Potential Careers

NMU’s Climate Control Technology Program prepares students for employment in the following careers:

Occupations
- Apprentice Mechanic
- Field Service
- HVAC Technician
- Installer/Service Technician
- Job Foreman
- Journeymen Mechanic
- Sales/Estimator
- Service Manager
- Shop Fabrication
- Shop Service
- Wholesaling

Additional Resources and Info

For Career Planning and Opportunities:
Academic & Career Advisement Center
3302.1 C.B. Hedgcock
906-227-2971
103 Jacobetti Complex
906-227-2283
www.nmu.edu/acac

Department of Technology and Occupational Sciences
101 Jacobetti Complex
906-227-2190
www.nmu.edu/tos

For Job Search, Resume and Career Information:
Career Services
3302.3 C.B. Hedgcock
906-227-2800
www.nmu.edu/careers

For Information about NMU Student Organizations Associated with this Major Contact:
Center for Student Enrichment
1206 University Center
906-227-2439
www.nmu.edu/cse

Internet Resource Links:
www.careers.org
www.careerresource.net

For Career Information with National Organizations:

www.nhraw.org North American Heating, Refrigeration, and Air Conditioning Wholesalers Association
www.hbi.org Home Builders Institute, National Association of Home Builders
www.mcca.org Mechanical Contractors Association of America
www.coolcareers.org Air-Conditioning and Refrigeration Institute

Current as of Fall 2015
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The Academic & Career Advisement Center

What To Do With A Major In...

Climate Control Technology
Associate’s Degree

Northern Michigan University
Climate Control Technology

What would Upper Peninsula residents do without heating, those in Florida do without air conditioning, or blood banks all over the country do without refrigeration? Heating and air conditioning systems control the temperature, humidity, and the total air quality in residential, commercial, industrial, and other buildings. Refrigeration systems make it possible to store and transport food, medicine, and other perishable items. Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) installers and technicians maintain and repair such systems.

Although they are trained to do both, technicians often specialize in either installation or maintenance and repair. Some specialize in one type of equipment—for example, oil burners, solar panels, or commercial refrigerators. Technicians may work for large or small contracting companies or directly for a manufacturer or wholesaler. Those working for smaller operations tend to do both installation and servicing, and work with heating, cooling, and refrigeration equipment.

New technology, in the form of cellular “Web” phones that allow technicians to tap into the Internet, may soon affect the way technicians diagnose problems. Computer hardware and software have been developed that allows heating, venting, and refrigeration units to automatically contact the maintenance establishment when problems arise. The maintenance establishment can then notify the mechanic in the field via cellular phone. The mechanic can access the Internet to “talk” with the unit needing maintenance. While this technology is cutting-edge and not yet widespread, its potential for cost-savings will lead to its acceptance.

Skills and Competencies

Students should remember high school mathematics, physics, chemistry, electricity, automotive technology, metal shop, and blueprint reading are helpful. A successful HVAC/R Technician will find that attention to detail, good communication skills, and a strong work ethic are the most important qualities.

Course Work

This degree includes the following courses as part of the program requirements, and specific major requirements along with liberal studies and graduation requirements.

Core
- HV 170 Applied Electricity for Trades (4 cr.)
- HV 171 Basic Heating (4 cr.)
- HV 172 Basic Refrigeration (4 cr.)
- HV 173 Heating Systems I (4 cr.)
- HV 174 ACR Systems I (4 cr.)
- HV 260 Principles of Air Delivery Systems (3 cr.)
- HV 270 Heating Systems II (4 cr.)
- HV 271 ACR Systems II (5 cr.)
- HV 273 Comfort Systems Designs (4 cr.)
- HV 275 HVACR Technical Problems (4 cr.) or HV 291 HVACR Internship (1-4 cr.)

Other required courses
- EN 111 College Composition I (4cr.)
- EN 211 College Composition II (4 cr.)
- HP 200 Physical Well Being (1 cr.)
- MA 100 Intermediate Algebra (or higher) (4 cr.) or IM 105 Applied Technical Mathematics (4 cr.)

Detailed course descriptions can be found at www.nmu.edu/bulletin.

Career Development

You should begin the résumé-building process as soon as you can. The Academic and Career Advisement Center can assist you with career planning, while Career Services will help you fine tune your résumé and look for jobs related to your field. In the meantime, the more hands-on experience you have, the better the chances are that you will find a job. Becoming involved in a field-related internship is a way to develop your professional network, enhance your skills and proficiencies, and gain experience. Your academic course work is important as well, so be sure to maintain a high grade point average.

Additional Considerations

HVACR Technicians are exposed to potential safety hazards such as electrical shock, burns, muscle strains, and injuries from dealing with heavy equipment.

Climate Control Technician is an associate of Applied Sciences that requires 63 credits to complete. The credits from the degree will apply to other bachelor's degrees in the technology program such as Building Technology.

Job Outlook

Climate Control Technology is expected to grow at 34% average rate in the coming years, much faster than the average for all jobs. The median pay is usually between $16 and $21 per hour. Apprenticeships usually earn half of what a fully licenses Climate Control Technicians earn.