



Massachusetts Department of
**ELEMENTARY & SECONDARY
EDUCATION**

Chapter 74 Manual *for Vocational Technical Education Programs*

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INTRODUCTION

Disclaimer: Sections of laws, regulations, and guidelines are reprinted and referenced in this document. They are reprinted here in order to help with their interpretation and use. The official copies of state laws, regulations, and guidelines as filed with the Secretary of State are implemented by the Department of Elementary and Secondary Education. The Department does not represent this manual as a replacement for the official laws, regulations, and guidelines.

The law (M.G.L.c.74) and the Vocational Technical Education Regulations (603 CMR 4.00) governing vocational technical education are available on the Massachusetts Department of Elementary and Secondary Education - Career/Vocational Technical Education Web site at <http://www.doe.mass.edu/cte/>. These documents should be reviewed in conjunction with the review of this Manual.

This Manual was designed as a resource for school district personnel in the implementation of vocational technical education programs known as Chapter 74-approved vocational technical education programs. The Manual includes the “Guidelines for Vocational Technical Education Programs and Educator Licensure” and provides interpretations and policies regarding the sections of the Vocational Technical Education Regulations (603 CMR 4.01 – 4.06) pertaining to vocational technical education programs. A Massachusetts Department of Elementary and Secondary Education - Career/Vocational Technical Education unit staff person may be contacted for additional information. Call (781) 338-3910 or e-mail careervoctech@doe.mass.edu.

Note that the new name for the Massachusetts Department of Education is the Massachusetts Department of Elementary and Secondary Education (ESE).

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Vocational Technical Education Frameworks per M.G.L.c.69 s. 1F and 603 CMR 4.03 (4):

The Vocational Technical Education Regulations 603 CMR 4.03 (4) require that vocational technical education programs “*be based on the applicable Vocational Technical Education Framework and the Massachusetts Curriculum Frameworks.*”

Vocational Technical Education Frameworks have been developed and are being implemented across Massachusetts. The Vocational Technical Education Frameworks are available on the ESE-Career/Vocational Technical Education Web site at

<http://www.doe.mass.edu/cte/frameworks/>.

Certificate of Occupational Proficiency per and M.G.L. c.69 s. 1D (iii):

The Education Reform Act established the Certificate of Occupational Proficiency. The statute - M.G.L.c.69 s. 1D (iii) states: "*The certificate of occupational proficiency shall be awarded to students who successfully complete a comprehensive education and training program in a particular trade or professional skill area and shall reflect a determination that the recipient has demonstrated mastery of a core of skills, competencies and knowledge comparable to that possessed by students of equivalent age entering the particular trade or profession from the most educationally advanced education systems in the world. No student may receive said certificate of occupational proficiency without also having acquired a competency determination. Nothing in this chapter shall prohibit a student from beginning a program of vocational education before achieving a determination of competency. Such vocational education may begin at grade nine, ten, or eleven. No provision of law shall prohibit concurrent pursuit of a competency determination and vocational learning. There shall be no cause of action for a parent, guardian, or student who fails to obtain a competency determination, a certificate of mastery, or a certificate of occupational proficiency.*"

The development of the student assessment system for the award of the Certificate of Occupational Proficiency is underway. Questions regarding the assessments should be directed to the ESE-Student Assessment Services (SAS) unit.

Advisory Committees for Chapter 74-Approved Vocational Technical Education Programs per M.G.L. c. 74 s. 6, 603 CMR 4.03 (1):

For information, refer to the Career/Vocational Technical Education Advisory Committee Guide that is available on the ESE-Career/Vocational Technical Education Web site at <http://www.doe.mass.edu/cte/> under Links and Resources. The Guide provides useful information pertaining to the formation and effective use of advisory committees for the purpose of developing and improving vocational technical education programs.

April 26, 2005 Note: The State Director of Career/Vocational Technical Education determined that school districts may meet the organized labor representation on their school’s Program Advisory Committees by including organized labor representation on the General Advisory Committee in lieu of each Program Advisory Committee. Note: The State Director of Career/Vocational Technical Education recommends that Program Advisory Committee members be given term limits. Terms should be structured so that they do not all expire in the same year. In addition, it is recommended that non-participating members be discharged.

Admission Policies for Chapter 74-Approved Vocational Technical Education Programs per 603 CMR 4.03 (6):

For information, refer to the Chapter 74 Manual for Vocational Technical Education Admission Policies on the ESE-Career/Vocational Technical Education Web site at

<http://www.doe.mass.edu/cte/> under “Admissions” contains the “Guidelines for Admission Policies of Vocational Technical Secondary Schools and Comprehensive Secondary Schools.” Sample admission policies are included in the manual.

Nonresident Tuition for Chapter 74-Approved Vocational Technical Education Programs per M.G.L. c. 74 s. 7 & 7C, 603 CMR 4.03 (6)(b):

The policy and procedures for implementing the Chapter 74 vocational technical education nonresident tuition option are given in the “Guidelines for the Vocational Technical Education Program Nonresident Student Tuition Process Pursuant to M.G.L. c. 74” available on the ESE-Career/Vocational Technical Education Web site at <http://www.doe.mass.edu/cte/> under “Admissions.” The nonresident tuition rates and the Chapter 74 Vocational Technical Education Program Nonresident Student Tuition Application are also available on this Web site.

National Occupational Program Approval Standards for Chapter 74-Approved Vocational Technical Education Programs per 603 CMR 4.03 (4):

The Vocational Technical Education Regulations require that Chapter 74-approved vocational technical education programs meet National Occupational Program Approval Standards (NOPAS) as set forth in “Guidelines for Vocational Technical Education Programs and Educator Licensure.” The relevant section of the Guidelines is reprinted below (in italics):

Each school with M.G.L.c.74 603 CMR 4.00 (Chapter 74 – approved CTE programs) must meet National Program Approval Standards approval for a minimum of one program per three-year period. The first three-year period will be September 1, 2003 - September 1, 2006. National Program Standards approval received prior to September 1, 2003 cannot be counted toward meeting this requirement.

Automotive Collision Repair and Refinishing Program

National Institute for Automotive Excellence (ASE) and National Automotive Technology Foundation (NATEF), both at 1305 Dulles Technologies Drive, Herndon, VA 20171-3421
<http://www.natef.org>

Approval in a minimum of three of the five areas listed is required: 1.Structural Analysis & Damage Repair, 2.Nonstructural Analysis & Damage Repair, 3.Mechanical & Electrical Components, 4.Plastics & Adhesives, 5.Painting & Refinishing.

Automotive Technology Program

National Institute for Automotive Excellence (ASE) and National Automotive Technology Foundation (NATEF), both at 1305 Dulles Technologies Drive, Herndon, VA 20171-3421
<http://www.natef.org>

Four areas are required for minimum certification or recertification: Brakes, Electrical/Electronic Systems, Engine Performance, and Suspension & Steering.

Culinary Arts Program

American Culinary Federation (ACF), P.O. Box 34566, St. Augustine, FL 32085
<http://www.acfchefs.org/educate/edu.html>

Drafting Program

American Design & Drafting Association, P.O. Box 11937, Columbia, SC 29211
<http://www.ADDA.org>

Diesel Technology Program

National Institute for Automotive Excellence (ASE) and National Automotive Technology Foundation (NATEF), both at 1305 Dulles Technologies Drive, Herndon, VA 20171-3421

<http://www.natef.org>

Graphic Communications Program

Graphic Arts Technical Foundation, 200 Deer Run Road, Sewickley, PA 15143-2600 USA

Tel: 412/741-6860 or 1-800/910-GATF www.gain.net

Heating-Air Conditioning-Ventilation-Refrigeration Program

Air Conditioning & Refrigeration Institute, Partnership for Air Conditioning, Heating, Refrigeration Accreditation (PAHRA) Suite 425 4301 North Fairfax D., Arlington, VA 22203

lsandler@ari.org

National Center for Construction Education & Research, P.O. Box 14104, Gainesville, Florida 32614-1104 Tel: 888/622-3720 www.nccer.org

Hospitality Management Program

Contact Cheryl Learned - Mass. Lodging Association 617-720-1776 National contact: www.ei-ahma.org/

Machine Tool Technology Program

National Institute for Metalworking Skills, Inc. (NIMS) 10301 Democracy Lane, Suite 407, Fairfax, VA 22030 <http://www.nims-skills.org/pages/ProCert1.htm>
or National Coalition for Advanced Manufacturing (NACFAM), NACFAM - 2000 L Street, NW, Suite 807, Washington, DC 20036.

<http://www.nacfam.org/>

Metal Fabrication & Joining Technologies Program

National Institute for Metalworking Skills, Inc. (NIMS) 10301 Democracy Lane, Suite 407, Fairfax, VA 22030

<http://www.nims-skills.org/pages/ProCert1.htm>

Welding Program Component (will count as a program for the purpose of meeting these requirements)

American Welding Society (AWS), 550 NW LeJeune Rd., Miami, FL 33126

<http://www.aws.org>

Power Equipment Technology Program

Equipment and Training Council, 210 Allen Drive, Exton, PA 19341 <http://www.eetc.org/>

State Board/Agency Accreditation Association Approvals per 603 CMR 4.03 (4)(a) 11:

The Vocational Technical Education Regulations require that vocational technical education programs meet state board/agency approvals and accreditation association approvals as set forth in "Guidelines for Vocational Technical Education Programs and Educator Licensure." The list of programs and the required approvals is given below from the Guidelines:

COSMETOLOGY*

ELECTRICITY*
HEALTH ASSISTING*
PLUMBING*
PRACTICAL NURSING (LPN)*

*refer to Selected References section for contact information.

Process for Obtaining Chapter 74-Approval of a New Program:

The application for Chapter 74 approval of a new vocational technical education program with complete instructions and resources is available in the “Application Package for Chapter 74 Vocational Technical Education New Program Approval” that is available on the ESE-Career/Vocational Technical Education Website at <http://www.doe.mass.edu/cte/>. Note that the approval process for a new Chapter 74-approved vocational technical education program must not exceed two years from the date of application. Applications not approved within two years will be returned. Speak with a staff member at the Career/Vocational Technical Education unit at (781) 338-3910 very early in the planning process for technical assistance.

Substantial Changes in Chapter 74-Approved Vocational Technical Education Programs per 603 CMR 4.04 (4):

The Vocational Technical Education Regulations 603 CMR 4.04 (4) state “*Substantial changes in any approved program shall be approved in writing by the Commissioner* prior to implementation.*”

The Vocational Technical Education Regulations define the Commissioner as the “Massachusetts Commissioner of Education or his/her designee.” Note that the Commissioner’s designee is the State Director of Career/Vocational Technical Education.

The State Director of Career/Vocational Technical Education understands that schools must make program curricula changes in approved programs in order to keep them current. It is not the intent to financially penalize programs (by virtue of state aid) for positive change. Therefore, the following guidelines are in effect.

A substantial curricula change in an approved program is when more than twenty-five percent of the total skills to be taught are modified. A substantial curricula change of more than twenty-five percent of the skills to be taught in an approved program would require the written approval of the State Director of Career/Vocational Technical Education. A substantial curricula change of more than fifty-percent of the skills to be taught in an approved program would require the program to be approved as a new program by the State Director of Career/Vocational Technical Education. A substantial change in an approved program that involves the other seven approval criteria, such as the admission policy, facilities, and cooperative education must receive the approval of the State Director of Career/Vocational Technical Education prior to implementation.

When the school determines that a substantial change is foreseen, it shall notify the Career/Vocational Technical Education unit as prescribed in 603 CMR 4.04 and shall be advised as to whether an application for a new program is required.

Only the State Director of Career/Vocational Technical Education shall approve, disapprove substantial changes or new programs.

Closure of Chapter 74-Approved Vocational Technical Education Programs per 603 CMR

4.04 (5):

The Vocational Technical Education Regulations 603 CMR 4.04 (5) state “A *school district that seeks to discontinue an approved vocational technical education program shall submit a closure plan to the Department that includes a timetable for program closure, information outreach to affected students and their parents/guardians, and options for students to complete the vocational technical education program.*”.

It is very important that districts seeking to close a program consult with their liaison in the ESE-Career/Vocational Technical Education unit upon the conception of the idea to close a program. The liaison will advise the district to submit a detailed closure plan as described above. Ultimately, the State Director of Career/Vocational Education will respond to the closure plan.

Monitoring Chapter 74-Approved Vocational Technical Education Programs:

The ESE-Career/Vocational Technical Education unit conducts onsite monitoring of Chapter 74-approved vocational technical education programs to determine the program’s level of compliance with M.G.L.c. 74 and the Vocational Technical Education Regulations 603 CMR 4.00, as well as the Guidelines for Eliminating Discrimination and Denial of Services on the Basis of Race, Color National Origin, Sex and Handicap in Vocational Education Programs - 34 CFR, Part 100, Appendix B. Technical assistance is also provided during these reviews. Onsite monitoring is scheduled as part of ESE’s Coordinated Program Review (CPR) system where several federal and state programs including those under Chapter 74 and the Carl D. Perkins Career and Technical Education Improvement Act of 2006 P.L. 109-270 (Perkins IV) are monitored in the school district at the same time. In certain cases, the ESE-Career/Vocational Technical Education unit will monitor Chapter 74-approved vocational technical education programs at additional times as well.

Cooperative Education in Chapter 74-Approved Vocational Technical Education Programs per M.G.L.c.74 s. 1, 603 CMR 4.03 (7):

For information, refer to the Chapter 74 Manual for Vocational Technical Cooperative Education Programs is available on the ESE-Career/Vocational Technical Education Web site at www.doe.mass.edu/cte/.

Related Instruction in Chapter 74-Approved Vocational Technical Education Programs per 603 CMR 4.03 (4):

Related instruction is that body of integrated academic and technical conceptual and theoretical knowledge purposely organized, sequentially presented, and linked to the program in which the students are enrolled. Related instruction introduces, explains, and amplifies the concepts, history, theory, business practices, ethics, and legal foundations of the technical knowledge and skills to be acquired by students in a vocational technical education shop. By its very nature, the instruction must be integrated with the Massachusetts Curriculum Frameworks and the Vocational Technical Education Frameworks. Related instruction that shall be primarily taught by licensed vocational technical teachers in the specific program area. Academic teachers may assist in the delivery of related instruction components when their particular expertise will enhance the instruction.

Related instruction should be scheduled on a program-by-program basis. It may very well be that for certain programs it is best to schedule related instruction so that it is fully integrated with shop instruction. In other programs, related instruction may be best scheduled during a separate period.

Chapter 74-Approved Vocational Technical Education Exploratory Programs per 603 CMR 4.03 (4) (e):

The Vocational Technical Education Regulations 603 CMR 4.03 (4)(e) state in part: *"School districts that offer five or more approved vocational technical education programs shall provide a minimum of a one half year exploratory program approved by the Department for all incoming ninth graders."*

Students are to be made aware of the opportunities in a variety of vocational technical education programs including those that would prepare them for careers that are nontraditional for their gender. Beginning students should be assessed at the commencement of their vocational technical education for academic knowledge and skills, learning styles, aptitudes, and interests. At the same time, they should be acquainted with as many of the school's vocational technical education programs e.g., shops (majors) as possible. The time spent in each program should be sufficient to allow for the student to be adequately assessed. In addition, it should be ample to allow the student to become aware of the program requirements and the opportunities for employment and further education/training extended by the program. Each student should explore programs that would prepare her/him for careers that would be nontraditional for his/her gender. Students must receive appropriate safety training while exploring programs. The criteria and process to be used in selecting students for admission to particular vocational technical education programs as submitted and approved by ESE, shall be published, with a copy provided to each student and parent/guardian prior to beginning an exploratory program.

Examples of Exploratory Programs

Schools in Massachusetts use a variety of models for exploratory programs. Some examples are:

| Total # Programs | # Programs Explored | Length of Exploratory | Example |
|-------------------------|----------------------------|------------------------------|---|
| 9 | 9 | Half Year | <ul style="list-style-type: none"> Students explore each program for ten half days. |
| 19 | 19 | Half Year | <ul style="list-style-type: none"> Students explore each program for two and one half days. |
| 8 | 8 | Half Year | <ul style="list-style-type: none"> Students explore each program for six full days. |
| 10 | 10 | Full Year | <ul style="list-style-type: none"> During the first semester, students explore programs one period per day. During the second semester, each student explores three programs of their choice two periods per day for eighteen weeks. |
| 14 | 14 | Half Year | <ul style="list-style-type: none"> Students explore each program for three full days. |
| 15 | 15 | Full Year | <ul style="list-style-type: none"> Students explore each program two periods per day for twenty days. |
| 9 | 5 | Half Year | <ul style="list-style-type: none"> Students explore each program for nine full days. |

| | | | |
|----|----|-----------|--|
| 12 | 12 | Full Year | <ul style="list-style-type: none"> • Students explore each program two periods per day for two weeks. |
| 15 | 10 | Half Year | <ul style="list-style-type: none"> • Students explore each program for five full days. |
| 5 | 5 | Half Year | <ul style="list-style-type: none"> • Students explore the each program for ten full days. |
| 19 | 19 | Half Year | <ul style="list-style-type: none"> • Students explore each program for one day. • Each student selects three programs. |
| 17 | 17 | Half Year | <ul style="list-style-type: none"> • Students explore each program four days. • Each student selects three programs. |
| 13 | 10 | Half Year | <ul style="list-style-type: none"> • Students explore each program for a total of ten full days. |

State Aid for Chapter 74-Approved Vocational Technical Education Programs:

The Chapter 74-approved vocational technical education program designation is the state regulatory indicator that ESE uses to denote that a career/vocational technical education program meets required approval criteria. Consequently, the number of students enrolled in Chapter 74-approved vocational technical education programs, as annually reported is a factor in the formula for determining the state aid school districts receive. For example, fiscal year 2008 state aid will be determined by student enrollment as of October 1, 2006.

The ESE-Career/Vocational Technical Education unit has received numerous inquiries requesting the timelines for program review and approval in order to qualify for the state aid that Chapter 74 approval brings. It is important to follow the timelines provided below if new program approval is desired prior to October 1 of any year. ESE cannot retroactively approve programs after October 1 for state aid.

All “Applications for Chapter 74 Vocational Technical Education New Program Approval” whether currently pending or yet to be submitted for new program approval must be completed and be approvable by June 30 if the school wishes to obtain an onsite visit prior to October 1. Final program approval cannot be given until the entire process, which includes an onsite visit, has been completed and the results demonstrate compliance with the approval criteria in the Chapter 74 statute and regulations. Because of the work involved in establishing new programs and obtaining approval, the school should file the “Application for Chapter 74 Vocational Technical Education New Program Approval” by January 1 if completion of the application process and onsite visit by October 1 is sought.

Program Outcomes for Chapter 74-Approved Vocational Technical Education Programs per 603 CMR 4.05:

Program outcome percentages for Outcomes I and II have not been set. Outcome III (*The percentage of vocational technical education program graduates who are employed in a field related to their program of study, in a military program related to their program of study, or who are enrolled in postsecondary education or advanced training twelve months after graduation*) was set at 70% by the Board of Education on April 29, 2003.

Role of the Vocational Technical Supervisor/Director in a Comprehensive High School per 603 CMR 4.03(1)(b):

Each school district that conducts five or more Chapter 74-approved vocational technical education programs in public comprehensive high schools must employ a licensed vocational technical supervisor/director of vocational technical education to plan and supervise the programs. A supervisor/director of vocational technical education who is assigned to a single school within a district shall report to the principal of that school. The supervisor/director reports to the superintendent in cases where the supervisor/director supervises programs in more than one school in the district or supervises programs that are not under the principal.

The supervisor/director's responsibilities include organizing classes, keeping all statistical and financial records; reporting to local and state offices; recommending budgets (expenditures); preparing competency-based curriculum including courses of study and schedules for vocational technical education programs; preparing instructional material and recommending equipment; allocating space; conducting faculty meetings; recommending qualified teachers to the Principal; admitting students; supervising teachers, supervising instruction of students; investigating and recommending approval of cooperative employments; attending educational conferences and meetings; placing and following up students graduating from or leaving school; providing, in compliance with the law, information regarding students to employers and others requesting such information; and disseminating information regarding vocational technical education.

The high school principal and supervisor/director of vocational technical education shall have joint responsibility for planning and implementing programs and activities in which vocational technical education and other students jointly participate, including interrelated academic and vocational technical education programming and scheduling of students.

**Recommended Minimum Square Footage and Maximum Teacher-Student Ratio for Shops
in Chapter 74-Approved Vocational Technical Education Programs**

(Actual teaching areas are indicated, and do not include wash-up, tool room, storage, or other areas.)

Note that for off-campus construction and maintenance projects the recommended teacher-student ratio is eight (8).

| PROGRAM | Teacher-Student Ratio | Area per Pupil (Sq. Ft.) | Minimum Shop Area | Shop Ceiling Clearance Height |
|---|------------------------------|---------------------------------|--------------------------|--------------------------------------|
| Agricultural Mechanics | 15 | 225 | 3375 | 18 |
| Animal Science | 20 | 200 | 4000 | 12 |
| Automotive Collision Repair & Refinishing | 15 | 275 | 4125 | 18 |
| Automotive Technology | 15 | 275 | 4125 | 18 |
| Biotechnology | 20 | 110 | 2200 | 12 |
| Cabinetmaking | 15 | 225 | 3375 | 18 |
| Carpentry | 15 | 225 | 3375 | 18 |
| Cosmetology | * | * | * | * |
| Culinary Arts | 15 | 125 | 1875 | 12 |
| Dental Assisting | 15 | 125 | 1875 | 12 |
| Design & Visual Communications | 20 | 110 | 2200 | 12 |
| Diesel Technology | 15 | 275 | 4125 | 18 |
| Drafting | 20 | 110 | 2200 | 12 |
| Early Education and Care | 20 | 75 | 1500 | 12 |
| Electronics | 20 | 110 | 2200 | 12 |
| Electricity | 15 | 225 | 3375 | 18 |
| Engineering Technology | 20 | 110 | 2200 | 12 |
| Exploratory | 20 | | | |
| Environmental Science & Technology | 20 | 125 | 2500 | 12 |
| Facilities Management | 20 | 175 | 3500 | 12 |
| Fashion Technology | 20 | 125 | 2500 | 12 |
| Graphic Communications | 15 | 150 | 2250 | 12 |

| PROGRAM | Teacher-Student Ratio | Area per Pupil (Sq. Ft.) | Minimum Shop Area | Shop Ceiling Clearance Height |
|---|------------------------------|---------------------------------|--------------------------|--------------------------------------|
| Health Assisting | 15 | 125 | 1875 | 12 |
| Heating-A/C-Ventilation- Refrig. | 20 | 200 | 4000 | 12 |
| Horticulture | 20 | 175 | 3500 | 12 |
| Hospitality Management | 20 | 110 | 2200 | 12 |
| Information Support Services & Networking | 20 | 110 | 2200 | 12 |
| Machine Tool Technology | 15 | 200 | 3000 | 12 |
| Major Appliance Installation/Repair | 20 | 200 | 4000 | 12 |
| Marketing | 20 | 110 | 2200 | 12 |
| Marine Service Technology | 15 | 225 | 3375 | 18 |
| Masonry and Tile Setting | 20 | 175 | 3500 | 12 |
| Medical Assisting | 15 | 125 | 1875 | 12 |
| Medical Laboratory Technology | 20 | 110 | 2200 | 12 |
| Metal Fabrication & Joining Technologies | 15 | 200 | 3000 | 12 |
| Office Technology | 20 | 110 | 2200 | 12 |
| Operating Room Technology | 15 | 125 | 1875 | 12 |
| Painting & Design Technologies | 20 | 125 | 2500 | 12 |
| Plumbing | 15 | 150 | 2250 | 18 |
| Power Equipment Technology | 20 | 150 | 3000 | 12 |
| Practical Nursing | 15 | 125 | 1875 | 12 |
| Programming & Web Development | 20 | 110 | 2200 | 12 |
| Radio and Television Broadcasting | 20 | 125 | 2500 | 12 |
| Robotics and Automation Technology | 20 | 110 | 2200 | 12 |
| Sheet Metalworking | 15 | 150 | 2250 | 18 |
| Stationary Engineering | 20 | 150 | 3000 | 12 |
| Telecommunications-Fiber Optics | 20 | 125 | 2500 | 12 |

| PROGRAM | Teacher-Student Ratio | Area per Pupil (Sq. Ft.) | Minimum Shop Area | Shop Ceiling Clearance Height |
|----------------|------------------------------|---------------------------------|--------------------------|--------------------------------------|
| Welding | 15 | 150 | 2250 | 12 |

* Cosmetology programs must meet requirements for student-teacher ratio and facilities as set forth by the Board of Registration of Cosmetologists.

Safety and Health in Chapter 74-Approved Vocational Technical Education Programs per 603 CMR 4.03(3); (4)(15):

The Career/Vocational Technical Education Safety and Health Guide is posted at http://www.doe.mass.edu/cte/safety_health.html. Schools that have Chapter 74-approved vocational technical education programs must have a comprehensive safety and health plan, which includes safety training for all students and staff. The plan should include provisions for safety inspections of all facilities, safety training for all students and staff and the use, storage, and disposal of toxic and hazardous materials.

Facilities must be inspected by building and safety officials per applicable local, state, and federal laws and regulations.

The Massachusetts Vocational Technical Education Regulations 603 CMR 4.00 require that regulations of the Occupational Safety and Health Administration (OSHA) governing work sites serve as the minimum standards for safety in Chapter 74-approved vocational technical education programs.

Questions and Answers (Q's & A's) RE: Chapter 74-Approved Vocational Technical Education Programs

Program Approval

- 1Q. What must be reviewed and approved prior to a program being designated a Chapter 74-approved vocational technical education program?
- 1A. M.G.L.c.74 Section 1 lists the approval criteria as organization, control, location, equipment, courses of study, methods of instruction, qualifications of teachers, conditions of admission of students, employment of students and expenditures. An application with instructions is available on the ESE-Career/Vocational Technical Education Web site at <http://www.doe.mass.edu/cte/programs/>.
- 2Q. I heard that a program had to be operating with students enrolled for three years before it could be approved as a Chapter 74-approved vocational technical education program. Is this true?
- 2A. ESE would prefer that the program be approved as soon as possible.
- 3Q. The Chapter 74 law and regulations appear to be based on program approval, rather the approval of the school as a whole. Is this a fair interpretation?
- 3A. Yes. Each Chapter 74-approved vocational technical education program must meet the program approval criteria. Individual program approval may be revoked, but the remaining programs in the school would not necessarily be affected.
- 4Q. What are the grounds for revocation of program approval?
- 4A. The Commissioner or his/her designee may deny approval of, or revoke approval from, any program when the Commissioner or his/her designee determines that the program does not meet the requirements of one or more of the approval criteria, fails to meet the Program Outcome Standards, or violates any provision of applicable laws and regulations.
- 5Q. What are the benefits of a program being a Chapter 74-approved vocational technical education program?
- 5A. The obvious benefits are that students will receive instruction from teachers with business/industry experience. In addition, instruction is provided that meets industry standards including those for equipment and facilities. There is additional state aid associated with program approval due to the higher per pupil cost of the programs. It is anticipated that business, industry, and higher education will value the students in Chapter 74-approved vocational technical education programs who receive the Certificate of Occupational Proficiency.
- 6Q. What happens if an approved program falls below the 70% placement rate for graduates of the Chapter 74-approved vocational technical education program?
- 6A. ESE may initiate a review of such a program and request a corrective action plan. ESE will provide technical assistance where appropriate.

The Superintendent shall submit a corrective action plan to ESE for programs that are under review. ESE will monitor progress in meeting the goals of the plan. If, after one

year under review, a program has not made satisfactory progress, its approval may be revoked.

The Commissioner or his/her designee may extend the review for a second year. The Commissioner or his/her designee will make the final determination regarding revocation of approval of an individual program.

7Q. On what is the placement rate based?

7A. The placement rate is the number of program graduates 9-12 months after graduation working in the military in a job related to their program of study, those in a civilian job related to their program of study & those enrolled in further education or training divided by the number of program graduates minus status unknown.

8Q. When will the Program Outcome II standard be set?

8A. After the development of the Certificate of Occupational Proficiency Assessment System is operational, the standards for percentage of vocational technical education students who receive a Certificate of Occupational Proficiency will be set.

9Q. Are programs periodically reviewed by ESE for Chapter 74 compliance?

9A. Yes. Chapter 74-approved vocational technical education programs are monitored onsite as part of the ESE's Coordinated Program Review (CPR) system. In addition, program monitoring is done by desk audit. Additional focused reviews are conducted onsite as needed.

10Q. Can ESE provide some guidance on program length?

10A. M.G.L. c. 74 section 2 was amended by the Education Reform Act in 1993 and it states in part: "The commissioner, under the direction of the state board, shall approve or disapprove vocational-technical programs in accordance with regulations published by the board; provided, however, that said regulations shall more heavily favor an outcome-oriented approach for approval of such programs over a quantitative approach which solely measures time spent on lab instruction; provided, further, that said regulations shall consider a program's intention to integrate vocational and academic instruction and to train students in all aspects of a chosen industry." It is recommended that shop instruction be in the range of 40-50% of the length of the school day or the equivalent thereof, in order to provide the necessary program scope. However, each program's length should be determined on an individual basis.

Advisory Committees

1Q. Does ESE have any recommendations on how to select and use Program and General Advisory Committees?

1A. The Career/Vocational Technical Education Advisory Committee Guide and it is available on the ESE-Career/Vocational Technical Education Web site at <http://www.doe.mass.edu/cte/> under "Links and Resources."

Facilities and Equipment

1Q. The regulations state that the regulations of the Occupational Safety and Health Administration (OSHA) governing work sites shall serve as the minimum standards for

safety in the vocational technical education program. Where can we get information on these standards?

- 1A. The Internet is a valuable source. In addition, review the Career/Vocational Technical Education Safety and Health Guide that is available on the ESE-Career/Vocational Technical Education Web site at http://www.doe.mass.edu/cte/safety_health.html.

Program of Study

- 1Q. The regulations require a Program of Study. Are there any recommended examples available?
- 1A. There are many high schools that have published a Program of Study in recent years so there are many examples. It is suggested that schools review various examples. Community college catalogs in Massachusetts are useful examples.

Admission of Students

- 1Q. I have lots of questions about admission policies. Are there any guidelines?
- 1A. The Chapter 74 Manual for Vocational Technical Education Admission Policies that is available on the ESE-Career/Vocational Technical Education Web site at <http://www.doe.mass.edu/cte/admissions/> includes guidelines, sample admission policies as well as Q's & A's.

Exploratory Programs

- 1Q. What does "one half year" year mean in terms of an exploratory program? Does it mean 495 hours or 247.50 whereas there are 990 hours in the school year?
- 1A. One half year means one-half of the total time spent in shop in the ninth grade. For most schools that would mean in the range of 198 – 247.50 hours.

Cooperative Education

For information, refer to the Chapter 74 Manual for Vocational Technical Cooperative Education. It is available on the ESE-Career/Vocational Technical Education Web site at <http://www.doe.mass.edu/cte/programs/>.

Internship Sites

- 1Q. Must a substitute teacher be licensed as a vocational technical teacher in the program area in which he/she is serving as a substitute in order to supervise students working off-site such as in nursing homes?
- 1A. The regulations state that "*non-licensed substitute teachers and teacher (instructional) aides shall be supervised by an appropriately licensed vocational technical teacher while serving in a vocational technical laboratory and shall not be allowed to supervise students using hazardous equipment.*" Whereas the nursing home is an off-site "laboratory" it is can be concluded that a non-licensed substitute teacher shall not provide the supervision off-site.
- 2Q. Does the CORI law apply to those supervising students on paid/unpaid internships?
- 2A. Yes. The Chapter 74 Manual for Vocational Technical Cooperative Education includes information on CORI.

Appropriate Educator Licenses for Chapter 74-Approved Vocational Technical Education Programs

Teachers Licensed under Chapter 74 and the Vocational Technical Education Regulations 603 CMR 4.00

Each Chapter 74-approved vocational technical education program shall have at least one teacher with the appropriate Vocational Technical Teacher license as identified for the program in the table below. Obviously, the number of students to be taught would dictate the total number of teachers in the program.

An additional teacher with a different vocational technical teacher license from that listed in the table below for the specific Chapter 74-approved vocational technical education program may also teach in the program provided that the teacher would impart knowledge and skills that: 1. he/she is licensed to teach, and 2. are necessary to impart to students in the program.

Example: A Chapter 74-approved vocational technical education Carpentry program must have at least one teacher with a Vocational Technical Teacher license in Carpentry. Obviously, the number of students to be taught would dictate the total number of teachers in the program. That being said, an **additional** teacher, such as a teacher with a Vocational Technical Teacher license in Cabinetmaking may teach in the Chapter 74-approved vocational technical education Carpentry program to impart Cabinetmaking knowledge and skills to students in the Carpentry program.

Note that the ratio of Carpentry teachers to Cabinetmaking teachers in the Carpentry program shall not exceed a one FTE Carpentry teacher to one FTE Cabinetmaking teacher ratio. For example, one Carpentry teacher to two Cabinetmaking teachers in the Carpentry program would not be allowable.

Teachers Licensed under Chapter 71 and the Regulations for Educator Licensure and Preparation Program Approval 603 CMR 7.00

A teacher with a license issued under Chapter 71 and the Regulations for Educator Licensure and Preparation Program Approval 603 CMR 7.00 may teach appropriate units of curricula in a Chapter 74-approved vocational technical education program.

Example: The Vocational Technical Education Frameworks include strands in “Embedded Academics” (Strand 3) and “Management & Entrepreneurship” (Strand 5). A Chapter 74-approved vocational technical education Carpentry program must have at least one teacher with a Vocational Technical Teacher license in Carpentry. Obviously, the number of students to be taught would dictate the total number of teachers in the program. That being said, a teacher with a teacher license in business may teach units related to management & entrepreneurship in the Chapter 74-approved vocational technical education program in Carpentry. Note that it is not anticipated that business, physics and mathematics teachers would be full-time teachers in the Carpentry program, as they would teach a limited number of units.

Note Regarding Chapter 74-Approved Vocational Technical Education Exploratory Programs:

Each teacher in a Chapter 74-approved vocational technical education exploratory program must hold a Vocational Technical Teacher license in a field within the same Occupational Cluster, or in a related Occupational Cluster. For example, a teacher with a Vocational Technical Teacher license in Carpentry may, teach in the exploratory program for the Construction Cluster. The Department will be publishing a “Guide to Chapter 74 Exploratory Programs” in the 2006 –2007 school year that will provide more guidance on Chapter 74-approved vocational technical education exploratory programs.

Superintendents and Principals:

All vocational technical school districts and agricultural schools must employ a superintendent holding a Vocational Technical Superintendent/Assistant Superintendent license. All vocational technical high schools including agricultural high schools must employ at least one principal holding a valid Vocational Technical Principal/Assistant Principal license. Note that vocational technical high schools and agricultural high schools may employ an additional principal/assistant principal licensed pursuant to Chapter 71 603 CMR 7.00

| Chapter 74-Approved Vocational Technical Education Program | Appropriate Vocational Technical Teacher License |
|---|---|
| <u>AGRICULTURE & NATURAL RESOURCES CLUSTER</u> | |
| AGRICULTURAL MECHANICS | AGRICULTURAL MECHANICS |
| ANIMAL SCIENCE | ANIMAL SCIENCE |
| ENVIRONMENTAL SCIENCE & TECHNOLOGY | ENVIRONMENTAL SCIENCE & TECHNOLOGY |
| HORTICULTURE | HORTICULTURE |
| <u>ARTS & COMMUNICATION SERVICES CLUSTER</u> | |
| DESIGN & VISUAL COMMUNICATIONS | DESIGN & VISUAL COMMUNICATIONS |
| GRAPHIC COMMUNICATIONS | GRAPHIC COMMUNICATIONS |
| RADIO & TELEVISION BROADCASTING | RADIO & TELEVISION BROADCASTING |
| <u>BUSINESS & CONSUMER SERVICES CLUSTER</u> | |
| COSMETOLOGY | COSMETOLOGY |
| FASHION TECHNOLOGY | FASHION TECHNOLOGY |
| MARKETING | MARKETING |
| OFFICE TECHNOLOGY | OFFICE TECHNOLOGY |
| <u>CONSTRUCTION CLUSTER</u> | |
| FACILITIES MANAGEMENT | FACILITIES MANAGEMENT |
| CABINETMAKING | CABINETMAKING |
| CARPENTRY | CARPENTRY |
| ELECTRICITY | ELECTRICITY |
| HEATING-AIR CONDITIONING-VENTILATION-REFRIGERATION | HEATING-AIR CONDITIONING-VENTILATION-REFRIGERATION |
| MASONRY & TILE SETTING | MASONRY & TILE SETTING |
| PAINTING & DESIGN TECHNOLOGIES | PAINTING & DESIGN TECHNOLOGIES |

| Chapter 74-Approved Vocational Technical Education Program | Appropriate Vocational Technical Teacher License |
|--|---|
| PLUMBING | PLUMBING |
| SHEET METALWORKING | SHEET METALWORKING |
| <u>EDUCATION CLUSTER</u> | |
| EARLY EDUCATION AND CARE | EARLY EDUCATION AND CARE |
| <u>EXPLORATORY PROGRAMS</u> | SEE NOTE ABOVE |
| <u>HEALTH SERVICES CLUSTER</u> | |
| DENTAL ASSISTING | DENTAL ASSISTING |
| HEALTH ASSISTING | HEALTH ASSISTING |
| MEDICAL ASSISTING | MEDICAL ASSISTING |
| MEDICAL LABORATORY TECHNOLOGY | MEDICAL LABORATORY TECHNOLOGY |
| OPERATING ROOM TECHNOLOGY | OPERATING ROOM TECHNOLOGY |
| PRACTICAL NURSING (LPN) | PRACTICAL NURSING (LPN) |
| <u>HOSPITALITY & TOURISM CLUSTER</u> | |
| CULINARY ARTS | CULINARY ARTS |
| HOSPITALITY MANAGEMENT | HOSPITALITY MANAGEMENT |
| <u>INFORMATION TECHNOLOGY SERVICES CLUSTER</u> | |
| PROGRAMMING & WEB DEVELOPMENT | PROGRAMMING & WEB DEVELOPMENT |
| INFORMATION SUPPORT SERVICES & NETWORKING | INFORMATION SUPPORT SERVICES & NETWORKING |
| <u>MANUFACTURING, ENGINEERING & TECHNOLOGICAL CLUSTER</u> | |
| BIOTECHNOLOGY | BIOTECHNOLOGY |
| DRAFTING | DRAFTING |
| ELECTRONICS | ELECTRONICS |
| ENGINEERING TECHNOLOGY | ENGINEERING TECHNOLOGY |
| MACHINE TOOL TECHNOLOGY | MACHINE TOOL TECHNOLOGY |
| MAJOR APPLIANCE INSTALLATION/REPAIRING | MAJOR APPLIANCE INSTALLATION/REPAIRING |
| METAL FABRICATION & JOINING TECHNOLOGIES | METAL FABRICATION & JOINING TECHNOLOGIES |
| ROBOTICS & AUTOMATION TECHNOLOGY | ENGINEERING TECHNOLOGY |
| STATIONARY ENGINEERING | STATIONARY ENGINEERING |
| TELECOMMUNICATIONS – FIBER OPTICS | TELECOMMUNICATIONS – FIBER OPTICS |

| Chapter 74-Approved Vocational Technical Education Program | Appropriate Vocational Technical Teacher License |
|---|---|
| <u>TRANSPORTATION CLUSTER</u> | |
| AUTOMOTIVE COLLISION, REPAIR & REFINISHING | AUTOMOTIVE COLLISION, REPAIR & REFINISHING |
| AUTOMOTIVE TECHNOLOGY | AUTOMOTIVE TECHNOLOGY |
| DIESEL TECHNOLOGY | DIESEL TECHNOLOGY |
| MARINE SERVICE TECHNOLOGY | MARINE SERVICE TECHNOLOGY |
| POWER EQUIPMENT TECHNOLOGY | POWER EQUIPMENT TECHNOLOGY |