Supplement to the

TECHNOLOGY EDUCATION 8 TO 10 IRP (1995)

Required Program Model Content for Technology Education 10:

Drafting and Design
Electronics
Mechanics
Metalwork
Woodwork 10

Province of British Columbia
Ministry of Education

2004

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INTRODUCTION

This document is a supplement to the Technology Education 8 to 10 Integrated Resource Package (IRP) 1995.

BACKGROUND

In 2002-2003, the Ministry of Education conducted a review of provincial graduation requirements. One result of that review was a decision to extend the scope of the Graduation Program from two years to three years. In the Graduation Program (2004), students who enter Grade 10 after June 30, 2004 will earn credits toward graduation in a three-year program, in grades 10, 11, and 12.

In the past, schools did not report grade 10 course grades to the Ministry of Education to be entered on student transcripts and calculated into the graduation credit formula. Integrated Resource Packages (IRPs) for grade 10 subjects in the fine arts and applied skills areas (1995-1998) were developed for delivery as year-long courses, and were designed as "general" courses in the subject to allow schools to design programs to meet the needs of their students.

One of the aims of the new Graduation Program (2004) requirements is to allow grade 10 students to have greater choice and flexibility in selecting courses to meet their education and career goals. To reflect that aim, this document outlines required program model content for five specific grade 10 technology education courses that can be offered in addition to the existing general Technology Education 10 course. This document does not replace the prescribed learning outcomes for grade 10 technology education as outlined in the Technology Education 8 to 10 IRP (1995). Each of the courses outlined here **must address both the prescribed learning outcomes and the required content** specific to the particular program model offered.

GRADUATION PROGRAM REQUIREMENTS

Under the Graduation Program (2004) requirements, all students must complete a minimum of 4 credits in the fine arts and/or the applied skills subject areas from grades 10 to 12.

To satisfy these graduation requirements, students may take one of the following:

- a 4-credit grade 10, 11, or 12 ministry-authorized fine arts course
  OR
- a 4-credit grade 10, 11, or 12 ministry-authorized applied skills course
  OR
- a 2-credit grade 10, 11, or 12 ministry-authorized fine arts course + a 2-credit grade 10, 11, or 12 ministry-authorized applied skills course

Grade 11 board/authority authorized (BAA) courses in the fine arts or applied skills subject areas only meet the graduation requirements if they address the prescribed learning outcomes of the Fine Arts 11 IRP and/or the Applied Skills 11 IRP. Grades 10 and 12 BAA courses do not meet the fine arts/applied skills graduation requirements.

Schools have the flexibility to deliver programs in these subject areas that meet the needs of their students and communities. However, school boards are required to offer a choice of a fine arts and an applied skills educational program to all students in the 2004 graduation program.

See the appendix to this document for a full list of all ministry-authorized fine arts and applied skills courses for grades 10 to 12.

TECHNOLOGY EDUCATION 8 TO 12

The following table lists all of the current ministry-authorized courses for technology education from grades 8 to 12.

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- Technology Education 10: Electronics
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- Technology Education 10: Metalwork
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- Metal Fabrication and Machining 12: Advanced Machining
- Metal Fabrication and Machining 12: Advanced Welding
- Metal Fabrication and Machining 12: Art Metal and Jewellery
- Metal Fabrication and Machining 12: CNC Processes
- Metal Fabrication and Machining 12: Forging and Foundry
- Metal Fabrication and Machining 12: Sheet Metal

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Schools are encouraged to provide opportunities for students to take more than one Technology Education course at each grade level. Each course must address all the learning outcomes for its designated grade.

FOR MORE INFORMATION

The following sources contain additional information about courses, graduation program requirements, and other relevant policy.

Integrated Resource Packages (IRPs)

IRP documents contain the prescribed learning outcomes for each subject and grade, as well as suggested instruction and assessment approaches for delivering the learning outcomes within a range of course structures. Full text of all IRPs is available at http://www.bced.gov.bc.ca/irp/irp.htm

Handbook of Procedures

For information on additional methods of achieving the fine arts Graduation Program requirements, please refer to the Ministry of Education's *Handbook of Procedures*.
http://www.bced.gov.bc.ca/exams/handbook/handbook.htm

Fine Arts and Applied Skills Policy

Policy Document: Fine Arts and Applied Skills Requirements in the Graduation Program
http://www.bced.gov.bc.ca/policy/policies/fine_arts_and_applied.htm

Fine Arts and/or Applied Skills Requirement—2004 Graduation Program
http://www.bced.gov.bc.ca/graduation/finearts_qa.pdf

Course Codes

Course codes for ministry-authorized courses are listed in the Ministry of Education's *Course Information Book*.
http://www.bced.gov.bc.ca/graduation/courseinfo/

PROGRAM MODELS FOR TECHNOLOGY EDUCATION 10

The Technology Education 8 to 10 IRP (1995) is designed to provide flexibility in organizing and implementing curriculum, and to acknowledge the existing programs already in place in BC schools.

In order to recognize the diverse nature of technology education program delivery, and to allow for greater student choice and flexibility within the new Graduation Program requirements, the learning outcomes for Technology Education 10 can be delivered within a number of specific program models (courses), each of which must address distinct required content.

The content in the five Required Program Model Content charts beginning on the next page provides the framework within which the Technology Education 10 prescribed learning outcomes can be delivered in specific course settings. The approved Technology Education 10 courses, for which program model information is provided here, are as follows:

- Technology Education 10: Drafting and Design (TED 10)
- Technology Education 10: Electronics (TEE)
- Technology Education 10: Mechanics (TEC 10)
- Technology Education 10: Metalwork (TEM 10)
- Technology Education 10: Woodwork (TEW 10)

In addition to the courses outlined here, schools can continue to offer Technology Education 10: General (TEG 10), which corresponds to the curriculum as originally written in the Technology Education 8 to 10 IRP (1995).

In each of the new Technology Education 10 courses, teachers provide opportunities for students to achieve the prescribed learning outcomes for Technology Education 10 within a particular technology area of focus. Teachers need to design their courses to address both the prescribed learning outcomes and the required content specific to the particular course.

The Required Program Model Content charts on the following pages outline this content in relation to:

- planning and problem-solving—background knowledge and creative/critical thinking skills
- context—relating understanding to personal, economic, and societal considerations
- technical competence—abilities to demonstrate specific skills.

These three categories are not designed to replace or supersede the curriculum organizers for Technology Education 10. Rather, they have been used to provide an alternate way of looking at course requirements and to highlight the commonalities that exist among the various fine arts subjects.

If students are taking more than one Technology Education 10 course, they must satisfy the learning outcomes in relation to the content for each course for which they are receiving credit—for example, a student must satisfy the program model content for both Mechanics (TEC 10) and Metalwork (TEM 10) in order to receive credit for both courses.

Required Program Model Content: Drafting and Design 10 (TED 10)

Drafting and Design 10 courses must incorporate the following content within the delivery of the prescribed learning outcomes for Technology Education 10.

Planning and Problem Solving: background knowledge and creative/critical thinking skills involved in drafting and design	• basic design concepts and their application to real-world design situations: – geometric concepts – fundamentals of graphic representation and presentation – the role of graphics in a design context – the relationship between real objects, 3-D visualizations (object space), and 2-D representations (paper space) – the distinction between system and components in designs • assessing the aesthetic and functional qualities of product design • interpretation and evaluation of detail drawings, including knowledge of ANSI symbols • solving design problems: – case study problems dealing with safety and environmental issues, as well as with specific end-user requirements – real-world problems requiring research • mathematics used in design: scales, arithmetic, conversion, and estimating techniques • graphical techniques to mentally visualize 3-D objects: • decision-making related to layout, representation, and presentation of objects (including rationales for decisions) • the role of CAD in design, including: – the basic computer graphics concepts underlying software tools used in CAD – processes in which computer-aided graphic representations are used by design professionals – the design rationale for CAD • planning in relation to design projects, including: – creation of work plans delineating tasks and time allocations for completion (e.g., daily time management) – identification of time-saving tools, equipment, and procedures – production of materials lists to support designs – costing of materials and modification of designs to respond to differing budgetary situations
Contexts: relating understanding of drafting and design to personal, economic, and societal considerations	• the societal impacts of products or systems: – an historical instance (e.g., the automobile, refrigeration) – a present-day proposed technology and its potential future impacts (e.g., genetically modified crops, thermal depolymerization) – the role and responsibilities of designers • the importance of end-user awareness in design • the production implications of design decisions(e.g., handcrafting vs. mass production), as shown in particular examples • development and application of criteria with respect to the use of materials (e.g., appropriateness, recyclability, safety) • basic ethical and cultural issues of design (e.g., the likely/possible applications for designed objects, the cultural significance of particular forms or images) • current statistics and trends with respect to: – participation of males and females in educational programs and occupational fields related to drafting and design – the job market for persons with drafting and design qualifications

Technical Competence: abilities to demonstrate specific drafting and design skills	• development and maintenance of design portfolios reflecting varied aspects of the design process • completion of a design-related project that involves: – integration basic design graphics, concepts, and skills – individual and teamwork skills • accurate description of the size and shape of an object, using the principles of projection • clear communication of the relative size and shape of surfaces as well as solids, using multi-view and pictorial representation • creation of finished drawings of complex three-dimensional objects and spaces on two-dimensional surfaces • production of drawings that represent exterior and interior (hidden) shapes • comprehensive and conventional representation of objects for the purposes of production (i.e., details + assembly = simple to intermediate working drawings) • scale representation of: – complex 3-D details in orthographic – simple objects in pictorial • application of ANSI symbols and conventions as appropriate, including for notating dimensions • use of CAD software to: – produce drawings based on as-built or new designs – create graphic representations of problems commonly found in design • creation of a design solution prototype

Required Program Model Content: Electronics 10 (TEE 10)

Electronics 10 courses must incorporate the following content within the delivery of the prescribed learning outcomes for Technology Education 10.

Planning and Problem Solving: background knowledge and creative/critical thinking skills needed to create, repair, or diagnose problems with electronic products	• potential electronics shop safety problems, and appropriate precautionary measures: – handling power sources (e.g., charged capacitors, high-voltage circuits) – interpreting WHMIS symbols and handling materials (especially chemicals typically encountered in electronics shops) – responding to emergencies (e.g., corrosive chemicals splashed into eyes) • knowledge of diagnostic tools and equipment in the electronics shop, including: – uses – functioning and operation (how the machines and equipment work and are controlled) – basics of maintenance • identification of common components in analogue and digital circuits (resistors, capacitors, diodes, SCRs, transistors, integrated circuits, transformers) • calculation, measurement, and communication of voltage, current, and resistance in DC series, parallel, and combination resistive circuits • explanation of the purpose, operation, and application of amplifiers, oscillators, and timer circuits • description of the features, characteristics, and advantages of digital logic levels • explanation of the function of six basic logic gates (AND, NAND, OR, NOR, XOR, XNOR) and related devices (buffer, inverter) • planning in relation to electronics projects, including: – creation of work plans delineating tasks and time allocations for completion (e.g., daily time management) – identification of time-saving tools, equipment, and procedures – production of parts lists and bills of materials – costing of materials and modification of designs to respond to differing budgetary situations • development and application of troubleshooting strategies for correcting malfunctions in an electronics system
Contexts: relating understanding of electronics to personal, economic, and societal considerations	• how changes in the field of electronics (e.g., miniaturization) influence society • environmental problems associated with electronics products (e.g., disposal of obsolete computer equipment) and possible solutions • the economic use of materials, including options for reuse and recycling • current statistics and trends with respect to: – participation of males and females in educational programs and occupational fields related to electronics – the job market with respect to electronics, including qualifications required for specific occupations

Technical Competence: abilities to demonstrate specific skills related to electronics	• sharing and maintenance of a cooperative workspace • demonstration of safe work habits and attitudes, including using tools and equipment with an awareness of their impact on others • selection of materials and components to meet specific product requirements • interpretation and drawing of schematic diagrams • use of units of measure and prefixes • use of the resistor colour code • identification, maintenance, and use of the following hand and power tools: – screwdrivers – pliers and cutters – wire strippers – soldering irons – de-soldering pump – drill presses – basic sheet metal and plastic fabrication tools • identification and use of electronic shop equipment, including: – DC power supply – multimeter – frequency counter – oscilloscope – logic probe • building, testing, and modification of a variety of circuits, including: – simple digital circuits that use basic logic gates – breadboarding of a digital circuit using a solderless breadboard • design and construction of systems that use control devices (sensors, switches, relays) • design and manufacture of a printed circuit board

Required Program Model Content: Mechanics 10 (TEC 10)

Mechanics 10 courses must incorporate the following content within the delivery of the prescribed learning outcomes for Technology Education 10.

Planning and Problem Solving: background knowledge and creative/critical thinking skills related to mechanics	• potential mechanics shop safety problems, and appropriate precautionary measures: – handling power sources (e.g., batteries, coils) – interpreting WHMIS symbols and handling materials (e.g., gasoline and other chemicals typically encountered in mechanics shops) – responding to emergencies (e.g., fires, cuts, crush injuries) • knowledge of the characteristics of alloys and metals used in devices that convert energy and transfer power (e.g., strength, weight, thread strength, heat tolerance) • transfer of knowledge and concepts from other disciplines (e.g., math formulae, chemical reactions) in solving problems • accessing and interpreting technical information needed to repair devices and complete projects (e.g., part ID numbers, special fuel or lubricant requirements, maximum torque on bolts, calibration, power output) • the functions of systems used in machines and equipment • the four-stroke and two-stroke engine cycles • devices (e.g., engine systems, electrical systems) that convert, store, and distribute energy • systems (e.g., transmissions) that multiply, reduce, and transmit power • planning in relation to mechanics projects, including: – creation of work plans delineating tasks and time allocations for completion (e.g., daily time management) – identification of time-saving tools, equipment, and procedures – production of parts lists and bills of materials to support projects – costing of materials and modification of designs to respond to differing budgetary situations • development and application of troubleshooting strategies for correcting malfunctions in a mechanical device
Contexts: relating understanding of mechanics to personal, economic, and societal considerations	• the societal impacts of developments in mechanics: – historical developments (e.g., the automobile) – a present-day proposed technology and its potential future impacts (e.g., fuel cell technology, solar-powered vehicles, hybrid vehicles, vehicle braking systems that charge a battery instead of converting energy to heat through friction) • the economic use of materials, including options for reuse and recycling • current statistics and trends with respect to: – participation of males and females in educational programs and occupational fields related to mechanics – the job market with respect to electronics, including new career possibilities and qualifications required for specific occupations

Technical Competence: abilities to demonstrate specific skills associated with mechanics	• sharing and maintenance of an efficient cooperative workspace • demonstration of safe work habits and attitudes, including using tools and equipment with an awareness of their impact on others • following an established routine for disassembling and reassembling a small internal-combustion engine • identification and use a variety of measurement tools, including – callipers (inside callipers, outside callipers, and hermaphrodite callipers) – scales (imperial and metric) – micrometers (inside micrometer and outside micrometer) • identification, maintenance, and use of the following hand and power tools: – hammers – punches – screwdrivers – wrenches – taps – dies – drilling, grinding tools (e.g., drill press, bench/pedestal grinders, portable grinders, abrasive cut-off saws) – welding machines—oxy-acetylene, SMAW (stick), GMAW (wire feed) for both cutting and joining – sheet metal tools • identification and application of mechanical fasteners and fittings, including rivets, nuts, and bolts

Required Program Model Content: Metalwork 10 (TEM 10)

Metalwork 10 courses must incorporate the following content within the delivery of the prescribed learning outcomes for Technology Education 10.

Planning and Problem Solving: background knowledge and creative/critical thinking skills related to metalwork	• potential metal shop safety problems, and appropriate precautionary measures: – handling power sources (e.g., welding equipment—eye protection and avoidance of fires, electrocution) – interpreting WHMIS symbols and handling materials (e.g., solvents and other chemicals typically encountered in metal shops) – responding to emergencies (e.g., fires, typical injuries such as burns, cuts, abrasions, metal splinters) • the distinction between ferrous and non-ferrous metals • the characteristics (strength, ease of use, application) of metals in a variety of shapes, sizes, and formats, including: – bar stock (brass, aluminium, steel; in round, square, and tubing form) – sheet stock (e.g., higher gauge = thinner metal sheet) • proficiency in adding, subtracting, multiplying, and dividing whole numbers, fractions, and decimals to perform layout and solve problems related to metalwork • knowledge of the function of systems used in machines and equipment, including how equipment in the machine shop works and is maintained • interpretation of orthographic and pictorial drawings • planning in relation to metalwork projects, including: – creation of work plans delineating tasks and time allocations for completion (e.g., daily time management) – identification of efficient and appropriate tools, equipment, and procedures – production of bills of materials – costing of materials and modification of designs to respond to differing budgetary situations
Contexts: relating understanding of metalwork to personal, economic, and societal considerations	• the societal impacts of developments in metalwork, machining, and mechanics: – historical developments (e.g., the development and improvement of steel) – a present-day proposed technology and its potential future impacts (e.g., robotic assembly, new alloys) • the economic use of materials, including options for reuse and recycling • current statistics and trends with respect to: – participation of males and females in educational programs and occupational fields related to metalwork – the job market with respect to metalwork, including new career possibilities and qualifications required for specific occupations

Technical Competence: abilities to demonstrate specific skills related to metalwork	• sharing and maintenance of an efficient cooperative workspace • demonstration of safe work habits and attitudes, including using tools and equipment with an awareness of their impact on others • design and construction of a project whose primary material is metal, including: – creation of orthographic and pictorial drawings (working drawings) – selection of appropriate materials for specific product requirements • identification and use of a variety of measurement tools, including: – callipers (inside callipers, outside callipers, and hermaphrodite callipers) – scales (imperial and metric) – micrometers (i.e., inside micrometer and outside micrometer) • identification and use of the following hand and power tools: – layout tools – hacksaws – files – drills – hammers – punches – screwdrivers – wrenches – taps – dies – metal lathe, to perform facing, parallel turning to size – drilling tools, to perform drilling and countersinking – grinding tools (e.g., bench/pedestal grinders, portable grinders, abrasive cut-off saws) to remove burrs and shape metals – welding machines (e.g., oxy-acetylene, SMAW/stick, and GMAW/wire feed), to set up and join steel parts using butt welds – basic forging and casting tools (e.g., to produce a simple cast object using an open, closed, or lost wax meld) – sheet metal tools • demonstration of the following procedures associated with oxy-acetylene equipment: – start up procedures – shut down procedures – flame types – cutting (e.g., short linear cuts freehand) – joining (e.g., use of fusion bead, flange, corner, bead with filler rod, butt, braze welding techniques) • identification of needed repairs or replacements for broken or used parts

Required Program Model Content: Woodwork 10 (TEW 10)

Woodwork 10 courses must incorporate the following content within the delivery of the prescribed learning outcomes for Technology Education 10.

Planning and Problem Solving: background knowledge and creative/critical thinking skills related to woodwork	• potential wood shop safety problems, and appropriate precautionary measures: – handling power tools (e.g., saws—protection for hands, eyes, breathing) – interpreting WHMIS symbols and handling materials (e.g., solvents and other chemicals typically encountered in wood shops) – responding to emergencies (e.g., fires, typical injuries such as burns, cuts, abrasions, wood splinters) • commonly used woods in the furniture and cabinet making business, and the differences among different woods (i.e., with reference to properties such as strength, ease of use, durability, cost) • conversions between imperial and SI units • use of fractions and decimals to solve problems related to carpentry and joinery • the function of machines and equipment used in the cabinet making shop, including how they work and are maintained • interpretation of orthographic and pictorial drawings • planning in relation to woodwork projects, including: – creation of work plans delineating tasks and time allocations for completion – daily time management – identification of efficient and appropriate tools, equipment, and procedures – production of bills of materials – costing of materials and modification of designs to respond to differing budgetary situations
Contexts: relating understanding of woodwork to personal, economic, and societal considerations	• the importance of woodwork and wood manufacturing, in both historical and contemporary economies, including reference to: – the changing range and purpose of uses for wood – new and emerging wood-based products (e.g., fibre and resin structural building composites) • the economic use of materials, including options for reuse and recycling • wood's role as a renewable resource, including references to different types of woods (e.g., first-growth, second-growth, tropical woods, tree species harvested in North America) • current statistics and trends with respect to: – participation of males and females in educational programs and occupational fields related to woodwork – the job market with respect to woodwork and wood manufacturing, including new career possibilities and qualifications required for specific occupations

Technical Competence: abilities to demonstrate specific skills related to woodwork	• sharing and maintenance of an efficient cooperative workspace • demonstration of safe work habits and attitudes, including using tools and equipment with an awareness of their impact on others • design and construction of a project made primarily of wood, including: – creation of orthographic and pictorial drawings – selection of appropriate materials for specific product requirements and initial material preparation – use of portable power tools – preparation of wood surfaces for application of finish • demonstration (set-up and use) of the following stationary equipment: – cutting equipment – boring equipment – shaping equipment – finishing equipment • identification and demonstrated use, application, or installation of: – common abrasives – common adhesives – brushed-on and hand-rubbed wood finishes – basic hardware (hinges and knobs/pulls) – basic fasteners (nails, brads, and screws) • identification, maintenance, set-up, and use of the following hand and portable power tools: – layout and measuring tools – cutting tools – boring tools – shaping tools – fastening tools – finishing tools • identification and construction of the following basic woodworking joints: – dado – mitre – rabbet – butt • use of cutting equipment (portable or stationary, as appropriate) to perform rip and cross-cut operations, cut irregular shapes, and machine dadoes, rabbets, and tenons • use of shaping equipment to machine material to prescribed dimensions and profile edges • use of finishing equipment to perform sanding and final shaping operations

Appendix:

Ministry Authorized Applied Skills and Fine Arts Courses

The following tables list all of the ministry-authorized applied skills and fine arts courses for grades 10-12, as described in IRPs, 1995-2004 (available online at http://www.bced.gov.bc.ca/irp/irp.htm).

APPLIED SKILLS

Grade 10	Grade 11	Grade 12
	• Applied Skills 11 (2 credits)	
• Business Education 10: General • Business Education 10: Communication • Business Education 10: Entrepreneurship • Business Education 10: Finance and Economics • Business Education 10: Marketing	• Accounting 11 • Business Computer Applications 11 • Marketing 11	• Accounting 12 • Business Information Management 12 • Data Management 12 • Economics 12 • Entrepreneurship 12 • Financial Accounting 12 • Management Innovation 12 • Marketing 12
• Home Economics 10: General • Home Economics 10: Foods • Home Economics 10: Textiles • Home Economics 10: Family Studies	• Cafeteria Training 11 • Family Studies 11 • Food Studies 11 • Textile Studies 11	• Cafeteria Training 12 • Family Studies 12 • Food Studies 11 • Textile Studies 12
• Information Technology 10	• Information and Communications Technology: Applied Digital Communications 11 • Information and Communications Technology: Computer Information Systems 11 • Information and Communications Technology: Computer Programming 11 • Information and Communications Technology: Digital Media Development 11	• Information and Communications Technology: Applied Digital Communications 12 • Information and Communications Technology: Computer Information Systems 12 • Information and Communications Technology: Computer Programming 12 • Information and Communications Technology: Digital Media Development 12

Grade 10	Grade 11	Grade 12
• Technology Education 10: General • Technology Education 10: Drafting and Design • Technology Education 10: Electronics • Technology Education 10: Mechanics • Technology Education 10: Metalwork • Technology Education 10: Woodwork	• Automotive Technology 11 • Carpentry and Joinery 11 • Drafting and Design 11 • Electronics 11 • Metal Fabrication and Machining 11	• Automotive Technology 12 • Automotive Technology 12: Automotive Electricity and Electronics • Automotive Technology 12: Body Repair and Finish • Automotive Technology 12: Engine and Drive Train • Carpentry and Joinery 12 • Carpentry and Joinery 12: Cabinet Construction • Carpentry and Joinery 12: CNC Wood Processes • Carpentry and Joinery 12: Residential Construction • Carpentry and Joinery 12: Woodcraft Products • Drafting and Design 12 • Drafting and Design 12: Advanced Design • Drafting and Design 12: Architecture and Habitat Design • Drafting and Design 12: Engineering and Mechanical Drafting • Drafting and Design 12: Technical Visualization • Electronics 12 • Electronics 12: Analog Systems • Electronics 12: Digital Systems • Electronics 12: Robotics • Metal Fabrication and Machining 12: Advanced Fabrication • Metal Fabrication and Machining 12: Advanced Machining • Metal Fabrication and Machining 12: Advanced Welding • Metal Fabrication and Machining 12: Art Metal and Jewellery • Metal Fabrication and Machining 12: CNC Processes • Metal Fabrication and Machining 12: Forging and Foundry • Metal Fabrication and Machining 12: Sheet Metal

FINE ARTS

Grade 10	Grade 11	Grade 12
	• Fine Arts 11 (2 credits)	
• Dance 10: General • Dance 10: Dance Performance • Dance 10: Dance Choreography	• Dance: Choreography 11 • Dance: Performance 11	• Dance: Choreography 12 • Dance: Performance 12
• Drama 10: General • Drama 10: Theatre Performance • Drama 10: Theatre Production	• Drama: Film and Television 11 • Theatre Performance 11: Acting • Theatre Performance 11: Directing and Script Development • Theatre Production 11	• Drama: Film and Television 12 • Theatre Performance 12: Acting • Theatre Performance 12: Directing and Script Development • Theatre Production 12: Technical Theatre • Theatre Production 12: Theatre Management
• Music 10: General • Music 10: Concert Choir • Music 10: Vocal Jazz • Music 10: Concert Band • Music 10: Jazz Band • Music 10: Orchestral Strings • Music 10: Guitar	• Choral Music 11: Concert Choir • Choral Music 11: Vocal Jazz • Instrumental Music 11: Concert Band • Instrumental Music 11: Jazz Band • Instrumental Music 11: Orchestral Strings • Instrumental Music 11: Guitar • Music: Composition and Technology 11	• Choral Music 12: Concert Choir • Choral Music 12: Vocal Jazz • Instrumental Music 12: Concert Band • Instrumental Music 12: Jazz Band • Instrumental Music 12: Orchestral Strings • Instrumental Music 12: Guitar • Music: Composition and Technology 12
• Visual Arts 10: General • Visual Arts 10: Ceramics and Sculpture • Visual Arts 10: Drawing and Painting • Visual Arts 10: Media Arts 10	• Art Foundations 11 • Studio Arts 11: Ceramics and Sculpture • Studio Arts 11: Drawing and Painting • Studio Arts 11: Fabric and Fibre • Studio Arts 11: Printmaking and Graphic Design • Visual Arts: Media Arts 11	• Art Foundations 12 • Studio Arts 12: Ceramics and Sculpture • Studio Arts 12: Drawing and Painting • Studio Arts 12: Fabric and Fibre • Studio Arts 12: Printmaking and Graphic Design • Visual Arts: Media Arts 12