
FABRICATION STUDIES

B. STRAND RATIONALE AND PHILOSOPHY

Metal products and structures have shaped world history. For thousands of years, metals have been shaped, joined and cast into items that have utilitarian and artistic value. Today, the search continues to develop new metals, processes and products for the 21st century.

The fabricated materials sector of the Canadian economy is characterized by a large number of small entrepreneurial businesses that supply the construction and manufacturing industries' intermediate or finished product requirements. This sector is a medium technology industry that depends principally on metals and related materials.

To compete in North American and global markets, the fabricated materials sector is investing in leading-edge technology and is hiring highly trained and talented people to manage and operate this technology effectively and efficiently.

The Fabrication Studies strand has been developed within Career and Technology Studies to help meet this training need. Students selecting courses from the Fabrication Studies strand have the opportunity to investigate and develop important knowledge, skills and attitudes related to the properties of materials and the design and fabrication of products.

In this strand, students are provided with a broad base of relevant theory and practice that builds daily living and career-specific skills. Successful completion of advanced level courses gives students the skills and experience required for entry-level employment or for post-secondary education.

Within the philosophy of Career and Technology Studies, *students in Fabrication Studies will:*

- develop safe work and environmental practices
- develop self- and resource-management skills
- link the knowledge, skills and attitudes developed in other courses in meaningful and practical ways to the study of fabrication processes
- demonstrate flexibility, cooperative work behaviours, and effective communication and leadership skills
- link theory and practice using available resources, tools and materials responsibly and efficiently
- expand personal knowledge and appreciation of career options and training opportunities.

STRAND ORGANIZATION

THEMES

The Fabrication Studies development model, shown below, has been developed around three themes that are central to the transformation of metals and like materials into useful artifacts and structures. These themes are:

- Materials and Structures
- Fabrication Processes (cutting, bending, joining, finishing)
- Production Systems and Processes (casting, machining).

INTEGRATING CONCEPTS

Integrating concepts, shown on the face of the model, provide a basic framework for the study of each course. The context in which the learning takes place varies according to the available resources and the experience, background and intent of the learner. As the student is engaged in the learning activities in the school or in the community, specific outcomes are anticipated. These outcomes take the form of basic and career-specific knowledge, skills and attitudes that have been constructed by the learner.



