Exploring Michigan Career and Technical Institute as a Post-Secondary Education Option

Kerrie Jackson — MCTI Vocational Rehabilitation Counselor Mandy Matthews — MCTI Vocational Rehabilitation Counselor Sen Toda — MCTI Vocational Rehabilitation Manager

What is MCTI?

- Accredited postsecondary institution that provides Career and Technical Education
 - Career Assessment Services
 - 13 Trades
- Designed for students with disabilities
- Located on Pine Lake in Plainwell, MI
 - Halfway between Kalamazoo and Grand Rapids

Michigan Rehabilitation Services (MRS)

- MRS is a statewide network of vocational rehabilitation (VR) professionals developing creative, customized solutions that meet the needs of individuals and business. MRS delivers individualized services that assist potential employees with differing abilities to prepare for, pursue and retain careers
- MCTI is a division of MRS
- Students can connect with MRS during their high school years via Pre-ETS and transition services
- Students who enroll in MCTI with a referral from MRS receive free tuition, room, board, books, and uniforms



Career and Technical Education

Prepares students for careers in specific skilled trades, applied sciences, and technologies. Technical colleges are singularly focused on preparing students for jobs in the real world.

- Council on Occupational Education (COE)

Postsecondary Career and Technical Education Effectiveness

- Hollenbeck 2011 Report
 - Increased short-term employment and earning outcomes
 - Average wage rates over \$3.00 higher than appropriate comparison groups
 - Quarterly earnings greater than \$1500 more than appropriate comparison groups
 - Increased long-term employment and earning outcomes
 - Average wage rates over \$2.00 higher than appropriate comparison groups
 - Quarterly earnings greater than \$1000 more than appropriate comparison groups
 - Reduced reliance on most public benefits
 - Unemployment
 - Food Stamps
 - Medicaid
 - Positive return on investment
 - Participants contribute more financially to society than it costs to operate CTE programs

Michigan Career and Technical Institute's Effectiveness

- Hollenbeck 2021 Report
 - "High quality career and technical education delivered in a setting that offers residential housing during the training period may be efficacious for many transition-age youth with disabilities receiving SSI."
 - MCTI training in a residential setting has a positive impact
 - "The independent living skills and socialization that occurs in the dormitory enhance participants' self-efficacy and reinforce the positive employment outcomes from the training."
 - High placement rates and initial wages for youth with disabilities who have completed high school.

Facts about MCTI



Campus is located on 72 acres with access to 700 feet of Pine Lake



MCTI has been in operation since 1944



Dormitories are attached to the main building and house 350 students



MCTI has assessment services, remediation services and 13 trade training programs



Students do not have to have an IEP, HS Diploma or a GED to attend MCTI

MCTI Demographics – Students Served

	2021-2022	2020-2021	2019-2020
Students Served	346	536	893

MCTI Demographics – Age

	2021-2022	2020-2021	2019-2020
Age 18-22	79.1%	84.4%	84.7%
Age 23-26	16.0%	11%	11.1%
Age 27-31	3.9%	3.4%	3.1%
Age 32-35	0.5%	0	0.4%
Age 36-45	0.5%	0.8%	0.3%
Age 46+	0	0.3%	0.1%
Unknown	0	0.1%	0.1%

MCTI Demographics – Gender

	2021-2022	2020-2021	2019-2020
Male	80.6%	75.8%	78.4%
Female	18.7%	23.1%	21.1%
Did not wish to self-identify	0.7%	0.2%	0.4%

MCTI Demographics – Ethnicity

	2021-22	2020-21	2019-20
White	78.6%	76.4%	77.4%
Black/African American	12.3%	11.5%	12%
Multi-Racial*	7.4%	9.5%	8.7%
American Indian or Alaskan Native	0.5%	1%	.6%
Asian	1.2%	1.2%	1%
Arab	N/A	.3%	.1%
Native Hawaiian or Other Specific Islander	N/A	.5%	.1%
Hmong	N/A	0	0

MCTI Demographics – Disability

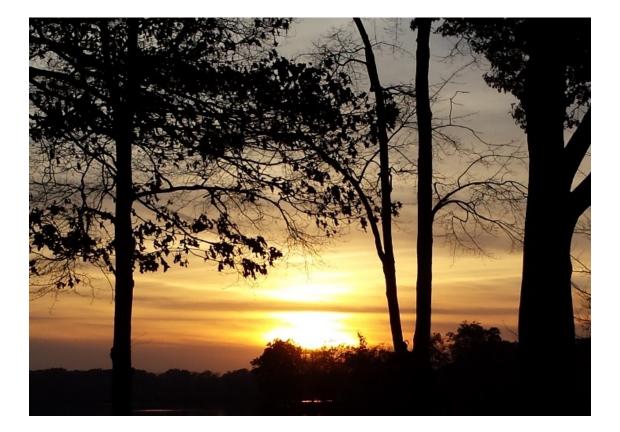
	2021-22	2020-21	2019-20
Autism	33.2%	28.8%	29.1%
Specific Learning Disabilities	23.8%	24.3%	28.1%
ADHD	17.4%	17.8%	18.7%
Intellectual Disability	7.9%	9.7%	7.1%
Depressive/Mood Disorders	4.2%	4.2%	3.6%
Congenital/birth injury	2.7%	2.5%	3.3%
Anxiety Disorders	3.2%	3.2%	3%
Physical Disorders/Conditions	2.5%	3.1%	2%
Mental Illness	1.2%	1.2%	1.1%
Cerebral Palsy	.7%	.8%	1.1%

MCTI Outcomes

	2020-21	2019-20	2018-19
Graduates	208	173	362
Graduation Rate	99%	84%	91%
Employed (graduates)	76%	82%	87%
Employed in trade ¹	83%	83%	86%
Employed for 90 days ²	86%	86%	90%

¹ 83% of graduates who found employment are employed in the trade in which they trained

² 86% of graduates who found employment were employed for at least 90 days



How do I get to MCTI?

- Applicants must be 18 years of age or older and have a documented disability
- Students do not apply directly to MCTI, they are referred by one of the following agencies serving the county in which you reside;
 - Michigan Rehabilitation Services (MRS); contact the office in your county to open a case
 - Michigan Bureau of Services for Blind Persons (BSBP)
 - U.S. Department of Veteran's Affairs
 - Private rehabilitation agencies



A typical school day schedule for students

Monday - *Friday 8:00 am Class is in Session 10:00 am-10:15 am Break 11:30 am -12:30 pm OR 12:00 pm – 1:00 pm Lunch 2:00 pm – 2:15 pm Break 3:30 pm Class Dismissed

* On Fridays, students are dismissed at 2:30 pm The culinary and custodial trade start and finish times may vary

MCTI Life

- Students live in suite style dorms
 - Currently 1 student to every room with (2) students sharing (1) bathroom
- All meals are provided
 - 3 meals M-F
 - 2 meals S & S
- Weekly room inspections
- There are washer & dryers for students with use of laundry card (students load money on to the card)
- Dorm/Fire & Safety staff available 24 hours/day
- Handicap Accessible rooms including rooms/devices for the Deaf & Hard of Hearing students
- Can bring own T.V./DVD/Video game system and mini refrigerator

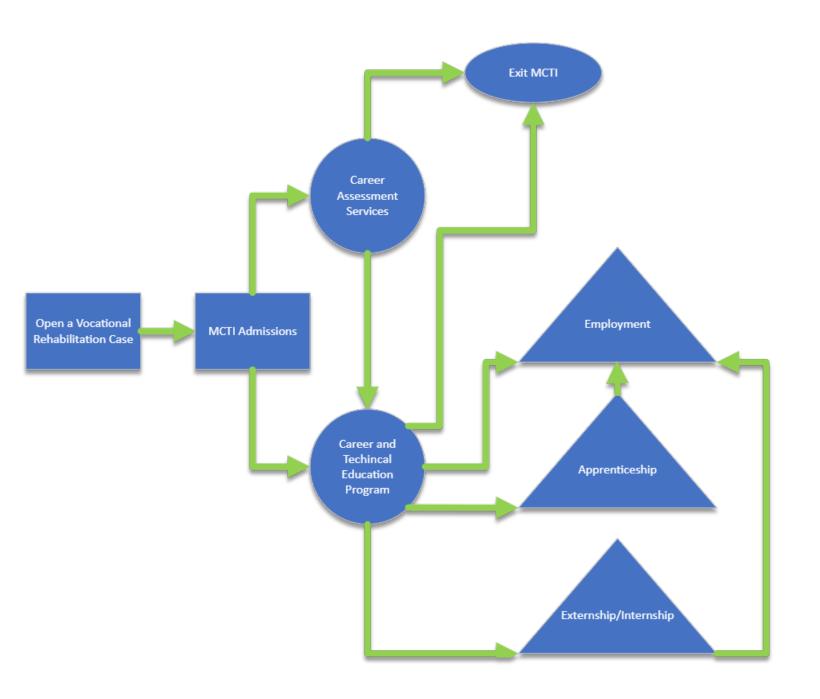




Support Services

- Vocational Counseling and Guidance
- Medical Services
- Supportive Counseling
- Occupational Therapist
- Interpreters (ASL and ESL)
- Accommodations and Assistive Technology
- Leisure Services
- Employment Readiness

MCTI Flowchart



Career Readiness Center Career Assessment







Designed for students who have completed high school and are interested in MCTI Assess aptitudes, abilities and readiness for employment and independent living

Allows students to explore available/appropriate trade options to best suit their abilities

Career Assessment Services CAS

Campus CAS

- Students referred through their MRS counselor and must meet standard MCTI admission requirements
- Students attend CAS living on the campus of MCTI for **one week** while participating in assessments, evaluations, trade presentations, trade exploration and career counseling
- Campus CAS is followed up by recommendations for either trade enrollment or additional career exploration with a student's home counselor

Virtual CAS

- Students referred through their MRS counselor and must meet standard MCTI admission requirements
- Students must have access to a computer with a webcam, audio and reliable internet connection
- Virtual assessments are generally completed in one to two weeks with assigned MCTI staff
- Virtual CAS is followed up by recommendations for either trade enrollment or additional career exploration with a student's home counselor

Integrated Trade Remediation Services

- Has replaced the Step-Up program
- Remediation for academic skills such as math, reading and measuring is integrated directly into the first and continuing terms of a student's trade training
- Taught by trade and pre-vocational instructors
- Skills taught are directly related to meet trade curriculum expectations
- Assists in determining a student's success for additional terms



Michigan Career & Technical Institute 13 Vocational Training Programs

Automotive Technology

- Cabinetmaking/Millwork
 - Certified Nurse Assistant
- Commercial Printing
 - Construction
 - Culinary Arts
- Custodial

Grounds Maintenance
 Industrial Electronics
 Information Technology
 Machine Technology
 Pharmacy Technician
 Retail Marketing

Training Programs



Focused on entry level employment

Competency based



Employment focused; employment expectations are discussed beginning the first day in the training program



Trade recommendation may differ from initial trade interest after CAS is completed



Each training program has specific recommended entrance criteria

Automotive Technology

- Up to 6 terms depending on student skills, abilities, and interests
- Students work to become certified by the State of Michigan or through the National Institute for Automotive Service Excellence (ASE)
- Entry level skill training may include general maintenance, brakes, suspension and steering, tires, electrical and auto HVAC
- Additionally, there is a Parts Specialist program for retail automotive parts personnel
- All courses incorporate the National Automotive Technician's Education Foundation (NATEF) industry standards.
- Students must have a valid driver's license, prior to enrollment



Automotive Technology

- General Maintenance Technician
- Suspension/Steering Technician
- Brake Technician
- Automotive Electrical Technician
- Engine Performance Technician
- HVAC Technician
- Auto Parts Specialist

- Auto Tech/Mechanic Certification National Institute for Automotive Service Excellence (ASE)
- Entry Level Certification National Institute for Automotive Service Excellence (ASE)
- SP/2 (Safety and Pollution Prevention)
- State of Michigan (technician/mechanic)
- Certified Auto Information Specialist (CAIS)
- Procut OTV (Brake) Lathe
- Occupational Safety & Health Administration (OSHA) Outreach Training Course / OSHA 10 –General Industry
- American Heart Association
 - CPR/First Aid/AED

Cabinetmaking

- Up to 5 terms depending on student skills, abilities, and interests
- Individual and production projects help students develop their skills and knowledge
- Students are trained in the operation of state-of-the-art CNC panel processing equipment, spindle molders, profile grinders, and with numerous other woodworking machines and software
- Students earn national skill credentials directly from the Woodworking Career Alliance



Cabinetmaking

- Woodworking Machine Operator I
- Woodworking Machine Operator II
- Woodworking Machine Operator III
- Technical Machine Operator
- Cabinetmaker / Bench Carpenter

- Woodwork Career Alliance National Woodworking Skill Standard Credentials
- American Heart Association
 - CPR/First Aid/AED

Certified Nurse Assistant (CNA)

- 1 term training program
- Students learn in a simulated lab environment and classroom studying patient care, communication, medical terminology, documentation, medical equipment, CPR and first aid, and specialized dementia training to prepare for the State of Michigan competency exam
- Students participate in a clinical rotation at a local nursing home
- Students are subjected to background screening
- Students are also required to submit a drug screen, updated Covid vaccinations and have a flu shot, prior to beginning their clinical rotation

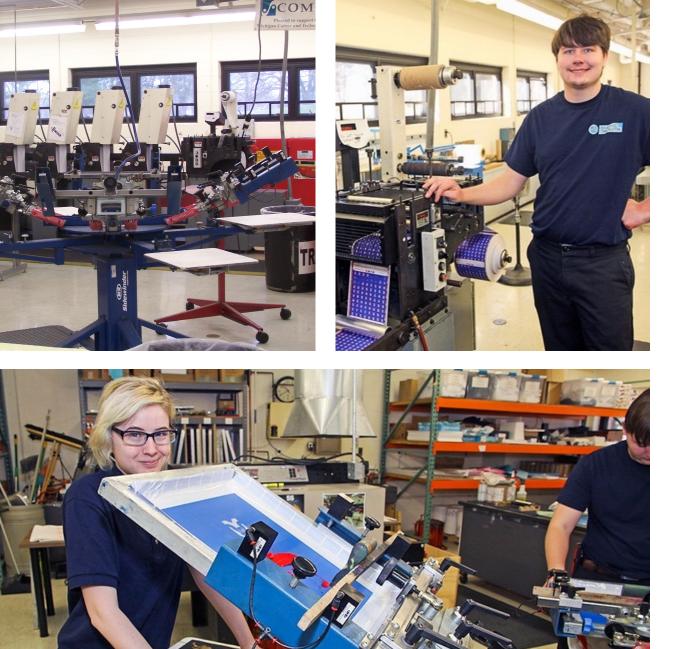


Certified Nursing Assistant

• Nurses Aid

• Certified Nursing Assistant

- American Heart Association
 - CPR/First Aid/AED



Commercial Printing

- Up to 3 terms depending on student skills, abilities, and interests
- Students work to develop job competencies while operating specialized printing equipment in a manufacturing setting in three areas: offset and bindery, flexographic, and screen printing
- Students produce a variety of products depending on the course – brochures, booklets, labels, packaging products, signs, etc.

Commercial Printing

- Screen Printer
- Bindery/Finishing Worker
- Offset Press Assistant
- Flexo Press Assistant



- Occupational Safety & Health Administration (OSHA) Outreach Training Course / OSHA 10 –General Industry
- American Heart Association
 - CPR/First Aid/AED

*With a new digital press available, additional curriculum and industry certifications are being created at this time

Construction

- 1 term training program
- The Construction program teaches introductory skills to students to become a Construction Laborer. Students will complete the PACT Training Core developed by the Home Builders Institute
- Students will learn construction math, the safe and proper use of hand and power tools, blueprint reading, vocabulary, and terminology as well as employability skills
- The hands-on training component exposes the student to trade skills experience, tool use, job-site safety, productive work habits, and applied mathematical concepts



Construction

Construction Laborer

• Home Builders Institute

- Pre-Apprenticeship/Core (PACT)
- American Ladder Institute-Ladder Safety
- Ramset Power Actuated Tool License
- Occupational Safety & Health Administration Outreach Training Course/ OSHA 10 Construction Industry
- American Heart Association
 - CPR/First Aid/AED





Culinary Arts

- Up to 3 terms depending on student skills, abilities, and interests
- Students receive training in large-quantity food preparation and assist with cooking and serving in the school cafeteria
- Advanced students operate the Pine Cove Restaurant on campus
- Students work toward the completion of ServSafe certifications

Culinary Arts

- Food Services Worker
- Cook's Helper
- Cook

- ServeSafe Food Handler
- ServeSafe Allergen
- ServeSafe ManageFirst Professional
- American Heart Association CPR/First Aid/AED

Custodial





- Up to 2 terms depending on student skills, abilities, and interests
- Students learn to become skilled, experienced building and commercial custodians by using updated equipment and learning at on-campus job stations
- Students gain experience in daily cleaning, floor maintenance, stripping of floors, restroom sanitation, daily carpet cleaning and shampooing, and operating and maintaining equipment
- Student training occurs primarily during the afternoon/evening hours

Custodial

- Custodial Support Worker
- Custodian

- Occupational Safety & Health Administration (OSHA) Outreach Training Course / OSHA 10 –General Industry
- Spartan Chemical Clean Check Program
- American Heart Association
 - CPR/First Aid/AED
- American Ladder Institute-
 - Ladder Safety





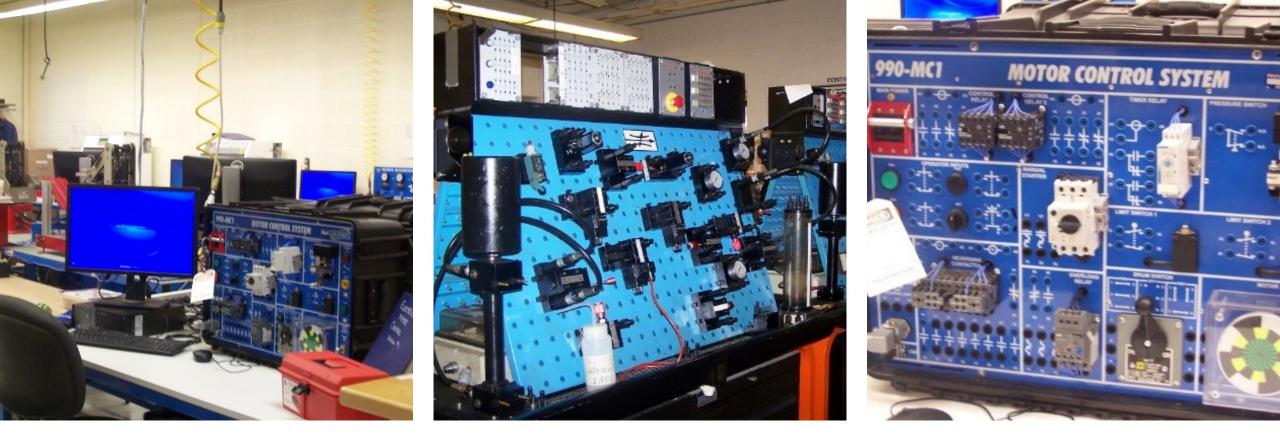
Grounds Maintenance

- Up to 2 terms depending on student skills, abilities, and interests
- Students gain actual experience working on the school campus using power equipment and hand tools, trimming and pruning hedges and bushes, plating trees, shrubs and flowers, doing snow and ice removal, and studying pesticides and irrigation
- Safety and the proper use of personal protective equipment is a strong focus
- Students learn to maintain the equipment used in servicing the campus grounds

Grounds Maintenance

- General Maintenance
 Worker
- Grounds Maintenance/ Landscaping Tech

- Registered Pesticide Technician
 - (Michigan Dept of Agriculture and Rural Development)
- American Heart Association
 - CPR/First Aid/AED



• Up to 4 terms depending on student skills, abilities, and interests

- MCTI's Electronics program provides hands-on/skilled based learning with an online interactive multimedia curriculum to teach electronics industry and manufacturing.
- Skill standard electronic courses help prepare students for entrylevel positions in manufacturing production and assembly, machine maintenance and technicians and that can lead into apprentice skilled trades.

Industrial Electronics

Industrial Electronics

- Assembler/Tester
- Industrial Tester/Installer
- Industrial Electronics Technician

- Manufacturing Technician Level 1 & Manufacturing Skills Specialist certification
- Occupational Safety & Health Administration (OSHA) Outreach Training Course / OSHA 10 –General Industry
- American Heart Association
 - CPR/First Aid/AED

Information Technology

- Up to 6 terms depending on student skills, abilities, and interests
- Recognized CompTIA Authorized Academy and Cisco Networking Academy
- Students learn to maintain and repair office management systems, computers, laptops, mobile devices, copiers, printers and other office equipment
- Training is focused on customer service, problem solving and help desk technician skills



Information Technology

- IT Customer Support
- Cable Installer
- Copier Servicing & Repair Tech
- Computer/Peripheral Servicing & Repair Tech
- Network Support Tech

- Microsoft Office Specialist MOS
 - Office Certifications 2016-Word; Excel; Access 2016
- Cisco CCNA R&S Intro to Networks
- Cisco Cybersecurity Essentials
- Cisco CCNA CyberOps
- Cisco IoT Fund: Connecting Things
- Cisco IT Essentials
- Cisco Networking Essentials
- NDG Linux Essentials
- CompTIA IT Fundamental FC0-U61
- CompTIA A+ 220-1000 Series
- CompTIA Network+ N1-007
- CompTIA Security+ SY0-501
- CompTIA Server+ SK0-004
- Microsoft MTA Network Operating Systems 98-365
- Microsoft MTA Security Fundamental 98-365
- Microsoft MTA Windows Fundamentals 98-349
- Microsoft MTA -Network Fundamentals 98-366
- American Heart Association
 - CPR/First Aid/ AED

Machine Technology – CNC and Welding

- Up to 3 terms depending on student skills, abilities, and interests
- During the first term, students have the opportunity to earn a Metalworking Manufacturing Certificate
- Successful completion of term one may lead to one of two tracks – Welding and CNC machining
- Welding students learn MIG and TIG welding; production and fabrication welding based on skills and ability
- CNC students learn various machining operations such as manual milling, turning and grinding, and G&M code programming using both manual and Computer Aided Manufacturing (CAM) software



Machine Technology

- Metalworking Manufacturing
- Machine Operator
- Production Welder
- Fabrication Welder
- CNC Operator

- Occupational Safety & Health Administration (OSHA) Outreach Training Course / OSHA 10 –General Industry
- American Heart Association
 CPR/First Aid/AED

Pharmacy Technician





- Up to 2 terms depending on student skills, abilities, and interests
- Students receive hands-on experience related to retail pharmacy procedures; receiving, processing, and distributing prescriptions; and other essential job duties of a pharmacy technician
- Students also receive training in customer service and pharmacy related laws and regulations
- Students participate in an off-campus externship in their home community during their final term

Pharmacy Technician

• Pharmacy Aide

 Pharmacy Technician (temporary license)

- Pharmacy Technician License
- American Heart Association
 - CPR/First Aid/AED



Retail Marketing

- Up to 2 terms depending on student skills, abilities, and interests
- Students receive hands-on training in customer service, cash handling, inventory control, merchandizing, safety procedures, promotion/advertising and the National Retail Skill Standards for loss prevention
- Students are responsible for operating the Eagle Shack, MCTI's on-campus store

Retail Marketing

- Stock Clerk
- Cashier
- Sales Associate

• National Retail Federation (NRF)

Industry Fundamentals Specialist Certification

- Occupational Safety & Health Administration (OSHA) Outreach Training Course / OSHA 10 General Industry
- American Heart Association
 - CPR/First Aid/AED

Questions?



References

Hollenbeck. K. (2021). (rep.). *Demonstrating the Effectiveness of Short-Term Career and Technical Training in a Residential Setting for Transition-Age Youth with Disabilities.* Mathematica

Hollenbeck. K. (2011, January). Conducting return on investment analyses for
secondary and postsecondaryCTE: A framework. National ResearchCenter for Career and Technical Education. RetrievedSeptember 14,2022, from https://files.eric.ed.gov/fulltext/ED521331.pdf

Michigan Career & Technical Institute. 2022. *Annual Report: August 2021 – July 2022.* Plainwell, MI: MCTI.