

BCI Carpentry: Course Overview and Outcomes

Manitoba Education offers two methods of earning credits in technology education. One option is the industrial arts stream. The other is the industrial vocational diploma.

Students wishing to participate in industrial arts programming may take as few or as many courses as desired. Students participating in the carpentry program at Birtle Collegiate, but come from a different high school in Parkwest School Division will be enrolled in and have the potential of earning four credits.

Students considering the vocational industrial diploma need to be aware that in order to qualify for this certification they must successfully complete **all 8 courses in the industrial vocational carpentry stream**. This will require a commitment of 2 semesters of study in the carpentry program. Those not wishing to make this commitment should consider the industrial arts programming described below.

The course descriptors below are a summary of the learning outcomes for the vocational industrial carpentry program developed by Manitoba Education. For a complete listing of curricular outcomes refer to the carpentry curriculum document at the following website;

<http://www.edu.gov.mb.ca/k12/cur/teched/sytep/carpentry/index.html>.

Technology Education: Industrial Arts

Course Code #	Course Name and Level	Course Outcomes
7990	Woodwork Technology 30S	<ul style="list-style-type: none"> • <u>Safety Principles</u> <ul style="list-style-type: none"> • Introduction to safety principles and resources • Safety training for use of portable and stationary power tools • Introduction to hand tool use and safety • <u>Plan Reading and Interpretation</u> <ul style="list-style-type: none"> • Introduction to the presentation of information through plans • Identification of plan types and symbols • <u>Woodworking Processes and Materials</u> <ul style="list-style-type: none"> • Introduction of layout procedures and tools • Introduction to lumber and panel products • <u>Joinery and Assembly Techniques</u> <ul style="list-style-type: none"> • Introduction to joinery and assembly techniques used in woodworking
7990	Woodwork Technology 40S	<p>If students have completed Woodworking Technology 30S, then use Woodworking Technology 40S as the course code for registration purposes.</p>

7994	Construction Technology 40S	<ul style="list-style-type: none">• <u>Safety Principles</u><ul style="list-style-type: none">• Introduction to safe work practices and resources specific to the construction industry• Safety training for portable power tools used in the construction industry• Introduction to hand tool use and safety as it applies to the construction industry• <u>Plan Reading and Interpretation</u><ul style="list-style-type: none">• Introduction to the presentation of information through plans• Identification of plan types and symbols• Use of plans for material estimation• <u>Framing Practises</u><ul style="list-style-type: none">• Topics to discuss include;<ul style="list-style-type: none">- wood derived building products and their properties- floor framing with dimensional and engineered wood products- wall framing with dimensional lumber products and engineered panel products- gable roof framing truss systems• <u>Exterior Finishing Systems</u><p>Topics to discuss include;</p><ul style="list-style-type: none">- roof finish- cornices (facia and soffit)- window and door installation- exterior wall finishes (siding types and their applications)
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7996	Manufacturing Technology 40S	<ul style="list-style-type: none"> • <u>Safety Principles</u> <ul style="list-style-type: none"> • Introduction to safety principles and resources • Safety training for portable and stationary power tools used in the wood manufacturing industry • Introduction to hand tool use and safety as it applies to the wood manufacturing industry • <u>Plan Reading and Interpretation</u> <ul style="list-style-type: none"> • Introduction to the presentation of information through plans related to the wood manufacturing industry • Identification of plan types and symbols used in the wood manufacturing industry • <u>Woodworking Processes and Materials</u> <ul style="list-style-type: none"> • Introduction of layout procedures and tools • Introduction to lumber and panel products as used in manufacturing situations • <u>Joinery and Assembly Techniques</u> <ul style="list-style-type: none"> • Introduction to joinery and assembly techniques used in manufacturing and cabinetry • <u>Cabinetmaking and Finish Carpentry</u> <p>Topics to discuss include</p> <ul style="list-style-type: none"> - cabinet types, construction and installation - moulding and trim work
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7997	Applied Technology 40S	<ul style="list-style-type: none">• <u>Safety Principles</u><ul style="list-style-type: none">• Application of safety principles and resources• Application of safe work practices for portable and stationary power tools• Application of hand tool use and safety• <u>Plan Reading and Interpretation</u><ul style="list-style-type: none">• Application of skills in interpreting plans and specifications• Material estimation• <u>Joinery and Assembly Techniques</u><ul style="list-style-type: none">• Application of joinery and assembly techniques used in woodworking and carpentry
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Technology Education: Vocational Industrial Diploma

Grade 11		
Course Code #	Course Name and Level	Summary of Course Outcomes
8585	Carpentry Fundamentals 20S	<ul style="list-style-type: none"> • Draw, interpret and create projects information from plan perspectives • Demonstrate competence in measurement and mathematical principles related to carpentry • Identify and determine material types and requirements to complete a project • Identify and use appropriate safety equipment, resources and procedures • Identify hand and power tools and equipment for layout and construction of a project • Demonstrate competent and safe use of hand and power tools and equipment used in the production of a project • Choose and use various fastening techniques to assemble a project
8586	Foundations and Floor Framing 30S	<ul style="list-style-type: none"> • Relate and interpret various types of plans to a structure • Identify foundation and floor building components and specifications from a plan • Demonstrate competence in measurement and mathematical principles related to carpentry • Identify and determine material types and requirements to complete a floor system • Identify and use appropriate safety equipment, resources and procedures • Identify hand and power tools and equipment for layout and construction of a floor system • Demonstrate competent and safe use of hand and power tools and equipment used in the production a floor system • Identify trends in materials and procedures used in floor framing and foundations

8587	Wall and Basic Roof Framing 30S	<ul style="list-style-type: none"> • Relate and interpret various types of plans to a structure • Identify wall and gable roof frame symbols, components and specifications from a plan • Demonstrate competence in measurement and mathematical principles related to carpentry • Identify and determine material types and requirements to complete a wall system or a gable roof system • Identify and use appropriate safety equipment, resources and procedures • Identify hand and power tools and equipment for layout and construction of a wall system or a gable roof system • Demonstrate competent and safe use of hand and power tools and equipment used in the production of a wall system or a gable roof system • Identify trends in materials and procedures used in framing
8588	Millwork 30S	<ul style="list-style-type: none"> • Interpret drawings to identify, materials and joinery techniques for millwork projects • Relate and interpret various types of plans to a structure • Identify symbols, components and specifications from a plan • Demonstrate competence in measurement and mathematical principles related to carpentry • Identify and determine material types and requirements to complete a millwork project • Identify and use appropriate safety equipment, resources and procedures • Identify hand and power tools and equipment for layout and construction of a millwork project • Demonstrate competent and safe use of hand and power tools and equipment used in the production of a millwork project • Identify trends in materials and procedures used in millwork

Grade 12

Course Code #	Course Name and Level	Summary of Course Outcomes
8589	Advanced Framing 40S	<ul style="list-style-type: none">• Draw, interpret and create projects information from plan perspectives• Identify and follow standards and codes related to current building practises• Demonstrate competence in measurement and mathematical principles related to carpentry• Identify and determine material types and requirements to complete a framing project• Identify and use appropriate safety equipment, resources and procedures• Identify hand and power tools and equipment for layout and construction of a framing project• Demonstrate competent and safe use of hand and power tools and equipment used in the production of a framing project• Choose and use various fastening techniques to assemble a framing project• Identify trends in materials and procedures used in framing
8590	Exterior Finishing 40S	<ul style="list-style-type: none">• Relate and interpret various types of plans to a structure• Identify and follow standards and codes related to current building practises• Identify exterior finish materials and components and specifications from a plan• Demonstrate competence in measurement and mathematical principles related to carpentry• Identify and determine material types and requirements to complete the exterior of a structure• Identify and use appropriate safety equipment, resources and procedures• Identify hand and power tools and equipment for layout and application of exterior finishing materials• Demonstrate competent and safe use of hand and power tools and equipment used in the application of exterior finishing materials• Identify trends in materials and procedures used in exterior finishing

8591	Interior Finishing 40S	<ul style="list-style-type: none"> • Relate and interpret various types of plans to a structure • Identify and follow standards and codes related to current building practises • Identify interior finish materials, components and specifications from a plan • Demonstrate competence in measurement and mathematical principles related to carpentry • Identify and determine material types and requirements to complete the interior of a structure • Identify and use appropriate safety equipment, resources and procedures • Identify hand and power tools and equipment for layout and application of interior finishing materials • Demonstrate competent and safe use of hand and power tools and equipment used in the application of interior finishing materials • Identify trends in materials and procedures used in interior finishing
8592	Advanced Millwork 40S	<ul style="list-style-type: none"> • Interpret drawings to identify, materials and joinery techniques for millwork projects • Relate and interpret various types of plans to a structure • Identify symbols, components and specifications from a plan • Demonstrate competence in measurement and mathematical principles related to carpentry • Identify and determine material types and requirements to complete a millwork project • Identify and use appropriate safety equipment, resources and procedures • Identify hand and power tools and equipment for layout and construction of a millwork project • Demonstrate competent and safe use of hand and power tools and equipment used in the production of a millwork project • Identify trends in materials and procedures used in millwork