.
Lesson 14: Personal Computer Security Concepts Topics 5 hours theory I 2 hours lab	In this module, students will learn about security fundamentals, security protection measures, data and physical security, wireless security, and social engineering.
Lesson 15: Supporting Personal Computer Security Topics 5 hours theory I 3 hours lab	In this module, students will learn to install and configure security measures and maintain and troubleshoot security measures.

FANUC Handling Tool Operations and Programming

Clock Hours: 45 (30 Theory | 15 Lab)
Length: 4 Weeks
Credential: Certificate
Delivery Method: Residential
Location: Columbus, Toledo & Youngstown
Prerequisites: None

Description: The FANUC Handling Tool Operations and Programming program is an approved FANUC curriculum that prepares operators, technicians, and programmers to set up and record programs on a robot. The course covers robot operations with the specific tasks required to set up applications, and test and run programs.

Objectives: Upon completion of this program, 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
- Backup/restore the robot controller
- Perform general electric/mechanical preventive and corrective maintenance
- Create and execute Macros

Courses:

Module 1: Fundamentals 6 hours theory I 3 hours lab	In this module, students will be introduced to safety (e-stop, work cell, jog speed), ROBOT overview (axis, controller, pendant), ROBOT power (safe start, safe power down), and ROBOT movement (joint, tool, world).
Module 2: Programming 6 hours theory I 3 hours lab	In this module, students will learn about programs, including programming movements (linear, point to point, touch up points) and running a program (step, tp run, cycle start, hold, abort). They will also learn how to check the software limits and make changes.
Module 3: Editing a Program 6 hours theory I 3 hours lab	In this module, students will learn how to edit commands (insert, delete, copy, rename, renumber), read the status display (led on tp, user screen, i/o, current pos, system variables), and use mastering techniques (zero degree, quick).
Module 4: Maintenance 6 hours theory I 3 hours lab	In this module, students will learn about maintenance, including mechanical, preventative, electrical, and program needs and schedules.
Module 5: Course Review 6 hours theory I 3 hour lab	In this module, program and file manipulation will be covered. Additionally, students will complete a comprehensive post test, review the post test, and complete evaluations.

Google IT Support Professional

Clock Hours: 150 (120 Theory | 30 Lab)
Length: 10 Weeks
Credential: Certificate
Delivery Method: Hybrid
Location: Columbus & Youngstown
Prerequisites: None

Description: This program includes over 100 hours of instruction and practice-based assessments to simulate real-world IT support scenarios. Developed by experienced Google employees, the highly interactive content covers foundational IT skills essential for entry-level jobs. Students will learn troubleshooting, customer service, networking, operating systems, and security through a mix of instruction, videos, assessments, and hands-on labs.

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

- Understand network protocols.
- Utilize cloud computing.
- Operate the Windows operating system.
- Navigate the Linux command line.
- Perform systems administration.
- Apply encryption algorithms and techniques.

Courses:

Course 1: Technical Support Fundamentals 24 hours theory I 6 hours lab	This course is the first of a series that aims to prepare you for a role as an entry-level IT Support Specialist. In this course, you'll be introduced to the world of Information Technology, or IT. You'll learn about the different facets of Information Technology, like computer hardware, the Internet, computer software, troubleshooting, and customer service. This course covers a wide variety of topics in IT that are designed to give you an overview of what's to come in this certificate program.

Course 2: The Bits and Bytes of Computer Networking 24 hours theory I 6 hours lab	This course is designed to provide a full overview of computer networking. We'll cover everything from the fundamentals of modern networking technologies and protocols to an overview of the cloud to practical applications and network troubleshooting.
Course 3: Operating Systems and You: Becoming a Power User 24 hours theory I 6 hours lab	In this course -- through a combination of video lectures, demonstrations, and hands-on practice -- you'll learn about the main components of an operating system and how to perform critical tasks like managing software and users, as well as configuring hardware.
Course 4: System Administration and IT Infrastructure Services 24 hours theory I 6 hours lab	This course will transition you from working on a single computer to an entire fleet. Systems administration is the field of IT that's responsible for maintaining reliable computer systems in a multi-user environment. In this course, you'll learn about the infrastructure services that keep all organizations, big and small, up and running. We'll deep dive on cloud so that you'll understand everything from typical cloud infrastructure setups to how to manage cloud resources. You'll also learn how to manage and configure servers and how to use industry tools to manage computers, user information, and user productivity. Finally, you'll learn how to recover your organization's IT infrastructure in the event of a disaster.
Course 5: IT Security: Defense against the digital dark arts 24 hours theory I 6 hours lab	This course covers a wide variety of IT security concepts, tools, and best practices. It introduces threats and attacks and the many ways they can show up. We'll give you some background of encryption algorithms and how they're used to safeguard data. Then, we'll dive into the three As of information security: authentication, authorization, and accounting. We'll also cover network security solutions, ranging from firewalls to Wifi encryption options. The course is rounded out by putting all these elements together into a multi-layered, in-depth security architecture, followed by recommendations on how to integrate a culture of security into your organization or team.

CNA

Clock Hours: 75 (59 Theory | 16 Lab)

Length: 3 Weeks
Credential: Certificate
Delivery Method: Residential
Location: Columbus & Youngstown
Prerequisites: In addition to the general admissions requirements for NCUS TEC students enrolling in the CNA program must submit the following: Completed policy packet and waiver forms signed and returned, CPR certification, up-to-date physical (within one year), TB test, background check, and drug test.

Description: The CNA program is designed to develop the knowledge and awareness of the techniques, procedures, theory, and practice of the CNA profession. The focus of the curriculum is on the planning, administering, and evaluation of patient care as well as developing the student into a proficient CNA. As the field of patient care grows, and skills are delegated to designated professionals, it is pertinent that competent and trained CNAs are able to provide efficient patient care while adding to the expertise of the medical field. This program will prepare the CNA for the role of the nurse aide in long-term care, verbal and non-verbal communication, human anatomy, patient mental wellness and care, medical emergencies, medical terminology, professionalism, and patient nutrition.

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

- List the duties of an CNA.
- Define legal issues and entities related to patient and medical care.
- Describe the universal precautions as outlined by the CDC.
- Describe body system function and changes related to normal gaining and diseases/disorders.
- Identify infection control procedures and appropriate equipment.
- List the equipment and supplies needed to perform care.
- Describe the steps related to medical emergencies.
- Understand the chain of command.
- Understand the role of charting patient care and identify what to report.
- Identify all factors related to patient care and CNA training as set by the State of Ohio.

Courses:

Module 1 Program Overview 0.5 Theory hours I 0 Clinical hours I 0 Lab hours	**Topic Area I – Introduction to the Training and Competency Evaluation Program – Standard I.1**: • Introduction to the Nurse Aide Training and Competency Evaluation Program (NATCEP). • Overview of the program's goals, structure, and requirements. • Understanding the role and responsibilities of a nurse aide
Module 2 Communication and Interpersonal Skills 4.5 Theory hours I 0 Clinical hours I 0 Lab hours	**Topic Area II – Communication and Interpersonal Skills – Standards II.1 – II.9:** **Standard II.1: Work Environment** • Understanding the importance of a safe and efficient work environment. • Promoting teamwork and cooperation among staff.

	Standard II.2: Role and Responsibility of the Nurse Aide • Defining the scope of practice for nurse aides. • Emphasizing accountability and ethical behavior. **Standard II.3: Policy and Procedure Manuals** • Familiarity with facility policies and procedures. • Ensuring compliance with established guidelines. **Standard II.4: Behavior and Appearance** • Maintaining professional behavior and appearance. • Understanding the impact of personal conduct on resident care. **Standard II.5: Communication and Interpersonal Skills** • Effective verbal and non-verbal communication techniques. • Building rapport and trust with residents and colleagues. **Standard II.6: Communicating and Interacting with Residents with Impairments** • Adapting communication methods for residents with sensory or cognitive impairments. • Ensuring clear and compassionate interactions. **Standard II.7: Resident Comprehensive Assessment, Care Plan, and Care Conference** • Participating in resident assessments and care planning. • Collaborating with the healthcare team during care conferences. **Standard II.8: Legal Responsibilities** • Understanding legal aspects of resident care. • Ensuring compliance with laws and regulations. **Standard II.9: Medical Records**

	• Accurate and timely documentation of resident care. • Maintaining confidentiality and proper handling of medical records.
Module 3 Infection Control 2.0 Theory hours I 0 Clinical hours I 0.5 Lab hours	**<u>Topic Area III – Infection Control – Standards III.1 – III.3:</u>** **Standard III.1: Basic Principles of Infection Control** • Understanding the chain of infection. • Implementing standard precautions to prevent the spread of infections. • Proper hand hygiene techniques. a) Students will be checked off on hand washing skill in lab. **Standard III.2: Practices that Prevent the Growth and Spread of Pathogenic Microorganisms** • Use of personal protective equipment (PPE). • Environmental cleaning and disinfection. • Safe handling and disposal of sharps and waste. **Standard III.3: Signs and Symptoms of Infection** • Recognizing common signs and symptoms of infections. • Reporting and documenting infections. • Understanding the importance of early detection and intervention.
Module 4 Safety and Emergency Procedures 6.5 Theory hours I 0 Clinical hours I 0 Lab hours	**<u>Topic Area IV – Safety and Emergency Procedures – Standards IV.1 – IV.7:</u>** **Standard IV.1 General Safety Practices and Procedures** • Emphasizes maintaining a safe environment for residents and staff. • Covers protocols for preventing accidents and injuries. • Includes guidelines for handling hazardous materials and ensuring proper sanitation. **Standard IV.2 The Use of Oxygen and Oxygen Equipment and Safety Procedures** • Details the correct usage of oxygen and related equipment.

	• Highlights safety measures to prevent accidents related to oxygen use. • Provides instructions on monitoring oxygen levels and ensuring equipment functionality. **Standard IV.3 Fire Prevention and Procedures to Follow in Case of a Fire Disaster** • Focuses on fire prevention strategies within healthcare facilities. • Outlines procedures to follow in case of a fire, including evacuation plans and the use of fire extinguishers. **Standard IV.4 Natural Disaster Preparedness** • Prepares staff for various natural disasters such as earthquakes, floods, and tornadoes. • Includes creating and practicing emergency response plans. • Emphasizes the importance of communication and coordination during disasters. **Standard IV.5 Principles of Ergonomics, Body Mechanics and Body Alignment** • Teaches proper body mechanics to prevent injuries. • Covers ergonomic principles to ensure safe and efficient movement. • Focuses on maintaining proper body alignment during patient care activities. **Standard IV.6 Alternatives to Restraints and Safe Restraint Use** • Discusses alternatives to using physical restraints on residents. • Provides guidelines for the safe use of restraints when necessary. • Emphasizes the importance of monitoring and reassessing the need for restraints. **Standard IV.7 Mobility and Ambulation Techniques** • Covers techniques to assist residents with mobility and ambulation. • Includes the use of assistive devices such as walkers and canes. • Focuses on ensuring resident safety and promoting independence during movement

Module 5 Promoting Residence Independence 1 Theory hour I 0 Clinical hours I 0 Lab hours	**<u>Topic Area V – Promoting Residents' Independence – Standard V.1:</u>** **Standard V.1: Promoting Residents' Independence** • Focuses on encouraging residents to perform daily activities independently to enhance their self-esteem and quality of life. • Includes strategies for assisting residents in a way that promotes autonomy, such as providing choices and respecting their preferences. • Emphasizes the importance of adapting care plans to individual needs and abilities. • Highlights the role of caregivers in supporting residents' physical, emotional, and social independence.
Module 6 Respecting Residents' Rights 1 Theory hour I 0 Clinical hours I 0 Lab hours	**<u>Topic Area VI – Respecting Residents' Rights – Standard VI.1:</u>** **Standard VI.1: Respecting Residents' Rights** • Residents in long-term care facilities (LTCFs) are protected by the same rights as any American citizen under the United States Constitution[1]. • Emphasizes the importance of treating residents with dignity and respect. • Includes ensuring residents' privacy, confidentiality, and the right to make personal choices. • Caregivers are trained to recognize and uphold these rights in all aspects of care. • Highlights the necessity of informed consent and the right to refuse treatment.
Module 7 Basic Nursing Skills 8.5 Theory hours I 6 Clinical hours I 4.5 Lab hours	**<u>Topic Area VII – Basic Nursing Skills – Standards VII.1 – VII.10:</u>** **1.** . **Standard VII.1: Observational Skills** a. Training on how to observe and report changes in residents' conditions accurately. **2. Standard VII.2: Recognizing Changes in Body Functioning**

	a. Identifying and understanding changes in residents' body functions to provide appropriate care. **3. Standard VII.3: Recognizing Signs and Symptoms of Common Diseases** a. Learning to recognize and respond to common diseases and their symptoms in residents. **4. Standard VII.4: The Long-term Care Facility as Home** a. Emphasizing the importance of creating a homelike environment for residents. **5. Standard VII.5: Bed-making Techniques and Comfort Measures** a. Proper techniques for making beds and ensuring residents' comfort. **6. Standard VII.6: Admission and Discharge** a. Procedures for admitting and discharging residents, ensuring a smooth transition. **7. Standard VII.7: Mealtime** a. Assisting residents during mealtime, ensuring nutritional needs are met. **8. Standard VII.8: Nutrition and Fluid Needs** a. Understanding and managing residents' nutrition and hydration requirements. **9. Standard VII.9: Height and Weight** a. Accurately measuring and recording residents' height and weight. **10. Standard VII.10: Observing and Measuring Vital Signs** a. Training on how to observe and measure vital signs such as temperature, pulse, respiration, and blood pressure. Students will be assessed and checked off on skills pertaining to subject matter in the lab. Students will be assessed on their acquired skills at their assigned clinical site taking care of

	residents, under the observation of their nurse instructor.
Module 8 Personal Care Skills 5 Theory hours I 7 Clinical hours I 10.5 Lab hours	**<u>Topic Area VIII – Personal Care Skills – Standards VIII.1 – VIII.8:</u>** 1. **Standard VIII.1: Oral Hygiene** a. Techniques for maintaining residents' oral health, including brushing and denture care. 2. **Standard VIII.2: Bathing** a. Methods for safely assisting residents with bathing to ensure cleanliness and comfort. 3. **Standard VIII.3: Additional Personal Care Skills** a. Training on various personal care tasks such as grooming, dressing, and nail care. 4. **Standard VIII.4: Special Skin Care** a. Identifying and providing care for residents with special skin conditions to prevent complications. 5. **Standard VIII.5: Urinary Elimination/Catheters** a. Managing urinary elimination needs, including catheter care and monitoring. 6. **Standard VIII.6: Toileting** a. Assisting residents with toileting needs while maintaining dignity and hygiene. 7. **Standard VIII.7: Intake and Output** a. Monitoring and recording residents' fluid and food intake and output to ensure proper hydration and nutrition. 8. **Standard VIII.8: Bowel Elimination** a. Assisting with and managing residents' bowel elimination needs to promote comfort and health. Students will be assessed and checked off on skills pertaining to subject matter in the lab. Students will be assessed on their acquired skills at their assigned clinical site taking care of residents, under the observation of their nurse instructor.

Module 9 Mental Health and Social Service Needs 9.5 Theory hours I 2 Clinical hours	**<u>Topic Area IX – Mental Health and Social Service Needs – Standards IX.1 – IX.8:</u>** 1. **Standard IX.1: Basic Facts and Misconceptions about the Elderly** a. Understanding common myths and facts about aging to provide better care. 2. **Standard IX.2: Meeting the Basic Emotional Needs of Residents** a. Techniques for addressing emotional needs to enhance residents' well-being. 3. **Standard IX.3: Rest and Sleep** a. Importance of rest and sleep, and methods to help residents achieve quality sleep. 4. **Standard IX.4: Sexuality in Aging** a. Addressing and respecting the sexual needs and rights of elderly residents. 5. **Standard IX.5: Special Needs Populations** a. Providing care tailored to residents with specific needs, such as those with disabilities. 6. **Standard IX.6: Care of the Confused Resident** a. Strategies for managing and caring for residents with confusion or cognitive impairments. 7. **Standard IX.7: Care of the Resident with Depression** a. Identifying and supporting residents experiencing depression. 8. **Standard IX.8: Care of the Dying Resident** a. Providing compassionate care and support to residents in their final stages of life. Students will be assessed on their acquired skills at their assigned clinical site taking care of residents, under the observation of their nurse instructor.
Module 10 Basic Restorative Services 3 Theory hours I 1 Clinical hours	**<u>Topic Area X – Basic Restorative Services – Standard X.1 – X.3:</u>**

	1. **Standard X.1: Preventing Complications of Immobility** a. Techniques to prevent issues such as pressure ulcers, contractures, and respiratory problems in immobile residents. 2. **Standard X.2: Bowel and Bladder Program** a. Strategies to manage and improve bowel and bladder functions, including scheduled toileting and incontinence care. 3. **Standard X.3: Prosthetic Devices** a. Proper use and care of prosthetic devices to enhance residents' mobility and independence.
Module 11 Residents' Rights 2 Theory hours I 0 Clinical hours I 0 Lab hours	**<u>Topic Area XI – Summary of Resident's Rights – Standard XI.1:</u>** 1. **Standard XI.1: Summary of Residents' Rights** a. **Dignity and Respect**: Residents have the right to be treated with dignity and respect at all times. b. **Privacy**: Ensuring residents' privacy in all aspects of their care. c. **Freedom from Abuse**: Protection from physical, verbal, sexual, and emotional abuse. d. **Participation in Care**: Residents have the right to participate in their own care planning and decisions. e. **Access to Information**: The right to access their medical records and other relevant information. f. **Grievances**: The ability to voice grievances without fear of retaliation. g. **Personal Possessions**: The right to keep and use personal possessions as space permits. h. **Freedom of Choice**: Residents can make choices about their daily lives, activities, and care.

	i. **Safe Environment**: Ensuring a safe and clean living environment.

Cloud Architect

Clock Hours: 40 (20 Theory | 20 Lab)
Length: 10 Weeks
Credential: Certificate
Delivery Method: Hybrid
Location: Columbus
Prerequisites: In addition to the general admissions requirements for NCUS TEC students enrolling in the Cloud Architect program must have completed the Cloud Foundations program or have equivalent experience, including:

- A working knowledge of distributed systems
- Familiarity with general networking concepts
- A working knowledge of multi-tier architectures
- Familiarity with cloud computing concept

Description: Cloud Architect program covers the fundamentals of building IT infrastructure on Amazon Web Services, or AWS. The program is designed to teach solutions architects how to optimize the use of the AWS Cloud by understanding AWS services and how these services fit into cloud-based solutions. Because architectural solutions can differ depending on industry, type of applications, and size of business, this course emphasizes best practices for the AWS Cloud, and it recommends various design patterns to help you think through the process of architecting optimal IT solutions on AWS. It also presents case studies throughout the program, which showcase how some AWS customers have designed their infrastructures, and the strategies and services that they implemented. Finally, this program also provides opportunities to build a variety of infrastructures via a guided, hands-on approach.

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

- Describe how cloud adoption transforms the way IT systems work.
- Describe the benefits of cloud computing with Amazon Web Services.
- Discuss how to design systems that are secure, reliable, high performing, and cost efficient.
- Describe principles to consider when migrating or designing new applications for the cloud.
- Identify the design patterns and architectural options applied in a variety of use cases.
- Define high availability, fault tolerance, and scalability.
- Discuss how to avoid single points of failure.
- List AWS services that have built-in fault tolerance or can be designed for fault tolerance.
- Describe why load balancing is a key architectural component for AWS-powered applications.
- Identify the benefits of Infrastructure as Code.
- Describe how to leverage the capabilities of AWS to support automation.
- Create, manage, provision, and update related resources using AWS CloudFormation.
- Articulate the importance of making systems highly cohesive and loosely coupled.
- Describe system coupling to support the distributed nature of applications built for the cloud.
- Describe database services for storing and deploying web-accessible.
- Compare structured query language—or SQL—databases with NoSQL databases.
- Describe how the AWS Well-Architected Framework improves cloud-based architectures.

- Describe the business impact of design decisions.
- Identify the design principles and best practices of the Operational Excellence pillar.
- Describe how to secure data at every layer in the application.
- Describe the appropriate tools and services to provide security focused content.
- Describe the design principles and the best practices of the Reliability pillar.
- Select computer, storage, database, and networking resources to improve performance.
- Evaluate the most important performance metrics for your applications.
- Follow best practices to eliminate unneeded costs or suboptimal resources.
- Troubleshoot common errors.

Courses:

Module 1: Welcome to Academy Cloud Architecting 2 hours theory I 2 hours lab	In this module, students will understand how to access course materials. They will also create an Amazon Web Service (AWS) training portal account, AWS Free Tier account, and an AWS Educate account.
Module 2: Designing Your Environment 2 hours theory I 2 hours lab	In this module, students will be instructed on how to design systems that are secure, reliable, high performing, and cost efficient. Instruction will highlight principles to consider when migrating existing applications to AWS or designing new ones for the cloud. Students will learn how to identify the various design patterns and architectural options that can be applied in a wide range of scenarios.
Module 3: Designing for High Availability: Section I 1 hour theory I 1 hour lab	In this module, students will learn about key concepts in, including high availability, fault tolerance, and scalability, and students will be instructed on how those concepts are used in cloud architecture. How to avoid single points of failure will be discussed, as well as how to identify which AWS services have built-in fault tolerance, and which services can be designed for fault tolerance. Additionally, students will learn why load balancing has become a key architectural component for many AWS-powered applications.
Module 4: Designing for High Availability: Section II 1 hour theory I 1 hour lab	In this module, students will learn advanced techniques and best practices for crafting highly resilient systems. Students will learn about distributed systems, data replication strategies, fault detection, and recovery mechanisms, scalability principles, and performance optimization strategies. Additionally, students will understand how to design systems capable of withstanding high loads and ensuring continuous availability.
Module 5: Automating Your Infrastructure	In this module, students will learn about the benefits of Infrastructure as Code (IaC), and they will understand how to leverage the capabilities of AWS to support automation initiatives effectively. Discussion will include how to create,

1 hour theory I 1 hour lab	manage, provision, and update a collection of related AWS resources in a systematic and predictable manner using AWS CloudFormation.
Module 6: Decoupling Your Infrastructure 1 hour theory I 1 hour lab	In this module, students will learn the important balance of making systems highly cohesive yet loosely coupled. Discussion will address the multi-dimensional facets of system coupling to support the distributed nature of applications built for the cloud.
Module 7: Designing Web-Scale Media 1 hour theory I 1 hour lab	In this module, students will explore database services designed for efficient and economical storage and deployment of web-accessible content. Students will learn about essential features and benefits offered by Amazon S3, CloudFront, Amazon RDS and Amazon Aurora. Discussion will include a comparison of Structured Query Language (SQL) and NoSQL databases to understand their respective strengths and application in different scenarios.
Module 8: Is Your Infrastructure Well-Architected? 1 hour theory I 1 hour lab	In this module, students will learn about the five pillars of the Amazon Web Services Well-Architected Framework, and how the framework facilitates the review and enhancement of cloud-based architectures. Students will understand the importance of reflecting on the business implications of design choices made during the architectural process.
Module 9: Well-Architected Pillar 1 1 hour theory I 1 hour lab	In this module, students will understand the benefits and applications of the Operational Excellence pillar within the Amazon Web Services Well-Architected Framework, including, running and monitoring systems that will deliver business value, and continually improve processes and procedures. Students will learn about the design principles and best practices associated with the Operational Excellence pillar.
Module 10: Well-Architected Pillar 2 2 hours theory I 2 hours lab	In this module, students will learn about securing data across every layer of an application and identifying the correct tools and services to provide security-focused content. Students will learn about the design principles and best practices associated with the Security pillar of the Amazon Web Services Well-Architected Framework.
Module 11: Well-Architected Pillar 3 1 hour theory I 1 hour lab	In this module, students will understand the ability of a system to recover from infrastructure or service disruptions, dynamically acquire computing resources to meet demand, and mitigate disruptions such as misconfigurations or

	transient network issues. Students will learn about the design principles and best practices associated with the Reliability pillar of the Amazon Web Services Well-Architected Framework.
Module 12: Well-Architected Pillar 4 2 hours theory I 2 hours lab	In this module, students will learn how to optimize the performance of their architecture by selecting the appropriate storage, database, and networking resources. Students will also understand design principles aimed at achieving performance efficiency, and how to evaluate critical performance metrics for their applications.
Module 13: Well-Architected Pillar 5 1 hour theory I 1 hour lab	In this module, students will learn about the principles associated with the Cost Optimization pillar of the Amazon Web Services Well-Architected Framework. Students will understand how to optimize costs of infrastructure and implement best practices to eliminate unnecessary costs or suboptimal resources.
Module 14: Troubleshooting 1 hour theory I 1 hour lab	In this module, students will learn how to troubleshoot common errors, and access various AWS support options.
Module 15: Design Patterns and Sample Architectures 2 hours theory I 2 hours lab	In this module, students will learn about high-availability design patterns, and they will have the opportunity to review different scenarios through examples featuring sample architectures.

Construction Core

Clock Hours: 180 (100 Theory | 80 Lab)
Length: 10 Weeks
Credential: Certificate
Delivery Method: Residential
Location: Columbus
Prerequisites: In addition to the general admissions requirements for NCUS TEC students enrolling in the Construction Core program must possess a current driver's license and car.

Description: The Construction Core program prepares students for entry-level positions on project sites by providing the basics in safety, hand and power tools, construction math, materials handling, construction drawings, rigging and employability skills. The knowledge and skills established in the Construction Core program are the foundation that successful construction careers are built on.

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

- Describe the importance of safety, the causes of workplace incidents, and the process of hazard recognition and control
- Identify whole numbers and demonstrate how to work with them mathematically
- Identify and explain how to use various types of hand tools
- Identify and explain how to use various types of power drills and impact wrenches
- Identify and describe various types of construction drawings, including their fundamental components and features
- Identify and describe various types of rigging slings, hardware, and equipment
- Describe the communication, listening, and speaking processes and their relationship to job performance
- Describe the opportunities in the construction business and how to enter the construction workforce
- Describe the basic concepts of material handling and common safety precautions

Courses:

Module 1: Basic Safety (Construction Site Safety Orientation) 11 hours theory I 9 hours lab	In this module, students will learn about the importance of safety within construction and industrial crafts. Students will learn how to identify and follow safe work practices and procedures, and properly inspect and use safety equipment. Additionally, students will learn the safety practices associated with elevated work, energy release, and various hazards encountered on job sites. Upon successful completion of this module, students will be awarded a Construction Site Safety Orientation credential.
Module 2: Introduction to construction math 11 hours theory I 9 hours lab	In this module, students will be introduced to basic math skills essential in the construction field, including whole numbers and fractions, decimal operations, the four primary math operations, and the reading of rulers and tape measures. Students will also be introduced to the Imperial and metric units of measurement, basic geometric figures, and calculations for area and volume for two-dimensional and three-dimensional objects.
Module 3: Introduction to hand tools 11 hours theory I 8 hours lab	In this module, students will learn how to identify, use, and care for hand tools.
Module 4: Introduction to power tools 11 hours theory I 9 hours lab	In this module, students will learn about various power tools commonly used by construction workers. The construction of each tool will be discussed, alongside guidance on safe usage practices and typical maintenance requirements associated with power tools. NOTE: Students are required to have successfully completed Module 1, Basic Safety (Construction Site Safety Orientation) before starting this module.

Module 5: Introduction to construction drawings 11 hours theory I 9 hours lab	In this module, students will learn skills needed to effectively read and understand construction drawings. This module includes a set of four oversize drawings to facilitate learning.
Module 6: Introduction to basic rigging 12 hours theory I 9 hours lab	In this module, students will be introduced to various types of rigging slings and hardware, detailing their respective uses and proper inspection. Students will also learn about different types of hoists used in rigging, along with common rigging hitches and instructions for making the Emergency Stop hand signal. NOTE: No level of certification or competency is awarded to students after completion of this module; the content is intended solely for familiarization purposes.
Module 7: Basic communication skills 11 hours theory I 9 hours lab	In this module, students will learn essential information and skills needed for effective and clear communication.
Module 8: Basic employability skills 11 hours theory I 9 hours lab	In this module, students will be guided on finding and securing positions within the construction trades. Students will also be provided insight into problem-solving techniques and effective interpersonal interaction, all aimed at ensuring their success in the construction trades.
Module 9: Introduction to materials handling 11 hours theory I 9 hours lab	In this module, students will learn essential safety guidelines for workers handling materials on the job site, including proper procedures and techniques for lifting, stacking, transporting, and unloading materials. Students will be introduced to common motorized and non-motorized material-handling equipment typically found in construction environments.

Basic Fiber / Copper Installer

Clock Hours: 105 (65 Theory | 40 Lab)
Length: 5 Weeks
Credential: Certificate
Delivery Method: Residential
Location: Columbus
Prerequisites: In addition to the general admissions requirements for NCUS TEC students enrolling in the Basic Fiber / Copper Installer program must:

- Pass a colorblind test
- Possess a current driver's license and car
- Possess manual dexterity to complete fine motor tasks
- Be able to stand for extended periods of time
- Be able to Climb ladders
- Be able to Lift and carry items weighing up to 50lbs

- Complete 50 hours of pre-studying prior to class starting

Description: The Basic Fiber / Copper Installer program teaches students how to install communications technology, such as fiber optics, to earn the BICSI Installer 1® (INST1®) certificate. The BICSI Installer 1® (INST1®) certificate is a nonrenewable certificate. It demonstrates entry-level knowledge and skills to install information and communications technology (ICT) systems. The certificate validates basic knowledge of the proper and most current methods of installing ICT-related cabling within the confines of a commercial building structure. Skill sets include but are not limited to pulling cable, terminating, and testing copper and coaxial cable.

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

- Conduct field planning, implementation, and design
- Establish Pathways and Space
- Pull copper and fiber cable
- Terminate copper and fiber cable
- Test copper and fiber cable
- Perform troubleshooting
- Perform retrofits
- Apply concepts of integration and/or coverage to scope of work

Courses:

Module 1: Conduct Field Planning, Implementation, and Design 7 hours theory I 4 hours lab	In this module, students will learn how to identify and distinguish properties and types of copper cable and fiber. They will learn how to interpret blueprints effectively and manage job supplies and materials inventory. Additionally, students will learn how to verify and comply with site safety plans, and label according to a labeling scheme.
Module 2: Establish Pathways and Space 8 hours theory I 4 hours lab	In this module, students will learn how to construct telecommunication spaces (e.g., TRs, ERs, EFs, TEs), as well as install bonding infrastructure and cable support systems. Students will learn how to prepare telecommunication outlets at various locations, including walls, floors, utility columns, modular furniture, ceilings, and exterior areas. Additionally, students will learn how to install cut-in rings (cavity box), sleeves, cores, slots, poke throughs, cable trays, ladder racks, continuous cable support systems, non-continuous cable supports, raceways, cable supports systems under the floor, inner duct for fiber (ENT), and firestop and/or smoke barrier systems.
Module 3: Pull Copper and Fiber Cable 7 hours theory I 4 hours lab	In this module, students will learn how to set up cable pulling operations, install pull strings or ropes in conduits, and pull horizontal telecommunication outlet cables through conduits. Students will also learn how to pull horizontal telecommunication outlet cables in open ceilings and perform backbone-riser cable pulls both from top down and bottom up, as well as horizontal backbone cable pulls.

Module 4: Terminate Copper and Fiber Cable 7 hours theory I 4 hours lab	In this module, students will learn how to perform pre-termination functions and correctly install connecting hardware for both copper and fiber terminations. Students will also learn how to perform copper IDC termination for multi-pair and four-pair cables, coax termination, and fiber termination.
Module 5: Test Copper and Fiber Cable 7 hours theory I 4 hours lab	In this module, students will learn how to perform copper cable testing.
Module 6: Perform Troubleshooting 8 hours theory I 5 hours lab	In this module, students will learn how to perform copper cable troubleshooting.
Module 7: Perform Retrofits 7 hours theory I 5 hours lab	In this module, students will learn how to remove abandoned cables.
Module 8: Apply Concepts of Integration and/or Converge to Scope of Work 7 hours theory I 5 hours lab	In this module, students will learn how to provide a structured cabling system (SCS) to support the installation of various other systems, including paging, sound masking, clock, nurse calls, building automation systems (BAS), life safety, and elevator systems.
Module 9: Codes and Standards 7 hours theory I 5 hours lab	In this module, students will learn how to adhere to local, state, and federal fire and/or building codes and/or standards.

Phlebotomy

Clock Hours: 140 (77.5 Theory | 62.5 Lab)
Length: 5 Weeks
Credential: Certificate
Delivery Method: Residential
Location: Columbus
Prerequisites: In addition to the general admissions requirements for NCUS TEC students enrolling in the Phlebotomy program must submit the following: Completed policy packet and waiver forms signed and returned, CPR certification, up-to-date physical (within one year), TB test, background check, and drug test.

Description: The Phlebotomy program is designed to teach the knowledge in technical and procedural aspects of basic phlebotomy, including collection of blood specimens and venipuncture required to become a Phlebotomy technician. The Phlebotomy program includes theory and hands-on instruction. The program will teach students the concepts of Introduction to Phlebotomy & Infection Control, Legal Issues in Healthcare, Introduction to Human Anatomy & Physiology, Phlebotomy Equipment & Supplies, Phlebotomy Procedures, and Phlebotomy Fundamental Essentials. This program is designed for learners who want to advance their career or are interested in starting a career in the medical field to become a phlebotomy technician.

Students are required to pass a pre-test and have 50 successful venipuncture and 15 capillary sticks prior to sitting for testing through MedCA.

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

- Draw blood from patients, including babies, children, young adults, and elderly patients, as well as those of various health statuses.
- Collect specimens via venipuncture.
- Collect specimens via capillary puncture.
- Collect specimens via arterial puncture.
- Decipher the best method for drawing blood depending on the specific patient.
- Know the order of draw.
- Be proficient in all phlebotomy procedures, including:
    - Blood alcohol testing
    - Blood donation testing
    - Forensic testing of Glucose testing
    - Therapeutic phlebotomy
    - Timed specimen
    - Toxicology tests
- Centrifuge blood samples
- Maintain the integrity of samples.
- Practice infection control standards when working with patients and equipment.
- Practice safety rules
- Practice proper patient identification
- Label vials with patient names and dates
- Complete and submit documents to labs.
- Assemble equipment (needles, collection devices, etc.)
- Label and store collection devices
- Dispose of needles and other used supplies
- Deliver specimen samples to laboratories for testing.
- Document collection ordered tests and test results accurately.
- Be friendly, courteous, and sympathetic when working with patients.
- Assist patients before, during and after procedures.
- Monitor patients during procedures.
- Respect patient rights
- Keep the phlebotomy cart or station well-organized at all times.

Courses:

Module 1 15 hours theory I 0 hours lab	In this module, students will learn about the duties, responsibilities, and safety considerations within the work environment pertinent to the job of a phlebotomy technician.
Module 2 18 hours theory I 2 hours lab	In this module, students will learn about vital signs, blood cells, and blood vessels.

Module 3 11.5 hours theory I 3.5 hours lab	In this module, students will learn about various methods of specimen collection, including venipuncture, capillary puncture, and arterial puncture.
Module 4 15 hours theory I 5 hours lab	In this module, students will learn about specimen collection and transport.
Module 5 16 hours theory I 9 hours lab	In this module, students will learn about specialized phlebotomy procedures, including symptoms, required equipment, testing procedures, and associated guidelines.
Module 6 2 hours theory I 3 hours lab	In this module, students will study the MedCA medical terminology study guide and the MedCA career startup guide. Emphasis will be placed on understanding the importance of certification. Students will receive support in resume writing, gain valuable interview tips, and be introduced to allied healthcare job boards, professional associations, and other allied healthcare resources.
Module 7 0 hours theory I 40 hours lab	In this module, students will complete the Clinical component of the program.

EKG

Clock Hours: 92 (58.5 Theory | 33.5 Lab)
Length: 4 Weeks
Credential: Certificate
Delivery Method: Residential
Location: Columbus
Prerequisites: In addition to the general admissions requirements for NCUS TEC, students enrolling in the EKG program submit the following: Completed policy packet and waiver forms signed and returned, CPR certification, up-to-date physical (within one year), TB test, Gov issued ID, Social Security card, Phone number, address, and email address to be added to the EIDC system.

Description: The EKG program has been designed to give students the knowledge necessary to understand the functions of an EKG technician in the real world and the human heart as it relates to electrocardiography and the functions of an EKG technician. The EKG program seeks to develop in students some general approaches to the knowledge necessary for EKG technicians to work effectively in the field and to engage them in the intellectual work of the discipline. The EKG program is MedCA approved. MedCA is a third-party independent certification agency. Students who complete the program have the opportunity to take a national licensing exam issued by MedCA to become a Nationally Certified EKG Technician.

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

- Take a patient's vital signs
- Understand the anatomy and physiology of the heart
- Prepare patients for an electrocardiogram
- Recognize factors that can affect the test
- Explain the procedure to the patient

- Cleanse the area
- Apply leads to the proper locations
- Perform live EKGs / Interpret live EKGs
- Ascertain when a legible EKG is obtained
- Remove electrodes from the skin
- Document completion

Courses:

Module 1: The EKG Technician 4 hours theory I 1 hour lab	In this module, students will learn about the job duties, equipment, and work environment relevant to the role of an EKG technician. Additionally, students will learn about advancement opportunities within the field, including experience with Holter monitoring, stress testing, Phonocardiography, Echocardiography, and Vectorcardiography.
Module 2: Vital Signs 8 hours theory I 2 hours lab	In this module, students will learn about vital signs, including blood pressure, respiratory rate, and heart rate, and acquire the skills to accurately record them. Students will learn about various methods and devices for measuring body temperature, as well as factors influencing temperature variations. Additionally, students will learn about the types of low and high blood pressure, associated treatments and medications, and testing techniques. Further, students will learn about respiratory rate levels, measurement techniques, as well as heart rate measurements, common pulse sites, abnormal heart rates, and factors that affect heart rate.
Module 3: The Human Heart 15 hours theory I 0 hours lab	In this module, students will learn about the anatomy of the human heart, including the atrium, ventricle, heart valve, blood vessels, and heart node. Students will also learn about blood-oxygen transport, the development of the arterial and venous systems, and the functions of the cardiovascular system which include transport, protection, and regulation.
Module 4: Electrocardiography 26.5 hours theory I 5.5 hours lab	In this module, students will learn the definition and history of electrocardiography, as well as its procedure components, including preparing the patient, conducting the test, and factors that may influence test/results. Students will learn about the components of an EKG, including limb and chest leads of a 12-lead EKG, lead wire coding, printouts, and artifacts. Additionally, students will learn about depolarization, polarization, and repolarization, as well interpreting EKGs (waves, intervals, and segments).
Module 5: Common Medical Conditions	In this module, students will learn about common medical conditions, including arrhythmia, atrial fibrillation,

5 hours theory I 0 hours lab	arteriosclerosis, cardiomyopathy, congestive heart failure, coronary heart disease, heart attack, heart murmur, myocardial ischemia, thrombophlebitis, and ventricular fibrillation.
Module 6: EKG Skills Lab with Skills Testing 0 hours theory I 25 hours lab	In this module, students will practice reading telemetry, placing electrodes, performing EKGs (30), and taking vital signs.

Multi-Skilled Technician

Clock Hours: 307 (195 Theory | 112 Lab)
Length: 12 Weeks
Credential: Certificate
Delivery Method: Residential
Location: Columbus
Prerequisites: In addition to the general admissions requirements for NCUS TEC students enrolling in the Multi-Skilled Technician program must submit the following: Completed policy packet and waiver forms signed and returned, CPR certification, up-to-date physical (within one year), TB test, background check, drug test, Gov issued ID, Social Security card, phone number, address and email address to be added to the EIDC system.

Description: The Multi-Skilled Technician program is designed to teach the knowledge in technical and procedural aspects of basic Phlebotomy, EKG, and CNA (State Tested Nursing Assistant). Students will be able to assist patients with personal care and activities, keep the rooms stocked, cleaned and orderly, obtain vital signs, including height, weight, blood glucose levels, and I &O, perform EKG and phlebotomy as delegated by staff RN, document patient data accurately and completely.

Graduates of the Multi-Skilled Technician program will be qualified for applicable certification or registration in Phlebotomy (MedCA), EKG (MedCA), and CNA (State Exam and Registry), and may seek employment in any area.

Objectives: Upon completion of this program, students will be able to:
Phlebotomy:

- Draw blood from patients, including babies, children, young adults, and elderly patients, as well as those of various health statuses.
- Collect specimens via venipuncture.
- Collect specimens via capillary puncture.
- Collect specimens via arterial puncture.
- Decipher the best method for drawing blood depending on the specific patient.
- Know the order of draw.
- Be proficient in all phlebotomy procedures, including:
    - Blood alcohol testing
    - Blood donation testing
    - Forensic testing of Glucose testing

    - Therapeutic phlebotomy
    - Timed specimen
    - Toxicology tests
- Centrifuge blood samples
- Maintain the integrity of samples.
- Practice infection control standards when working with patients and equipment.
- Practice safety rules
- Practice proper patient identification
- Label vials with patient names and dates
- Complete and submit documents to labs.
- Assemble equipment (needles, collection devices, etc.)
- Label and store collection devices
- Dispose of needles and other used supplies
- Deliver specimen samples to laboratories for testing.
- Document collection ordered tests and test results accurately.
- Be friendly, courteous, and sympathetic when working with patients.
- Assist patients before, during and after procedures.
- Monitor patients during procedures.
- Respect patient rights
- Keep the phlebotomy cart or station well-organized at all times.

EKG:

- Take a patient's vital signs
- Understand the anatomy and physiology of the heart
- Prepare patients for an electrocardiogram
- Recognize factors that can affect the test
- Explain the procedure to the patient
- Cleanse the area
- Apply leads to the proper locations
- Perform live EKGs / Interpret live EKGs
- Ascertain when a legible EKG is obtained
- Remove electrodes from the skin
- Document completion

CNA:

- List the duties of an CNA.
- Define legal issues and entities related to patient and medical care.
- Describe the universal precautions as outlined by the CDC.
- Describe body system function and changes related to normal gaining and diseases/disorders.
- Identify infection control procedures and appropriate equipment.
- List the equipment and supplies needed to perform care.
- Describe the steps related to medical emergencies.
- Understand the chain of command.
- Understand the role of charting patient care and identify what to report.
- Identify all factors related to patient care and CNA training as set by the State of Ohio.

Courses:

Phlebotomy:

Module 1 15 hours theory I 0 hours lab	In this module, students will learn about the job duties, work environment, and safety considerations relevant to the role of a Phlebotomy Technician.
Module 2 18 hours theory I 2 hours lab	In this module, students will learn about vital signs, blood cells, and blood vessels.
Module 3 11.5 hours theory I 3.5 hours lab	In this module, students will learn about various methods of specimen collection, including venipuncture, capillary puncture, and arterial puncture.
Module 4 15 hours theory I 5 hours lab	In this module, students will learn about specimen collection and transport.
Module 5 16 hours theory I 9 hours lab	In this module, students will learn about specialized phlebotomy procedures, including symptoms, required equipment, testing procedures, and associated guidelines.
Module 6 2 hours theory I 3 hours lab	In this module, students will study the MedCA medical terminology study guide and the MedCA career startup guide. Emphasis will be placed on understanding the importance of certification. Students will receive support in resume writing, gain valuable interview tips, and be introduced to allied healthcare job boards, professional associations, and other allied healthcare resources.
Module 7 0 hours theory I 40 hours lab	In this module, students will complete the clinical hours of the program.

EKG:

Module 1: The EKG Technician 4 hours theory I 1 hour lab	In this module, students will learn about the job duties, equipment, and work environment relevant to the role of an EKG technician. Additionally, students will learn about advancement opportunities within the field, including experience with Holter monitoring, stress testing, Phonocardiography, Echocardiography, and Vectorcardiography.
Module 2: Vital Signs 8 hours theory I 2 hours lab	In this module, students will learn about vital signs, including blood pressure, respiratory rate, and heart rate, and acquire the skills to accurately record them. Students will learn about various methods and devices for measuring body temperature, as well as factors influencing temperature variations. Additionally, students will learn about the types of low and high blood pressure, associated treatments and

	medications, and testing techniques. Further, students will learn about respiratory rate levels, measurement techniques, as well as heart rate measurements, common pulse sites, abnormal heart rates, and factors that affect heart rate.
Module 3: The Human Heart 15 hours theory I 0 hours lab	In this module, students will learn about the anatomy of the human heart, including the atrium, ventricle, heart valve, blood vessels, and heart node. Students will also learn about blood-oxygen transport, the development of the arterial and venous systems, and the functions of the cardiovascular system which include transport, protection, and regulation.
Module 4: Electrocardiography 26.5 hours theory I 5.5 hours lab	In this module, students will learn the definition and history of electrocardiography, as well as its procedure components, including preparing the patient, conducting the test, and factors that may influence test/results. Students will learn about the components of an EKG, including limb and chest leads of a 12-lead EKG, lead wire coding, printouts, and artifacts. Additionally, students will learn about depolarization, polarization, and repolarization, as well interpreting EKGs (waves, intervals, and segments).
Module 5: Common Medical Conditions 5 hours theory I 0 hours lab	In this module, students will learn about common medical conditions, including arrhythmia, atrial fibrillation, arteriosclerosis, cardiomyopathy, congestive heart failure, coronary heart disease, heart attack, heart murmur, myocardial ischemia, thrombophlebitis, and ventricular fibrillation.
Module 6: EKG Skills Lab with Skills Testing 0 hours theory I 25 hours lab	In this module, students will practice reading telemetry, placing electrodes, performing EKGs (30), and taking vital signs.

CNA:

Module 1 7 hours theory I 0 hours lab	In this module, students will start with an orientation, which will include reviewing the student handbook/school policies as well as state exam policies and procedures. Required paperwork will be signed and returned. The lecture will cover material from Chapter 1, followed by a quiz on the same chapter. During the lab component students will practice essential skills, including, hand washing,

	gloving/gowning, ambulation using a gait belt, ambulation with a gait belt and walker, stand pivot-transfer from bed to wheelchair using a gait belt, and stand pivot-transfer from wheelchair to bed to bed using a gait belt.
Module 2 7 hours theory I 0 hours lab	In this module, the lecture will cover material from Chapter 2. During the lab component, students will practice essential skills, including, positioning residents in bed on their side, performing Range of Motion exercises for the hips, knees, and each shoulder, applying an anti-embolic stocking to one leg, and weighing an ambulatory resident.
Module 3 7 hours theory I 0 hours lab	In this module, the lecture will finish covering material from Chapter 2, followed by a quiz on the same chapter. Additionally, the lecture will cover material from Chapters 3 and 5. During the lab component, skills previously learned will be reviewed.
Module 4 7 hours theory I 0 hours lab	In this module, the lecture will finish covering material from Chapters 3 and 5, followed by a quiz on the same chapters. Additionally, the lecture will cover material from Chapter 4. During the lab component, students will practice essential skills, including, dressing a resident, using PPE (gown, gloves, goggles or face shield) to feed a dependent resident, hair care, nail care for one hand, making an occupied bed, making an unoccupied bed, using PPE to perform a partial bed bath (face, arm, hand, and underarm), performing perineal care for a female resident with hand washing, performing perineal care for a male resident with hand washing, and changing an adult brief.
Module 5 8 hours theory I 0 hours lab	In this module, the lecture will finish covering material from Chapter 4, followed by a quiz on the same chapter. During the lab component, students will practice essential skills, including, denture care, using PPE to perform mouth care (i.e., teeth brushing), catheter care for female residents with hand washing, use of a bedpan/fracture pan and output management with hand washing, emptying a urinary drainage bag with hand washing, and undergarment changing.
Module 6 8 hours theory I 0 hours lab	In this module, the lecture will cover material from Chapters 6 and 7, followed by a quiz on the same chapters. During the lab component, students will practice essential skills, including, taking vital signs (pulse and respiration), measuring blood pressure (following instructions and demonstration by instructor), and vest restraining (following instructions and illustration by instructor).

Module 7 8 hours theory I 0 hours lab	In this module, the lecture will cover material from Chapters 8, 9, and 10, followed by a quiz on the same chapters. During the lab component, skills previously learned will be reviewed.
Module 8 8 hours theory I 0 hours lab	In this module, students will be tested on applicable medical and procedure abbreviations. During the lab component, skills previously learned will be reviewed.
Module 9 3 hours theory I 8 hours lab	In this module, students will complete Clinical Day 1. The lecture will serve as a recap of information and skills previously learned, and what to expect during clinicals. During the hands-on lab portion, students will complete the skills checklist.
Module 10 3 hours theory I 8 hours lab	In this module, students will complete Clinical Day 2. The lecture will serve as a recap of information and skills previously learned, as well as discussions on topics such as dealing with observing improper procedures and interacting with staff. During the hands-on lab portion, students will continue completing the skills checklist.
Module 11 8 hours theory I 0 hours lab	In this module, previously learned material will be reviewed, followed by a final exam. During the lab component, skills previously learned will be reviewed.
Module 12 6 hours theory I 0 hours lab	In this module, students will receive reminders regarding the state exam policies and procedures. Additionally, information concerning state registry and employment will be covered. Finally, the module will conclude with graduation, marking the culmination of the program.

Certified Industry 4.0 Basic Operations

Clock Hours: 72 (30 Theory | 42 Lab)
Length: 11 Weeks
Credential: Certificate
Delivery Method: Residential
Location: Columbus
Prerequisites: None

Description: The Certified Industry 4.0 Basic Operations training is an introductory credential that prepares individuals to succeed in modern production environments that use Industry 4.0 controls,

automation, and processes. Students will learn the foundational knowledge and skills related to reading schematics, identifying power systems, and the basics of electrical circuits, on which they can continue to build. This certification is appropriate for individuals working in any occupation in advanced manufacturing or wanting to get into the field.

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

- Follow safety procedures and use PPE correctly
- Take accurate measurements
- Interpret blueprints and manufacturing drawings
- Identify and explain a variety power systems
- Describe circuits, voltage, current, and resistance
- Complete basic robot programming

Courses:

Unit 1: Basic Operations 2 hours theory | 1 hour lab	In this unit 1 (Modules 1-3), students will learn the fundamentals of advanced manufacturing, and explore topics such as technology in advanced manufacturing, and the Industrial Internet of Things (IIoT).
Unit 2: Safety Responsibilities 5 hours theory | 4 hours lab	In this unit 2 (Modules 4-14), students will learn safety protocols and practices in the workplace. Topics covered include, safety responsibilities, machine safety, emergency response, handling hazardous materials, fire and electrical safety, personal protective equipment (PPE), and safe equipment operation and material handling.
Unit 3: 3 hours theory | 4 hours lab	In this unit 3 (Modules 15-17), students will learn essential skills related to hand tools, dimensional measurement, and measurement conversion.
Unit 4: 5 hours theory | 6 hours lab	In this unit 4 (Modules 18-22), students will learn the fundamentals of print reading. Topics covered include, multiview drawings, interpreting blueprint dimensions and notes, tolerancing, and understanding manufacturing drawings and scale.
Unit 5: 3 hours theory | 4 hours lab	In this unit 5 (Modules 23-24), students will learn about caliper measurement and micrometer measurement.
Unit 6: 3 hours theory | 3 hours lab	In this unit 6 (Modules 25-27), students will learn about various aspects of power systems, mechanical power, introduction to fluid power, and pneumatic power.
Unit 7: 7 hours theory | 15 hours lab	In this unit 7 (Modules 28-35), students will learn about various aspects of circuits and electrical systems. Students will learn about basic cylinder circuits, electrical circuits, measurement of electrical voltage and current, resistance, power in electrical circuits, control logic, electrical control diagrams, and relay control circuits.

Unit 8: 1 hour theory | 3 hours lab	In this unit 8 (Modules 36-37), students will learn the fundamentals of robot operations and programming
Unit 9: 1 hour theory | 2 hours lab	In this unit 9 (Modules 38-39), students will be introduced to electronic sensors and lean production concepts.
Final Written and Hands-On Exam	Final Exam - Earn Silver Certification. This proctored exam comprises 75 multiple-choice questions and is timed, allowing 90 minutes for completion. Students must achieve a minimum score of 80% to pass and receive certification. Final Hands-on Assessment. Students must pass four out of five scenarios and achieve a minimum score of 75%

Certified Industry 4.0 Advanced Operations

Clock Hours: 45 (20 Theory I 25 Lab)
Length: 6 Weeks
Credential: Certificate
Delivery Method: Residential
Location: Columbus
Prerequisites: Successful completion of Certified Industry 4.0 Basic Operations

Description: The Certified Industry 4.0 Advanced Operations program prepares individuals to analyze and modify modern production control systems that use Industry 4.0 automation technologies and processes. Students will build on their foundational knowledge and learn new skills such as hydraulics, flowcharting, implementing robotics in modules, programming sequences, troubleshooting, and maintenance. This certification is appropriate for individuals in occupations such as maintenance, IT, and engineering seeking to become versed in basic factory floor controls, automation and programming.

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

- Measure and align mechanical advantage
- Explain hydraulic power, connect hydraulic components, and measure force and pressure
- Complete accurate flowcharting
- Design robot programs and execute programming
- Troubleshoot problems and perform maintenance on components
- Analyze modern production control systems
- Modify production control systems that use Industry 4.0 automation

Courses:

Unit 1: Advanced Manufacturing Metrics, Organization, Materials, & Processes	In this unit (Modules 1-4), students will learn about Manufacturing Metrics, Advanced Manufacturing Organization, Manufacturing Materials, and Principles of Manufacturing Processes. Students will learn about critical

2 hours theory I 0 hours lab	performance objectives, productivity metrics, functional areas, material types, and various manufacturing processes. Each module includes self-reviews for reinforcement and comprehension.
Unit 2: Basic Mechanical Elements, Power Efficiency, & Mechanical Power Transmission 1 hour theory I 1 hour lab	In this unit (Modules 5-7), students will learn about Basic Mechanical Elements, Power Efficiency, and Mechanical Power Transmission. Topics include mechanisms, levers, torque, friction types, power transmission systems, coupling methods, and bearing operations. Hands-on skills such as operating levers, measuring mechanical advantage, overcoming friction, installing bearings, and aligning shafts are integrated into the modules. Each module includes self-reviews for reinforcement and assessment.
Unit 3: Gear, Belt, & Chain Drives 2 hours theory I 3 hours lab	In this unit (Modules 8-10), students will learn about Gear Drives, Belt Drives, and Chain Drives, covering gear and belt operation, ratio calculation, alignment, and tensioning. Students will learn about chain operation, sprocket ratio calculation, and sag adjustment. Hands-on skills such as measuring mechanical advantage, aligning, and tensioning drives are integrated into the modules. Each module includes self-reviews for reinforcement and assessment.
Unit 4: Hydraulic Power, Hydraulic Cylinder Circuits, Fluid Power Speed Control, & Fluid Force and Friction 2 hours theory I 5 hours lab	In this unit (Modules 11-14), students will learn about Hydraulic Power, Cylinder Circuits, Fluid Power Speed Control, and Fluid Force and Friction. Topics include unit operation, quick-connect fittings, flow rate measurement, gear pump operation, needle valves, check valves, force calculation, and Pascal's Law. Hands-on skills such as operating hydraulic units, connecting hydraulic components, controlling actuator speed, and measuring force and pressure are integrated into the modules. Each module includes self-reviews for reinforcement and assessment.
Unit 5: Basic Material Handling & Flexible Manufacturing Cells 1 hours theory I 2 hours lab	In this unit (Modules 15-16), students will learn about Basic Material Handling and Flexible Manufacturing Cells. Topics include robot program commands, digital inputs/outputs, applications in material handling, and development, flowchart construction, and applications in multiple machine loading cells. Hands-on skills such as programming, flowcharting, and designing robot programs are integrated into the modules. Each module includes self-reviews for reinforcement and assessment.

Unit 6: Automation Sequence Circuits, Electronic Sensors 2, & PLC operation, ethernet communication, program instruction, project development, & motor controls 8 hours theory I 10 hours lab	In this unit (Modules 17-27), students will learn about Automation Sequence Circuits, Electronic Sensors 2, Programmable Controller Operation, PLC Ethernet Communication, Basic PLC Program Instructions, PLC Project Development, PLC Motor Control, Introduction to Ethernet Networks, HMI Ethernet Operation, PLC Timer Instructions, and PLC Event Sequencing 1. Topics include limit switches, ladder diagrams, electronic sensors, PLC programming languages, Ethernet network configuration, HMI panel operation, timer instructions, and event-driven sequencing. Hands-on skills such as connecting and operating circuits, configuring devices, programming PLCs, and operating HMI panels are integrated into the modules. Each module includes self-reviews for reinforcement and assessment.
Unit 7: Introduction to CNC, Machining, Workspaces, Programming and Operation 2 hours theory I 2 hours lab	In this unit (Modules 28-31), students will learn about CNC Machining, CNC Workspace, CNC Programming and Operation, and CNC Programming with Circular Interpolation. Topics include lathe and milling machine functions, Cartesian coordinate systems, CNC machining center operations, and CNC programming methods. Hands-on skills such as setting part zero, developing CNC programs, and using circular interpolation are integrated into the modules. Each module includes self-reviews for reinforcement and assessment.
Unit 8: PLC Event Sequencing 2, Pick and Place Feeding Station 1 hour theory I 1 hour lab	In this unit (Modules 32-33), students will learn about PLC Event Sequencing 2 and Pick-and-Place Feeding Station. Topics include designing PLC sequence programs, time-driven sequencing, safety interlocks, material feeding systems, and manipulator operations. Hands-on skills such as programming multiple actuator sequences, operating feeding stations, adjusting sensors and grippers, and designing PLC programs for sequencing are integrated into the modules. Each module includes self-reviews for reinforcement and assessment.
Unit 9: Process Reliability and Quality, & Greases 1 hour theory I 1 hour lab	In this unit (Module 34-35), students will learn about Process Reliability and Quality, as well as Greases. Topics include lean culture characteristics, product quality, quality problem response, PDCA cycle, total quality management, root cause analysis, and cause-and-effect diagrams. Additionally, students will explore types of grease, specifications, grease gun operation, and lubrication techniques. Hands-on skills such as responding to quality problems, using 5 Whys analysis, and lubricating bearings with a grease gun are integrated into the modules. Each module includes self-reviews for reinforcement and assessment. At the end of the unit, the student will receive an individualized SACA Test Study Guide to prepare for the final exam.

Final Written and Hands-On Exam	In this unit, students will complete the final written examination to earn their silver certification, as well as the final hands-on assessment to earn their gold certification.

Electrical Systems 1

Clock Hours: 45 (30 Theory | 15 Lab)
Length: 3 Weeks
Credential: Certificate
Delivery Method: Residential
Location: Columbus
Prerequisites: Must have the ability to measure accurately and have basic English proficiency. Students must hold a Certified Industry 4.0 Basic Operations certification prior to enrolling in this training.

Description: The Electrical Systems 1 program covers a wide range of advanced manufacturing topics including basic electrical circuits, electrical measurement, circuit analysis, inductance and capacitance, combination circuits, and the fundamentals of transformers. Students will have the opportunity to work with circuits in a safe, hands-on environment, measuring voltage, current, and resistance, operating relays, calculating power usage, locating faults, and troubleshooting.
Objectives: Upon completion of this program, students will be able to:

- Connect, adjust, operate, troubleshoot, and analyze electrical circuits using basic electrical components, including resistors, capacitors, inductors, DC motors, solenoids, manual switches, relays, fuses, circuit breakers, transformers, and indicators.
- Understand and adhere to electrical safety rules
- Comprehend electrical circuit diagram
- Apply Ohm's Law and Kirchhoff's Rules using digital multimeters
- Interpret series/parallel circuits
- Assess power/circuit protection

Courses:

Module 1: Basic Electrical Circuits 5 hours theory I 2 hours lab	In this module, students will learn about Basic Electrical Circuits, covering the fundamentals of electricity, electrical circuit components, manual input devices, and output devices. Topics include defining electricity, types of electrical current, circuit testers, power supplies, electrical schematics, manual switches, switch contacts, switch operators, output devices, and their schematic symbols. Hands-on skills such as using circuit testers, connecting power supplies, operating manual switches, and connecting various output devices are integrated into the module. Self-reviews are included for reinforcement and assessment.
Module 2: Electrical Measurements 5 hours theory I 2 hour lab	In this module, students will learn about Electrical Measurements, covering voltage measurement, series and parallel circuits, current measurement, and resistance measurement. Topics include defining voltage, using a voltmeter, understanding series and parallel circuits, current measurement using ammeters, and resistance measurement

	using ohmmeters. Hands-on skills such as using analog and digital multimeters to measure voltage, current, and resistance are integrated into the module. Self-reviews are included for reinforcement and assessment.
Module 3: Circuit Analysis 5 hours theory I 3 hour lab	In this module, students will learn about Circuit Analysis, covering power calculation in series and parallel circuits, Kirchhoff's laws, and circuit protection devices. Students will learn to calculate series resistance, apply Ohm's Law, and understand Kirchhoff's Voltage Law. Additionally, students will learn to calculate power usage in series and parallel circuits, determine total parallel resistance, and explore circuit protection mechanisms like fuses and circuit breakers. Hands-on skills such as calculating power usage, resistance, and operating circuit protection devices are integrated into the module. Self-reviews are included for reinforcement and assessment.
Module 4: Inductance and Capacitance 5 hours theory I 3 hour lab	In this module, students will learn about Inductance and Capacitance, covering electromagnetism, inductors, capacitors, and their applications. They will learn about electromagnetic devices, the effects of inductors and capacitors in DC and AC circuits, and how to calculate total inductance and capacitance in series and parallel circuits. Hands-on skills such as operating relays, discharging capacitors, testing components, and calculating circuit loads are integrated into the module. Self-reviews are included for reinforcement and assessment.
Module 5: Combination Circuits 5 hours theory I 3 hour lab	In this module, students will learn about Combination Circuits, covering series-parallel circuits, lighting circuits, voltage dividers, and troubleshooting techniques. They will learn to identify circuit sections, trace current paths, solve combination circuits, and operate lighting and fan circuits. Additionally, students will learn about voltage dividers, design networks, and troubleshoot short and open circuits. Hands-on skills such as connecting and operating various circuit configurations, locating faults, and employing troubleshooting procedures are integrated into the module. Self-reviews are included for reinforcement and assessment.
Module 6: Transformers 5 hours theory I 2 hour lab	In this module, students will learn about transformers, covering their function, operation, sizing, types, and troubleshooting. They will learn to connect and operate transformers, calculate output voltage and current load, and troubleshoot continuity issues. Additionally, students will learn about sizing transformers, understanding power relationships, and designing control transformer circuits. Hands-on skills such as sizing transformers, designing circuits, and exploring transformer types are integrated into the module. Self-reviews are included for reinforcement and

	assessment. At the end of the unit, the student will receive an individualized SACA Test Study Guide to prepare for the final exam.
Final Written Exam & Final Hands-On Assessment	In this unit, students will complete the final written and hands-on assessments.

Community Based Doula Training

Clock Hours: 120 (50 Theory | 70 Lab*)
Length: 10 Weeks
Credential: Certificate
Delivery Method: Residential
Location: Columbus
Prerequisites: In addition to the general admissions requirements for NCUS TEC students enrolling in the Community Based Doula Training program submit the following: Completed policy packet and waiver forms signed and returned, CPR certification, background check, drug test, Gov issued ID, and Social Security card, or school/work visa.

Description: This program prepares students to become Community Based Doulas who are birth workers serving families within varying communities that center on African-descended people, Indigenous families, and people of color. Students will understand the importance of seeing a birthing individual, baby, and partner as a connected unit. This support is responsive to the whole birth experience and considers how physical, emotional, mental, and spiritual experiences impact pregnancy, labor, birth, and the postpartum period.

Community Based Doulas serve in a human rights framework to ensure that all people and families have access to safe, dignified, and culturally relevant care geared toward elevating the platforms of health equity, reproductive justice, and all stages of maternal health. Students will be able to define and practice cultural competence among marginalized groups, learn about trauma-informed care and how to utilize that in their field of work, as well as understand how social determinants of health and institutionalized racism impact black maternal health and cause racial health disparities. After completing this program, graduates will be able to support birthing parents in their community, with a holistic approach to encompass and include the entire family and provide resources to help bridge the game of health disparities and the socioeconomic, mental, health, and welfare of the client and their family.

Students will be trained in the full aspect and scope of a full-spectrum doula, providing prenatal support, birth support, and postpartum support to the client and family. Students will also train in bereavement care and lactation education. Students will also learn the basics of business and marketing, to independently provide services after graduation or to continue to work as staff with local community-based doula businesses to serve the needs of the community. The goal of the Community Based Doula Training program is to reduce barriers and decrease black maternal and infant mortality rates in the

community with the support of a doula, and through spreading advocacy and awareness.

*Note: The Doula program's lab hours may vary due to the unpredictable nature of childbirth and its duration.

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

- Provide information about the childbirth process
- Give prenatal coaching
- Provide person-centered care that honors cultural and family traditions
- Teach and advocate on behalf of the birthing parent during appointment visits
- Share evidence-based information on general health practices pertaining to pregnancy, childbirth, postpartum care, newborn health, and family dynamics
- Offer appropriate emotional support, physical comfort measures, and information to the birthing parent to enable the birthing parent to make informed decisions pertaining to childbirth and postpartum care, and other issues throughout the perinatal period
- Connect the whole birth team including a birthing parent's partner, family members, and other support persons
- Provide evidence-based information on infant feeding to supplement, but not in lieu of, the services of a lactation consultant
- Discuss general breastfeeding guidance and resources
- Teach infant soothing and coping skills to the new parents
- Facilitate access to community or other resources that can improve birth-related outcomes such as ongoing home visiting services; transportation; housing; alcohol, tobacco, and drug cessation; food security, and intimate partner violence resources
- Give emotional and physical support components to the birthing parent during labor and delivery which may include:
    - Prenatal coaching
    - Physical comfort measures during labor and delivery
    - Person-centered care that honors cultural and family traditions
    - Teaching and advocating on behalf of the birthing parent during hospitalization and delivery

Courses:

Unit 1: Introduction to Birth Work 4.5 hours theory I 0 hours lab	In this unit, students will learn about the history of midwifery in the United States and its transition to obstetrics and gynecology. Students will learn about key figures and milestones, including the Father of Modern Gynecology. Students will also learn about the role of granny midwives post-slavery and the emergence of the doula movement in the U.S. Students will understand how the movement has shaped contemporary maternal and reproductive healthcare practices.
Unit 2: Scope of Practice of Medical and Non-Medical Healthcare Professionals 2.25 hours theory I 0 hours lab	In this unit, students will understand who the various professionals are in the delivery room and their roles, including ob/gyn's, midwives, nurses, and doulas. The unit provides in-depth training on the nonclinical role of doulas, emphasizing the boundaries they do not cross. Multiple scenarios will be discussed to ensure students are

	knowledgeable about when to call on a higher level of support.
Unit 3: HIPAA- Health Insurance Portability and Accountability Act 2.75 hours theory I 0 hours lab	In this unit, students will understand HIPAA compliance, including who is subject to HIPAA rules, protection of sensitive health information, and client privacy rights. Students will learn about violation reporting requirements and safe work practices to prevent inadvertent breaches of HIPAA regulations. Through practical examples, students will develop a clear understanding of how to navigate compliance effectively.
Unit 4: Gender Inclusion of the Family and Birthing Parent 3 hours theory I 0 hours lab	In this unit, students will learn about gender based on the World Health Organization's definition, alongside an examination of gender norms. Students will learn about best practices for intake forms and client interviews, to ensure inclusivity and respect for all clients. Additionally, they will learn strategies for supporting and advocating for clients, particularly in sensitive environments like the delivery room, to ensure their preferred pronouns are acknowledged and respected.
Unit 5: Basic Anatomy and Physiology of the Birthing Parent 7 hours theory I 0.5 hours lab	In this unit, students will explore the anatomy of the uterus throughout the stages of pregnancy, from pre-pregnancy to postpartum. Through visual aids, they will learn about breasts, and the structure of the uterus, including ligaments, fascia, placenta, and umbilical cord.
Unit 6: Comorbidities during Pregnancy and Birth Outcomes 4 hours theory I 0 hours lab	In this unit, students will explore the concept of comorbidities and their impact on pregnancy. Students will learn about the interconnectedness of health concerns and how comorbidities can lead to additional complications during pregnancy and childbirth.
Unit 7: Comfort Measures and Positioning 2.25 hours theory I 5 hours lab	In this unit, students will learn about various types of comfort measures used during labor and childbirth, exploring how each aid in pain relief and emotional support. Additionally, students will learn about the importance of position changes during labor and how they can facilitate the progress of labor and optimal fetal positioning for birth.
Unit 8: Supporting different Types of Labor 2.25 hours theory I 42-72 hours lab*	In this unit, students will learn about various types of labors and births, including vaginal, VBAC (vaginal birth after cesarean), surgical (cesarean section), forceps-assisted, vacuum-assisted, and medicated and unmedicated births. Students will learn about the unique challenges and considerations associated with each type of birth, and how to provide effective support through the labor process.
Unit 9: Infection Control 2 hours theory I 0 hours lab	In this unit, students will learn about universal precautions, emphasizing safe hygiene practices, including hand washing, mask wearing, and glove usage.

Unit 10: Marketing and Branding and Entrepreneurship 2.5 hours theory I 2 hours lab	In this unit, students will learn about the essentials of individual business startups, focusing on LLC formation, contract writing, intake forms, web design, social media marketing, and public relations.
Unit 11: Postpartum Support 4 hours theory I 8.5 hours lab	In this unit, students will learn about the postpartum period and strategies to support clients during that transitional phase. They will learn about the physical and emotional changes that occur in the postpartum body, as well as common challenges faced by clients during this time.
Unit 12: Mental Health and Bereavement 4 hours theory I 0 hours lab	In this unit, students will learn about the baby blues and signs of postpartum depression, as well as when higher levels of support may be necessary. Students will also learn about the various types of pregnancy loss, and effective ways to support clients and their families through those challenging experiences.
Unit 13: Advocacy and Empowerment 3.5 hours theory I 0 hours lab	In this unit, students will learn strategies for advocating for clients while empowering them to advocate for themselves. Students will learn techniques for supporting clients without speaking for them, and teach clients to ask pertinent questions. Emphasis will be placed on empowering clients through evidence-based education and affirmations.
Unit 14: Advancement of Education 1.5 hours theory I 0 hours lab	In this unit, students will learn ways to enhance their skills as doulas, including advancing to specialized doula roles and identifying their niche within the field. Students will also learn about additional modalities that can augment their expertise and expand their service offerings.
Unit 15: Racial and Socioeconomic Healthcare Disparities 4.5 hours theory I 0 hours lab	In this unit, students will learn about the impact of social determinants of health on birth outcomes. Students will also learn about cultural and linguistically appropriate services (CLAS) in maternal health care.

RISE Up Customer Service and Retail Fundamentals

Clock Hours: 34.5 (26.5 Theory | 8 Lab)
Length: 3 Weeks
Credential: Certificate
Delivery Method: Residential
Location: Columbus and Youngstown
Prerequisites: None

Description: The RISE Up Customer Service and Retail Fundamentals program provides students with the fundamental skills and knowledge to work successfully with customers in a retail setting, leading to high-satisfaction, repeat business, and word-of-mouth referrals. Learners who earn this certification will master customer service and sales skills, develop basic customer service skills, math skills to conduct

sales transactions, gain an understanding of the retail industry and its impact on the economy and the diverse jobs available. This program is suitable for retail workers and customer focused roles in any industry.

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

- Describe basic customer service skills
- Apply math skills to conduct sales transactions
- Understand the retail industry, its impact on the economy and the diverse jobs available.
- Demonstrate best practices for interviewing and exploring career paths
- Use customer service and sales skills, including understanding the customer life cycle, developing effective strategies to engage customers, assessing customer needs and closing sales
- Demonstrate workplace skills that include problem-solving, working in teams, reading customer body language and increasing customer satisfaction and retention

Courses:

Module 1: Welcome to Retail 3 hours theory I 1 hour lab	In this module, students will learn the intricacies of retail, focusing on multichannel and omnichannel strategies, distribution channels, and the economic impact of retail operations. Students will understand customer behavior, loyalty cycles, and mindsets, as well as the influence of company branding, culture, and the importance of quality service. Further, students will learn about the repercussions of poor customer service.
Module 2: Know Before You Sell 3 hours theory I 1 hour lab	In this module, students will learn about the preparatory steps essential for selling, including product and service understanding, their feature benefits, and the significance of continuous learning. Students will also learn about customer-centric approaches, including understanding customer needs, connecting effectively, and attentive listening to confirm needs.
Module 3: Selling and Service 3 hours theory I 1 hour lab	In this module, students will learn about the dynamics of selling and service. Key concepts include meeting customer needs, delivering personalized service, providing comprehensive solutions with add-on services, overcoming objections, closing sales effectively, and processing transactions efficiently. The module also covers essential skills such as managing cash transactions and handling various payment methods like debit, credit, and mobile payments.
Module 4: Performing Your Best 3 hours theory I 1 hour lab	In this module, students will learn strategies for maximizing performance in customer service roles. Topics include enhancing customer service skills, mastering non-verbal communication, effectively managing multiple customers, addressing complaints, exchanges, and returns, as well as cultivating professionalism and employability attributes. Additionally, students will learn about foundational knowledge, communication styles, workplace

	professionalism, teamwork, problem-solving, goal setting, and utilizing technology for time management.
Module 5: Workplace Readiness 3 hours theory I 1 hour lab	In this module, students will explore essential strategies for workplace readiness. Topics include job search techniques, networking, setting goals and expectations, securing employment, crafting effective resumes, utilizing online job applications, excelling in interviews, skill development, feedback reception and application, building a retail career, and personal career planning.
Exam 1: Customer Service Exam 1.5 hours theory I 0 hours lab	This proctored exam comprises 75 multiple-choice questions and is timed, allowing 90 minutes for completion. Students will receive certification upon successful completion. Areas of focus include: Learns about the company products/services -16% Develops selling skills to meet customer needs- 22% Educates customer, gains commitment, closes sale- 32% Further your customer service skills- 24% Prepares for selling- 6%
Module 6: Customer Service and Sales 3 hours theory I 1 hour lab	In this module, students will explore the intersection of customer service and sales. Topics include honing customer service skills, understanding the role of retail associates in representing the company brand, effective customer engagement, identifying and fulfilling customer needs and wants, personalizing service, and successfully completing sales transactions.
Module 7: Retail Operations 3 hours theory I 1 hour lab	In this module, students will learn about retail operations, including inventory management, marketing strategies, and the use of technology and tools. Students will explore various retail environments such as grocery stores, fast-food establishments, and distribution centers. Additionally, students will learn about essential topics like loss prevention, operational errors, vendor fraud, workplace safety, first aid, and handling emergency situations. Furthermore, students will gain insights into financial concepts such as gross profit, net profit, profit margins, and the distinction between operating expenses and the cost of goods sold.
Module 8: Workplace Readiness 3 hours theory I 1 hour lab	In this module, students will learn workplace readiness skills, including professionalism, maintaining a professional appearance, employability, effective communication, utilizing technology for time management, setting goals and expectations for entry-level retail positions, and completing online job applications.
Exam 2: Retail Industry Fundamentals Exam	This proctored exam comprises 50 multiple-choice questions and is timed, allowing 60 minutes for completion.

1 hour theory I 0 hours lab	Topics on the exam: Introduction to retail - 8% Fundamentals of retail operations - 48% Retail Careers - 44%

Applied Automation Technical Studies

Clock Hours: 772 (350 Theory | 422 Lab)
Length: 32 months
Credential: Certificate
Delivery Method: Residential
Location: Columbus
Prerequisites: None

Description: The Applied Automation Technical Studies program prepares students to succeed in multi-skill maintenance technician positions in modern production environments that use Industry 4.0 technologies. Throughout the program, students have the opportunity to earn 15 or more Smart Automation Certification Alliance (SACA) certifications built on cutting-edge Industry 4.0 technology, which is rapidly transforming the workplace. As companies increase their use of ethernet networks and internet technology, they are connecting more devices, from smart sensors to smart phones, enabling them to reduce downtime and increase quality and productivity. These highly connected systems require new skills in almost every occupation, which include the ability to interact with software, data, networks, and smart devices.

Many certifications are available today that address isolated competencies, from machining to maintenance and IT, but SACA certifications are different. They certify “connected systems” skills that address the integration of these technologies with Industry 4.0 technology.

This program covers a wide range of advanced manufacturing topics including safety, basic hand tools, measurement, print reading, and the fundamentals of mechanical, fluid power, electrical, and automation.

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

- Use the fundamental concepts and terminology of smart manufacturing, including Industry 4.0 controls and automation processes
- Demonstrate proficiency in setting up, adjusting, and operating automated machines while adhering to safety protocols
- Interpret blueprints and schematic diagrams accurately for effective troubleshooting and operation
- Utilize precision measurement tools to ensure accuracy in manufacturing processes
- Demonstrate competency in basic electrical control, pneumatic, and sensor systems operation
- Show proficiency in basic robot operation, including setup, adjustment, and programming
- Monitor production processes effectively using Human-Machine Interface (HMI), internet, Ethernet, and smartphones

- Analyze and modify modern production control systems using Industry 4.0 automation technologies and processes
- Configure and troubleshoot electrical motor control circuits and AC variable frequency drives
- Program, configure, and operate industrial programmable logic controller (PLC) systems for various automation applications

Courses:

C-101: Basic Operations 30 hours theory | 42 hours lab	SACA's C-101 Certified Industry 4.0 Associate I – Basic Operations certification is an introductory credential that prepares individuals to succeed in modern production environments that use Industry 4.0 controls, automation, and processes. This certification is appropriate for individuals working in any occupation in advanced manufacturing.
C-201: Electrical Systems 1 20 hours theory I 5 hours lab	In this course, students will learn the necessary skills to connect, operate, troubleshoot, and analyze electrical circuits employing basic components such as resistors, capacitors, and inductors. Students will learn to work with various devices including DC motors, relays, and transformers, while adhering to electrical safety protocols. Key skills covered include reading circuit diagrams, applying Ohm's Law and Kirchoff's Law, using digital multimeters, and interpreting series/parallel circuits for effective power and circuit protection assessment.
C-205: Sensor Logic Systems 1 20 hours theory I 25 hours lab	In this course, students will learn the essential skills to connect, adjust, and operate discrete electronic sensors and relay control sequences. Students will learn to work with a range of components including inductive sensors, photoelectric sensors, and control relays. Key skills covered include selecting appropriate sensors for specific applications, reading ladder logic circuit diagrams, and interpreting relay-control sequence circuits commonly encountered in industrial settings.
C-209: Pneumatic Systems 1 20 hours theory I 25 hours lab	In this course, students will learn the essential skills to connect, adjust, operate, and analyze pneumatic circuits effectively. Participants will learn to work with various components such as quick connect fittings, directional control valves, and cylinders. Key skills covered include adhering to pneumatic safety protocols, reading pneumatic circuit symbols and diagrams, and applying fundamental principles like Pascal's Law and the Force-Pressure-Area formula.
C-102: Advanced Operations 20 hours theory I 25 hours lab	SACA's C-102 Certified Industry 4.0 Associate II- Advanced Operations certification is an introductory credential that prepares individuals to analyze and modify modern production control systems that use Industry 4.0 automation technologies and processes. This certification is appropriate for individuals in occupations, such as maintenance, IT, and

	engineering seeking to become versed in basic factory floor controls, automation, and programming.
C-202: Electric Motor Control Systems 1 20 hours theory I 25 hours lab	In this course, students will learn the essential skills to connect, adjust, and operate electrical motor control circuits proficiently. Students will gain hands-on experience with various components such as 3-phase AC motors, magnetic motor starters, and control relays. Key skills covered include adhering to motor control safety guidelines, interpreting ladder logic circuit diagrams, and wiring motors for different voltage requirements.
C-210: Mechanical Power Systems 1 20 hours theory I 25 hours lab	In this course, students will learn the essential skills to install, adjust, and analyze basic mechanical power transmission drive systems effectively. Students will gain practical experience with a range of components including motors, shafts, and various types of drives such as chain drives and v-belt drives. Key skills covered include adhering to safety protocols, aligning shafts, calculating speed and torque, and interpreting mechanical efficiency specifications.
C-207: Programmable Controller Systems 1 20 hours theory I 25 hours lab	In this course, students will learn the necessary skills to program, configure, and operate industrial programmable logic controller (PLC) systems proficiently. Students will learn essential tasks such as performing startup and shutdown procedures, operating PLCs in various modes, and monitoring system operation using indicators and PC-based software. Key skills covered include adhering to safety protocols, configuring PLC discrete I/O, and interpreting PLC ladder logic programs for different applications.
C-103: Robot Systems Operations 20 hours theory I 25 hours lab	SACA's C-103 Certified Industry 4.0 Associate III- Robot System Operations certification is an introductory credential that prepares individuals to operate industrial robots and other industry 4.0 technologies in a modern production environment. This certification is ideal for manufacturing technicians, maintenance technicians and IT professionals seeking to become versed in robot system operations.
C-104 Certified Industry 4.0 Associate IV-IIoT, Networking & Data Analytics 20 hours theory I 25 hours lab	SACA's C-104 Certified Industry 4.0 Associate IV - IIoT, Networking & Data Analytics certification is an introductory credential that prepares individuals to program and optimize Industry 4.0 automation technologies such as IIoT, smart sensors/devices, networking, and data analytics software. This certification is ideal for maintenance technicians and IT professionals seeking to become versed in the basics of Industry 4.0 automation.
C-203: Variable Frequency Drive Systems 1	In this course, students will learn the essential skills to connect, configure, and operate AC variable frequency motor drives, focusing on basic volts per hertz mode. Students will learn key tasks such as performing startup and shutdown

20 hours theory I 25 hours lab	procedures, adjusting parameters, and interfacing external discrete I/O. Key skills covered include adhering to safety protocols, interpreting error codes, and configuring acceleration, deceleration, and braking settings.
C-208: Programmable Controller Troubleshooting 1 20 hours theory I 25 hours lab	In this course, students will learn the skills needed to troubleshoot and rectify faults in programmable logic controller (PLC) systems effectively. Students will learn to troubleshoot using digital multimeters, PLC software, and status indicators. Components covered include PLC power supply, processor module, input/output modules, and field I/O devices. Troubleshooting scenarios include multi-step machine sequence logic programs involving electro-pneumatic actuators and on/off motor control systems.
C-213: Smart Sensor and Identification Systems 1 20 hours theory I 25 hours lab	In this course, students will learn to effectively connect, configure, program, monitor, and operate smart sensors, barcode readers, and RFID readers in an Industry 4.0 environment. Key skills include connecting sensors to an Ethernet network, configuring IO-Link Masters, and interpreting sensor status indicators. Participants will also learn to program RFID tags, set up RFID readers, and configure Ethernet-serial converters to communicate sensor data to PLCs.
C-204: Motor Control Troubleshooting 1 20 hours theory I 25 hours lab	In this course, students will learn the skills necessary to troubleshoot and rectify faults in electric motor control circuits and AC variable frequency drives (VFDs). Students will learn to adhere to troubleshooting safety protocols and conduct system troubleshooting using tools such as digital multimeters and clamp-on ammeters. Components covered include AC VFD drives, 3-phase AC motors, motor starters, relays, switches, and various sensors.
C-214: Smart Factory Systems 1 20 hours theory I 25 hours lab	In this course, students will learn to effectively set up, configure, program, and operate smart factory systems utilizing Industry 4.0 technology. Students will learn to integrate various components such as DC-motor belt conveyors, electro-pneumatic actuators, and electronic sensors for applications including pick and place, gauging, and robotic assembly. Key skills covered include adhering to smart factory safety protocols, configuring PLC and robot controllers, and programming multi-station production processes.
C-216: Robot Systems Integration 1 20 hours theory I 25 hours lab	In this course, students will learn to effectively program, interface, and optimize industrial robot systems in an Industry 4.0 automation environment. Students will learn key skills such as interpreting robot programs, developing sequence operations, and entering program points using a teach pendant. Additionally, students will gain proficiency in

	interfacing sensors and solenoid output devices to digital I/O of robots and optimizing cycle times. Program commands covered include various types of motion, speed control, branching, digital I/O, looping, waiting, and macros.
C-212: Ethernet Communications 1 (Elective) 20 hours theory I 25 hours lab	In this course, students will learn to effectively connect, configure, monitor, and operate basic Ethernet networks within an Industry 4.0 environment. Key skills include interpreting and setting IP addresses for various devices such as PCs, PLCs, and robots, as well as connecting devices to the network. Students will also learn to set up and configure managed Ethernet switches, configure network topologies, and monitor network performance using diagnostic software. Additionally, students will gain proficiency in configuring port security for managed switch networks.

Electives:

C-206: Electrical Systems Installation 1 20 hours theory I 25 hours lab	In this course, students will learn how to install and test electrical motor control circuits using a variety of electrical components. Students will gain practical experience with components such as control cabinet enclosures, motor starters, relays, and switches. Key skills covered include adhering to safety protocols, reading electrical wiring diagrams, sizing circuit protection, and wiring motors for different voltage requirements. Additionally, students will learn proper installation techniques, including attaching wires to terminal strips and routing wires with raceways and conduits.
C-304: Pneumatic Troubleshooting 1 20 hours theory I 25 hours lab	In this course, students will learn to troubleshoot and rectify faults in electro-pneumatic PLC-controlled systems efficiently. Students will learn to adhere to troubleshooting safety protocols and conduct system troubleshooting using tools such as digital multimeters and status indicators. Components covered include filters, regulators, solenoid-operated valves, sensors, PLC I/O modules, and various actuators. Key skills include systems troubleshooting, component testing, and interpreting diagnostic indicators.
C-255: Hydraulic Systems 1 20 hours theory I 25 hours lab	In this course, students will learn the necessary skills to connect, adjust, operate, and analyze hydraulic circuits effectively. Students will gain hands-on experience with a range of components including pumps, valves, and cylinders. Key skills covered include adhering to hydraulic safety protocols, reading hydraulic circuit symbols and diagrams, and applying fundamental principles like Pascal's Law and the Force-Pressure-Area formula.

Professional Development/Personal Interest Courses

Adobe Photoshop

Clock Hours: 32 (15 Theory | 17 Lab)
Length: 8 Weeks
Credential: Certificate
Delivery Method: Online (Distance Learning)
Location: Columbus & Youngstown
Prerequisites: None

Description: This 8-week course provides an introduction to Adobe Photoshop. Students will become familiar with graphic design fundamentals and techniques while learning to efficiently operate and utilize the Adobe Photoshop software interface. This course prepares graduates to sit for the Adobe Certified Associate Photoshop certification exam.

Students have the option of attending lab hours in-person.

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

- Identify the purpose, audience, and audience needs for preparing images.
- Demonstrate knowledge of image resolution, image size, and image file format for web, video, and print.
- Identify elements of the Photoshop CC user interface and demonstrate knowledge of their functions.
- Identify and define the functions of commonly used Panels, including the Properties, Layers, Brushes, Adjustments, and Type panels.
- Create a new project.
- Use basic retouching techniques — including color correction, blending, cloning, and filters — to manipulate a digital image.
- Prepare images for export to web, print, and video.

Courses:

Module 1: Introduction 1 hour theory I 1 hour lab	In this module, students will learn about the theoretical aspects of graphic design, and how to navigate key interface elements such as the Toolbar, Menu Bar, Options Bar, and Toolbox. Students will learn how to handle files, including opening existing ones, creating new documents, saving files, reverting changes, and properly closing and quitting Photoshop. Additionally, students will learn about different screen modes, including Standard Screen Mode and Full Screen Mode with

	Menu Bar.
Module 2: Document Window 1 hour theory I 1 hour lab	In this module, students will learn how to select their workspace, utilize keyboard shortcuts and menu options efficiently, and set up preferences for file handling and cursor behavior. Students will learn about the differences between bitmap and vector images, and about image resolution and pixel logic. Additionally, students will learn techniques for altering image properties such as resolution and document size, and editing techniques such as rotating, cropping, resizing, adjusting canvas size and duplicating and hiding images.
Module 3: Layer Style and Filter Effects 1 hour theory I 1 hour lab	In this module, students will learn how to create and edit Smart Objects and apply filters such as the Filter Gallery, Mosaic Tile, Liquify, Vanishing Point, Artistic, Blur, Brush Stroke, Distort, Noise, Sketch, and Render filters.
Module 4: Transforming a Selection 1 hour theory I 1 hour lab	In this module, students will learn about scaling, rotating, distorting, skewing, and warping selections to manipulate images and elements within them. Students will also learn efficient ways for saving and loading selections.
Module 5: Setting the Current Foreground and Background Colors through Pen tool 1 hour theory I 1 hour lab	In this module, students will learn how to use the tools and functionalities in Photoshop, including the Color Picker Dialog Box, Eyedropper, and Painting and Gradient tools. Students will also learn how to navigate the Color Palette and Swatches Palette and use various drawing tools such as the Ellipse Tool, Custom Shape Tool, and Pen Tool.
Module 6: Working with Selections 1 hour theory I 1 hour lab	In this module, students will learn how to utilize a variety of selection tools, including Marquee, Lasso, and Magic Wand to manipulate specific areas of an image. Students will also learn techniques for modifying selections, including adding, subtracting, expanding, and contracting selections, and using commands like Grow and Similar. Additionally, students will learn how to make selections based on color range, refine edges, and inverse selections.
Module 7: Working with color mode 1 hour theory I 1 hour lab	In this module, students will learn about various color modes, including RGB, CMYK, Indexed, Duotone, Grayscale, HSB, Lab, and Multichannel. Students will learn techniques for changing color modes and making color adjustments using tools such as Color Levels, Curves palette, Brightness/Contrast palette, Hue/Saturation, and Histogram palette. Additionally, students will learn about different file formats supported by Photoshop, including Photoshop Document (PSD), Bitmap (BMP), Encapsulated PostScript (EPS), Tagged Image File Format (TIFF), Graphics Interchange Format (GIF), Joint Photographic Experts

	Group (JPEG), and Portable Document Format (PDF).
Module 8: Stationary Items, Advertising Items 1 hour theory I 1 hour lab	In this module, students will learn how to utilize the Paint Bucket, Brush, Pencil, and Color Replacement tools to apply colors, textures, and patterns. Students will learn how to utilize retouching tools such as the Spot Healing Brush, Healing Brush, Patch, Clone Stamp, and Pattern Stamp. and the capabilities of the eraser tools, including the Background Eraser & Magic Eraser. Additionally, students will learn how to use artistic tools such as Blur, Sharpen, Smudge for creative effects, and Dodge, Burn and Sponge for fine-tuning image exposure and color intensity.
Module 9: Layer Style and Filter Effects 1 hour theory I 1 hour lab	In this module, students will learn how to use Layer Style and the Layer Style Dialog Box to apply various effects such as shadows and glows, and overlays to layers. Students will learn methods for copying and clearing layer styles, as well as creating new layers from existing layer styles. Additionally, students will learn how to use filters to apply artistic layers, including techniques for working with Smart Objects.
Module 10: Mastering Layers in Photoshop 2 hours theory I 1 hour lab	In this module, students will learn how to navigate the Layers Palette and manage layers in a project. They will learn how to create new layers, hide and show layers, delete layers and adjust the stacking order of layers to control their arrangement. Students will learn how to merge layers and flatten images to consolidate edits, and use techniques for moving layers between images, as well as link and unlink layers. Additionally, students will learn to apply blend modes, and learn layer masking techniques, including layer masking, vector masking, type masking, and shape masking.
Module 11: Creative Cloud Tutorial Review 1 hour theory I 1 hour lab	In this module, students will review Adobe in the Creative Cloud.
Module 12: ACA TEST Preparation 2 hours theory I 2 hours lab	In this module, students will learn about the Adobe Certified Associate (ACA) test structure, including the different sections and their respective weighting.
Module 13: ACA Test Review 3 hours theory I 2 hours lab	In the module, students will complete practice exams and prepare to sit for the certification test.

Microsoft Office Specialist 2016

Clock Hours: 105 (105 Theory)
Length: 10 Weeks
Credential: Certificate
Delivery Method: Online (Distance Learning)
Location: Columbus & Youngstown
Prerequisites: None

Description: The Microsoft Office Specialist 2016 program provides students with project-based learning in each of the programs in the Microsoft Office Suite. Students are prepared to use these tools professionally or personally. Additionally, this program prepares students to sit for the Microsoft Office Specialist 2016 certification exams in Word, Excel, PowerPoint, Outlook, and Access.
Objectives: Upon completion of this program, 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

Courses:

Module 1: Introduction to Microsoft Excel 6 hours theory	In this module, students will learn how to create a workbook and navigate the interface using the Ribbon and Backstage View (File Menu). They will learn how to enter data, format, and edit worksheets efficiently, as well as how to use formulas for calculations, manipulate rows and columns, and finalize worksheets. Additionally, students will learn about the new features introduced in Excel in 2013 and 2016. Students will be introduced to the Microsoft Excel 2016 Exam.
Module 2: Intermediate Microsoft Excel 2016 6 hours theory	In this module, students will learn advanced formulas for complex calculations and efficient techniques for working with lists and illustrations. They will learn methods for visualizing data effectively, utilizing tables for organizing information, and advanced formatting techniques. Additionally, students will learn more about the new features introduced in Excel in 2013 and 2016, and about the Microsoft Excel 2016 Exam.
Module 3: Advanced Microsoft Excel 2016 5 hours theory	In this module, students will learn how to use pivot tables for summarizing and analyzing large datasets, auditing worksheets to ensure data accuracy, and using data tools for filtering, sorting, and removing duplicates. Students will learn how to record and use macros to automate repetitive tasks, along with several random, but useful features, all while learning to work collaboratively with others. Additionally, students will

	learn more about the new features introduced in Excel in 2013 and 2016, and about the Microsoft Excel 2016 Exam.
Module 4: Microsoft Excel Final Exam 7 hours theory	In this module, students will complete a certification practice test and take a final exam related to Microsoft Excel.
Module 5: Introduction to Microsoft Word 2016 6 hours theory	In this module, students will learn how to create documents, and navigate the interface using the Ribbon, File Tab, and Quick Access Toolbar for navigating and managing documents. Students will learn formatting techniques, editing strategies, and how to finalize a document. Additionally, students will be introduced to the Microsoft Word 2016 Exam.
Module 6: Intermediate Microsoft Word 2016 6 hours theory	In this module, students will learn advanced formatting techniques, including page layout options, working with tables and incorporating images and illustrations. Additionally, students will learn various ways to efficiently view and navigate a document. Students will learn more about the Microsoft Word 2016 Exam.
Module 7: Advanced Microsoft Word 2016 6 hours theory	In this module, students will learn techniques to efficiently manage long documents and use tools for reviewing and collaborating on documents. Students will learn how to compare and combine documents, manage mailings, and protect documents to ensure data integrity and privacy. Students will learn more about the Microsoft Word 2016 Exam.
Module 8: Microsoft Word 2016 Final Exam 6 hours theory	In this module, students will complete a certification practice test and take a final exam related to Microsoft Word.
Module 9: Introduction to Microsoft PowerPoint 2016 6 hours theory	In this module, students will learn how to create presentations efficiently and navigate the interface using the Ribbon, Quick Access Toolbar, and Backstage View (File Menu). Students will learn formatting techniques, including working with images, tables and charts. Additionally, students will learn strategies for finalizing presentations and will be introduced to the Microsoft PowerPoint 2016 Exam.
Module 10: Advanced Microsoft PowerPoint 2016	In this module, students will learn how to customize presentations, including modifying themes, layouts, and slide masters. Students will learn techniques for incorporating

6 hours theory	special effects, such as animations and transitions, and incorporating SmartArt. Students will learn how to integrate multimedia elements into a presentation, set up and deliver slide shows, and organize content with outlines and slides. Additionally, students will learn how to manage multiple presentations, how to share presentations securely, and about the new features introduced in PowerPoint 2016.
Module 11: Microsoft PowerPoint 2016 Final Exam 7 hours theory	In this module, students will complete a certification practice test and take a final exam related to Microsoft PowerPoint.
Module 12: Introduction to Microsoft Outlook 2016 6 hours theory	In this module, students will learn how to navigate the Outlook 2016 interface and perform common tasks. They will learn how to work with messages, including composing, replying to, and organizing emails. Students will learn how to use the calendar feature, including how to schedule appointments, meetings, and tasks to stay organized. Additionally, students will learn how to organize contacts to efficiently communicate and will be introduced to the Microsoft Outlook 2016 Exam.
Module 13: Advanced Microsoft Outlook 2016 6 hours theory	In this module, students will learn how to work with Tasks and Notes to manage their responsibilities, and how to create and manage signatures and themes to personalize their email communications. They will learn strategies for managing an inbox efficiently, including organizing emails, and using filters, as well as how to work with multiple email accounts within Outlook. Students will learn about the new features introduced in Outlook 2016, and more about the Microsoft Outlook 2016 Exam.
Module 14: Microsoft Outlook Final Exam 7 hours theory	In this module, students will complete a certification practice test and take a final exam related to Microsoft Outlook.
Module 15: Introduction to Microsoft Access 2016 6 hours theory	In this module, students will learn about fundamental concepts, and key functionalities of the Access User interface. Students will learn how to use tables and their various views for data organization and manipulation, querying to retrieve specific information, designing forms, and generating reports. Students will become familiar with essential Access database terminology and concepts and will be introduced to the Microsoft Access 2016 Exam.
Module 16: Advanced Microsoft	In this module, students will learn about establishing

Access 2016 6 hours theory	relationships between tables, query techniques, and how to utilize table functions to manipulate and analyze data effectively. They will learn how to design and customize forms, generate comprehensive reports, use macros for automating repetitive tasks, and complete desktop applications. Additionally, students will learn more about the Microsoft Access 2016 Exam.
Module 17: Microsoft Access Final Exam 7 hours theory	In this module, students will complete a certification practice test and take a final exam related to Microsoft Access.

Python Core

Clock Hours: 32 (15 Theory | 17 Lab)
Length: 10 Weeks
Credential: Certificate
Delivery Method: Online (Distance Learning)
Location: Columbus & Youngstown
Prerequisites: None

Description: The Python Core course provides students with foundational knowledge of programming in Python. Python is an interpreted, interactive, object-oriented programming language. It incorporates modules, exceptions, dynamic typing, very high-level dynamic data types, and classes. It supports multiple programming paradigms beyond object-oriented programming, such as procedural and functional programming.

Students have the option of attending lab hours in-person.

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

- Understand and use variables
- Work with common Python data types like integers, floats, strings, characters, lists, dictionaries, as well as pandas DataFrames
- Use basic flow control, including for loops and conditionals
- Read data from text files
- Obtain basic summary statistics from data files

Courses:

Module 1: Basic Concepts 2 hours theory I 1.5 hours lab	In this module, students will be introduced to Python programming and learn simple operations. Students will learn how to work with floats for handling decimal numbers, and exponentiation techniques for calculating quotient and remainder. Students will complete a Module 1 quiz and a code project.
Module 2: Strings & Variables	In this module, students will learn about strings and newline

1 hour theory I 2 hours lab	characters, as well as string operations to manipulate text effectively. Students will learn about variables and techniques for using them efficiently, including taking user input and processing it. Additionally, students will learn about In-place and Walrus operators for more streamlined coding. Students will complete a Module 2 quiz and a code project.
Module 3: Control Structures 2 hours theory I 1.5 hours lab	In this module, students will learn about Boolean data types and comparisons, and If-Else statements. Students will learn about Boolean logic and its application in various scenarios, including age group categorization, and about multiple operators and conditions for complex processes. Students will learn about lists and their operations, including functions for data manipulation, such as finding minimum and maximum values. Additionally, students will learn about loops, including While and For loops, along with range functions. Students will complete a Module 3 quiz and a code project.
Module 4: Functions & Modules 2 hours theory I 2 hours lab	In this module, students will learn code reuse techniques, including functions and function arguments, and about returning values from functions. Students will learn about incorporating comments and docstrings for code documentation and clarity, as well as about treating functions as objects and working with modules. Additionally, students will learn about using the Python Standard Library and pip for accessing external modules. Students will complete a Module 4 quiz and a code project.
Module 5: Exceptions & Files 1 hour theory I 1.5 hours lab	In this module, students will learn about exceptions and how to handle them effectively using exception handling techniques. Students will learn concepts such as 'finally' for cleanup operations, about raising expectations, and how to use assertions for debugging. Additionally, students will learn file operations including opening, reading, and writing, along with techniques for working with files efficiently. Students will complete a Module 5 quiz and a code project.
Module 6: More Types 1 hour theory I 1.5 hours lab	In this module, students will learn about concepts such as 'None,' and data structures such as dictionaries and tuples, and functions specific to dictionaries. Students will learn list manipulation techniques such as list slices and list comprehensions, and string formatting techniques. Additionally, students will learn about useful built-in functions and text analyzing. Students will complete a Module 6 quiz and a code project.
Module 7: Functional Programming	In this module, students will learn about lambda functions

1 hour theory I 1.5 hours lab	and their applications, as well as the use of map and filter applications for data manipulation. Students will learn about generators, decorators, recursion sets, and itertools. Students will complete a Module 7 quiz and a code project.
Module 8: OOP 2 hours theory I 2 hours lab	In this module, students will learn about Object-Oriented Programming (OOP) concepts, including classes, inheritance, and magic methods, including operator overloading. Additionally, students will learn about the object lifecycle, data hiding techniques, class-static methods for efficient code organization, and properties for managing attribute access. Students will complete a Module 8 quiz and a code project.
Module 9: Regular Expressions 1 hour theory I 1.5 hours lab	In this module, students will learn about regular expressions to match and manipulate text, metacharacters, character classes, groups, and special sequences for constructing complex search patterns. Additionally, students will learn about email extraction and building a contacts database. Students will complete a Module 9 quiz and a code project.
Module 10: Pythonicness & Packaging 2 hours theory I 2 hours lab	In this module, students will learn about the Zen of Python philosophy, Python Enhancement Proposals (PEP), and more about function arguments. Students will learn about tuple unpacking, the ternary operator, more on the usage of Else statements, and the significance of the _ _ main_ _ method. Additionally, students will learn about major third-party libraries, and the concepts of packages in Python, and packaging code for distribution to users. Students will complete a Module 10 quiz and a code project.

Excel

Clock Hours: 21.5 (16.5 Theory I 5 Lab)
Length: 8 Weeks
Credential: Certificate
Delivery Method: Online (Distance Learning)
Location: Columbus & Youngstown
Prerequisites: None

Description: In the Excel course, students will learn and be able to demonstrate the fundamentals of creating and managing worksheets and workbooks, creating cells and ranges, creating tables, applying formulas and functions, and creating charts and objects.

Students have the option of attending lab hours in-person.

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

- Important data into workbooks
- Format worksheets
- Customize options and views
- Manipulate data and worksheets
- Define in reference name ranges
- Create and format tables
- Filter and sort data
- Calculate transformed data
- Create charts
- Format charts
- Navigate within workbooks
- Format workbooks
- Modify tables

Courses:

Module 1: Excel Manage Worksheets and Workbooks 3 hours theory I 1 hours lab	In this module, students will be introduced to Excel, learning how to import data, navigate workbooks, format worksheets and workbooks, customize options and views, and configure content for collaboration. Students will complete a quiz.
Module 2: Manage Data Cells and Ranges 3 hours theory I 1 hours lab	In this module, students will learn about managing data cells and ranges, manipulating data within worksheets, defining and referencing named ranges, and summarizing data. Students will complete a quiz.
Module 3: Manage Tables and Table Data 3 hours theory I 1 hours lab	In this module, students will learn about managing tables and table data, including creating and formatting tables, as well as modifying, filtering, and sorting table data. Students will complete a quiz.
Midterm Exam 0 hours theory I 0 hours lab	Mid Term will be 35 practice questions (which covers modules 1-3). This exam will prepare students for the final exam
Module 4: Perform Operations by Using Formulas and Functions 4 hours theory I 1 hours lab	In this module, students will learn about performing operations using formulas and functions. Students will learn about inserting references, calculating and transforming data, and formatting and modifying text. Students will complete a quiz.
Module 5: Manage Charts 3.5 hours theory I 1 hours lab	In this module, students will learn how to create and modify charts, as well as how to format them effectively. Students will complete a quiz.

Final Exam 0 hours lab	For the final exam, students must achieve a minimum score of 700 to pass.

Academic Calendar & Holidays

NCUS TEC locations are closed on the following holidays and breaks:

Date	Holiday /Break
January 1	New Year's Day
January 19	Martin Luther King's Day
February 16	Presidents' Day
April 3	Good Friday
May 25	Memorial Day
June 19	Juneteenth
July 4	Independence Day
August 10	Building Closed
September 7	Labor Day
November 26 - 27	Thanksgiving Holiday
December 22 - 31	Holiday Break

The start dates and enrollment cycles for each of the Vocational Programs are listed below for the Columbus and Youngstown campuses. For information on start dates for the Avocational Programs (Personal Interest/Professional Development), please contact the campus.

Columbus Academic Calendar

Program	2025 Start Date	Enrollment Cycle
CNA	Jan 20, 2026 *(Tuesday start in observance of MLK Day)*	Cohorts start every 4 weeks on Mondays, which includes a 1 week break between starts

Phlebotomy	Jan 20, 2026 *(Tuesday start in observance of MLK Day)*	Cohorts start every 6 weeks on Mondays, which includes a 1 week break between starts
EKG	Jan 20, 2026 *(Tuesday start in observance of MLK Day)*	Cohorts start every 4 weeks on Mondays, which includes a 1 week break between starts
Multi-Skilled Technician	Jan 20, 2026 *(Tuesday start in observance of MLK Day)*	Cohorts start every 13 weeks on Mondays, which includes a 1 week break between starts
Basic Fiber / Copper Installer	Jan 20, 2026	Cohorts start every 6 weeks on Mondays, which includes a 1 week break between starts
Cloud Foundations	Jan 20, 2026	Cohorts start every 7 weeks on Mondays, which includes a 1 week break between starts
Construction Core	Jan 20, 2026	Cohorts start every 11 weeks on Mondays, which includes a 1 week break between starts
CompTIA A+	Jan 20, 2026 *(Tuesday start in observance of MLK Day)*	Cohorts start every 11 weeks on Mondays, which includes a 1 week break between starts
Cloud Architect	Jan 20, 2026	Cohorts start every 11 weeks on Mondays, which includes a 1 week break between starts
FANUC Handling Tool Operations and Programming	Jan 20, 2026	Cohorts start every 5 weeks on Mondays, which includes a 1 week break between starts
Google IT Support Professional	Jan 20, 2026	Cohorts start every 6 months on Mondays, with an additional 1 week break between starts
Applied Automation Technical Studies	Jan 20, 2026	Cohorts will be offered three times a year; fall, spring, and summer sessions.
Certified Industry 4.0 Basic Operations	Jan 20, 2026	Cohorts start every 10 weeks on Mondays
Certified Industry 4.0 Advanced Operations	Jan 20, 2026	Cohorts start every 10 weeks on Mondays
Community Based Doula Training	Jan 20, 2026	Cohorts every 10 weeks on Mondays

Electrical Systems 1	Jan 20, 2026	Cohorts start every 9 weeks on Mondays
RISE Up Customer Service and Retail Fundamentals	Jan 20, 2026	Cohorts start the last Monday of each month

Youngstown Academic Calendar

Program	2025 Start Date	Enrollment Cycle
FANUC Handling Tool Operations and Programming	Jan 20, 2026	Cohorts start every 5 weeks on Mondays, which includes a 1 week break between starts
CNA	Jan 12, 2026	Cohorts start every 4 weeks on Mondays, which includes a 1 week break between starts
RISE Up Customer Service and Retail Fundamentals	Jan 20, 2026	Cohorts start the last Monday of each month

Toledo Academic Calendar

Program	2025 Start Date	Enrollment Cycle
FANUC Handling Tool Operations and Programming	Jan 12, 2026	Cohorts start every 5 weeks on Mondays, which includes a 1 week break between starts
Phlebotomy	Feb 23, 2026	Cohorts start every 4 weeks on Mondays, which includes a 1 week break between starts

Faculty

Healthcare:

Tonja Lowe
Healthcare Department Chair, Columbus, Toledo & Youngstown
Programs taught: Multi-Skilled Technician, Phlebotomy, EKG, CNA

Alisha Saffold
Healthcare Instructor – PT (Columbus)
Programs taught: Multi-Skilled Technician, Phlebotomy

Destiny Daniels-Rogers
Doula Instructor – FT (Columbus)
Programs taught: Community Based Doula Training

Kimberly Burns
Healthcare Instructor – FT (Youngstown)
Programs taught: CNA

Veronica Gilcrease
Healthcare Instructor – PT (Columbus)
Programs taught: Multi-Skilled Technician, EKG, CNA

Zorianna Goins
Healthcare Instructor – PT (Columbus)
Programs taught: Multi-Skilled Technician, EKG, CAN

Kimberly Sanders
Healthcare Instructor – PT (Toledo)
Programs taught: Phlebotomy

Advanced Manufacturing:

Mark Waterstreet
Advanced Manufacturing Department Chair, Columbus, Toledo & Youngstown
Programs taught: FANUC Handling Tool Operations and Programming, Basic Fiber/Copper Installer, Applied Automation Technical Studies, Certified Industry 4.0 Basic Operations, Certified Industry 4.0 Advanced Operations, Electrical Systems 1

Charles Nabrit
Advanced Manufacturing Manager
Programs taught: FANUC Handling Tool Operations and Programming, Basic Fiber/Copper Installer, Applied Automation Technical Studies, Certified Industry 4.0 Basic Operations, Certified Industry 4.0 Advanced Operations, Electrical Systems 1

Charles Rogers
Advanced Manufacturing Instructor – FT (Columbus)

Programs taught: FANUC Handling Tool Operations and Programming, Basic Fiber/Copper Installer, Applied Automation Technical Studies, Certified Industry 4.0 Basic Operations, Certified Industry 4.0 Advanced Operations, Electrical Systems 1

Pamela Szmara
Advanced Manufacturing Instructor – FT (Youngstown)
Programs taught: FANUC Handling Tool Operations and Programming

Paul Reimer
Advanced Manufacturing Instructor – FT (Toledo)
Programs taught: FANUC Handling Tool Operations and Programming

Tyee Julius
Advanced Manufacturing Instructor, TA – FT (Columbus)
Programs taught: FANUC Handling Tool Operations and Programming, Basic Fiber/Copper Installer, Applied Automation Technical Studies, Certified Industry 4.0 Basic Operations, Certified Industry 4.0 Advanced Operations, Electrical Systems 1

Construction:

Bruce Leimbach
Construction Instructor – PT (Columbus)
Programs taught: Construction Core

Technology:

Christopher Powell
IT Department Manager – FT (Columbus)
Programs taught: Google IT Support Professional, Microsoft Office, Excel 2016, CompTIA A+, and avocational courses

George Jett
Technology Instructor, IDL – PT (Columbus)
Programs taught: Google IT Support Professional and avocational courses

James Miao
Technology Instructor – PT (Columbus)
Programs taught: Cloud Architect, Cloud Foundations, CompTIA A+, and avocational courses

Tasha Penwell
Technology Instructor – PT (Columbus)
Programs taught: Cloud Foundations, Cloud Architect, and avocational courses

Hospitality and Tourism:

Angela Cobb
Instructor – FT (Columbus)
Programs taught: RISE Up Customer Service and Retail Fundamentals

Ronanda Palmer
Instructor – PT (Youngstown)

Programs taught: RISE Up Customer Service and Retail Fundamentals

Class Size

NCUS TEC does not exceed a maximum student-to-teacher ratio of 32 to 1 in the classroom and 16 to 1 in the lab.

FINANCIAL INFORMATION AND POLICIES

Vocational Program Costs

Applied Automation Technical Studies

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$28000.00
Books & Supplies	$0
Other	$0
Total	**$28050.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Basic Fiber/Copper Installer

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$2500.00
Books & Supplies	$0
Other	$0
Total	**$2550.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Certified Industry 4.0 Advanced Operations

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$2500.00
Books & Supplies	$0
Other	$0
Total	**$2550.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Certified Industry 4.0 Basic Operations

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$2500.00
Books & Supplies	$0
Other	$0
Total	**$2550.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Cloud Architect

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$2000.00
Books & Supplies	$0
Other	$0
Total	**$2050.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Cloud Foundations

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$2000.00
Books & Supplies	$0
Other	$0
Total	**$2050.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Community Based Doula Training

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$2500.00
Books & Supplies	$0
Other	$0
Total	**$2550.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

CompTIA A+

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$2375.00
Books & Supplies	$0
Other	$0
Total	**$2,425.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Construction Core

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$1500.00
Books & Supplies	$0
Other	$0
Total	**$1550.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

EKG

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$900.00
Books & Supplies	$0
Other	$0
Total	**$950.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Electrical Systems 1

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$1500.00
Books & Supplies	$0
Other	$0
Total	**$1550.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

FANUC Handling Tool Operations and Programming

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$2000.00
Books & Supplies	$0
Other	$0
Total	**$2050.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Google IT Support Professional

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$2500.00
Books & Supplies	$0
Other	$0
Total	**$2550.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Multi-Skilled Technician

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$2500.00
Books & Supplies	$0
Other	$0
Total	**$2550.00**

All tuition and fees are payable for two school terms. Any refund calculation will be completed per the refund policy based on two terms of obligation.

Phlebotomy

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$920.00
Books & Supplies	$0
Other	$0
Total	**$970.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

RISE UP Customer Service and Retail Fundamentals

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$500.00
Books & Supplies	$0
Other	$0
Total	**$550.00**

All tuition and fees are payable for one school term. Any refund calculation will be completed per the refund policy based on one term of obligation.

CNA

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$570.00
Books & Supplies	$0
Other	$0
Total	**$620.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Professional Development/Personal Interest Program Costs

Adobe Photoshop

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$1500.00
Books & Supplies	$0
Other	$0
Total	**$1550.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Microsoft Office Specialist 2016

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$1500.00
Books & Supplies	$0
Other	$0
Total	**$1550.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Python Core

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$1500.00
Books & Supplies	$0
Other	$0
Total	**$1550.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Excel

Charge	Amount
Registration Fee (non-refundable)	$50.00
Tuition	$1500.00
Books & Supplies	$0
Other	$0
Total	**$1550.00**

All tuition and fees are payable for one school term only. Any refund calculation will be completed per the refund policy based on one term of obligation.

Financial Aid and/or Assistance

NCUS TEC works to make training affordable for students by maintaining low program costs and providing a variety of assistance options to applicants and students.

Scholarships that fund up to the entire cost of the program are available to students who qualify.

NCUS TEC is also approved as a training provider through local workforce investment programs, like WIOA. NCUS TEC will assist students in searching for and completing necessary forms and will provide any required information to the agency; however, it is ultimately the student's responsibility to complete the required process to obtain funding.

Payment Options and Procedures

Prospective students make financial arrangements with NCUS TEC as part of the enrollment procedure and the payment terms are indicated on the enrollment agreement.

Students must pay for training in full, which may include scholarships, or have an accepted payment agreement on or before the first day of class.

NCUS TEC accepts the following payment types: approved grants and/or scholarships, major credit cards (Visa, Mastercard, AMEX, Discover), money orders, and checks.

The Ohio State Board of Career Colleges and Schools (OSBCCS) defines a term of tuition obligation as 300 clock hours. This means that for a program of more than 300 clock hours, there are two or more payment terms. These terms are defined on the enrollment agreement and payment is collected per the defined terms. In the case of a voluntary or administrative withdrawal, the refund calculation is completed based on the term in which the withdrawal occurred. Tuition and fees for any term that has not been started are fully refundable.

Tuition and fees are subject to change. NCUS TEC reserves the right to change the amount and applicability of tuition and fees as necessary without prior notice. Any tuition or fee increases will become effective for the school term following student notification of the increase.

Collections Policy

Any account balance **90 days past due** will be turned over to an independent, outside collections agency. When this happens, no payments will be accepted by NCUS TEC. The cost of the outside collection agency and any legal fees will be added to the total amount owed. At the same time, the debt will be reported to the Credit Bureaus. Students and/or graduates will not be eligible to receive official transcripts or register for further programs at NCUS TEC until they have paid their account in full.

Cancellation and Refund Policy

Student's Right to Cancel

Rejection: If the student is not accepted into the training program, all monies paid by the student shall be refunded.

No-Show: An applicant who does not show up for the first day of class is entitled to a refund of all monies paid, less the non-refundable registration fee.

Five-Day Cancellation: An enrollment agreement or school application may be canceled within five calendar days after the date of signing provided the school is notified of the cancellation in writing. The school shall promptly refund in full all tuition and fees paid pursuant to the enrollment agreement or school application. Such refund shall be made no later than thirty days after cancellation. This provision shall not apply where a student has already started classes.

Cancellation Prior to the Start of Class and Other Cancellations: An applicant requesting cancellation more than five (5) days after executing the enrollment agreement and making an initial payment, but prior to the first day of class is entitled to a refund of all monies paid, less the non-refundable registration fee.

Ohio State Board of Career Colleges and Schools Refund Policy
Refunds for books, supplies, and consumable fees shall be made in accordance with Ohio Administrative Code section 3332-1-10.1. Refunds for tuition and refundable fees shall be made in accordance with the following provisions as established by Ohio Administrative Code section 3332-1-10:

(1) A student who withdraws before the first class and after the 5-day cancellation period shall be obligated for the registration fee.

(2) A student who starts class and withdraws before the academic term is 15% completed will be obligated for 25% of the tuition and refundable fees plus the registration fee.

(3) A student who starts class and withdraws after the academic term is 15% but before the academic term is 25% completed will be obligated for 50% of the tuition and refundable fees plus the registration fee.

(4) A student who starts class 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.

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

NCUS 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 upon the last date of a student's attendance or participation in an academic school activity.

ACCET Refund Policy
NCUS TEC is accredited by the Accrediting Council for Continuing Education & Training (ACCET). For any institutional withdrawal or voluntary withdrawal both the institution's (Ohio State Board of Career Colleges and Schools) policy and ACCET policy are applied and the amount that is more favorable to the individual student is refunded.

A. The institution may retain an administrative fee associated with withdrawal or termination not to exceed $100.
B. During the first week of classes, tuition charges withheld will not exceed 10 percent (10%) of the stated tuition up to a maximum of $1,000. When determining the number of weeks completed by the student, the institution will consider a partial week the same as if a whole week were completed, provided the student was present at least one day during the scheduled week.

C. After the first week and through fifty percent (50%) of the period of financial obligation, tuition charges retained will not exceed a pro rata portion of tuition for the training period completed, plus ten percent (10%) of the unearned tuition for the period of training that was not completed.
D. After fifty percent (50%) of the period of financial obligation is completed, the institution may retain the full tuition.