

2005 CTS AMENDMENTS to the Construction Technologies Guide to Standards and Implementation

Summary of Curriculum Changes

Prerequisite changes:

- CON1070: Building Construction is no longer a prerequisite to:
 - CON2010: Site Preparation
 - CON2020: Concrete Forming
 - CON2030: Alternative Foundations
 - CON2040: Framing Systems 1
 - CON2050: Roof Structures 1
 - CON2060: Exterior Finishing
 - CON2070: Electrical Systems
 - CON2080: Plumbing Systems
 - CON2090: Climate Control Systems
 - CON2100: Agri-structures
 - CON3010: Concrete Work
 - CON3020: Masonry Work
 - CON3030: Wall & Ceiling Finishing
 - CON3040: Stair Construction
 - CON3060: Doors & Trim
 - CON3070: Floorcovering

(CON1010: Basic Tools & Materials is the immediate prerequisite to each of the courses noted above.)

Section B

- **Remove** page B.5 (1997) and **replace** with new page B.5 (Revised 2005).

Section E

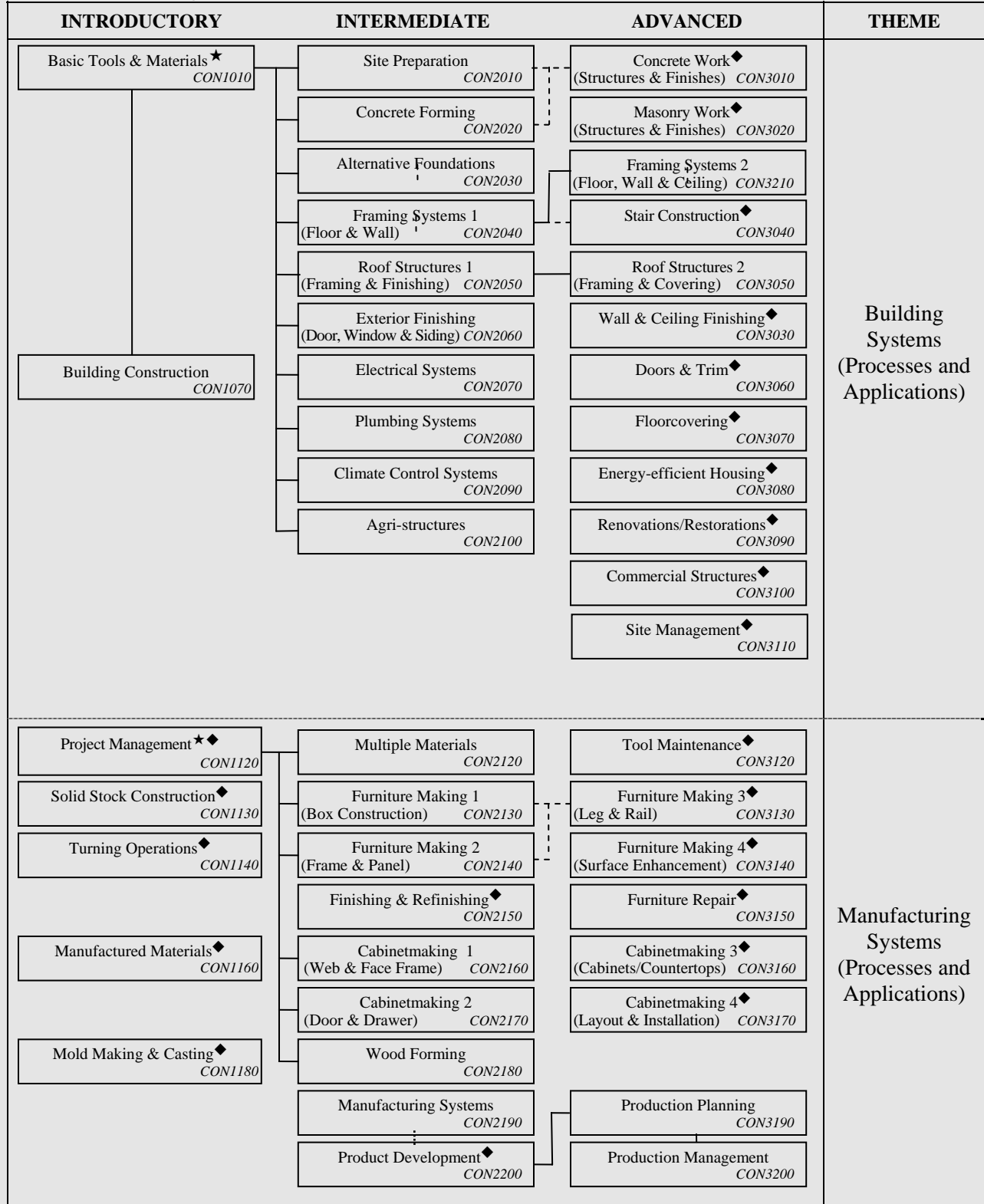
- **Remove** pages E.3, E.7, E.11, E.15, E.19, E.23, E.27, E.31, E.35 and E.39 (1997) and **replace** with new pages E.3, E.7, E.11, E.15, E.19, E.23, E.27, E.31, E.35 and E.39 (Revised 2005).

Section F

- **Remove** pages F.3, F.7, F.11, F.15, F.23 and F.27 (1997) and **replace** with new pages F.3, F.7, F.11, F.15, F.23 and F.27 (Revised 2005).

SCOPE AND SEQUENCE

CONSTRUCTION TECHNOLOGIES



—— Prerequisite

----- Recommended sequence

★ Course provides a strong foundation for further learning in this strand.

♦ Refer to specific courses for additional prerequisites.

COURSE DESCRIPTIONS

Course CFS1010: Basic Tools & Materials

Students develop basic hand tool and production skills to transform, safely, common building materials into useful products.

Course CON1070: Building Construction

Students examine common building systems, and develop basic skills related to building a simple model or full size system/structure.

Course CON1120: Project Management

Students develop basic shop drawing and estimating skills, and apply them to build a product.

Course CON1130: Solid Stock Construction

Students develop basic hand and power tool skills to build a product made from solid wood.

Course CON1140: Turning Operations

Students use wood-turning equipment and techniques to create a faceplate and spindle turning made from solid and/or built-up stock.

Course CON1160: Manufactured Materials

Students select and use the appropriate materials and tools to build a product or structure from a wood composite or other manufactured material.

Course CON1180: Mold Making & Casting

Students apply knowledge of casting and molding materials and processes to prepare a mold and produce a casting.

Course CON2010: Site Preparation

Students develop the knowledge and skills to acquire a building permit and to locate and prepare a site for excavation and foundation work.

Course CON2020: Concrete Forming

Students develop knowledge and skills related to the preparation and construction of a concrete foundation.

Course CON2030: Alternative Foundations

Students develop basic knowledge and skills related to the design and construction of an alternative foundation system.

Course CON2040: Framing Systems 1 (Floor & Wall)

Students develop basic framing knowledge and skills associated with the construction of a floor and wall system.

Course CON2050: Roof Structures 1 (Framing & Finishing)

Students develop basic knowledge and skills associated with framing and finishing a simple roof system.

Course CON2060: Exterior Finishing (Door, Window & Siding)

Students apply and develop basic knowledge of door, window and siding systems and installation skills and procedures.

Course CON2070: Electrical Systems

Students apply electrical principles, and develop an understanding of residential electrical code requirements and installation procedures.

Course CON2080: Plumbing Systems

Students develop basic knowledge and skills to fabricate and make repairs to residential drainage, waste, vent (DWV) and water supply systems.

Course CON2090: Climate Control Systems

Students investigate common heating, ventilating and air conditioning (HVAC) systems and principles, and participate in the installation or maintenance of one of these systems.

Course CON2100: Agri-structures

Students apply construction principles and skills, and use pre-engineered designs to build a structure to be used for agricultural purposes.

Course CON2120: Multiple Materials

Students develop a product that incorporates two or more types of material in its construction.

Course CON2130: Furniture Making 1 (Box Construction)

Students develop basic joinery skills and knowledge related to case construction, by producing a box-type piece of furniture.

COURSE CON2010: SITE PREPARATION**Level:** Intermediate**Theme:** Building Systems (Processes and Applications)**Prerequisite:** CON1010 Basic Tools & Materials**Description:** Students develop the knowledge and skills to acquire a building permit and to locate and prepare a site for excavation and foundation work.**Parameters:** Access to a building site and/or construction facility and to instruction from an individual with specialized training in carpentry.**Supporting Course:** CON1070 Building Construction**Curriculum and Assessment Standards**

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> identify and describe typical building site layout and excavation processes 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> presentation of an independently researched report that includes: <ul style="list-style-type: none"> identification and use of batterboards, building lines, plumb bob, builder's level and transit use of the 3, 4, 5 principle (Pythagorean Theorem) description of excavation methods and equipment safety precautions with an emphasis on shoring. <p><i>Assessment Tool</i> <i>Research Process: Preparing a Building Site, CON2010-1</i></p> <p><i>Standard</i> <i>Performance rating of 2 for each applicable task</i></p>	15
<ul style="list-style-type: none"> complete an application for a building permit 	<ul style="list-style-type: none"> completion of a building permit using a recognized form that includes all information required to meet local building standards 	15
<ul style="list-style-type: none"> apply site preparation skills to assist in the location of building site lines and features 	<ul style="list-style-type: none"> demonstration of site preparation and teamwork skills to: <ul style="list-style-type: none"> establish building lines using batterboards and plumb bobs lay out building features using a builder's level or transit and the 3, 4, 5 squaring method. <p><i>Assessment Tool</i> <i>Activity Assessment: Building Site Layout, CON2010-2</i></p> <p><i>Standard</i> <i>Specific dimensions are within ± 3 mm over 6 metres</i> <i>Performance rating of 2 for each applicable task</i></p>	70

COURSE CON2010: SITE PREPRATION (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Orientation</p> <ul style="list-style-type: none"> Building Regulations Site Selection Site Layout Lay Out Tools 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> explain the purpose of local, provincial and national building regulations identify local zoning regulations that limit the type, size and location of new buildings identify the parameters for selecting a building site describe a typical method of establishing lot and building lines as well as grade levels explain the use of a plumb bob, builder’s level, transit and string line. 	<p>Point out that in addition to structural regulations, building codes also deal with fire and health issues.</p> <p>Students should be able to use the 3–4–5 rule, builder’s level, transit and batterboards.</p> <p>Discuss other methods of leveling such as hydro and laser levelling techniques.</p>
<p>Planning and Management</p> <ul style="list-style-type: none"> Estimating Worker Safety 	<ul style="list-style-type: none"> identify the information that is needed to complete an application for a building permit use site plan and elevation drawings to determine the amount of soil to be excavated locate and mark all underground and overhead services identify soil conditions that may require shoring. 	<p>Discuss the importance of having the utility companies mark the location of all underground services.</p>

COURSE CON2020: CONCRETE FORMING

Level:	Intermediate
Theme:	Building Systems (Processes and Applications)
Prerequisite:	CON1010 Basic Tools & Materials
Description:	Students develop knowledge and skills related to the preparation and construction of a concrete foundation.

Parameters: Access to a building site and/or construction facility and to instruction from an individual with specialized training in carpentry.

Supporting Courses: CON2010 Site Preparation; CON1070 Building Construction

Curriculum and Assessment Standards

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> list and describe factors that affect footing and wall design identify and describe common forming materials and processes 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> a written or oral response that correctly identifies factors that affect footing and wall design, types of forms, form materials, ties and release agents. <p><i>Assessment Tool</i> <i>Response Assessment: Concrete Forming, CON2020-1</i></p> <p><i>Standard</i> <i>Terminology should be consistent with that used in Canadian Wood-Frame House Construction</i> <i>Response rating of 2</i></p>	25
<ul style="list-style-type: none"> apply concrete forming skills to assist in forming and placing a concrete foundation 	<ul style="list-style-type: none"> the completion of a project that incorporates full-size formwork or development of a scale model. <p><i>Assessment Tool</i> <i>Activity Assessment: Concrete Forming and Placing, CON2020-2</i></p> <p><i>Standard</i> <i>Installation of forms is consistent with accepted trade practice. Components are assembled to meet overall specifications to a tolerance of ± 3 mm over 6 metres. Forms are reinforced to maintain their position during placement. The concrete is consolidated to prevent honeycombing and is finished appropriate to the floor system. The concrete is allowed to cure properly before stripping in a manner that preserves the integrity of the footing and wall section</i> <i>Performance rating of 2 for each applicable task</i></p>	75

COURSE CON2020: CONCRETE FORMING (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Orientation</p> <ul style="list-style-type: none"> Soil Condition Footing and Wall Forming 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> describe how soils are tested for: <ul style="list-style-type: none"> resistance to penetration shear resistance moisture content explain how soil, water and frost conditions affect the design and construction of a foundation as well as excavation and safety procedures explain the purpose of a footing describe one or more common techniques to form footings, walls and piers describe methods of reinforcing a footing and wall section identify the parts of a typical concrete wall form explain the difference between box-sill and cast-in-place construction identify release agents and coatings used on forms 	<p>Discuss the load-bearing strengths of different soil types and explain how the strengths affect the footing design.</p> <p>Explain why footings must be monoliths and be located below the frost line whenever possible.</p> <p>Investigate the use of built-in-place and prefabricated forming systems.</p> <p>Examine methods used to create corner assemblies and to secure the kickplate.</p>

COURSE CON2030: ALTERNATIVE FOUNDATIONS

Level:	Intermediate
Theme:	Building Systems (Processes and Applications)
Prerequisite:	CON1010 Basic Tools & Materials
Description:	Students develop basic knowledge and skills related to the design and construction of an alternative foundation system.

Parameters: Access to a building site and/or construction facility and to instruction from an individual with specialized training in carpentry.

Supporting Courses: CON2020 Concrete Forming; CON1070 Building Construction

Curriculum and Assessment Standards

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> identify and describe the components of an alternative foundation system identify the health hazards and precautions related to the use of engineered materials 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> a written or oral presentation that correctly identifies the materials and design features of one or more alternative foundations systems <p style="text-align: center;"><i>and</i></p> <ul style="list-style-type: none"> knowledge of product labels for safe use and disposal of alternative foundations materials. <p><i>Assessment Tool</i> <i>Presentations/Reports: Wood Foundations, CON2030-1</i></p> <p><i>Standard</i> <i>Performance rating of 2 for each applicable task</i></p>	25
<ul style="list-style-type: none"> apply construction skills to assist in the design/ construction of an alternative foundation system 	<ul style="list-style-type: none"> observation of the construction and placement of an alternative foundation or display model. <p><i>Assessment Tool</i> <i>Activity Assessment: Wood Foundation Framing, CON2030-2</i></p> <p><i>Standard</i> <i>Foundation/display model is built according to local code requirements, components are assembled and appropriately braced. Walls are moisture proofed and correctly back filled. Overall dimensions are within ± 3 mm over 6 meters</i> <i>Performance rating of 2 for each applicable task</i></p>	75

COURSE CON2030: ALTERNATE FOUNDATIONS (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Orientation</p> <ul style="list-style-type: none"> Alternative Systems and Materials Related Building Codes System Design 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> describe alternative foundation systems and materials such as: <ul style="list-style-type: none"> concrete masonry block preserved wood foam form identify local building codes that pertain to the design and construction of alternative foundation systems label and describe the parts of a typical preserved wood, masonry block and/or foam form foundation list and describe the factors that determine the design and construction of a footing and wall section for one or more alternative systems describe levelling and plumbing techniques that are used with a particular foundation system describe recommended methods that are used to control drainage and damp-proof an alternative foundation system describe the flooring options that can be used with an alternative foundation system. 	<p>Discuss the advantages and disadvantages of using an alternative foundation system.</p> <p>Explain why walls should be designed to take advantage of block/ sheet sizes.</p> <p>Discuss typical methods to attach a sill plate to a given wall system.</p>

COURSE CON2040: FRAMING SYSTEMS 1 (FLOOR & WALL)**Level:** Intermediate**Theme:** Building Systems (Processes and Applications)**Prerequisite:** CON1010 Basic Tools & Materials**Description:** Students develop basic framing knowledge and skills associated with the construction of a floor and wall system.**Parameters:** Access to a building site and/or construction facility and to instruction from an individual with specialized training in carpentry.**Supporting Course:** CON1070 Building Construction**Curriculum and Assessment Standards**

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> identify and describe the parts of a floor and wall framing system 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> a written or oral response that correctly identifies and describes: <ul style="list-style-type: none"> – floor and wall framing components – framing techniques. <p><i>Assessment Tool</i> <i>Response Assessment: Floor and Wall Framing, CON2040–1</i></p> <p><i>Standard</i> <i>Response rating of 2</i></p>	20
<ul style="list-style-type: none"> read and interpret the appropriate drawings and specifications to create a floor and wall framing and sheathing estimate 	<ul style="list-style-type: none"> a detailed list and cost of materials taken from a given working drawing of a floor and wall component. <p><i>Assessment Tool</i> <i>Activity Assessment: Floor and Wall Framing, CON2040–2</i></p> <p><i>Standard</i> <i>Estimate includes allowances for floor and wall openings, over-run and waste considerations</i> <i>Performance rating of 2 for each applicable task</i></p>	20

COURSE CON2040: FRAMING SYSTEMS 1 (FLOOR & WALL) (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> • apply framing skills to assist in the layout and construction of floor and wall components • demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> • the observation of framing skills through on-site, in-shop or mock-up work. <p><i>Assessment Tool</i> <i>Activity Assessment: Floor and Wall Framing, CON2040–2</i></p> <p><i>Standard</i> <i>The floor and wall components are framed according to conventional building practices and specified dimensions are within ± 3 mm over 6 metres</i> <i>Performance rating of 2 for each applicable task</i></p> <ul style="list-style-type: none"> • observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p style="text-align: center;">60</p> <p style="text-align: right;">Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Orientation</p> <ul style="list-style-type: none"> • Materials • Fasteners 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • describe common wood defects associated with natural growth and milling operations • compare the span limitations of different species and grades of lumber and manufactured components • identify common types of sheathing and subflooring materials • identify the adhesives and fasteners used in conjunction with floor and wall framing 	<p>If a framing project requires more than 25 hours, or is more advanced, add a project module from Career Transitions or combine with CON3210: Framing Systems 2 (Floor, Wall & Ceiling)</p>

COURSE CON2050: ROOF STRUCTURES 1 (FRAMING & FINISHING)**Level:** Intermediate**Theme:** Building Systems (Processes and Applications)**Prerequisite:** CON1010 Basic Tools & Materials**Description:** Students develop basic knowledge and skills associated with framing and finishing a simple roof system.**Parameters:** Access to a building site and/or construction facility and to instruction from an individual with specialized training in carpentry.**Supporting Course:** CON1070 Building Construction**Curriculum and Assessment Standards**

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> identify and describe the different styles and parts of a roof system 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> a written or oral response that correctly identifies and describes basic roof styles and roofing components. <p><i>Assessment Tool</i> <i>Response Assessment: Roof Construction, CON2050-1</i></p> <p><i>Standard</i> <i>Response rating of 2</i></p>	10
<ul style="list-style-type: none"> read and interpret the appropriate drawings and specifications to create a roof framing and finishing estimate 	<ul style="list-style-type: none"> description and quantities of materials required to frame, sheath and apply a finished covering on a typical roof. <p><i>Assessment Tool</i> <i>Activity Assessment: Roof Construction, CON2050-2</i></p> <p><i>Standard</i> <i>Estimate includes all allowances for roof openings, over-run and waste requirements</i> <i>Performance rating of 2 for each applicable task</i></p>	20

COURSE CON2050: ROOF STRUCTURES 1 (FRAMING & FINISHING) (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> • apply roofing skills to assist in the framing and finishing of a roof structure • demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> • demonstration of framing and finishing skills. <p><i>Assessment Tool</i> <i>Activity Assessment: Roof Construction, CON2050-2</i></p> <p><i>Standard</i> <i>The roof is framed and covered according to conventional building practice. Specified dimensions are within ± 3 mm over 6 metres</i> <i>Performance rating of 2 for each applicable task</i></p> <ul style="list-style-type: none"> • observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>70</p> <p>Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Orientation</p> <ul style="list-style-type: none"> • Roof Structures 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • list and describe the common styles of roofs • define roof terms such as span, run, rise, slope and overhang • describe the parts of a common rafter • describe the parts of a typical roof truss • describe the advantages of using roof trusses versus standard common rafters • list and describe the parts of a boxed cornice • identify sheathing grades and types; joint and nailing patterns • list and describe the types of roof finishes. 	<p>Focus mainly on simple roof structures and coverings in this module. Intersecting roof structures are covered in CON3050: Roof Structures 2 (Framing & Covering).</p> <p>Discuss issues related to the installation of air/vapour barriers and insulation.</p> <p>Refer to building codes for proper sheathing grades, nail sizes and spacing.</p>

COURSE CON2060: EXTERIOR FINISHING (DOOR, WINDOW & SIDING)**Level:** Intermediate**Theme:** Building Systems (Processes and Applications)**Prerequisite:** CON1010 Basic Tools & Materials**Description:** Students apply and develop basic knowledge of door, window and siding systems and installation skills and procedures.**Parameters:** Access to a building site and/or construction facility and to instruction from an individual with specialized training in carpentry.**Supporting Course:** CON1070 Building Construction**Curriculum and Assessment Standards**

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> identify and describe common types of exterior doors, windows and siding materials 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> a written or oral presentation that correctly identifies at least three different exterior doors, exterior window types and siding materials. <p><i>Assessment Tool</i> <i>Presentations/Reports: Window/Door and Siding Materials, CON2060-1</i></p> <p><i>Standard</i> <i>Performance rating of 2 for each applicable task</i></p>	10
<ul style="list-style-type: none"> read and interpret the appropriate drawings and specifications to create a door and window schedule and siding estimate 	<ul style="list-style-type: none"> development of an accurate exterior door and window schedule and description of materials and quantities of siding required in a given set of plans. <p><i>Assessment Tool</i> <i>Assessment Framework: Activity Assessment, CONACT</i></p> <p><i>Standard</i> <i>Estimate includes all allowances for wall openings, over-run and waste requirements</i> <i>Performance rating of 2 for each applicable task</i></p>	20

COURSE CON2060: EXTERIOR FINISHING (DOOR, WINDOW & SIDING) (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> • apply finishing skills to install a prehung door, a window unit and siding materials • demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> • demonstration of door, window and siding systems skills. <p><i>Assessment Tool</i> <i>Assessment Framework: Activity Assessment, CONACT</i></p> <p><i>Standard</i> <i>Doors, windows and siding systems are installed in keeping with accepted trade practice and manufacturers' recommendations</i> <i>Performance rating of 2 for each applicable task</i></p> <ul style="list-style-type: none"> • observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p style="text-align: center;">70</p> <p>Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Orientation</p> <ul style="list-style-type: none"> • Doors and Windows • Siding Components 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • list and describe common types of exterior doors and windows • identify methods of sizing windows and exterior doors • describe the procedures used to install an exterior door and window • list and describe the components used in conjunction with the installation of vinyl and aluminum siding • describe the purpose and use of building papers and other house wrap materials. 	<p>Explain the advantages and disadvantages of each style of door or window.</p> <p>Stress the importance of making provisions for the siding to expand and contract during heating and cooling.</p>

COURSE CON2070: ELECTRICAL SYSTEMS**Level:** Intermediate**Theme:** Building Systems (Processes and Applications)**Prerequisite:** CON1010 Basic Tools & Materials**Description:** Students apply electrical principles, and develop an understanding of residential electrical code requirements and installation procedures.**Parameters:** Access to a building site and/or construction facility and to instruction from an individual with specialized training in electrical work.**Supporting Course:** CON1070 Building Construction**Curriculum and Assessment Standards**

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> list and describe the electrical systems and components associated with residential wiring 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> the presentation of a written or oral presentation that identifies and describes the electrical systems found in a typical residence. <p><i>Assessment Tool</i> <i>Presentation/Reports: Electrical Systems, CON2070-1</i></p> <p><i>Standard</i> <i>Performance rating of 2 for each applicable task</i></p>	10
<ul style="list-style-type: none"> apply wiring principles and code requirements to create a wiring diagram 	<ul style="list-style-type: none"> the development of an electrical drawing of a typical room such as a bathroom, living room or bedroom. <p><i>Assessment Tool</i> <i>Activity Assessment: Branch Wiring, CON2070-2</i></p> <p><i>Standard</i> <i>The working drawing uses standard symbols showing the location and type of outlet, light or switch. Connections between switches and lights are shown along with the electrical service entry</i> <i>Performance rating of 2 for each applicable task</i></p>	20

COURSE CON2070: ELECTRICAL SYSTEMS (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> • apply wiring skills to assist in the installation of a residential wiring system • profile a trade or occupation within the electrical field • demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> • installation of an electrical system to include the required switches, lights and outlets found in a typical room. <i>Assessment Tool</i> <i>Activity Assessment: Branch Wiring, CON2070–2</i> <i>Standard</i> <i>Installation meets accepted trade practice and code requirements</i> <i>Performance rating of 2 for each applicable task</i> • presentation of an occupation profile that outlines: <ul style="list-style-type: none"> – present and future employment opportunities – training centres and entry requirements – description of occupation and working conditions. <i>Assessment Tool</i> <i>Research Process: Career Opportunities in Electrical Work: CON2070–3</i> <i>Standard</i> <i>Performance rating of 2 for each applicable task</i> • observations of individual effort and interpersonal interaction during the learning process. <i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i> 	<p>60</p> <p>10</p> <p>Integrated throughout</p>

COURSE CON2080: PLUMBING SYSTEMS**Level:** Intermediate**Theme:** Building Systems (Processes and Applications)**Prerequisite:** CON1010 Basic Tools & Materials**Description:** Students develop basic knowledge and skills to fabricate and make repairs to residential drainage, waste, vent (DWV) and water supply systems.**Parameters:** Access to a building site and/or construction facility and to instruction from an individual with specialized training in plumbing.**Supporting Course:** CON1070 Building Construction**Curriculum and Assessment Standards**

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> identify and describe the parts of a residential plumbing system 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> a written or oral presentation that correctly identifies the: <ul style="list-style-type: none"> components of a water supply system drainage, waste and vent components types of pipe and fittings used on each of these systems. <p><i>Assessment Tool</i> <i>Presentations/Reports: Common Plumbing Systems, CON2080-1</i></p> <p><i>Standard</i> <i>Performance rating of 2 for each applicable task</i></p>	10
<ul style="list-style-type: none"> create a drawing of a water supply, drainage, waste and vent system for a typical plumbing fixture 	<ul style="list-style-type: none"> a plan for a water supply and DWV system for a household fixture in a bathroom or kitchen. <p><i>Assessment Tool</i> <i>Activity Assessment: Installing a Plumbing Fixture, CON2080-2</i></p> <p><i>Standard</i> <i>The plan is consistent with conventional plumbing practice and code requirements</i></p>	15

COURSE CON2080: PLUMBING SYSTEMS (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> • apply plumbing skills to assist in the installation of a water supply, waste and vent system • profile a trade or occupation within the plumbing field • demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> • demonstrations of appropriate work skills related to installation of a plumbing fixture. <p><i>Assessment Tool</i> <i>Activity Assessment: Installing a Plumbing Fixture, CON2080–2</i></p> <p><i>Standard</i> <i>Installation practices should correspond to those accepted in the plumbing industry</i> <i>Performance rating of 2 for each applicable task</i></p> <ul style="list-style-type: none"> • presentation of an occupation profile that outlines: <ul style="list-style-type: none"> – description of the occupation and working conditions – employment opportunities – training centres and entry requirements. <p><i>Assessment Tool</i> <i>Research Process: Career Opportunities in Plumbing, CON2080–3</i></p> <p><i>Standard</i> <i>Performance rating of 2 for each applicable task</i></p> <ul style="list-style-type: none"> • observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>65</p> <p>10</p> <p>Integrated throughout</p>

COURSE CON2090: CLIMATE CONTROL SYSTEMS**Level:** Intermediate**Theme:** Building Systems (Processes and Applications)**Prerequisite:** CON1010 Basic Tools & Materials**Description:** Students investigate common heating, ventilating and air conditioning (HVAC) systems and principles, and participate in the installation or maintenance of one of these systems.**Parameters:** Access to a building site and/or construction facility and to instruction from an individual with specialized training in sheet metal and climate control installation/service.**Supporting Course:** CON1070 Building Construction**Curriculum and Assessment Standards**

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> list and describe the major components of a typical heating, ventilating and air conditioning system prepare a preventive maintenance schedule for a heating, ventilating and/or air conditioning system 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> the accurate identification and description of the components given a representation of a typical residential HVAC system. <p><i>Assessment Tool</i> <i>Response Assessment: Heating, Ventilating and Cooling Systems, CON2090-1</i></p> <p><i>Standard</i> <i>Response rating of 2</i></p>	10
	<ul style="list-style-type: none"> a comprehensive preventive maintenance schedule for a given component within a HVAC system. <p><i>Assessment Tool</i> <i>Activity Assessment: Maintaining/Installing a HVAC System, CON2090-2</i></p> <p><i>Standard</i> <i>The schedule should take into account the frequency and amount of use, condition of use and manufacturer's recommendations</i> <i>Performance rating of 2 for each applicable task</i></p>	20

COURSE CON2090: CLIMATE CONTROL SYSTEMS (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> • service or install a heating, ventilating and/or air conditioning system • profile a trade or occupation within the heating and air conditioning fields • demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> • demonstration of skills related to the installation and/or servicing of a typical residential HVAC component. <p><i>Assessment Tool</i> <i>Activity Assessment: Maintaining/Installing a HVAC System, CON2090-2</i></p> <p><i>Standard</i> <i>Installation and servicing procedure are performed according to the manufacturer's recommendations</i> <i>Performance rating of 2 for each applicable task</i></p> <ul style="list-style-type: none"> • presentation of an occupation/trade profile that outlines: <ul style="list-style-type: none"> – description of the occupation and working conditions – present and future employment opportunities – training centres and requirements. <p><i>Assessment Tool</i> <i>Research Process: Career Opportunities in Heating & Air Conditioning, CON2090-3</i></p> <p><i>Standard</i> <i>Performance rating of 2 for each applicable task</i></p> <ul style="list-style-type: none"> • observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>60</p> <p>10</p> <p>Integrated throughout</p>

COURSE CON2100: AGRI-STRUCTURES

Level:	Intermediate
Theme:	Building Systems (Processes and Applications)
Prerequisite:	CON1010 Basic Tools & Materials
Description:	Students apply construction principles and skills, and use preengineered designs to build a structure to be used for agricultural purposes.

Parameters: Access to a building site and/or construction facilities and to instruction from an individual with specialized training in carpentry or metal work.

Supporting Course: CON1070 Building Construction

Curriculum and Assessment Standards

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> identify the major issues that must be addressed when designing an agri-structure 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> presentation of a written project brief that identifies and describes the major factors to be considered when designing, planning and constructing an agri-structure, such as: <ul style="list-style-type: none"> human and environmental safety animal comfort and safety crop protection cost of construction 	10
<ul style="list-style-type: none"> read and interpret the appropriate drawings and specifications to create a material and cost estimate 	<ul style="list-style-type: none"> appropriate design selection, modification or creation of an agri-structure design that meets Alberta Agriculture standards and local code requirements 	20
<ul style="list-style-type: none"> construct a structure for use in agriculture 	<ul style="list-style-type: none"> demonstration of appropriate construction and fabrication skills. <p><i>Assessment Tool</i> <i>Project Assessment: Building an Agri-Structure, CON2100-1</i></p> <p><i>Standard</i> <i>The appropriate materials are selected and ordered. The structure should be accurately laid out, assembled and finished according to conventional building practices</i> <i>Performance rating of 2 for each applicable task</i></p>	70

MODULE CON2100: AGRI-STRUCTURES (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Orientation</p> <ul style="list-style-type: none"> Materials and Structures 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> describe the types of materials and structures used in agriculture businesses list the factors that affect the choice of materials and design of agri-structure such as: <ul style="list-style-type: none"> human and environmental safety standards animal comfort and safety crop protection conditions of use ease of construction and maintenance material cost. 	<p>This module provides students with the opportunity to apply basic construction principles and practices to farm-type buildings and structures.</p>
<p>Planning and Management</p> <ul style="list-style-type: none"> Structural Designs Estimating and Scheduling 	<ul style="list-style-type: none"> produce/select an agri-structure design that: <ul style="list-style-type: none"> uses two or more types of structural materials applies basic construction principles and processes meets industry standards estimate the cost of materials and prepare a work schedule. 	

COURSE CON3010: CONCRETE WORK (STRUCTURES & FINISHES)**Level:** Advanced**Theme:** Building Systems (Processes and Applications)**Prerequisite:** CON1010 Basic Tools & Materials**Description:** Students develop essential skills to form, place and finish a concrete project.**Parameters:** Access to a building site and/or construction facility and to instruction from an individual with specialized training in concrete work.**Supporting Courses:** CON1070 Building Construction
CON2010 Site Preparation
CON2020 Concrete Forming**Curriculum and Assessment Standards**

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> identify and describe concrete forming, placing and finishing techniques 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> a written report or display that accurately represents accepted forming, placing and finishing trade practices. <p><i>Assessment Tool</i> <i>Research Process: Concrete Forming, Placing and Finishing, CON3010-1</i></p> <p><i>Standard</i> <i>Performance rating of 3 for each applicable task</i></p>	20
<ul style="list-style-type: none"> use the appropriate tools, materials and processes to form, reinforce, place and finish a concrete structure 	<ul style="list-style-type: none"> demonstration of concrete forming, placing and finishing techniques. <p><i>Assessment Tool</i> <i>Assessment Framework: Activity Assessment, CONACT</i></p> <p><i>Standard</i> <i>The project should be free of voids and finished in a manner appropriate to its application</i> <i>Performance rating of 3 for each applicable task</i></p>	65
<ul style="list-style-type: none"> create a profile of a trade or occupation within the field of concrete work 	<ul style="list-style-type: none"> presentation of an occupational profile that includes a description of working conditions, employment and training opportunities related to concrete work. <p><i>Assessment Tool</i> <i>Research Process: Concrete Forming, Placing and Finishing, CON3010-1</i></p> <p><i>Standard</i> <i>Performance rating of 3 for each applicable task</i></p>	15

COURSE CON3010: CONCRETE WORK (STRUCTURES & FINISHES) (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Orientation</p> <ul style="list-style-type: none"> Concrete Mixing and Testing Forming Placement and Finishing Fasteners 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> research the effect aggregate, water and cement ratios have on the workability and quality of a concrete mix list and describe the purpose of different cement types identify the types of tests and reasons for concrete testing describe standard forming and reinforcing practices for a project; e.g.: <ul style="list-style-type: none"> slab on grade retaining wall poured stairs explain the purpose of a control and expansion joint in a concrete structure identify the purpose and describe the process of: <ul style="list-style-type: none"> screeding puddling striking off floating troweling finishing curing describe common methods of installing fasteners in concrete before and after the concrete has set up and cured 	<p>Emphasize the importance of using clean aggregate and water.</p> <p>Demonstrate the slump test and describe compression testing.</p> <p>Explain why rebar should be free of loose rust, scale grease and other foreign matter.</p> <p>Identify required protection of rebar exposed to the weather or ground.</p>

COURSE CON3020: MASONRY WORK (STRUCTURES & FINISHES)**Level:** Advanced**Theme:** Building Systems (Processes and Applications)**Prerequisite:** CON1010 Basic Tools & Materials**Description:** Students develop basic knowledge and skills related to masonry materials, structures and finishes.**Parameters:** Access to a building site and/or construction facility and to instruction from an individual with specialized training in masonry work.**Supporting Courses:** CON1070 Building Construction
CON3010 Concrete Work (Structures & Finishes)**Curriculum and Assessment Standards**

General Outcome	Assessment Criteria and Conditions	Suggested Emphasis
<i>The student will:</i> <ul style="list-style-type: none"> identify and describe common types of masonry materials and finishes read and interpret a working drawing to prepare a cost estimate of a masonry surface apply masonry skills to assist in the application of a masonry finish or in the construction of a masonry structure 	<i>Assessment of student achievement should be based on:</i> <ul style="list-style-type: none"> written response that correctly identifies and describes three different masonry materials and finishes. <p><i>Assessment Tool</i> <i>Research Process: Masonry Materials and Finishes, CON3020-1</i></p> <p><i>Standard</i> <i>Performance rating of 3 for each applicable task</i></p>	10
	<ul style="list-style-type: none"> preparation of a cost estimate that includes cost of materials and labour 	15
	<ul style="list-style-type: none"> demonstration of acceptable works skills in relation to the application of a masonry finishes or construction of a masonry structure. <p><i>Assessment Tool</i> <i>Assessment Framework: Activity Assessment, CONACT</i></p> <p><i>Standard</i> <i>Finishes are applied and structure built in keeping with accepted trade practice</i> <i>Performance rating of 3 for each applicable task</i></p>	65

COURSE CON3020: MASONRY WORK (STRUCTURES & FINISHES) (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> • create a profile of a trade or occupation within the field of masonry work 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> • presentation of an occupational profile that includes: <ul style="list-style-type: none"> – working conditions – employment opportunities – training and entry requirements – describe opportunities for career advancement and self employment. <p><i>Assessment Tool</i> <i>Research Process: Masonry Materials and Finishes, CON3020-1</i></p> <p><i>Standard</i> <i>Performance rating of 2 for each applicable task</i></p>	<p>10</p>
<ul style="list-style-type: none"> • demonstrate basic competencies. 	<ul style="list-style-type: none"> • observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Orientation</p> <ul style="list-style-type: none"> • Brick Veneering 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • explain reasons for using a masonry finish over other types of finishes • analyze a brick veneer wall section and determine the method that is used to: <ul style="list-style-type: none"> – support the weight of the brick – attach the bricks to the wall surface – prevent moisture build-up between the wall surfaces • describe the different sizes, textures and grades of bricks • identify common types of patterns and bonds used in brick structures and veneering 	<p>Discuss factors such as:</p> <ul style="list-style-type: none"> • appearance • durability • lower upkeep • lower risk of fire.

COURSE CON3030: WALL & CEILING FINISHING**Level:** Advanced**Theme:** Building Systems (Processes and Applications)**Prerequisite:** CON1010 Basic Tools & Materials**Description:** Students develop basic knowledge and skills to insulate, install and finish an interior wall/ceiling surface.**Parameters:** Access to a building site and/or construction facility and to instruction from an individual with specialized training in carpentry.**Supporting Courses:** CON1070 Building Construction
CON2040 Framing Systems 1 (Floor & Wall)**Curriculum and Assessment Standards**

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> describe the procedures related to the installation of insulation and vapour barrier to an exterior wall and ceiling identify and describe the health hazards and safety precautions associated with the use of insulating, drywalling and finishing materials 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> a written response that correctly describes the procedures employed in the selection and installation of insulation, vapour barrier and wall/ceiling boards the identification of health and safety issues related to the handling and use of insulation and wallboard materials. <p><i>Assessment Tool</i> <i>Response Assessment: Insulating and Drywalling, CON3030-1</i></p> <p><i>Standard</i> <i>Response rating of 3</i></p>	25
<ul style="list-style-type: none"> prepare, apply and finish a wall and ceiling surface 	<ul style="list-style-type: none"> demonstration of appropriate skills and techniques in the application of a wall/ceiling treatment given an on-site or mock-up project. <p><i>Assessment Tool</i> <i>Activity Assessment: Installing and Finishing Drywall, CON3030-2</i></p> <p><i>Standard</i> <i>Materials have been selected and installed in keeping with the specifications, accepted trade practice and local code requirements.</i> <i>Surfaces are finished smooth and free of voids</i> <i>Performance rating of 3 for each applicable task</i></p>	75

COURSE CON3030: WALL & CEILING FINISHING (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Orientation</p> <ul style="list-style-type: none"> Materials Material Application 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> list and describe the types of wall and ceiling insulation and soundproofing materials describe the different types of drywall and conditions of use identify the building codes that relate to the installation of insulation, vapour barrier and drywall identify and describe the different types of tapes, corner beads, adhesives and fastening devices used with gypsum board describe methods of cutting, attaching, taping, filling, sanding and texturing a gypsum board describe methods of making repairs to small and large holes in a drywall surface identify the materials used to paint and decorate a wall surface research common methods used to apply paint to a surface; e.g., <ul style="list-style-type: none"> brush roller spray. 	<p>Not only does insulation reduce heat loss, it also can retard the spread of sound and fire.</p> <p>Avoid fillers that contain asbestos and paints that contain lead.</p>

COURSE CON3040: STAIR CONSTRUCTION

Level:	Advanced
Theme:	Building Systems (Processes and Applications)
Prerequisite:	CON1010 Basic Tools & Materials
Description:	Students develop the knowledge and skills required to build a straight flight of stairs.

Parameters: Access to a building site and/or construction facility and to instruction from an individual with formal, specialized training in carpentry.

Supporting Courses: CON1070 Building Construction
CON2040 Framing Systems 1 (Floor & Wall)

Curriculum and Assessment Standards

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<i>The student will:</i> <ul style="list-style-type: none"> identify and describe different stair types, component parts and construction techniques interpret building code regulations pertaining to residential stair design 	<i>Assessment of student achievement should be based on:</i> <ul style="list-style-type: none"> presentation of a written research project that identifies and describes four different stair and stringer types 	15
	<ul style="list-style-type: none"> completion of a “Spec Sheet” that outlines the code requirements pertaining to a specific stair application. <i>Assessment Tool</i> <i>Research Process: Stair Construction, CON3040–1</i> <i>Standard</i> <i>The specifications should accurately address the allowable type and size of nosing, the amount of head room and unit rise and run</i> <i>Performance rating of 3 for each applicable task</i>	15

COURSE CON3060: DOORS & TRIM**Level:** Advanced**Theme:** Building Systems (Processes and Applications)**Prerequisite:** CON1010 Basic Tools & Materials**Description:** Students apply basic finish carpentry knowledge and skills to install doors, railings and moldings.**Parameters:** Access to a building site and/or construction facility and to instruction from an individual with formal, specialized training in carpentry.**Supporting Course:** CON1070 Building Construction**Curriculum and Assessment Standards**

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> identify common types of doors, hardware and trim products 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> presentation of a written research project that correctly identifies the common types and sizes of sliding, folding and swing doors; related hardware and trim products. <p><i>Assessment Tool</i> <i>Research Process: Installing Interior Doors and Trim, CON3060-1</i></p> <p><i>Standard</i> <i>Performance rating of 3 for each applicable task</i></p>	20
<ul style="list-style-type: none"> install doors, moldings and other trim products 	<ul style="list-style-type: none"> installation of at least one door type and trim product. <p><i>Assessment Tool</i> <i>Assessment Framework: Activity Assessment, CONACT</i></p> <p><i>Standard</i> <i>The door frame should be plumb, appropriately secured and cased. The door should operate smoothly and trim products applied according to accepted trade practices</i> <i>Performance rating of 3 for each applicable task</i></p>	70

COURSE CON3070: FLOORCOVERING

Level:	Advanced
Theme:	Building Systems (Processes and Applications)
Prerequisite:	CON1010 Basic Tools & Materials
Description:	Students develop skills in selecting and installing typical floor coverings used in residential, institutional and commercial buildings.

Parameters: Access to a building site and/or construction facility and to instruction from an individual with specialized training in floor covering.

Supporting Course: CON1070 Building Construction

Curriculum and Assessment Standards

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> identify and describe common types of residential, institutional and commercial floor coverings apply flooring skills to assist in the installation of a floor covering 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> presentation of a written research project that identifies and describes four major floor types (resilient sheet or tile, wood, ceramic and carpet). <p><i>Assessment Tool</i> <i>Research Process: Installing Floor Coverings, CON3070–1</i></p> <p><i>Standard</i> <i>Performance rating of 3 for each applicable task</i></p>	30
	<ul style="list-style-type: none"> demonstration of appropriate skills in the application of one or more flooring materials given an on-site or mock-up project. <p><i>Assessment Tool</i> <i>Assessment Framework: Activity Assessment, CONACT</i></p> <p><i>Standard</i> <i>Materials have been selected and installed in keeping with the manufacturer’s recommendations and accepted trade practice. Joints are tight and patterns are aligned accurately; surfaces are smooth and free from blemishes</i> <i>Performance rating of 3 for each applicable task</i></p>	60

COURSE CON3070: FLOOCOVERING (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> • create a profile of a trade or occupation within the floor covering field • demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> • presentation of an occupational report that includes a description of the working conditions, job opportunities and training requirements. <p><i>Assessment Tool</i> <i>Research Process: Installing Floor Coverings, CON3070-1</i></p> <p><i>Standard</i> <i>Performance rating of 3 for each applicable task</i></p> <ul style="list-style-type: none"> • observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p style="text-align: center;">10</p> <p style="text-align: center;">Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Orientation</p> <ul style="list-style-type: none"> • Floor Covering Materials 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • list and describe common types of residential and commercial floor covering materials; e.g.: <ul style="list-style-type: none"> – resilient (vinyl, rubber, cork) – carpet – ceramic tile – wood • identify the factors that are used to determine the selection of a floor covering • explain how concrete and wood floors differ in the way they are prepared for a floor covering • identify appropriate adhesives and fasteners for a given covering 	