

LAKETECH

2008 - 2009

Master Plan of Instruction Drafting

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MISSION: Lake Technical Center's mission is to meet the educational needs of the community by offering a variety of high quality career-technical training opportunities.

charting new directions

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LAKE TECHNICAL CENTER

Architectural Drafting

INTRODUCTION

Drafting is defined as the art of converting sketches into a technical drawing for the construction of a product, while a **drafter** is a person who converts an architect's or engineer's sketches to a technical drawing.

The 1900-hour Architectural Drafting Program is a completely individualized, competency-based program, which is open-entry/open-exit. The program and curriculum are designed to educate and train individuals to meet or exceed the entry-level requirements of industry in this area. Emphasis is placed on the study and use of drafting tools, methods, techniques, mathematics, and data research required to produce detail and assembly drawings for manufacturing and construction. Areas include, but are not limited to, the mechanical, architectural, and civil fields. Computer Aided Drafting (CAD) is included as part of the curriculum. This program also develops a world-of-work attitude, social responsibilities, financial planning, and self-evaluation to prepare individuals for successful employment, rewarding careers, and a meaningful life.

PURPOSE

The purpose of this program is to prepare students for initial employment as drafters, architectural drafters, or to provide supplemental training for persons previously or currently employed in these occupations.

TEST OF ADULT BASIC EDUCATION (TABE)

The Florida Legislature requires that students without an associate's degree or higher be tested using the Test of Adult Basic Education (TABE) to determine levels of reading, math, and language skills. This test is given prior to entering the program and helps staff and student in determining the career fields in which each student can be successful.

According to Florida Department of Education rules, students who fail all or parts of the TABE may only retest using a different TABE version after at least 60 documented hours of remediation in the Vocational Preparatory Instruction (VPI) lab or 6 weeks, whichever is sooner. Students may not retake the same test version for six months. We therefore strongly recommend that students test early, especially for licensure programs, in order to allow time for remediation and retesting should the need arise.

Students who do not meet the State mandated minimum TABE exit scores for their program are considered to be enrolled under "Ability to Benefit" status (see catalog) and must begin attending remediation classes in the VPI lab, regularly attend VPI classes outside of their program hours and make acceptable progress as determined by the VPI instructor. Students who do not meet TABE scores may not receive a certificate of completion as per Florida Department of Education rules.

ADMISSIONS REQUIREMENTS

Applicants must be at least 16 years of age and should be academically, physically, and emotionally capable of meeting the demands of the chosen program. Applicants make initial application through the Admissions Office. A minimum skills evaluation is part of the entry process.

The Florida Legislature requires that prospective students be evaluated to determine levels of reading, math, and language skills. This evaluation helps staff and students in determining the career fields in which each student can be successful.

ESSENTIAL TRAINING TASKS

Physical Requirements

1. Ability to reach
2. A degree of manual dexterity
3. High degree of finger dexterity
4. Ability to see (near acuity)
5. Ability to communicate

Mental and Emotional Requirements

1. Ability to work with others
2. Ability to make decisions
3. Ability to cope with anger/hostility of others in a calm manner
4. Ability to cope with moderate to high levels of stress
5. Ability to cope with confrontation
6. Ability to cope with frustration
7. Ability to assist with problem resolution
8. Ability to demonstrate a high degree of patience
9. Ability to work in areas that are close and crowded
10. Ability to plan and organize daily activities
11. Ability to apply common sense understanding to carry out instructions furnished in both written and oral form

GENERAL INFORMATION

Tuition, Fees and Necessary Supplies

Tuition is charged for adult students at a reasonable rate, which may vary slightly from year to year. Current fee information is available from the Admissions Office. Tuition is waived for eligible high school students. Additional expected costs:

- Tuition and lab fees required for registration (available from instructor or Admissions Office staff)
- Required Drafting program textbooks and workbooks
- Complete set of drafting equipment (see list below)
- Supply fee - yearly

Drafting Equipment Needed

- Compass set with large and small bow compass and dividers
- 12" 30/60 degree fluorescent triangle
- 45/90 triangle
- Architect Scale
- 12" engineer's scale
- Mechanical engineer's scale
- 12" metric scale
- Set of French curves
- .003 mm mechanical pencil
- .009 mm mechanical pencil
- .005 mm mechanical pencil
- .007 mm mechanical pencil
- Briefcase to carry equipment (optional)
- Erasing shield
- Tubes of HB lead for all pencils
- One 3" or 4" triangle
- One Ames lettering guide
- Dry cleaning bag (optional)
- Lead holder
- Lead for lead holder – 2B

- 1 flash drive
- Erasers for pencil and ink
- Scientific calculator

Note:

The possession or use of radios of any type is not allowed in class or on the drafting job. Pagers and cell phones must be turned off during class hours or placed on vibrate during class hours. Cell phone calls may not be used in the classroom.

ATTENDANCE POLICY

In Florida, public technical centers are on a clock-hour rather than a credit hour system and are thus required by federal financial aid guidelines to have and adhere to an attendance policy. In addition, students should understand that in-state tuition only pays for approximately 25% of the cost of education, with the state taxpayers contributing the other 75%. The burden is on the school to ensure that these funds are spent in the most effective fashion, e.g., that students make good use of the available resources.

Absences

To develop appropriate work ethics, Lake Tech students are expected to attend all class sessions. As is expected in the workplace, when it is necessary to be absent due to illness or emergency situations, all students are to notify the instructor on or before the date of absence.

The Lake Technical Center *Student Responsibilities*, available in the current school catalog, states that, "The expectation of the Lake County School Board is that all students will be in attendance each day of the school year." The student attendance code for each postsecondary program is consistent with industry standards as recommended by the program advisory committee and approved by the administration of Lake Tech.

Campus attendance is kept via a computerized system. It is the responsibility of the student to **log in and out** in order to receive credit for class time. This allows the school to keep accurate attendance records for the actual number of hours and minutes attended.

Students with excessive absences will be subject to penalties such as loss of financial aid, lower grades, withdrawal from the program, and prohibition from re-enrollment in the next grading period.

If a student has missed 20% of scheduled classes by the middle of a first grading period, or at any cumulative time thereafter, the student will sign an acknowledgement that he/she has been notified by the instructor that continued absences may pose a threat to grades and program enrollment. School Intervention Team meetings will be held, as necessary, in attempts to alleviate issues resulting in excessive absences and to counsel the student of possible alternatives and consequences.

Students who are absent, excused or unexcused, for six (6) consecutive class sessions will be withdrawn from membership in their program. A withdrawn student must wait until the next enrollment period to re-register. A Student Intervention Team will review all applications for reenrollment.

Only regularly scheduled class hours will be reported for attendance. Make-up time will not be accepted.

Tardiness

Students are expected to be in their seats promptly in the morning, after break, and after lunch. Students must notify the instructor before the start of class of any anticipated tardiness and an expected arrival time.

GRADING POLICY

The grading policy for this program is as follows:

90-100	Excellent
85- 89	Passing
< 85	Failing

Lake Technical Center is a postsecondary institution designed to provide trained individuals to industry. The grading scale for this program reflects industry standards, as recommended by the advisory committee and approved by the administration of Lake Technical Center. Dual-enrolled students will follow the grading policy of the Lake County School Board for the purposes of graduation credit; however, all students must meet the program minimum grade requirements in order to receive a certificate.

Each instructor is required to use the following structure administration in determining grades.

1.	Skill	33 1/3 percent
2.	Knowledge	33 1/3 percent
3.	Work Habits	33 1/3 percent

Class performance, quizzes, tests, attendance, completion of project assignments, and individual attitudes are evaluated regularly (see attached copy of work habits assessment form). A minimum average of 85% is required for course certification.

Students are constantly re-evaluated on competencies completed and a final course evaluation is administered to all students. Students must obtain an 85% minimum grade on this exam before a certificate will be awarded.

DRESS POLICY

As stated in the Student Responsibilities approved by the Lake Technical Center Charter School Board and available in the current school catalog, students who attend Lake Technical Center shall dress in a manner appropriate for the job in which they are receiving training, including any special protective gear and professional uniforms. The postsecondary program student dress code is consistent with industry standards as recommended by the program advisory committee and approved by the administration of Lake Technical Center.

Students in the Drafting program are expected to wear clothing appropriate to the job for which they are being trained.

Normal classroom attire will be clean, neat, modest, in good repair, and appropriately sized. "Appropriately sized" is defined to mean clothing that is neither constricting nor more than one size larger than the normal waist size. Attire will also comply with any requirements of Lake Technical Center and be neither distracting nor offensive. Blue jeans are permitted provided they meet the requirements specified above. Shorts that are appropriate for business wear are permitted if they are part of a coordinated outfit and meet the requirements above. Students who are inappropriately dressed may be excused from class and counted as absent at the instructor's discretion. The normal attendance policy will apply to these absences.

Attire which is not appropriate for program attendance includes:

- Tank tops, less than sleeveless attire, midriff or undergarment revealing tops
- Flip-flops
- Jeans with chains or other hanging accessories
- Excessively short or revealing clothing
- Visible piercings other than the ear lobes
- Clothing with ethically or morally unacceptable printing (including: alcohol or tobacco related, sexual innuendo, etc.)
- Hats of any type

NOTE - Remember that you are preparing for employment in a position in which public relations may be a factor in your success. Individual desires cannot always take precedence.

FINANCIAL AID

Policies and guidelines for the administration of all financial aid are established according to federal and state law by a financial aid committee and published in the Financial Aid Policies and Procedures Manual. Applicants complete an information form, Free Application for Federal Student Aid, and furnish documentation needed to verify eligibility. More information on the application process may be obtained in the Financial Aid Office.

The Financial Aid Office will assist students, where possible, with access to financial support offered by federal agencies (U.S. Department of Education – Pell Grants, Department of Veterans' Affairs), other state and local agencies and local organizations (scholarships).

Financial Aid personnel are available daily to assist students with financial aid needs and requests. The Financial Aid Coordinator is also the liaison for all local agencies.

JOB DESCRIPTIONS

1. Drafter Trainee (Drafter I)

- a. Primary purpose of position - to learn and perform semi-skilled drafting tasks and related functions and duties of the drafting position under close supervision of the drafting manager, supervisor, or designated employee.
- b. Required Education
 - (1) High school diploma (including math-trigonometry and geometry)
 - (2) Two years of technical education
- c. Basic Duties
 - (1) Utilizes standard drafting techniques, tools, equipment, and drafting machines.
 - (2) Reads and interprets design layouts to create engineering and architectural drawings.
 - (3) Becomes familiar with orthographic projections, dimensioning, and the creation of auxiliary and section views.
 - (4) Maintains required drafting logs and records.
 - (5) Acquires and develops the knowledge and skills necessary for professional growth.

2. Drafter II

- a. Primary purpose of position - to perform skilled drafting tasks
- b. Required Education
 - (1) High school diploma (including math-trigonometry and geometry)
 - (2) Two years of technical education
 - (3) Two years of drafting experience
- c. Basic Skills
 - (1) Prepares architectural and engineering drawings for details, assemblies, outlines, installations, and minor layouts and parts lists.
 - (2) Utilizes thorough knowledge of government, industry, and BASD standards.
 - (3) Performs minor calculations using known mathematical analysis.
 - (4) Resolves technical problems with designers and engineers.
 - (5) Maintains required drafting logs and records.
 - (6) Aids in the training of the trainee

CAD Technician I

- a. Primary purpose of position - responsible for performing moderately complex computerized graphic duties including the use of various computer equipment (mouse, digitizer, plotter, tape, disk, or cassette).
- b. Basic Duties
 - (1) Sets up and operates graphic and plotter systems software and hardware including digitizing/editing stations, interactive keyboard terminals, minicomputer, teletype, disk and tape drive equipment.
 - (2) Prepares, edits, and inputs to a graphic system from drawings, plots, and other technical data.
 - (3) Performs preventive maintenance of graphic, plotter hardware; schedules service as required.
 - (4) Maintains documentation and files including data forms, data reference information, engineering document control, films, and database tapes.
 - (5) Verifies drawing plots for correct design specifications, mask colors, and scale sizes.

PLAN OF INSTRUCTIONAL PRACTICES

Teaching Methods

Lecture, demonstration, discussion, group interaction, verbal and written quizzes, skill practice, and individualized instruction.

Instructional Aids

Guest speakers, field trips when appropriate, customer service projects, on-the-job training, individualized learning packages, computer aided drafting system (CAD).

Provision for Individual Differences

Pre-testing to determine entry level, learning guides for progress at individual rates, progress grading, individualized instruction, and individual project assignments.

Methods of Teaching Safety

Basic outline of safety standards and practices and continuous practice of safety principles.

Class Organization

The drafting class is divided into sections of skill levels.

Cooperative Education

Cooperative training is available for students and coordinated by the program instructor. Cooperative training is for students who have shown competence in program training, which indicates readiness for placement in an on-the-job program. Students must complete at least 60% of the program competencies to be eligible for co-op. High school students participating in the cooperative job placement program must be in at least the eleventh grade.

Students who do not function satisfactorily on the job may be returned to the program for additional training, or when the cooperative agreement is terminated at the request of the student, the parent, the employer, or the program instructor.

Additional information regarding co-op opportunities may be obtained from the program instructor.

Job Shadowing

Job shadowing experiences, or volunteer experiences, are available to Architectural Drafting program students who may benefit from the experience. These experiences are designed to give the student actual hands-on drafting experience doing a variety of drafting related tasks. Length and type of experiences will vary. Appropriateness of the experience is determined by the program instructor. Additional information regarding job shadowing experiences may be obtained from the program instructor.

GENERAL SCHOOL INFORMATION

Campus Safety

Basic safety standards, which will include fire drills, weather drills, lockdowns, equipment usage, and traffic regulations, will be covered in the program orientation and within the program as applicable. These basic safety standards will be reinforced throughout the program enrollment. Students should immediately report any safety concerns to an instructor or administrator. Please refer to the school catalog for more campus safety information.

Competency-based Instruction

Any student who enters a LTC program with previous experience or educational background that would enable the student to successfully complete a test of competence in any area may, with the permission of the instructor, complete a test to measure that competence.

Food and Drink in Program Areas

Food and drinks other than water are not allowed in classroom and laboratory areas. Water is permitted in these areas provided it is in a closed, covered container that will not spill if the container is tipped. This is to protect the equipment and furnishings in the classroom and laboratory areas.

Leaving Campus During School Hours

All students who leave campus due to sickness or personal reasons during the scheduled class time are required to inform their program instructor. High school students may leave campus by checking out in the Admissions Office with parental permission and an instructor referral.

Lunch

Food services are provided on the main campus by the Culinary Institute and are available during breaks and lunch.

Adult students may leave the LTC campus during the scheduled 30-minute lunch break as long as they return to the program on time. High school students may not leave the LTC campus during the lunch break.

Parking Regulations

Students may park only in the south parking lot in spaces not designated as staff or customer service parking. For safety, loitering in or around vehicles once the vehicle is parked is not allowed and a 10 mph speed limit is enforced. In consideration of the neighbors and classes in session, loud music in vehicles on campus is prohibited.

Smoking

Smoking is only allowed in the designated smoking area. Please dispose of smoking materials in the designated containers.

OBJECTIVES

See the attached Florida Department of Education curriculum framework for objectives and competencies.