2000
AMENDMENTS
to the
Career & Technology Studies Manual for Administrators, Counsellors and Teachers

Front Section

1. **Replace** pages 43–44 with **revised** pages 43–44.

Appendix 1

1. **Replace** 1999 Fabrication Studies Brochure with **revised** 2000 Fabrication Studies Brochure.

2. **Replace** 1999 Career Transitions Brochure with **revised** 2000 Career Transitions Brochure.

Tracking Course Completion

Junior high schools need to implement tracking procedures to maintain appropriate records of the courses and/or general outcomes completed by individual students. Tracking procedures can be:

- quite simple, involving the use of a card for each student to record all completed courses and/or outcomes
- more complex, involving spreadsheets and databases.

Tracking procedures at the school level should be complemented with student portfolios and/or other methods of profiling the work completed by individual students. A per cent mark for completed courses is required by high schools if prior learning is recognized through the granting of credits.

ASSESSING ACHIEVEMENT IN SENIOR HIGH SCHOOL

Assessing Achievement

Assessment of student achievement in senior high school is based on successfully demonstrating all of the general outcomes for any given course to the standard defined for each competency. Consistent application of curriculum and assessment standards is critical to maintaining the credibility of student learning in CTS programs.

When a student is able to successfully demonstrate all the general outcomes for any given course to the standard defined for each competency, the teacher designates the course as successfully completed and assigns a percentage grade to the course—a mark not less than 50%.

Reporting Achievement

Each high school reports student achievement in CTS courses to the Educational Information Exchange (EIE) on the basis of individual 1-credit courses, using the seven character alphanumeric codes provided on the scope and sequence chart for each CTS strand. Course reporting is done electronically using appropriate file formats, and includes all:

- successfully completed (passed) courses (i.e., courses in which the student has demonstrated all the general outcomes to the established standard), along with a mark of 50% or greater for each successfully completed course
- unsuccessful courses (i.e., courses in which the student has not demonstrated all the general outcomes to the established standard).

Refer to *Guide to Education: ECS to Grade 12*, September 1999, page 44.

The senior high school principal may accept a recommendation from the junior high school principal that a student has completed successfully all of the course outcomes and should be given credit. A mark of "P" for pass, or a percentage grade, may be assigned to the student by the senior high school principal. This course can then be included when reporting student achievement through the normal student records system and will appear on the student's transcript.

Refer to the *Funding Manual for School Authorities in the 1998–1999 School Year*.

CTS courses reported as unsuccessful will need to be further identified regarding their eligibility for funding. For information regarding funding, see the Funding for CTS section below.

For information regarding the reporting of challenged courses and courses completed in junior high school, see the CTS in Senior High School, Effective Transitions section.

As in other senior high school courses, student achievement is reported to students and parents in accordance with local policy.

Tracking Course Completion

Refer to the *Electronic Data Exchange User Guide* and/or *Manual Forms User Guide*.

Tracking systems used by senior high schools to record the completion of individual CTS courses should align with the system used by EIE for reporting student achievement. Schools may choose to supplement their tracking of course completion with information regarding achievement in junior high school.

Course tracking and record keeping at the senior high school level should be complemented with student portfolios and/or other methods of profiling the competencies and learning experiences of individual students.

FUNDING FOR CTS

The sources of funding described below support Alberta Education's shift to site-based management. Local school systems are responsible for assessing needs and making appropriate funding applications. School systems also retain responsibility for distributing funds to schools equitably.

Basic Instructional Funding

Refer to the *Funding Manual for School Authorities in the 1998–1999 School Year*.

Basic instructional funding for junior high schools is independent of course completion. Funding is based on a per student grant, with the amount of the grant subject to adjustment from time to time.

Basic instructional funding for senior high schools is based on the credit enrollment unit (CEU), and allocated according to the following criteria:

- full CEU funding for successfully completed (passed) courses
- 20% of CEU funding for successfully challenged courses.

A 1-credit CTS course is considered completed for funding purposes when a student has completed at least 50 per cent of the course content. These 1-credit courses should then be reported as withdrawn but eligible for funding.

What ELSE do I need to know?

This CTS strand is linked to what you learn in:

- Language Arts
- Mathematics
- Science
- Social Studies
- CTS Agriculture
- CTS Construction Technologies
- CTS Design Studies
- CTS Energy and Mines
- CTS Enterprise and Innovation
- CTS Logistics
- CTS Mechanics.

FOR FURTHER INFORMATION ABOUT CTS:

- visit our home page on the Internet at <**http://ednet.edc.gov.ab.ca/cts**> to review general information, review curriculum documents, or read about "What's New and Upcoming Events"
- contact the Program Manager, Career and Technology Studies, or the Director, Curriculum Standards Branch, Alberta Learning; telephone 780–422–4872, fax 780–422–0576. Inside Alberta, dial 310–0000 to be connected toll free.

School systems/schools, please contact the CTS Program Coordinator for your jurisdiction.

Career and Technology Studies

FABRICATION STUDIES

(Revised 2000)

Alberta LEARNING

WHAT'S it all ABOUT?

Metal products and structures have shaped world history. Even today, the search continues to develop new metals, processes and products for the 21st century.

Fabrication Studies will give you the opportunity to investigate and develop the knowledge and skills necessary to transform metal and other related materials into various products and structures, and to use this knowledge to make informed career choices.

The CTS Fabrication Studies strand provides an opportunity for you to explore:

- materials and structures
- fabrication processes, such as cutting, bending, joining and finishing
- production systems and processes, such as casting and machining.

What will I LEARN in Fabrication Studies?

At the introductory level, you study:

- construction and fabrication processes
- welding skills
- fabrication principles
- principles of machining
- production systems.

At the intermediate and advanced levels, you study:

- structural design and engineering
- print reading
- forging fundamentals
- material testing
- foundry
- computer numerical controlled turning and milling.

Fabrication Studies Courses

Introductory

- Fabrication Tools & Materials
- Oxyacetylene Welding
- Basic Electric Welding
- Bar & Tubular Fabrication
- Sheet Fabrication 1 (Hand Processes)
- Fabrication Principles
- Foundry 1 (One-piece Pattern)
- Principles of Machining
- Production Systems

Intermediate

- Structural Engineering
- Print Reading
- Oxyfuel Welding
- Thermal Cutting
- Arc Welding 1 and 2
- Gas Metal Arc Welding 1
- Pipe Fitting
- Sheet Fabrication 2 (Machine Processes)
- Sheet Fabrication 3 (Parallel Line)
- Forging Fundamentals
- Foundry 2 (Split Pattern)
- Precision Turning 1
- Precision Milling 1
- CNC Turning (Computer Numerical Control)
- Custom Fabrication

Advanced

- Materials Testing
- Metallurgy Fundamentals
- Gas Tungsten Arc Welding
- Specialized Welding
- Arc Welding 3 and 4
- Gas Metal Arc Welding 2
- Pipe & Tubular Welding
- Automated Welding
- Sheet Fabrication 4 (Radial Line)
- Sheet Fabrication 5 (Duct Components)
- Foundry 3 (Core Molding)
- Precision Turning 2
- Precision Milling 2
- CNC Milling (Computer Numerical Control)
- Prefabrication Principles

WHERE can this TAKE me?

To compete in the North American and global markets, the fabricated materials sector is investing in leading-edge technology and needs highly trained and talented people to manage and operate this technology. The CTS Fabrication Studies strand provides a base for fourteen occupations requiring high school education and for nine related trades. These include:

- boiler makers
- contractors and supervisors
- forging machine operators
- ironworkers
- material engineering technologists
- plastics processing machine operators
- sprinkler systems installers
- steamfitters/pipefitters
- tool and die makers
- welders.

Post-secondary Education! Many careers in fabrication studies require some form of post-secondary education. In Alberta, numerous public, private and vocational colleges offer apprenticeship programs in this area.

In addition, you may be eligible to apply for either credits or advanced standing in some post-secondary programs.

See your counsellor for more information.

What ELSE do I need to know?

Because of its emphasis on practical employment skills, Career Transitions supports your entire high school experience.

This CTS strand is linked to what you learn in:

- Personal Development
- Social Studies
- all other CTS strands.

FOR FURTHER INFORMATION ABOUT CTS:

- visit the Alberta Learning web site at <http://www.learning.gov.ab.ca>
- contact the Program Manager, Career and Technology Studies or the Director, Curriculum Branch, Alberta Learning, telephone 780–422–4872, fax 780–422–0576. Inside Alberta, dial 310–0000 to be connected toll free.

School systems/schools please contact the CTS Program Coordinator for your jurisdiction.

Career and Technology Studies

CAREER TRANSITIONS

(Revised 2000)

Alberta LEARNING

WHAT'S it all ABOUT?

Choosing what you want to do after high school, and knowing how to achieve that goal, can be challenging. The Career Transitions strand gives you the skills you need to make critical decisions as you move toward graduation. It helps you:

- develop decision-making skills
- recognize the value of the knowledge and skills you already possess
- set realistic career goals
- understand the expectations of employers
- prepare for the experience of finding a job.

What will I LEARN in Career Transitions?

You learn about:

- the job market and employment trends
- selected occupations
- good work habits
- resume writing
- interview skills
- project design and management
- leadership principles and practices
- personal and workplace safety.

Career Transitions Courses

Introductory

- Job Preparation
- Leading by Example
- Project 1A and 1B
- Personal Safety (Management)
- Client Service 1
- Career Directions—Foundations

Intermediate

- Job Maintenance
- Taking the Lead
- Governance & Leadership
- Project 2A, 2B, 2C, 2D and 2E
- Workplace Safety (Practices)
- Client Service 2
- Career Directions—Expansion

Advanced

- Preparing for Change
- Organizational Leadership
- Leading for Change
- Project 3A, 3B, 3C, 3D and 3E
- Practicum A, B, C, D and E
- Safety Management Systems
- Client Service 3
- Career Directions—Transitions

WHERE can this TAKE me?

Career Transitions provides knowledge and skills that can be of value no matter what career you choose. It provides essential job search and employment skills that can be used throughout your work life.

You may be able to use some of the Career Transitions courses to gain certificates in First Aid and Job Safety Skills.

See your counsellor for more information.