



DAVIS TECHNICAL COLLEGE

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## COMP 0000 Composite Materials Technology Program Orientation

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|----------|----------------|---------------------------------|--------------|
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Advisement Hours: During classroom hours

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### Introduction

Welcome to the Composite Materials Technology program at the Davis Technical College (Davis Tech)! The purpose of this program orientation is to acquaint you with information specific to the program and its unique policies and procedures. You are required to read this document thoroughly and discuss any unclear sections with your instructor or a Career and Academic Advisor. You may also review college policies on the Davis Tech website ([www.davistech.edu](http://www.davistech.edu)) or in Student Services.

### Program Description

The Composite Materials Technology program at Davis Technical College prepares students to work in industries such as aerospace, automotive, bridge building, marine, sporting goods, and parts assembly. This program introduces basic composite materials, techniques, and procedures and progresses through advanced composite skills. Students will demonstrate industry standards concerning safety, composite terminology, hand lay-ups, and composite inspection and repair. Our instructors are from the aerospace industry and have years of hands-on experience. Students who complete this program will be prepared for entry-level employment as a composite technician.

### Program Objectives

Students will practice their skills through hands-on experience, instructional videos, information sheets, and competency tests. Upon completion of this program, students will have received specialized training as an entry-level composite technician. Students will have the opportunity to learn and apply the following while enrolled in the Composite Material Technology program:

- Recognize safety and be aware of safety concerns such as Safety Data Sheets (SDS) and Personal Protective Equipment (PPE)
- Identify composite and advanced composite materials
- Practice composite and advanced composite molds and tooling
- Prepare and practice vacuum and non-vacuum bagging procedures, techniques, and applications

- Practice advanced prepreg and core material processing techniques
- Recognize composite and advanced composite repair procedures
- Complete composite part finishing and painting
- Interpret blueprints and building composite parts from blueprints
- Design and test composite parts

## General Information

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

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

## Learning Resources

### Student Resource Center

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

### Electronic Student Resources

Your Canvas orientation course contains electronic learning resources that can be used throughout your time in the program. Each canvas course links to these resources, and they will be updated regularly. If you find a frequently used resource (website, video, tutorial, etc.) that you think would be helpful for other students in your program, consider sharing the link with your instructor.

## Advisement

Teacher advisement is important for your success at Davis Tech. Students who receive regular advisement are more likely to achieve their goals and complete their training program on schedule. Your instructor is also available to meet with during the advisement hours listed at the beginning of this orientation. These meetings are used for you and the instructor to accomplish the following tasks:

- Update contact information in Northstar, the Student Information System
- Review performance and attendance



- Define and clarify training and career goals
- Discuss professional work ethic in performance, attendance, attitude, dress, behavior, and communication
- Discuss challenges with referral to appropriate institutional support systems that can help improve your success

## **Competency-based Training**

Davis Tech courses are competency-based, requiring you to demonstrate your knowledge and skill according to industry-based objectives and performance standards. Course lengths are based on actual clock-hours and are calculated on the average length you are expected to complete designated coursework. At the beginning of each course, you will purchase or receive course curriculum, which provides guided learning modules to follow. This includes the amount of time you should spend on each learning activity. This will help you meet industry time standards and complete coursework in an appropriate amount of time.

## **Scheduling**

Courses in this program have an Open-start/Defined-end schedule. Courses in this program may be started at any time. Following course enrollment, you will receive a schedule that shows the date by which the course must be completed. If you fail to complete a course by the end date, you will be required to re-enroll and repay for the course. This type of scheduling is also referred to as course based because courses are paid for one at a time.

## **Campus Technology**

Each time that you attend class, you will log in to and out of the Northstar Classroom Login Station 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 you with information on Canvas access.

You can access Canvas from any internet-connected computer at 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](mailto:online.support@davistech.edu). If you encounter technical problems while in Canvas, use the Help button in Canvas and the "Report a Problem" link. A general orientation to Canvas can be found in the New Student Orientation, but 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 accommodations, contact and work through the counseling service located in Student Services.

## **Student Policies and Procedures**

You may find further information on institutional student policies and procedures here:

<http://www.davistech.edu/student-policies>.

## **Instructor Response Time**

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



## Performance Standards

### Progress

You are expected to complete course work according to a timeline in the course curriculum. The timeline shows the maximum number of hours it should take you to complete each module of the course. Progress is calculated by the number of scheduled hours versus the amount of coursework completed. Progress must be maintained at 100 percent or better. If you have difficulty meeting the progress requirement, you are encouraged to talk to your instructor. Failure to maintain the required progress standard, or failure to complete a course by the end date will result in academic corrective action being taken.

### Grading

Davis Tech courses are competency-based, requiring you to demonstrate your knowledge and skill according to industry-based objectives and performance standards. Course lengths are based on actual clock-hours and are calculated on the average length you are expected to complete designated course work. At the beginning of each course, you purchase or receive course curriculum which provides guided learning modules for you to follow. This includes the amount of time that should be spent on each learning activity. This will help you to meet industry time standards and to complete course work in an appropriate amount of time.

Grades are based on the progress you've made in the course, your attendance, and your shop attitude (respectfulness, using your time wisely, etc.). In order to achieve a high grade, you must show up to class *on time*, keep on task, and use your time wisely.

You are allowed three attempts to achieve a passing score on all quizzes and tests within Canvas. If you do not achieve a passing score in two attempts or less, it is important that you meet with the instructor to address any discrepancies. You will not be able to move forward in a course if they fail any quiz or test three times and are required to meet with an instructor to discuss options for remediation.

If you have questions, all student communications with an instructor will be answered within 24 hours of Davis Tech's operational schedule.

Progress is based on how quickly you are completing the course based on the average completion time for the course. The average completion time is the course length listed above, as well as the hours listed for each module. It is possible to achieve over 100 percent progress, but for grading purposes, your progress will not be counted above 100 percent.

For disruptive or unproductive behavior, you will receive a verbal warning. If you continue the behavior, you will receive a 'U' for the day in citizenship.

Your grade will be calculated by taking the average of your attendance and progress (up to 100 percent progress). Each 'U' you have received will deduct one point from your average.

### Citizenship

H – Honorable            S – Satisfactory            N – Needs Improvement            U – Unsatisfactory

If you are unable to prove at least average competency or citizenship in a given course or module, you will not receive credit for having completed it.

### Lab Grading Criteria



All graded labs or repairs are Pass or Fail and based on the following:

- Visual Inspection
- Structural Tap Test
- Ultrasound (Non-Destructive)

**Explanation of Lab Grading Criteria:**

- Visual inspection is the first line of Quality Assurance testing and grading of a given project. Visual inspection determines if grading of the project continues to Structural Tap Testing.
- Structural Tap Testing is the second line of Quality Assurance testing and grading. The Structural Tap Test proves soundness of the composite part. A sharp tapping sound will be heard if the part or repair is solid without voids, delamination, disbonds, or any other defects.
- You, with the assistance of an instructor, can conduct non-destructive ultrasound testing of the composite part if the part passes the Structural Tap Test.

Each lab grading criteria depends on the previous Quality Assurance test; therefore, if a part does not pass the visual inspection, you will be required to rework the part or repair. This grading standard is driven by industry and is a reflection of what you will experience as a Composites Materials Technician in industry. You are expected to stay on task and use class time wisely.

**Attendance**

Although high school students in this program are required to have a defined schedule, adult students have flexible scheduling options with a minimum attendance standard. Although you are in a classroom environment, the College's purpose is to help prepare you to work in the business world. Good work habits include punctuality and attendance. Employers pay close attention to attendance and tardiness. If you are continually arriving at your job late, or leaving early, you probably will not keep your job for long. The attendance policy for the Composite Materials Technology program is a minimum of 85 percent; however, you should have a personal goal of 100 percent attendance. We are willing to work with you if you have special circumstances, but you must learn to communicate these to your instructor. (This doesn't mean we can excuse an absence.)

You can only be excused for job-related interviews, Davis Tech sponsored activities and high school assemblies or activities (with prior approval). However, if your progress is not satisfactory, you will NOT be excused. Absences cannot be made up. You may enroll for additional hours in the day or night class to catch up on late work.

You are responsible to sign into Northstar at the beginning of your first class period before the computer marks you tardy, and sign out at the completion of your last class period. Problems with signing in must be reported to an instructor as soon as possible. Four (4) tardies equal one (1) absence.

You are expected to engage in a learning activity or activities during your scheduled class period. If you are not engaged in a learning activity for more than 20 minutes in any given class period, you will be marked absent for that class period, this absence and reasoning will be recorded in Northstar under your student record in the form of a note. A student with more than three lack of engagement absences will be considered for termination from the Composite Materials Technology program.



If you are absent for ten (10) consecutive scheduled days, you will be withdrawn from Davis Tech. Failure to meet the required attendance standard will result in academic corrective action being taken.

The guidelines for attendance are based upon that of a working environment. If you were at your place of employment and you were continually late or leaving early, you probably wouldn't have your job for long. We are willing to work with you if you have special circumstances, but you must learn to communicate these to your instructor. (This doesn't mean we can excuse an absence.)

## **High School Students**

High school students must meet minimum standards in grading, progress, and attendance before transitioning into a place in the program as an adult student. These standards are established by the program and may differ across the college. In the Architectural and Engineering Design program, a high school student, who will become an adult student, should meet the following minimum standards:

Attendance: 75 percent          Progress: 75 percent          Grade: 75 percent

If you do not meet Davis Tech or Architectural and Engineering Design performance standards, you will be subject to academic discipline. Reasons for academic discipline include but are not limited to violations of Davis Tech or program policies and procedures, violations of academic integrity, failure to maintain minimum attendance standards, failure to maintain progress standards, and repeating a course.

## **Break Times**

You are allowed to take breaks whenever they see fit, but it is important that you stay on task and complete the day's work.

Lunch: 11:00am – 12:00pm

\*The lab will be closed to students during lunch.

## **Academic Performance**

Your success in this program is important to us. We will work with you to help you succeed, but if we feel that you are not meeting the minimum standards as described in this orientation, we are committed to taking appropriate actions to help you improve. The following steps may be taken if you fail to meet the minimum performance, progress, and attendance standards or violate Composite Materials Technology policies and procedures:

## **Academic Probation**

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

If you are unable to complete a course by the course end date or meet program performance standards, you will be put on probation and a Student Improvement Plan will be developed. The plan will include details of the unsatisfactory performance, outline a plan and timeframe for performance improvement and describe the process that will be used to monitor and evaluate



future performance. This Plan will be submitted to Student Services to become part of your student record. The Plan will be signed by you and the instructor.

If you are unable to correct the unsatisfactory performance or complete the repeated course by the repeated course end date, you will remain on probation and will need to meet with your instructor and a college counselor to modify and further define the Student Improvement Plan. The instructor and counselor may also evaluate barriers that might prevent your success in the program and whether or not other training options should be considered.

If you fail to meet the performance standards outlined in the Student Improvement Plan, you will be required to participate in a Committee Review in order to continue as a student at Davis Tech. The committee will be composed of you, the instructor, the program director, an impartial program director, and a college counselor. The committee will evaluate the corrective actions taken by the college, the Composite Material Technology program, and you to determine a mutually beneficial course of action. Possible options may include but are not limited to: continued academic probation, additional assessment, recommended change to another educational program, suspension, or termination from the program.

If you fail to appear for the Committee Review, you may be considered for disciplinary termination. If you have received a Student Improvement Plan or have been placed on academic probation and subsequently leave the institution, you may be considered for disciplinary termination. If you are terminated for academic performance, you must meet with a Career and Academic Advisor to discuss a plan for correction before being permitted to re-enroll at Davis Tech.

### **Problem Resolution**

If you are not satisfied for any reason with classroom management, grading or academic disciplinary actions taken, discuss your concerns with your instructor. If this does not resolve your concerns, please contact Student Services.

### **Placement Services**

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

### **Student Follow-up**

Your success in finding employment is an indication of the quality of our instruction. To evaluate the effectiveness of our programs, we ask that you notify us of your employment status. If you are already employed, become employed, or if your employment status changes, please notify your instructor. You may also report current military service, the pursuit of additional education, or indicate reasons that may prevent you from completing your program or finding employment. If we do not receive a response from you, a Davis Tech employee will contact you to request your employment status.

### **Program Safety**

You are expected to wear the proper personal protective equipment (PPE), and follow all other safety procedures and operations as outlined in COMP 1015 Composite Safety and Workplace Relations. The following safety guidelines will be required at all times throughout the Composites program:



- Safety glasses must be worn at all times when in the lab areas. These areas are designated by the yellow lines on the floor.
- Provided protective gloves must be worn when handling any composites related materials. This includes and fibers along with any chemicals.
- Dust masks must be worn at all times while in the sanding room.
- Provided Kevlar™ cutting gloves must be worn at all times while cutting any materials.

## 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 simply to verify the evaluation is completed only once per student. The results of the actual survey are anonymous. Feedback is used for program improvement and professional development.

## Employer Advisory Committee

The Composite Material Technology Employer Advisory Committee is made up of local industry professionals who meet at least twice a year. During the meetings, the advisory committee reviews the program, courses, equipment, materials, facilities, and the learning environment to ensure that what is being taught aligns with industry practices. They also provide information about the employment outlook in the field and specific changes that help us to better meet their employment needs.

## Class Policies

- **Projects:** Students cannot build anything that could be considered a weapon, i.e. guns or gun parts, axes, knives, swords, nun chucks, martial arts weapons, drug paraphernalia or any tobacco items. **All projects must have a sketch or blueprint and be approved by an instructor before beginning.**
- **Home Projects:** Students cannot build anything that could be considered a weapon. All personal projects must have a sketch or blueprint and be **approved** by an instructor before beginning. Just remember, the curriculum comes first and you must be on task and up to progress before any home projects are made.
- **Books:** You may use any classroom copies in the classroom. Books may not be taken home or put in your locker. All texts in the student resource center must be checked out and returned at the end of class. All students are required to purchase textbooks and workbooks. They are available in the bookstore. Be sure to ask if there are any used books available. It is a copyright violation to copy pages of a published text.
- **Classroom Conduct:** We expect all students who attend the Davis Tech to conduct themselves in a professional manner. We prepare students to act appropriately in class and on the job so they can enter the workforce and be successful.
- **Use of Electronics:**
  - iPods or other devices may not be used in the shop but can be used in the classroom. Take care not to disturb others.
  - No headphones are allowed in the shop.





- No downloading of music or using the computers for music. These privileges may be revoked at the instructor's discretion.
- **Language:** Abusive, vulgar or disrespectful language will **NOT** be tolerated.
- **Appropriate Behavior:** Horseplay, roughhousing and practical jokes are not tolerated in industry and often lead to accidents. This kind of behavior will not be tolerated anywhere in the shop or classrooms.
- **Clothing:** Students need to wear clothing appropriate to the work environment in order to work in the shop or classroom. Do not wear loose or baggy clothing. Long hair should be contained in order to work safely around the machines. No immodest or offensive clothing may be worn. Pants worn below the waist line and low neck lines are considered immodest. Appropriate clothing is defined as follows: leather work shoes, long pants, T-shirts or polo shirts, preferably short sleeve. No tank tops or sleeveless shirts. No shorts or open-toed shoes will be allowed in the shop or classroom.
- **Computers:** The computers in the Composite Lab and the classroom are for **class-related use only**. Students are not permitted to use the computers to play games, browse non-course related internet sites, or download any software or projects. All disks/USB devices must be scanned for viruses before being used in the lab. Computer use may be monitored and recorded at any time.
- **Phones:** Please keep non related calls to a bare minimum. Some exceptions may be made for emergencies or for program/job-related business. If you receive a call and must take it, please excuse yourself and take the call outside. If at all possible, explain, "I can't talk right now." If cell phones become a problem, you will be asked to turn it off or put them in a locker, car, etc.
- **Tool Boxes/Lockers:** All toolboxes and lockers will be inspected upon withdrawal from the program. Lockers must be cleaned out within 30 days of withdrawal. Any items that are left after 30 days will become Davis Tech property. Locks may be cut off any time after 30 days if no identification is on the locker.

