

NAME: _____

START DATE: _____

END DATE: _____

HEATING AND AIR CONDITIONING

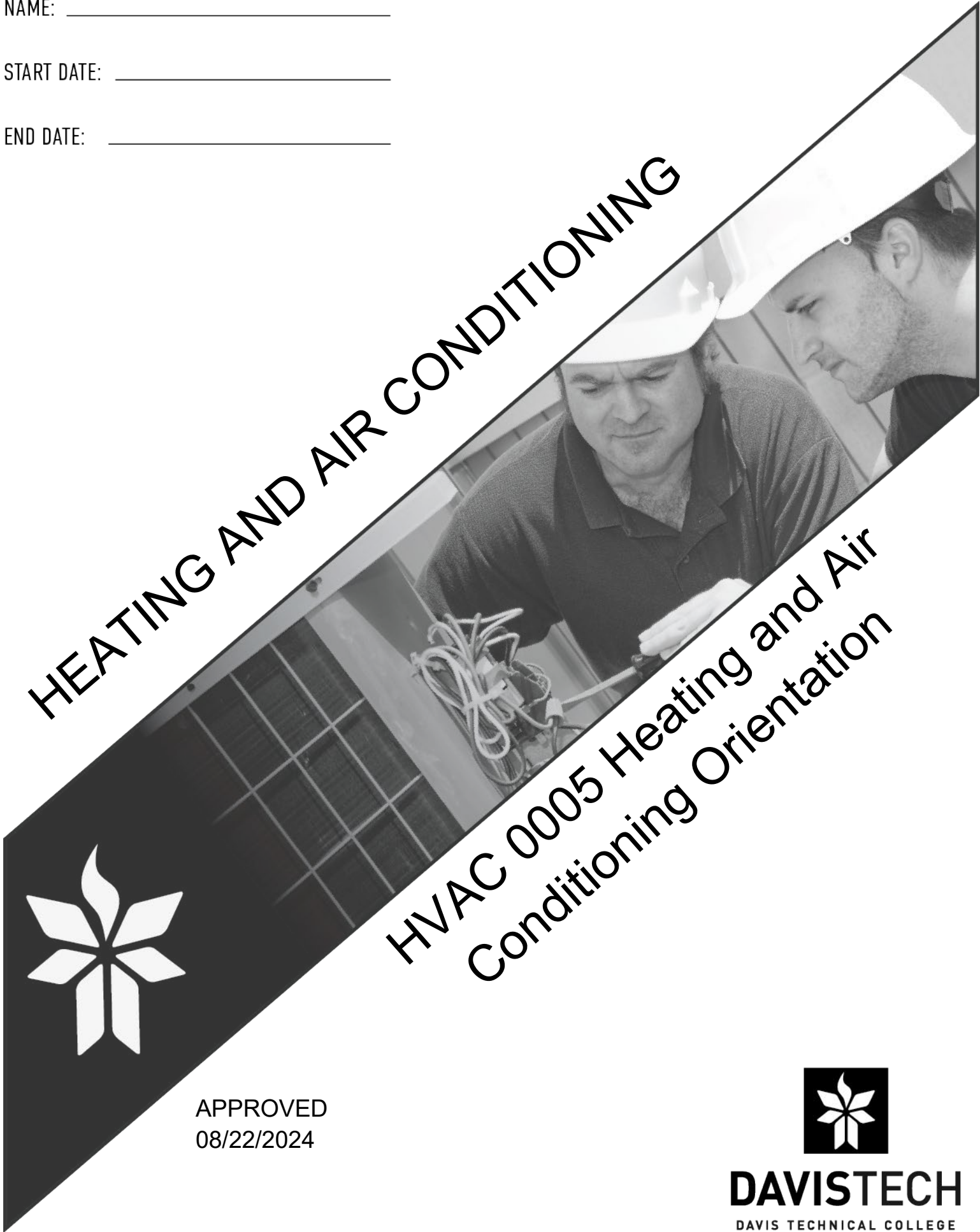
HVAC 0005 Heating and Air Conditioning Orientation

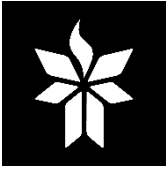


APPROVED
08/22/2024



DAVISTECH
DAVIS TECHNICAL COLLEGE





HVAC Technician Level 1a

HVAC 1811

Instructor's Phone:

Dean Dyatt 801-859-4182
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Dan Holland 385-499-4565

Office Phone:

801-593-2504

Classroom Hours:

M – F 8am – 3pm
M – Th 6pm – 9pm
Lunch 11am – 12pm

Advisement Hours:

During Classroom Hours

HVAC Program Faculty:

[https://www.davistech.edu/
/programs/heating-and-air-
conditioning#faculty](https://www.davistech.edu/programs/heating-and-air-conditioning#faculty)



Faculty

Introduction

Welcome to the Heating and Air Conditioning program at Davis Technical College. This orientation will familiarize you with the program's policies and procedures. You are expected to read through this orientation; if anything is unclear, discuss it with your Faculty Advisor or instructor.

Program Description

Heating, ventilation, and air conditioning (HVAC) technicians are highly skilled at installing, maintaining, and repairing heating, air conditioning, and refrigeration systems worldwide. Technicians can read schematic diagrams and blueprints and interpret complex instructions to properly install, troubleshoot, and repair a variety of cooling and heating equipment. Technicians are familiar with the safe use of various hand and power tools, ladders, refrigerant service equipment, and highly specialized electronic meters. In this exciting program, students practice on equipment ranging in size from small window units to commercial rooftop units. Program graduates can find employment with residential and commercial heating and air conditioning contractors and firms that install large systems nationwide. During their training, students are prepared to pass the EPA 608 Refrigerant Handling Certification and the Rocky Mountain Gas Association Natural Gas Technician Certification Exams. Graduates are ready for various industry certifications, such as CSST manufacturers' exams, the Industry Competency Exam (ICE), and the North American Technician Excellence series.

Program Objectives

- Demonstrate safe work practices during all aspects of training.
- Demonstrate an understanding of electricity as it applies to Air Conditioning, Heating, and Refrigeration systems.
- Demonstrate the application of refrigeration theory to servicing Air Conditioning, Heat



Pump, and Refrigeration systems.

- Prepare for the Environmental Protection Agency Section 608 Refrigerant Handling Certification.
- Prepare for the Rocky Mountain Gas Association Natural Gas Technician Certification.
- Demonstrate a variety of methods to assemble pipe and tubing.
- Demonstrate the ability to successfully diagnose electrical and mechanical problems with Air Conditioning, Refrigeration, Furnace, and Boiler systems.
- Demonstrate the ability to communicate professionally, both verbally and in writing.

General Information

You can access this orientation on the Davis Tech program website, as well as current information on the following items:

- Admission Requirements
- Classroom Availability
- Training Location
- Graduation Requirements
- Course Descriptions
- Program Requirements
- Estimated Cost (*tuition, fees, program, and course materials*)
- Financial Aid
- Credentials of Instructors
- Job Outlook
- Transfer Options
- Academic Agreements
- Industry Certifications

Program and Course Materials

The program and course materials listed on the website show general resources you will need to purchase as you progress through the program. Materials and pricing may be updated without notice. Some textbooks, materials, and supplies may be used for multiple courses and are required unless noted otherwise.

Tools

Most tools needed during your training are available in the lab, so the expense associated with the immediate purchase of many tools is not required. However, safety glasses are required; you must have a pair before entering the lab. If you prefer, you may use your own tools during training, but you are responsible for their care, and they can't be left overnight.

You are encouraged to purchase tools as you progress through your training to prepare for work when you graduate from the program. Several HVAC Distributors have student discounts available. Ask your instructor about tool discounts.

Learning Resources



Student Resource Center

The classroom includes a Student Resource Center with industry publications, periodicals, manuals, and media materials. In addition, you will be given opportunities to use equipment and materials, such as computers with Internet access and software applications currently being used in the industry.

Electronic Student Resources

Your Canvas orientation course contains electronic learning resources that can be used throughout the program. If you find a resource (website, video, tutorial, etc.) that you think would be helpful for others in the program, consider sharing it with your instructor.

Within Canvas, the HVAC program uses an online training service called Interplay Learning (aka Skillmill) for part of its instruction. If you would like access to the Interplay material outside of Canvas, contact your instructor to get access.

First Aid Supplies

The classroom has a first aid kit and information such as an emergency flipbook guide, emergency phone numbers, and an evacuation map. Evacuation maps can also be found throughout the college.

Instructor Response Time

Your instructor will respond to any question regarding the program, assignments, or assessments within 24 hours within the Davis Tech operational schedule.

Student Policies and Procedures

You may find further information on institutional student policies and procedures here: <https://www.davistech.edu/policies-and-procedures>.

Graduation Requirements

Your training plan aligns with a catalog year. You have 3 years to complete the requirements of this training plan to graduate. Courses on the training plan are listed in the general order in which they should be taken; however, modifications can be made based on individual employment goals. When preparing to enroll in your next course, consult with your instructor.

Advisement

Faculty are available to meet with students during the hours listed at the beginning of this orientation. These meetings will allow you and the instructor to accomplish the following tasks:

- Update us on any changes in your employment status and contact information
- Review course performance and attendance requirements
- Define and clarify training and career goals
- Select appropriate courses according to your interest and aptitude and that achieve program completion requirements
- Discuss professional work ethic
- Discuss challenges and Davis Tech support services that can help improve your success

Scheduling



Courses in this program have an Open-start/Defined-end schedule. Following enrollment in a course, you'll receive a schedule showing the date you are expected to complete that course. If you fail to complete a course by the end date but have completed 80% of that course, you may purchase a 5-day extension; otherwise, you will need to pay for the course again.

Campus Technology

You will log in to and out of the Classroom Login Station each time you attend class using your 10-digit student number. You were given this number when you completed the Davis Tech enrollment process. You will use your student number to access the Student Portal as well.

Your instructor will provide Canvas access information.

You can access Canvas from any internet-connected computer using the following URL: <https://davistech.instructure.com/login>. If you have problems logging in to Canvas, please see your instructor or email online.support@davistech.edu. If you encounter technical issues in Canvas, use the Help button and the "Report a Problem" link. A general orientation to Canvas can be found in the New Student Orientation. Faculty will also offer an orientation specific to technology in your program on your first day of class.

Students with Disabilities

If you have a disability that may require some accommodation by the instructor, contact Student Services to document the disability through a Davis Tech Counselor.

Performance Standards

Progress

Students are expected to complete coursework according to a timeline in the course curriculum. The timeline shows the maximum hours to complete each course module. Progress is calculated by the number of scheduled hours versus the completed coursework. It is recommended that progress be maintained at 85 percent or better. This will ensure that you can complete the program on time.

Please meet with your instructor if you have difficulty meeting 85 percent progress. If you do not complete a course by the end date, you will have to pay for the course again (adult students only), and a faculty member will help create a Student Success Plan to ensure your success on a second attempt. Failure to maintain the required progress standard or complete a course by the end date will result in academic corrective action being taken.

Grading

The HVAC Program at Davis Tech is competency-based, meaning you will be expected to demonstrate your knowledge and skill according to industry-based objectives and performance standards. Course lengths are based on in-class hours and are calculated based on the average time required to complete the coursework. At the beginning of each course, you will receive a course syllabus/curriculum with learning modules to follow. This includes the amount of time that should be spent on each learning activity. This will help you meet industry time standards and complete coursework in an appropriate amount of time.

Grade Scale:

A	95-100%	A-	94-90%	B+	87-89%
B	83-87%	B-	80-82%	C+	77-79%
C	73-76%	C-	70-72%	D+	67-69%
D	63-66%	D-	60-62%	F	0-59%



Grades will be calculated using the following criteria:

Labs & Homework: 25%

Throughout the course, you will complete hands-on activities to test the knowledge you have gained in the classroom and to prepare you to solve problems on the job site. Although many of the labs can be found in the supplemental material of each course syllabus, you need to read the directions for each assignment in Canvas, which will contain specific instructions about completing and submitting the lab. Many of the labs will require your instructor to verify that you have completed the lab correctly. These labs will have a place for the instructor to sign on the last page. Use this opportunity to discuss the lab with your instructor and ask questions.

Tests: 25%

Tests will be taken in the classroom and must be unlocked in Canvas by an instructor before you can take them. When you are ready to take a test, notify your instructor to unlock your test. Tests are completed individually and without books or notes (unless otherwise instructed).

You are not allowed to have another student help you when testing.

Performance

Assessment: 25%

Our HVAC Industry Advisory Committee has told us that good work habits (Soft Skills) are essential for employees wanting to receive promotions or raises. Soft Skills are not specific to the HVAC trade but are personal attributes that enable you to interact with customers and co-workers successfully. During your training, performance assessments will allow your instructor to evaluate your Soft Skills. You will be assessed on the following criteria:

- Staying on expected tasks
- Preparedness to work
- Attitude when interacting with others
- Cleanup of your work area

Attendance: 25%

Employers pay close attention to attendance and tardiness. Attendance is calculated by the number of scheduled hours versus the number of hours you are present in the classroom. The HVAC program requires 75% minimum attendance. Attendance requirements may be higher depending on sponsorship or financial aid stipulations.

You can only be excused for job-related interviews, job-related activities, and Davis Tech-sponsored activities (with prior approval). However, if your progress is unsatisfactory, you will NOT be excused. Absences cannot be made up.

You are responsible for signing in to Northstar at the beginning of your first class

period before the computer marks you tardy and signing out at the end of your last class period. If you have any problems with signing in, please inform your instructor. 4 tardies equal 1 absence.

10 consecutive absences will result in an automatic withdrawal from school. Please consult with your instructor if you have a circumstance that makes it difficult to attend class.

High School Students

Graduating high school, students must meet minimum progress, grade, and attendance standards to continue in the program as an adult students.

Program Code of Conduct

Academic Performance

Your success is important to us. We will work with you to help you succeed, but if you cannot meet the minimum standards explained previously, we are committed to helping you improve. The following steps may be taken if you fail to meet the minimum performance, progress, and attendance standards or violate the program's policies and procedures:

Academic Probation

Students on academic probation may lose Federal Financial Aid, scholarship eligibility, or sponsorship and benefits, as determined following college Financial Aid requirements and Department of Education regulations.

A Student Improvement Plan will be developed if you cannot complete a course by the course end date or meet program performance standards. It will include an outline and timeframe for performance improvement and describe how monitoring and evaluation are done. You and your instructor will sign the plan, which becomes part of your student record.

If the unsatisfactory performance is uncorrected, or the repeated course isn't completed within the allotted time, you will meet with your instructor and a college counselor to modify and refine the Student Improvement Plan. The instructor and counselor may also work to identify barriers hindering your success and whether other training options should be considered.

Problem Resolution

If, for any reason, you are not satisfied with your instructor, classroom management, or grades, discuss your concerns with your instructor. If a reasonable solution cannot be found, there is a Student College Grievance Policy and Procedures document on the Davis Tech website.

Placement Services

Placement services are available to you when you complete your program. These services include resume help and review, interviewing skills, and job placement assistance.

Student Follow-up

Your success in finding employment indicates the quality of our instruction. To evaluate the effectiveness of our programs, we ask that you inform your instructor if you have become



employed, are already employed, or if your employment status has changed. You may also report current military service, the pursuit of additional education, or anything that may prevent you from completing your program or finding employment. You may be contacted by a Davis Tech employee regarding your employment status if additional information is needed.

Program Health, Safety, and Fire Prevention

Proper eye protection is required for your safety in the shop area. You are responsible for following the program's safety policies and procedures.

You will learn about safety in HVAC 1811 HVAC Technician Level 1A. However, please follow the following safety standards:

- Be aware of hazards. Absolutely No horseplay!
- Be conscientious when working with electricity. Metal watches or jewelry are hazards and should be removed BEFORE working with electricity!
- Follow safe work practices when using hand and power tools.
- Wear appropriate clothing – no baggy clothing or long hair.
- Observe proper ladder safety.
- Remember the location of the following safety items in the Classroom and Shop:
Fire extinguishers, an eye wash station, emergency exits, power disconnect switches in the lab, an SDS Information Station, a first aid kit, and a fire alarm pull station are also available.

First Aid Supplies

- The classroom also includes a first aid kit and other supplies needed in an emergency. Evacuation maps can be found in strategic locations throughout the college.

Fire Prevention

- Fire prevention and safety are paramount in our classrooms. We are committed to ensuring a safe learning environment for all students and staff. Please familiarize yourself with the location of fire exits, fire extinguishers, and emergency procedures posted in each classroom. In case of a fire alarm, calmly evacuate the building using the nearest exit and assemble at the designated meeting point.

Course Evaluations

At the end of each course, your curriculum will guide you to an online evaluation with questions about instructional content and your primary instructor. We appreciate and value your feedback. Although you will be asked to enter your student number, this is to verify the evaluation is completed only once per student. Feedback is used for program improvement and professional development.

Guest Lecturers

Periodically, guests from industry are invited to make presentations. We do this to expose students to different technologies and to meet other people in the industry. Most of these are national training or territory reps representing leaders from industry partners and local employers. All Davis Tech students are invited to attend the lectures.

