

CABINETMAKING TECHNIQUES

Program Outline

Major:	CABT
Length:	1 Year
Delivery:	3 Semesters
Credential:	Ontario College Certificate
Effective:	2013-2014
Location:	Barrie
Start:	Fall (Barrie)

Description

This program gives students many project opportunities that develop the foundational knowledge and skills for the cabinetmaking industry. Many hands-on opportunities ensure that graduates are competent in all aspects of the industrial cabinetmaking/woodworking field, from the planning stages to the application of final finishes on various products.

Career Opportunities

Our graduates enjoy success as employees in custom or production furniture building, millwork, kitchen cabinet making, furniture finishing and residential trim. Potential career opportunities include cabinetmaker, shop supervisor, machine set up technician, or self-employment.

A graduate may wish to discuss the possibility of eligibility for apprenticeship credits into the Cabinetmaking apprenticeship program with the Ministry of Training Colleges and Universities.

Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

- perform cabinetmaking activities safely to industry standards;
- determine joinery requirements for various types of cabinetmaking construction including sketches and shop drawings of common furniture and cabinet units;

- interpret drawings for production planning and estimating;
- select, maintain and operate hand tools, portable power tools and stationary machinery.
- select various grades of lumber and building materials;
- perform sanding and adhesive operations to industry standards;
- select and apply finishes and hardware used in manufacturing of furniture, cabinets and millwork;
- produce cabinets and other architectural specialties including millwork and mouldings to be installed in residential and commercial applications;
- apply mathematical solutions for cabinetmaking applications.

The Program Progression:

Fall Intake - Barrie

Sem 1		Sem 2		Sem 3

Fall		Winter		Summer
2013		2014		2014

Admission Requirements:

You must meet ONE of the following requirements to be eligible for admission to these programs:

Secondary school applicants:

- OSS curriculum: OSSD or equivalent, with Grade 12 English (C) or (U) (ENG4C, ENG4U)

Non-Secondary school applicants (19 years or older):

- Any credit Communication course taken at Georgian College
- Most college preparatory programs including those taken at Georgian College: Technology Foundation, Technology Fundamentals and General Arts and Science*
- Equivalent courses in English taken through secondary school or Independent Learning Centres (at the general, advanced, college or university level)
- Academic and Career Entrance Certificate (ACE) program with communications
- Mature student testing in English that meets the minimum standards for admission (available through most testing services)*
- Ontario High School Equivalency Certificate (GED)
- English, Literature or Communication credit courses from accredited colleges/universities

Home school applicants:

- Applicants can write the mature student testing in English that meets the minimum standards for admission (available through testing services)*

* available from Georgian College. For a complete listing please contact the Office of the Registrar.

Non-secondary school applicants who are 19 years of age or over by the first day of classes, and who lack the academic entrance qualifications, may be considered for entrance to an appropriate post-secondary diploma or certificate program as mature applicants. Mature applicants must meet all program specific prerequisites including all selection criteria; equivalencies are stated above. Applicants who are unsure whether they meet admission requirements should contact the Office of the Registrar. In addition, those applying as mature students and having no documentation of Grade 12 education must supply, if required, proof of age, such as a copy of an official birth certificate or driver's licence. Refer to Section 2.5 and 2.6 of the Academic Calendar for further details.

Credit transfer and course exemptions:

Applicants who have taken courses from a recognized and accredited post-secondary institution and/or have relevant life/learning experience may be eligible for credit transfer/course exemptions. Courses/experience must match at least 80% of the learning outcomes of a Georgian College course with a minimum grade of 60% or C achieved in previous coursework; some program exceptions apply (see program outline). For further information please visit the Credit Transfer Centre website: georgiancollege.ca/admissions/credit-transfer/

Graduation Requirements:

16 Mandatory Courses

1 Communications Course

1 General Education Course

Graduation Eligibility:

To graduate from this program, the passing weighted average for promotion through each semester, and to graduate is 60%. Additionally, a student must attain a minimum of 50% or a letter grade of P (Pass) or S (Satisfactory) in each course in each semester unless otherwise stated on the course outline.

Mandatory Courses

CABT1010 Hand and Power Tools
CABT1011 Cabinetmaking Applications
CABT1012 Finishing Processes
CABT1013 Joinery and Fastening
CABT1014 Cabinet Construction and Installation
CABT1015 Trim and Mouldings
CABT1016 Finishing Applications
CABT1017 Cabinetmaking Materials
CABT1018 Construction Applications
CABT1019 Preproduction Planning
CABT1020 Advanced Projects
CABT1021 Furniture Design
CABT1022 Advanced Finishing
CABT1023 Construction Detailing
DRFT1009 Technical Drawings
MATH1007 Mathematics Techniques

Communications Course

To be selected at time of registration from the College list, as determined by testing.

General Education Course

To be selected from College list

Course Descriptions:

CABT1010 Hand and Power Tools 42.0 Hours

This course will introduce students to hand and power tools required for the cabinetmaking trade. Students will learn to identify, explain and demonstrate the procedure for the care and safe use of a variety of hand and power tools that are appropriate for a given task.

CABT1011 Cabinetmaking Applications 70.0 Hours

During this practical course, students will learn about safe use of hand and power tools in the process of constructing assigned projects. Students will complete hand tool projects, and after extensive machine safety training, they will also complete a cabinetmaking project using power tools.

CABT1012 Finishing Processes 28.0 Hours

This course introduces students to the safe use and maintenance of spray finish equipment. Students perform prefinish operations and prepare work pieces for colours,

sanding sealers and top coats. Projects built in the shop during this semester are finished to trade specifications.

CABT1013 Joinery and Fastening 42.0 Hours

This practical course includes exploring the design and construction techniques used in the building of various types of furniture. Emphasis is placed on selecting required joints, using appropriate fasteners, applying adhesives, performing preassembly and completing various sanding operations.

CABT1014 Cabinet Construction and Installation 28.0 Hours

This advanced course expands on fine woodworking techniques used in building frame and panel as well as case construction projects. It explores machining processes used in the manufacturing of cabinet components for shop projects to be built during the program. The study of the installation process is also included.

CABT1015 Trim and Mouldings 28.0 Hours

Students will be introduced to the installation of many forms of interior trim including base and crown moldings as well as door and window casing. Students will also become acquainted with wall panels, chair rail, and wainscoting. Safety and care of pneumatic tools will be included.

CABT1016 Finishing Applications 28.0 Hours

This course includes staining and spraying of lacquer products for projects constructed in the shop. Emphasis is placed on the work environment considering such factors as light, work flow, dust conditions, air flow temperature, and humidity. The repair and refinishing of antique furniture is also examined.

CABT1017 Cabinetmaking Materials 42.0 Hours

This course familiarizes students with the materials used in a modern cabinet shop. The structure, density and moisture content of both hardwoods and softwoods are studied. The unique characteristics of domestic and tropical species are compared for defects, grades and physical properties and their uses, costs and sourcing. Harvesting and drying of solid wood are explored along with the manufacturing of panel products. There is a focus on the environmental sustainability of this industry.

CABT1018 Construction Applications 84.0 Hours

This course expands on the design and construction techniques used in the building of furniture and kitchen cabinets. Students study ergonomics and how they relate to the design of standard and accessible cabinets and furniture. The 32 mm system of cabinet construction and its integration into the cabinet industry are examined. The students will build a prototype.

CABT1019 Preproduction Planning 28.0 Hours

Building on previously learned theory, students will plan a project of moderate complexity, including calculations of cost estimates and preparation of bill of materials. Principles of project planning, including estimating materials and labour, management of inventory and record keeping, will also be explored.

CABT1020 Advanced Projects 84.0 Hours

In this practical course, students focus on custom projects. They will construct a piece of furniture of moderate complexity utilizing theory and its applications previously studied. Emphasis will be on construction and assembly. Students may also be introduced to the basics of CNC equipment.

CABT1021 Furniture Design 28.0 Hours

Furniture is a product of design and can be considered a form of decorative art. Styles and period design will be explored. Timeline of furniture styles ranging from 17th century to 20th century will be examined. Key elements of design will be studied with an emphasis on furniture as a vital support for human activity. A design and research project will be completed.

CABT1022 Advanced Finishing 28.0 Hours

Students finish projects constructed during the semester. Spray booth operation and maintenance are explored. Touch-up, repair, and hand-applied finishes are also examined.

CABT1023 Construction Detailing 42.0 Hours

Students will complete their assignment(s) for the 'Advanced Projects' with an emphasis on material selection, proper sanding technique & preparation, hardware choices and installation.

DRFT1009 Technical Drawings 28.0 Hours

This course introduces students to three view and isometric drawings using standard mechanical drafting techniques. Students also draw full size geometric layouts for woodworking applications. Sketching is also studied. During the course, students produce shop drawings for their compulsory projects to be built in the shop.

MATH1007 Mathematics Techniques 42.0 Hours

This is a consolidation and review of the principles and techniques of mathematics, which are required for the technical trades. Developing and promoting the use of mental arithmetic, estimation skills, problem solving, and reasoning skills.

Course Description Legend

P = Prerequisite; C = Concurrent prerequisite; CO= Corequisite

Information contained in College documents respecting programs is correct at the time of publication. Academic content of programs and courses is revised on an ongoing basis to ensure relevance to changing educational objectives and employment market needs. The college reserves the right to add or delete programs, options, courses, timetables or campus locations subject to sufficient enrolment, and the availability of courses.