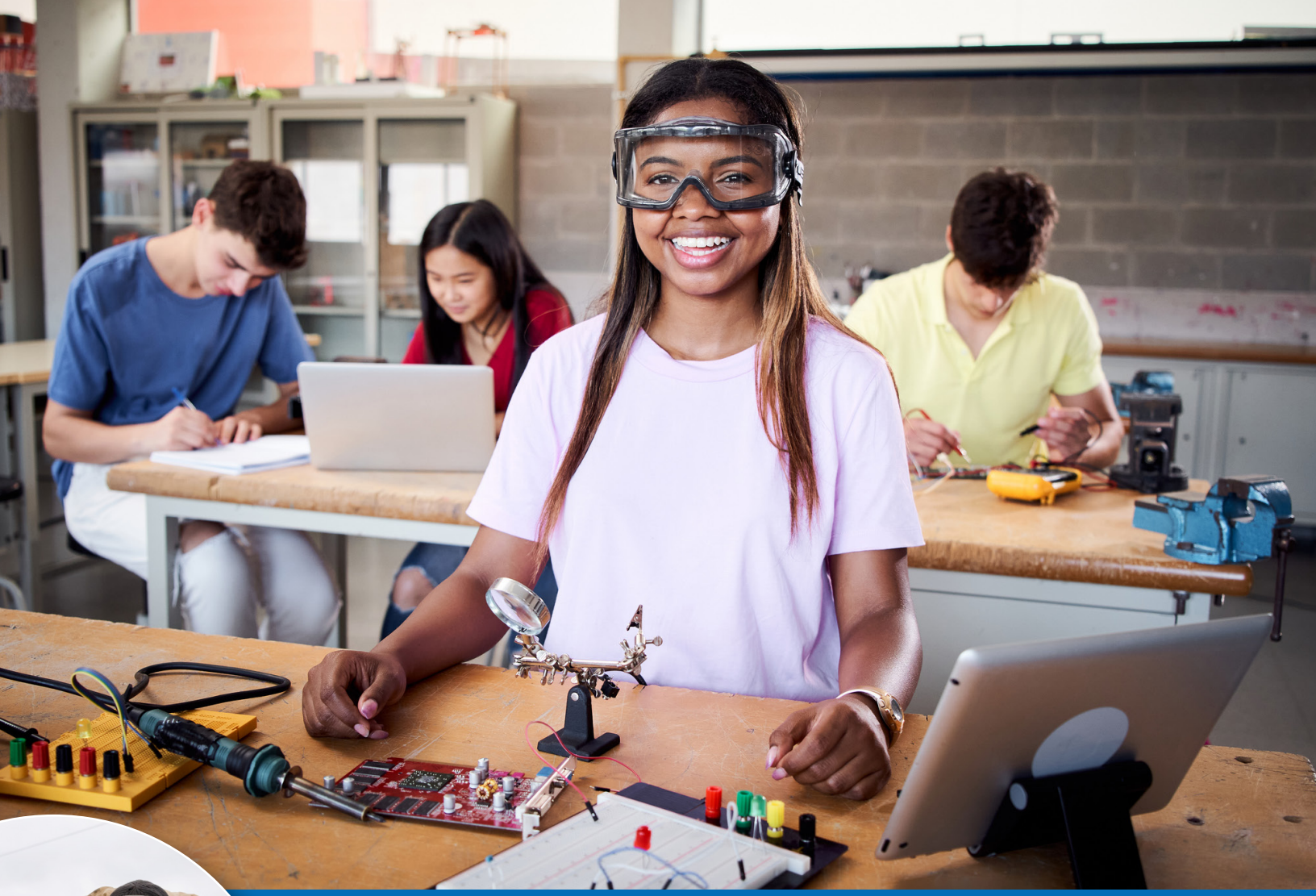

Subject Table Handbook

TECHNOLOGY EDUCATION PROGRAM

September 2026 to August 2027

Manitoba

Subject Table Handbook

Technology Education Program

September 2026 to August 2027

2026

Manitoba Education and Early Childhood Learning

Manitoba Education and Early Childhood Learning Cataloguing in Publication Data

Subject table handbook : technology education program, September 2026 to August 2027

ISBN: 978-0-7711-6827-7 (pdf)

1. Subject headings—Industrial arts.
2. Subject headings—Technical education.
3. Subject headings—Business education.
4. Education—Manitoba—Curricula.
5. Subject headings—Education.
6. Information storage and retrieval systems—Education—Code words.
I. Manitoba. Manitoba Education and Early Childhood Learning.
025.0637

Copyright © 2026, the Government of Manitoba, represented by the Minister of Education and Early Childhood Learning.

Manitoba Education and Early Childhood Learning
Winnipeg, Manitoba, Canada

Every effort has been made to acknowledge original sources and to comply with copyright law. If cases are identified where this has not been done, please notify Manitoba Education and Early Childhood Learning. Errors or omissions will be corrected in a future edition.

All images found in this resource are copyright protected and should not be extracted, accessed, or reproduced for any purpose other than for their intended educational use in this resource.

Cover images: istock.com/Carlos Barquero Perez, istock.com/Berkut_34, istock.com/scyther5

This resource is available on the Manitoba Education and Early Childhood Learning website at www.edu.gov.mb.ca/k12/policy/sth.html.

Websites are subject to change without notice.

Disponible en français pour le Programme français et le Programme d'immersion française.

Available in alternate formats upon request.

Contents

Introduction 1

Purpose 1
Senior Years Credit System 1
Senior Years Technology Education Program Diploma Requirements 2
Senior Years Course Identification 3
Course Numbering 3
Course Designations 3
Course Levels 5
Examples: 5
Alternative Ways of Earning Credits 6
Contact Information 7

Technology Education 9

Applied Commerce Education 9
Teacher Education Qualifications 9
Funding Support 9
Applied Technology (formerly Industrial Arts) 11
Teacher Education Qualifications 11
Funding Support 11
Middle Years Applied Technology (formerly Industrial Arts) (currently under review) 12
Senior Years Applied Technology (formerly Industrial Arts) (currently under review) 13
Applied Technology (Graphics, Electronics, Power Mechanics, Metalwork, Woodwork) 13
Applied Technology (Drafting) 13
Comprehensive Technology Education 13
Design Drafting Technology 13
Electricity/Electronics Technology 13
Graphic Communications Technology 13
Metalwork Technology 14
Power Mechanics Technology 14
Woodwork Technology 14
High School Apprenticeship Program 15
Funding Support 15
High School Apprenticeship Program 15
Human Ecology 16
Teacher Education Qualifications 16
Funding Support 16

Technical-Vocational Education 18
Teacher Education Qualifications 18
Funding Support 18
Exploration of Technical-Vocational Education 19
Aircraft Maintenance Technology 19
Automotive Technology 19
Aviation and Aerospace Technologies 20
Baking and Pastry Arts 20
Broadcast Media Technology 21
Cabinet and Furniture Making 21
Carpentry 22
Collision Repair and Refinishing 22
Culinary Arts 23
Dental Assisting 23
Dental Technology 24
Design Drafting 24
Early Childhood Education (ECE) 25
Electrical Trades Technology 25
Electronics Technology 26
Esthetics: Nail Technology 26
Esthetics: Skin Care Technology 27
Fashion Design and Technology 27
Graphic Design 28
Hairstyling 28
Health Care Assistant 29
Heavy Duty Equipment Technician 30
Horticulture 30
Hotel Hospitality 31
Interactive Digital Media 32
Jewellery and Metalsmithing 32
Machining Technology 33
Mining Engineering Technology 33
Motion Picture Arts 34
Networking and Cyber Security 34
Photography 35
Pilot Ground School 35
Plumbing and Pipe Trades 36
Print Media 36
Refrigeration and Air Conditioning 37
Resources and Environmental Management 37
Sound Engineering 38
Sustainable Energy 38
Welding Technology 39

Introduction

Purpose

The purpose of the *Subject Table Handbook: Technology Education Program* is to support schools in the 2026/2027 school year by

- providing basic information to schools for entering student records into the Student Records system (SRS)
- providing subject codes for courses developed by Manitoba Education and Early Childhood Learning and for those approved or registered by the department

A new edition of the *Subject Table Handbook: Technology Education Program* is provided for the beginning of each school year. It reflects changes (course codes, credits, etc.) that apply for the upcoming school year. Schools are responsible for ensuring that they are using the appropriate edition of the *Subject Table Handbook* when reporting student marks to Education Administration Services. **Schools must use the September 2025 to August 2026 *Subject Table Handbook* for reporting student marks in the summer and fall of 2026.**

This edition of the *Subject Table Handbook: Technology Education Program* is in effect from September 1, 2026, to August 31, 2027, and is available online at www.edu.gov.mb.ca/k12/docs/policy/sthte/index.html. The online content may be updated during the year, as new curricula are published, so schools should exercise some caution when setting up their course offerings for the next school year.

Senior Years Credit System

The Senior Years (Grades 9 to 12) credit system provides flexibility for learners to pursue courses best suited to their individual requirements and aspirations. A learner may earn one (1.0) credit by successfully completing a course of study designed for 110 hours of instruction. A learner may earn a half (0.5) credit by successfully completing a course of study designed for 55 hours of instruction. Some courses are offered as both one credit and one-half credit at the same grade level. In those instances, learners may earn only one. Learners cannot earn one credit and one-half credit in the same course in the same grade. For example, learners cannot earn credits for 0487 Family Studies 15S and 0487 Family Studies 10S because it is the same course in the same grade.

There are two categories of credits: compulsory and optional.

Senior Years Technology Education Program Diploma Requirements

To receive a Senior Years Technology Education Program diploma, a learner must complete eight departmentally developed courses from an approved technical-vocational or applied commerce education cluster, 17 compulsory credits, and five optional credits.

Exploration credits at the Grade 9 level can be used to complement one or more technical-vocational education (TVE) clusters, but **do not** count toward the requirements of the Senior Years Technology Education Program (SYTEP) diploma.

Senior Years Technology Education Program Diploma Requirements	
Diploma Requirements	Credits Required
Compulsory Credits	17
English language arts (1 credit per grade)	4
mathematics (1 credit per grade)	4
physical education/health education (1 credit per grade)	4
social studies (1 credit in each of Grades 9, 10, and 11)	3
science (1 credit in each of Grades 9 and 10)	2
Approved Cluster of Technology Education Credits	8 to 12
Optional Credits	1 to 5
Totals	**30**

Please see www.edu.gov.mb.ca/k12/policy/grad_require.html for more information.

Senior Years Course Identification

Course Numbering

The course numbering system comprises a three-character, alpha-numeric code.

- **First Character**
  - 1 — for courses developed for Grade 9
  - 2 — for courses developed for Grade 10
  - 3 — for courses developed for Grade 11
  - 4 — for courses developed for Grade 12
- **Second Character**
  - 0 — for courses developed by Manitoba Education and Early Childhood Learning for one (1.0) credit
  - 5 — for courses developed by Manitoba Education and Early Childhood Learning for a half (0.5) credit
  - 1 — for courses developed by schools or school divisions and registered by Manitoba Education and Early Childhood Learning (includes school-initiated courses [SICs] and student-initiated projects [SIPs])
  - 2 — for courses developed externally by an educational authority (International Baccalaureate and Advanced Placement courses) and, in the case of dual credit, a post-secondary institution (college or university)
- **Third Character**
  - G — General
  - F — Foundation
  - S — Specialized
  - E — EAL
  - M — Modification
  - I — Individualized
  - C — College-level
  - U — University-level

Course Designations

General (G):

Educational programming or courses with no department-developed curricula, such as school-initiated courses (SICs), student-initiated projects (SIPs), Special Language Credit Option credits, or non-Manitoba course credits.

Foundation (F):

Educational programming that is broadly based and appropriate for all students and that may lead to further studies beyond the Senior Years (e.g. apprenticeship, college, and university). When a subject area is compulsory for graduation and there is only one course option, the designation will be F.

Specialized (S):

Educational programming in specialized areas leading to further studies beyond Senior Years (e.g., apprenticeship, college, and university). Applied commerce education courses at Grades 10 to 12 and technical-vocational courses at Grades 9 to 12 are designated as Specialized.

EAL (E):

Educational programming designed to focus on learning goals in the context of a given course that is based on the student's assessed level of English as an additional language (EAL) proficiency and assists the student in making the transition to regular Senior Years programming. This course designation indicates that an EAL student-specific plan is in place to support English language development.

Modification (M):

Educational programming in which changes are made by the school support team to the number, essence, or content of grade-level provincial curricular learning outcomes in a course to meet the learning needs of a student. This course designation indicates that a curriculum modification plan (CMP) is in place and that the learner meets the established eligibility and suitability criteria for course modifications.

Individualized Programming (I):

Individualized programming is intended for learners whose severe to profound intellectual developmental disorder prevents meaningful participation in the provincial curriculum and for whom appropriate educational programming involves highly individualized and functionally appropriate learning experiences in domains outside the provincial curriculum. This course designation is used when student progress is based solely on student-specific outcomes documented in an individualized education plan (IEP).

College-Level (C):

Post-secondary courses that can be recognized for dual credit at the Grade 12 level and also for the first year of college. These courses count toward fulfilling the credit requirements for high school graduation.

University-Level (U):

Post-secondary courses that can be recognized for dual credit at the Grade 12 level and also for the first year of university. These courses count toward fulfilling the credit requirements for high school graduation.

Course Levels

Grade 9:

All subject area curricula, except technical-vocational curricula, are developed as Foundation (F) courses. Certain technology education curricula may be developed as Specialized (S) courses. The Foundation (F) course designation will replace the General (G) course designation as new curricula come into effect.

Grade 10:

All subject area curricula, except technical-vocational and mathematics, will be developed as Foundation (F) courses. Certain technology education and mathematics curricula may be developed as Specialized (S) courses.

Grade 11:

A variety of subject area curricula are developed, including a range of Foundation (F) and Specialized (S) courses.

Grade 12:

A variety of subject area curricula are developed, including a range of Foundation (F) and Specialized (S) courses. Courses that qualify for a University-Level (U) designation are first-year university courses. Courses that qualify for a College-Level (C) designation are first-year college courses.

Note: From Grades 9 to 12, a particular General, Foundation, and/or Specialized subject area curriculum can be altered on an individual basis via a learner's individual education plan (IEP), following departmental requirements. The E or M course designation then applies.

There is no departmental regulation that will prevent a learner from taking a designated course in one Senior Years grade and then switching to a different designation in a later grade. For example, a learner who receives an M designation for Grade 9 Science (10M) could subsequently take Grade 10 Science (20F). Similarly, a learner receiving an E designation for Grade 10 Science (20E) could subsequently take Grade 11 Chemistry (30S).

Examples

Grade 9 Exploration of Electronics Technology (10S)

Grade 9, developed or approved by Manitoba Education and Early Childhood Learning for one (1.0) credit, Specialized course.

Grade 9 Exploration of Technical-Vocational Education (15S)

Grade 9, developed or approved by Manitoba Education and Early Childhood Learning for one-half (0.5) credit, Specialized course.

Grade 9 Family Studies (15M)

Grade 9, developed or approved by Manitoba Education and Early Childhood Learning for one-half (0.5) credit, modified in curriculum goals and objectives or outcomes to accommodate a learner with significant cognitive disabilities according to the student-specific plan (e.g., curriculum modification plan).

Grade 10 Textile Arts and Design (25S)

Grade 10, developed or approved by Manitoba Education and Early Childhood Learning for one-half (0.5) credit, Specialized course.

Grade 11 Metalwork Technology (30G)

Grade 11, developed or approved by Manitoba Education and Early Childhood Learning for one (1.0) credit, General course.

Calculus (1103/4) (42C)

Grade 12, a first-year college-level course for dual credit, developed by a college and approved by Manitoba Education and Early Childhood Learning for one-half (0.5) credit, College-level course.

Introduction to Sociology (077.120) (42U)

Grade 12, a first-year university-level course for dual credit, developed by a university and approved by Manitoba Education and Early Childhood Learning for one (1.0) credit, University-level course.

Alternative Ways of Earning Credits

For more information on alternative ways of earning credits, see https://www.edu.gov.mb.ca/k12/policy/gradreq/alt_credits.html.

Contact Information

Should you require clarification regarding Senior Years Technology Education curricula, program, or policy issues, please call 204-945-7947 or email tve@gov.mb.ca.

For clarification regarding other information, please contact the following:

Subject Table Handbook—Technology Education Program

Learning and Outcomes Branch
1577 Dublin Avenue, Winnipeg MB R3E 3J5
Telephone: 204-945-3567
Email: lobdirector@gov.mb.ca
Website: www.edu.gov.mb.ca/k12/docs/policy/sthte/index.html

Subject Table Handbook—English Program

Learning and Outcomes Branch
1577 Dublin Avenue, Winnipeg MB R3E 3J5
Telephone: 204-945-3567
Email: lobdirector@gov.mb.ca
Website: www.edu.gov.mb.ca/k12/docs/policy/sth/index.html

Subject Table Handbook—French Language Programs (Guide des matières enseignées)

Bureau de l'éducation française
509–1181 Portage Avenue, Winnipeg MB R3G 0T3
Telephone: 204-945-6916
Email: bef@gov.mb.ca
Website: www.edu.gov.mb.ca/m12/frpub/pol/guide_matieres/index.html

Educational Information System (EIS)

EIS Collection Program, File Layouts, Technical Assistance
Email: AppSupportEISCOLL@gov.mb.ca
Website: www.edu.gov.mb.ca/k12/eis

Student High School Marks and MET Number Requests

Student Records
507–1181 Portage Avenue, Winnipeg MB R3G 0T3
Telephone: 204-945-0201
Toll-Free: 1-833-227-1375
Email: sturecords@gov.mb.ca
Website: www.edu.gov.mb.ca/k12/studrec/index.html

Professional Certification Unit

Box 700, Russell MB R0J 1W0
Telephone: 204-773-2998
Toll-Free: 1-800-667-2378
Email: certification@gov.mb.ca
Website: www.edu.gov.mb.ca/k12/profcert/index.html

Adult Learning and Literacy Branch

403–1181 Portage Avenue, Winnipeg MB R3G 0T3
Telephone: 204-945-8247
Email: all@gov.mb.ca
Website: www.edu.gov.mb.ca/all/

High School Apprenticeship Program

Website: www.gov.mb.ca/studentapprentice/

Funding for Schools

Website: www.edu.gov.mb.ca/k12/finance/schfund/index.html

Technology Education

Applied Commerce Education

Applied commerce education (ACE) consists of an optional cluster of courses for high school learners interested in pursuing a career in a commerce-related field such as economics, entrepreneurship, business, marketing, technology, or finance. Each of the 14 courses offer students an opportunity to learn more about their role in the global economy and to develop the skills needed to be effective business leaders, innovators, citizens, consumers, and employees. For more information, see www.edu.gov.mb.ca/k12/cur/teched/bus_ed.html.

Teacher Education Qualifications

Recommended qualifications for this discipline are those of certified teachers that have completed a Bachelor of Education with a specialization in applied commerce. For more details about teacher certification qualifications, see *Technology Education Program: Required and Recommended Teacher Certification Qualifications* at https://www.edu.gov.mb.ca/k12/cur/teched/docs/teacher-cert.pdf.

It should be noted that teachers who hold a Bachelor of Education with a specialization in applied commerce *do not* have the required qualifications to teach a technical-vocational cluster.

Funding Support

Applied commerce education courses are eligible for program funding of $5,500 when a series of eight or more courses are offered and all eligibility requirements are met. For more information on categorical program funding and unit-credit funding criteria, see www.edu.gov.mb.ca/k12/finance/schfund/index.html.

Code	Description	Credits	Grade/Level		
0309	Accounting Essentials	1.0	30S	30E	30M
0310	Accounting Systems	1.0	40S	40E	40M
0311	Applied Business Technologies	1.0	40S	40E	40M
0314	Business Communications	1.0	30S	30E	30M
0315	Business Innovations	1.0	10S	10E	10M
0316	Business Management	1.0	40S	40E	40M
0317	Creative Promotions	1.0	20S	20E	20M
0318	Economic Principles	1.0	40S	40E	40M
0319	Entrepreneurship	1.0	20S	20E	20M
0323	Marketing and Digital Commerce	1.0	40S	40E	40M
0324	Personal Finance	1.0	20S	20E	20M
0325	Retailing Perspectives	1.0	30S	30E	30M
0326	Topics and Trends in Business	1.0	40S	40E	40M
0327	Venture Development	1.0	30S	30E	30M

Applied Technology (formerly Industrial Arts)

NOTE: Manitoba Education and Early Childhood Learning has renamed *industrial arts education* to *applied technology*. This change responds to the Truth and Reconciliation Commission of Canada's Calls to Action, and is an important step toward ensuring applied technology programming is culturally responsive and respectful of all learners. This change will be implemented as renewed curricula are released, beginning in the 2026/2027 school year. Schools' collaboration in updating relevant resources and/or signage is appreciated.

Applied technology programming provides opportunities for learners to actively engage with technological tools, equipment, materials, and processes to transform concepts and ideas into goods and services. Areas of study include manufacturing, graphic communications, power and energy, construction, drafting design, electricity/electronics, metalwork, power mechanics, and woodwork. For more information, see https://www.edu.gov.mb.ca/k12/cur/teched/ind_arts.html.

Teacher Education Qualifications

Recommended qualification for this discipline are those of certified teachers that have completed a Bachelor of Education with a specialization in applied technology (formerly industrial arts) and student safety. For more details about teacher certification qualifications, see *Technology Education Program: Required and Recommended Teacher Certification Qualifications* at https://www.edu.gov.mb.ca/k12/cur/teched/docs/teacher-cert.pdf.

It should be noted that teachers who hold a Bachelor of Education with a specialization in applied technology (formerly industrial arts) *do not* have the required qualifications to teach a technical-vocational cluster.

Funding Support

Senior Years applied technology courses are eligible for Category I ($165 per pupil per Category I unit credit) or Category II ($55 per pupil per Category II unit credit) unit-credit funding (see Senior Years chart below). For more information on categorical program funding and unit-credit funding criteria, see www.edu.gov.mb.ca/k12/finance/schfund/index.html.

Applied Technology (formerly Industrial Arts Education) *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/ind_arts.html)

Middle Years Applied Technology (formerly Industrial Arts) (currently under review)

Code	Description	Credits	Grade/Level		
0282	Construction	0.0	6	7	8
0321	Drafting	0.0	6	7	8
0361	Electricity/Electronics	0.0	6	7	8
0443	Graphic Arts	0.0	6	7	8
0444	Graphic Communications	0.0	6	7	8
0611	Metalwork	0.0	6	7	8
0613	Manufacturing	0.0	6	7	8
0732	Power Mechanics	0.0	6	7	8
0733	Plastics	0.0	6	7	8
0734	Power/Energy	0.0	6	7	8
0950	Woodwork	0.0	6	7	8

Applied Technology (formerly Industrial Arts Education) *(continued)* (www.edu.gov.mb.ca/k12/cur/teched/ind_arts.html)

Senior Years Applied Technology (formerly Industrial Arts) (currently under review)

Code	Description	Credits	Grade/Level			
Applied Technology (Graphics, Electronics, Power Mechanics, Metalwork, Woodwork) Category I ($165.00 per pupil per unit credit)						
7997	Applied Technology	1.0	40S	40E	40M	
Applied Technology (Drafting) Category II ($55.00 per pupil per unit credit)						
7997	Applied Technology	1.0	40S	40E	40M	
Comprehensive Technology Education Category I Funding ($165.00 per pupil per unit credit)						
0214	Comprehensive Technology Education	0.5	15G	15E	15M	
Design Drafting Technology Category II Funding ($55.00 per pupil per unit credit)						
7952	Drafting Design Technology	0.5	15G 25G	15E 25E	15M 25M	
7953	Drafting Design Technology	1.0	10G 20G 30S 40S	10E 20E 30G 40G	10M 20M 30E 40E	 30M 40M
Electricity/Electronics Technology Category I Funding ($165.00 per pupil per unit credit)						
7973	Electricity/Electronics Technology	0.5	15G 25G	15E 25E	15M 25M	
7974	Electricity/Electronics Technology	1.0	10G 20G 30S 40S	10E 20E 30G 40G	10M 20M 30E 40E	 30M 40M
Graphic Communications Technology Category I Funding ($165.00 per pupil per unit credit)						
7958	Graphic Communications Technology	1.0	10G 20G 30S 40S	10E 20E 30G 40G	10M 20M 30E 40E	 30M 40M
7959	Graphic Communications Technology	0.5	15G 25G	15E 25E	15M 25M	

Applied Technology (formerly Industrial Arts Education) *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/ind_arts.html)

Code	Description	Credits	Grade/Level			
Metalwork Technology Category I Funding ($165.00 per pupil per unit credit)						
7980	Metalwork Technology	1.0	10G 20G 30S 40S	10E 20E 30G 40G	10M 20M 30E 40E	 30M 40M
7981	Metalwork Technology	0.5	15G 25G	15E 25E	15M 25M	
Power Mechanics Technology Category I Funding ($165.00 per pupil per unit credit)						
7965	Power Mechanics Technology	1.0	10G 20G 30S 40S	10E 20E 30G 40G	10M 20M 30E 40E	 30M 40M
7966	Power Mechanics Technology	0.5	15G 25G	15E 25E	15M 25M	
Woodwork Technology Category I Funding ($165.00 per pupil per unit credit)						
7990	Woodwork Technology	1.0	10G 20G 30S 40S	10E 20E 30G 40G	10M 20M 30E 40E	 30M 40M
7991	Woodwork Technology	0.5	15G 25G	15E 25E	15M 25M	
7994	Construction Technology	1.0	40S	40G	40E	40M
7995	Furniture Design Technology	1.0	40S	40G	40E	40M
7996	Manufacturing Technology	1.0	40S	40G	40E	40M

High School Apprenticeship Program

The High School Apprenticeship Program (HSAP) is a pathway for learners in Grades 10 to 12 to explore an apprenticeable trade while completing their academic graduation requirements. It provides learners with practical training and real-world experience while employers fill key roles and gain access to impactful support programs. For more information, see https://www.gov.mb.ca/studentapprentice/index.html.

Funding Support

All HSAP courses are eligible for Category II unit-credit funding ($55 per pupil per Category II unit credit). For more information on categorical program funding and unit-credit funding criteria, see www.edu.gov.mb.ca/k12/finance/schfund/index.html.

Code	Description	Credits	Grade/Level		
High School Apprenticeship Program					
9801	High School Apprenticeship Program 1	1.0	40S	40E	40M
9802	High School Apprenticeship Program 2	1.0	40S	40E	40M
9803	High School Apprenticeship Program 3	1.0	40S	40E	40M
9804	High School Apprenticeship Program 4	1.0	40S	40E	40M
9805	High School Apprenticeship Program 5	1.0	40S	40E	40M
9806	High School Apprenticeship Program 6	1.0	40S	40E	40M
9807	High School Apprenticeship Program 7	1.0	40S	40E	40M
9808	High School Apprenticeship Program 8	1.0	40S	40E	40M

Human Ecology

Human ecology courses take an interdisciplinary approach, integrating social and physical science theory and action through the study of everyday living. Areas of study include human ecology, family studies, food and nutrition, textile arts and design, clothing and textiles, environmental design, and applied family studies. For more information, see https://www.edu.gov.mb.ca/k12/cur/teched/home_ec.html.

Teacher Education Qualifications

Recommended qualifications for this discipline are those of certified teachers that have completed a Bachelor of Education with a specialization in health promotion, family health, human nutrition, environmental design, and/or textiles/clothing and design courses. For more details about teacher certification qualifications, see *Technology Education Program: Required and Recommended Teacher Certification Qualifications* at https://www.edu.gov.mb.ca/k12/cur/teched/docs/teacher-cert.pdf.

It should be noted that teachers who hold a Bachelor of Education with a specialization in health promotion, family health, human nutrition, environmental design, and/or textiles/clothing and design courses *do not* have the required qualifications to teach a technical-vocational cluster.

Funding Support

All Senior Years human ecology courses are eligible for Category II unit-credit funding ($55 per pupil per Category II unit credit). For more information on categorical program funding and unit-credit funding criteria, see www.edu.gov.mb.ca/k12/finance/schfund/index.html.

Human Ecology *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/home_ec.html)

Code	Description	Credits	Grade/Level					
0486	Human Ecology (MY)	0.0	5	6	7	8		
0486	Human Ecology (SY)	1.0	10S 30S	10E 30E	10M 30M	20S 40S	20E 40E	20M 40M
0487	Family Studies	0.5	15S 35S	15E 35E	15M 35M	25S 45S	25E 45E	25M 45M
	Family Studies	1.0	10S 30S	10E 30E	10M 30M	20S 40S	20E 40E	20M 40M
0488	Textile Arts and Design	0.5	15S 35S	15E 35E	15M 35M	25S 45S	25E 45E	25M 45M
	Textile Arts and Design	1.0	10S 30S	10E 30E	10M 30M	20S 40S	20E 40E	20M 40M
0489	Food and Nutrition	0.5	15S 35S	15E 35E	15M 35M	25S 45S	25E 45E	25M 45M
	Food and Nutrition	1.0	10S 30S	10E 30E	10M 30M	20S 40S	20E 40E	20M 40M
0490	Environmental Design	0.5	35S	35E	35M	45S	45E	45M
	Environmental Design	1.0	30S	30E	30M	40S	40E	40M
0491	Applied Family Studies	1.0	40S	40E	40M			

Technical-Vocational Education

Technical-vocational education (TVE) provides learners with the skills and competencies needed to successfully transition into the workplace, apprenticeship opportunities, post-secondary education, and their daily lives. It also allows learners to explore, sample, specialize, and transition into a designated or non-designated trade or occupation. Learners who complete a cluster of courses in a designated stream may be eligible for a Senior Years Technology Education Program Diploma and/or advanced standing in a post-secondary program. For more information, see www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html.

Some technical-vocational programming may be offered in partnership with post-secondary institutions. Schools are required to request approval from Manitoba Education and Early Childhood Learning to ensure proper course codes, agreements, and teaching credentials are in place.

Teacher Education Qualifications

Manitoba Education and Early Childhood Learning requires all TVE courses be taught by individuals who hold a Permanent Technical-Vocational Teaching Certificate. Qualifications for this teaching certificate are set out in the Teaching Certificates and Qualifications Regulation 115/2015. Certifications are managed through the Manitoba Professional Certification Unit. For more information, contact certification@gov.mb.ca.

Information on acquiring the Technical Vocational Teacher Education diploma required for the Permanent Technical-Vocational Teaching Certificate is available at www.rrc.ca/explore/program/technical-vocational-teacher-education/.

For more details about teacher certification qualifications, see *Technology Education Program: Required and Recommended Teacher Certification Qualifications* at https://www.edu.gov.mb.ca/k12/cur/teched/docs/teacher-cert.pdf.

Note: Teachers with applied technology and/or human ecology specializations cannot teach TVE courses without the required Technical-Vocational Teaching Certificate and industry certification.

Funding Support

Technical-vocational courses are eligible for Category I ($165 per pupil per Category I unit credit) or Category II ($55 per pupil per Category II unit credit) unit-credit funding. Technical-vocational programs are eligible for program funding of $5,500 when a series of eight or more courses are offered and all eligibility requirements are met. For more information on categorical program funding and unit-credit funding critera, see www.edu.gov.mb.ca/k12/finance/schfund/index.html.

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Exploration of Technical-Vocational Education Category I Funding ($165.00 per pupil per unit credit)					
9174	Exploration of Technical-Vocational Education* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
Aircraft Maintenance Technology Category I Funding ($165.00 per pupil per unit credit)					
8504	Exploring Aircraft Maintenance Technology* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8527	Introduction to Aircraft Maintenance Technology	1.0	20S	20E	20M
8528	Aircraft Engines	1.0	30S	30E	30M
8529	Aircraft Ground Handling	1.0	30S	30E	30M
8530	Aircraft Drawings and Documents	1.0	30S	30E	30M
8531	Aircraft Structures and Materials	1.0	40S	40E	40M
8532	Aircraft Hardware	1.0	40S	40E	40M
8533	Aircraft Structural Repair	1.0	40S	40E	40M
8534	Aircraft Systems	1.0	40S	40E	40M
Automotive Technology Category I Funding ($165.00 per pupil per unit credit)					
8695	Introduction to Automotive Technology* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8696	Automotive Systems and Service	1.0	20S	20E	20M
8697	Engine Fundamentals and Service	1.0	30S	30E	30M
8698	Chassis Fundamentals and Service	1.0	30S	30E	30M
8699	Drivetrain Fundamentals and Service	1.0	30S	30E	30M
8700	Electrical Fundamentals and Services	1.0	40S	40E	40M
8701	Advanced Mechanical Systems	1.0	40S	40E	40M
8702	Advanced Electrical Systems	1.0	40S	40E	40M
8703	Applied Automotive Technologies	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Aviation and Aerospace Technologies Category I Funding ($165.00 per pupil per unit credit)					
8543	Exploration of Aviation and Aerospace Technologies* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8544	Introduction to Aviation and Aerospace Technologies	1.0	20S	20E	20M
8545	Aircraft Components and Functions	1.0	30S	30E	30M
8546	Aircraft Materials and Fabrication	1.0	30S	30E	30M
8547	Reciprocating Engines	1.0	30S	30E	30M
8548	Aircraft Structure and Repair	1.0	40S	40E	40M
8549	Aircraft Electrical Systems	1.0	40S	40E	40M
8561	Aircraft Systems and Propulsion	1.0	40S	40E	40M
8562	Applied Aviation Aerospace Technologies	1.0	40S	40E	40M
Baking and Pastry Arts Category I Funding ($165.00 per pupil per unit credit)					
8231	Exploration of Baking and Pastry Arts* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8324	Introduction to Baking and Pastry Arts	1.0	20S	20E	20M
8338	Quick Breads, Cookies, Doughnuts, and Pies	1.0	30S	30E	30M
8339	Yeast-Dough Products	1.0	30S	30E	30M
8358	Cakes, Fillings, Icings, and Decorations	1.0	30S	30E	30M
8359	Tarts and Special Pastries	1.0	40S	40E	40M
8374	Modern and Classic Desserts, and Plating Techniques	1.0	40S	40E	40M
8375	Advanced Bread Products	1.0	40S	40E	40M
8998	Advanced Baking and Pastries	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Broadcast Media Technology Category I Funding ($165.00 per pupil per unit credit)					
9114	Exploration of Broadcast Media Technology* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9116	Introduction to Broadcast Media Technology	1.0	20S	20E	20M
9117	Multi-Camera Production for Broadcast Media	1.0	30S	30E	30M
9118	Video Post-Production for Broadcast Media	1.0	30S	30E	30M
9119	Single Camera Production for Broadcast Media	1.0	30S	30E	30M
9120	Electronic News Gathering for Broadcast Media	1.0	40S	40E	40M
9121	Documentary and Film Production for Broadcast Media	1.0	40S	40E	40M
9122	Advanced Multi-Camera Production for Broadcast Media	1.0	40S	40E	40M
9123	Applied Broadcast Media Technology	1.0	40S	40E	40M
Cabinet and Furniture Making Category I Funding ($165.00 per pupil per unit credit)					
9176	Exploration of Cabinetmaking* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9177	Introduction to Cabinetmaking	1.0	20S	20E	20M
9178	Cabinetmaking Tools and Equipment	1.0	30S	30E	30M
9179	Cabinet and Furniture Design	1.0	30S	30E	30M
9181	Cabinetry	1.0	30S	30E	30M
9182	Furniture Making	1.0	40S	40E	40M
9183	Advanced Cabinetry	1.0	40S	40E	40M
9185	Advanced Furniture Making	1.0	40S	40E	40M
9186	Applied Cabinet and Furniture Making	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Carpentry	**Category I Funding ($165.00 per pupil per unit credit)**				
8584	Introduction to Carpentry* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8585	Carpentry Fundamentals	1.0	20S	20E	20M
9188	Carpentry Tools and Equipment	1.0	30S	30E	30M
9189	Framing	1.0	30S	30E	30M
9190	Interior/Exterior Finishing	1.0	30S	30E	30M
9191	Surveying and Concrete	1.0	40S	40E	40M
9192	Advanced Framing	1.0	40S	40E	40M
9193	Carpentry Millwork	1.0	40S	40E	40M
9194	Applied Carpentry	1.0	40S	40E	40M
Collision Repair and Refinishing	**Category I Funding ($165.00 per pupil per unit credit)**				
9028	Exploration of Collision Repair and Refinishing* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9029	Introduction to Collision Repair and Refinishing	1.0	20S	20E	20M
9030	Fundamentals of Collision Repair and Refinishing	1.0	30S	30E	30M
9031	Automotive Metals and Welding	1.0	30S	30E	30M
9032	Corrosion Protection	1.0	30S	30E	30M
9033	Damage Analysis and Structural Repairs	1.0	40S	40E	40M
9034	Weld-On and Bolt-On Panel Replacement	1.0	40S	40E	40M
9035	Surface Preparation and Finishing	1.0	40S	40E	40M
9036	Colour Theory and Career Preparation	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Culinary Arts Category I Funding ($165.00 per pupil per unit credit)					
8790	Exploration of the Culinary Arts* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8791	Cooking Principles	1.0	20S	20E	20M
8792	Garde Manger	1.0	30S	30E	30M
8793	Patisserie and Baking	1.0	30S	30E	30M
8794	Vegetables and Starches	1.0	30S	30E	30M
8795	Stocks, Soups, and Sauces	1.0	40S	40E	40M
8796	Breakfast and Dairy	1.0	40S	40E	40M
8797	Meats, Poultry, Fish, and Seafood	1.0	40S	40E	40M
8798	Culinary Management and Menu Design	1.0	40S	40E	40M
Dental Assisting Category I Funding ($165.00 per pupil per unit credit)					
8563	Introduction to Dental Assisting	1.0	30S	30E	30M
8564	Human Body Systems	1.0	30S	30E	30M
8593	Restorative Dentistry	1.0	30S	30E	30M
8594	Dental Office Administration	1.0	30S	30E	30M
8606	Intraoral Skills I	1.0	40S	40E	40M
8607	Intraoral Skills II	1.0	40S	40E	40M
8608	Dental Specialties	1.0	40S	40E	40M
8609	Introduction to Patient Care	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Dental Technology Category I Funding ($165.00 per pupil per unit credit)					
8624	Introduction to Dental Technology Removable Prostheses	1.0	30S	30E	30M
8625	Design and Fabrication of Removable Prostheses	1.0	30S	30E	30M
8626	Introduction to Orthodontics	1.0	30S	30E	30M
8627	Design and Fabrication of Orthodontic Appliances	1.0	30S	30E	30M
8628	Introduction to Fixed Prosthodontics: Crown and Bridge Technology	1.0	40S	40E	40M
8629	Design and Fabrication of Fixed Prosthodontics: Crown and Bridge Technology	1.0	40S	40E	40M
8670	Introduction to Dental Ceramic Technology	1.0	40S	40E	40M
8671	Design and Fabrication of Dental Ceramic Restorations	1.0	40S	40E	40M
Design Drafting Category II Funding ($55.00 per pupil per unit credit)					
8434	Introduction to Design Drafting* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8435	Design Drafting Essentials 1	1.0	20S	20E	20M
8436	Design Drafting Essentials 2	1.0	30S	30E	30M
8437	Architectural Design Drafting	1.0	30S	30E	30M
8438	Engineering Design Drafting	1.0	30S	30E	30M
8439	Advanced Engineering Design Drafting	1.0	40S	40E	40M
8648	Advanced Architectural Design Drafting	1.0	40S	40E	40M
8649	Applied Architectural Design Drafting	1.0	40S	40E	40M
8669	Applied Engineering Design Drafting	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Early Childhood Education (ECE) Category I Funding ($165.00 per pupil per unit credit)					
9215	Exploration of ECE (optional)* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9216	Introduction to ECE	1.0	20S	20E	20M
9217	Relationships with Children in ECE	1.0	30S	30E	30M
9218	Early Childhood Environments in ECE	1.0	30S	30E	30M
9219	Child and ECE Practitioner Wellness	1.0	30S	30E	30M
9222	Applied ECE Practice I	1.0	30S	30E	30M
9223	The Developing Child in ECE	1.0	40S	40E	40M
9224	Play in ECE	1.0	40S	40E	40M
9225	Family and Community in ECE	1.0	40S	40E	40M
9226	Professionalism in ECE	1.0	40S	40E	40M
9227	Applied ECE Practice II	1.0	40S	40E	40M
Electrical Trades Technology Category I Funding ($165.00 per pupil per unit credit)					
9054	Exploration of Electrical Trades Technology* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9055	Introduction to Electrical Trades Technology	1.0	20S	20E	20M
9056	Electrical Trades DC Fundamentals	1.0	30S	30E	30M
9057	Residential Wiring	1.0	30S	30E	30M
9058	Electrical Wiring Methods	1.0	30S	30E	30M
9059	Advanced Residential Wiring	1.0	40S	40E	40M
9060	Electrical Trades AC Fundamentals	1.0	40S	40E	40M
9061	Advanced Electrical Wiring Methods	1.0	40S	40E	40M
9062	Applied Electrical Trades Technology	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Electronics Technology Category I Funding ($165.00 per pupil per unit credit)					
9037	Exploration of Electronics Technology* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9038	Introduction to Electronics Technology	1.0	20S	20E	20M
9039	Electronics AC Circuit Fundamentals	1.0	30S	30E	30M
9048	Semiconductor Technology and Signal Devices	1.0	30S	30E	30M
9049	Semiconductor Power Devices	1.0	30S	30E	30M
9050	Digital Devices and Basic Logic	1.0	40S	40E	40M
9051	Advanced Digital Systems	1.0	40S	40E	40M
9052	Microprocessors	1.0	40S	40E	40M
9053	Microprocessor Applications	1.0	40S	40E	40M
Esthetics: Nail Technology Category I Funding ($165.00 per pupil per unit credit)					
9063	Exploration of Esthetics* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9064	Introduction to Esthetics	1.0	20S	20E	20M
9065	Manicure and Pedicure Treatments	1.0	30S	30E	30M
9066	Artificial Nails	1.0	40S	40E	40M
9067	Applied Nail Technology	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Esthetics: Skin Care Technology Category I Funding ($165.00 per pupil per unit credit)					
9063	Exploration of Esthetics* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9064	Introduction to Esthetics	1.0	20S	20E	20M
9068	Basic Skin Care	1.0	30S	30E	30M
9069	Intermediate Skin Care	1.0	30S	30E	30M
9074	Advanced Skin Care	1.0	30S	30E	30M
9075	Applied Skin Care	1.0	40S	40E	40M
9076	Hair Removal	1.0	40S	40E	40M
9077	Makeup Artistry	1.0	40S	40E	40M
9078	Spa Services	1.0	40S	40E	40M
Fashion Design and Technology Category II Funding ($55.00 per pupil per unit credit)					
9124	Exploration of Fashion Design and Technology* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9125	Introduction to Fashion Design and Technology	1.0	20S	20E	20M
9126	Knitwear Design and Construction	1.0	30S	30E	30M
9127	Semi-Formal Wear Design and Construction	1.0	30S	30E	30M
9128	Pant Design and Construction	1.0	30S	30E	30M
9129	Tailored Garment Design and Construction	1.0	40S	40E	40M
9131	Formal Wear Design and Construction	1.0	40S	40E	40M
9132	Applied Textile Design	1.0	40S	40E	40M
9134	Applied Fashion Entrepreneurship	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Graphic Design Category I Funding ($165.00 per pupil per unit credit)					
9135	Exploration of Graphic Design* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9136	Fundamentals of Graphic Design	1.0	20S	20E	20M
9137	Graphic Design and Layout	1.0	30S	30E	30M
9138	Illustration for Graphic Design	1.0	30S	30E	30M
9139	Interactive Graphic Design	1.0	30S	30E	30M
9140	Advanced Graphic Design and Layout	1.0	40S	40E	40M
9141	Advanced Illustration for Graphic Design	1.0	40S	40E	40M
9142	Advanced Interactive Graphic Design	1.0	40S	40E	40M
9144	Graphic Design Portfolio	1.0	40S	40E	40M
Hairstyling Category I Funding ($165.00 per pupil per unit credit)					
9113	Exploration of Hairstyling* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8312	Introduction to Hairstyling	1.0	20S	20E	20M
8313	Basic Hairstyling	1.0	20S	20E	20M
8314	Basic Haircutting and Thermal Styling	1.0	20S	20E	20M
8315	Basic Salon Services	1.0	20S	20E	20M
8316	Intermediate Haircutting and Barbering Techniques	1.0	30S	30E	30M
8317	Hair Colouring	1.0	30S	30E	30M
8318	Intermediate Hairstyling and Artificial Hair	1.0	30S	30E	30M
8319	Chemical Texture Services	1.0	30S	30E	30M
8320	Advanced Hair Colouring	1.0	40S	40E	40M
8321	Advanced Haircutting and Chemical Texture	1.0	40S	40E	40M
8322	Salon Operation and Client Services	1.0	40S	40E	40M
8323	Certificate Preparation	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Health Care Assistant Category II Funding ($55.00 per pupil per unit credit)					
8800	Introduction to Health Care Assistant* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	1.0	10S	10E	10M
8801	Introduction to Health Care Assistant* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5	15S	15E	15M
8802	The Life Cycle	1.0	40S	40E	40M
8803	Human Relations	1.0	40S	40E	40M
8804	Safety in Health Care	1.0	40S	40E	40M
8805	Body Mechanics and Movement	1.0	40S	40E	40M
8806	Nutrition and Hygiene	1.0	40S	40E	40M
8807	Procedures and Treatments	1.0	40S	40E	40M
8808	Aging and Related Disorders	1.0	40S	40E	40M
8809	Life Management	1.0	40S	40E	40M
8810	Palliative Care	0.5	45S	45E	45M
8811	Concepts for Practice	1.0	40S	40E	40M
8812	Personal Care Skills and Needs	1.0	40S	40E	40M
8813	Health and Lifespan Development	0.5	45S	45E	45M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Heavy Duty Equipment Technician Category I Funding ($165.00 per pupil per unit credit)					
8672	Exploration of Heavy Duty Equipment Technician* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8673	Introduction to Heavy Duty Equipment Technician	1.0	20S	20E	20M
8674	Diesel Engine Fundamentals and Service	1.0	30S	30E	30M
8675	Chassis, Frame, and Undercarriage Systems	1.0	30S	30E	30M
8676	Welding Processes and Fuels	1.0	30S	30E	30M
8677	Standard Transmissions, Drivelines, Transfer Cases, and Power Takeoffs	1.0	40S	40E	40M
8678	Tires, Wheels, and Brake Assemblies	1.0	40S	40E	40M
8679	Electrical Fundamentals, Computers, and Diagnostic Equipment	1.0	40S	40E	40M
8704	Applied Heavy Duty Equipment Technician	1.0	40S	40E	40M
Horticulture Category I Funding ($165.00 per pupil per unit credit)					
8717	Exploration of Horticulture* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8718	Introduction to Horticulture	1.0	20S	20E	20M
8719	Applied Horticulture	1.0	30S	30E	30M
8733	Introduction to Landscape Maintenance and Construction	1.0	30S	30E	30M
8734	Introduction to Greenhouse Maintenance and Production	1.0	30S	30E	30M
8764	Advanced Horticulture	1.0	40S	40E	40M
8765	Applied Landscape Maintenance and Construction	1.0	40S	40E	40M
8766	Applied Greenhouse Maintenance and Production	1.0	40S	40E	40M
8767	Arboriculture	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Hotel Hospitality Category II Funding ($55.00 per pupil per unit credit)					
8825	Beverage Services	1.0	40S	40E	40M
8826	Dining Room Skills	1.0	20S 40S	20E 40E	20M 40M
8827	Food Preparation	1.0	40S	40E	40M
8828	Customer Services	1.0	40S	40E	40M
8829	Hotel and Consumer Math	1.0	40S	40E	40M
8830	Tourism	1.0	40S	40E	40M
8831	Reception Desk Skills	1.0	40S	40E	40M
8832	Housekeeping Skills	1.0	40S	40E	40M
8833	Management Skills	1.0	40S	40E	40M
8834	Applied Reception Services	1.0	40S	40E	40M
8835	Applied Food Preparation	1.0	40S	40E	40M
8836	Applied Dining Room Services	1.0	40S	40E	40M
8837	Applied Management	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Interactive Digital Media Category I Funding ($165.00 per pupil per unit credit)					
9093	Exploration of Interactive Digital Media* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9094	Introduction to Interactive Digital Media	1.0	20S	20E	20M
9095	Interactive Digital Media Design	1.0	30S	30E	30M
9096	Interactive Digital Asset Creation	1.0	30S	30E	30M
9097	Coding for Interactive Digital Media	1.0	30S	30E	30M
9098	Advanced Interactive Digital Asset Creation	1.0	40S	40E	40M
9099	Advanced Coding for Interactive Digital Media	1.0	40S	40E	40M
9100	Project Management for Interactive Digital Media	1.0	40S	40E	40M
9101	Futures in Interactive Digital Media	1.0	40S	40E	40M
Jewellery and Metalsmithing Category I Funding ($165.00 per pupil per unit credit)					
8768	Exploration of Jewellery/Metalsmithing* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8769	Introduction to Jewellery/Metalsmithing	1.0	20S	20E	20M
8799	Lost Wax Casting	1.0	30S	30E	30M
8814	Basic Construction and Soldering	1.0	30S	30E	30M
8823	Forging and Forming	1.0	30S	30E	30M
8824	Jewellery Repair	1.0	40S	40E	40M
8838	Advanced Construction and Soldering	1.0	40S	40E	40M
8839	Gem Setting	1.0	40S	40E	40M
8840	Advanced Gem Setting	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Machining Technology Category I Funding ($165.00 per pupil per unit credit)					
8841	Exploration of Machining Technology* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8842	Machine Shop Tools	1.0	20S	20E	20M
8843	Applied Machine Shop Tools	1.0	30S	30E	30M
8844	Lathe Operations and Grinding I	1.0	30S	30E	30M
8854	Milling Operations I	1.0	30S	30E	30M
8855	Lathe Operations and Grinding II	1.0	40S	40E	40M
8856	Milling Operations II	1.0	40S	40E	40M
8857	Applied Machining and Manufacturing Technology	1.0	40S	40E	40M
8858	CNC Machines	1.0	40S	40E	40M
Mining Engineering Technology Category I Funding ($165.00 per pupil per unit credit)					
9145	Introduction to Mining Engineering* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9146	Mining Engineering Technology	1.0	20S	20E	20M
9147	Drafting for Mining Engineering	1.0	30S	30E	30M
9148	Geological Engineering	1.0	30S	30E	30M
9149	Surveying for Mining Engineering	1.0	30S	30E	30M
9152	Advanced Geological Engineering	1.0	40S	40E	40M
9153	Mineral Processing	1.0	40S	40E	40M
9154	Advanced Surveying for Mining Engineering	1.0	40S	40E	40M
9155	Applied Mining Engineering	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Motion Picture Arts Category I Funding ($165.00 per pupil per unit credit)					
9206	Exploration of Motion Picture Arts* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9207	Introduction to Motion Picture Arts	1.0	20S	20E	20M
9208	Fundamentals of Animation	1.0	30S	30E	30M
9209	Fundamentals of Compositing and Visual Effects	1.0	30S	30E	30M
9210	Fundamentals of Pre-Visualization	1.0	30S	30E	30M
9211	Applied Motion Picture Arts	1.0	40S	40E	40M
9212	Motion Picture Arts Project Management	1.0	40S	40E	40M
9213	Motion Picture Arts Studio Training	1.0	40S	40E	40M
9214	Motion Picture Arts Portfolio Development	1.0	40S	40E	40M
Networking and Cyber Security Category I Funding ($165.00 per pupil per unit credit)					
9102	Exploration of Networking and Cyber Security* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9103	Hardware and Software Essentials	1.0	20S	20E	20M
9104	Operating Systems	1.0	30S	30E	30M
9105	Networking Technologies	1.0	30S	30E	30M
9106	Cyber Security Essentials	1.0	30S	30E	30M
9107	Advanced Operating Systems	1.0	40S	40E	40M
9108	Advanced Networking Technologies	1.0	40S	40E	40M
9109	Server Administration	1.0	40S	40E	40M
9111	Applied Networking and Cyber Security	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Photography Category I Funding ($165.00 per pupil per unit credit)					
9156	Exploration of Photography* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9157	Introduction to Photography	1.0	20S	20E	20M
9158	Photographic Equipment	1.0	30S	30E	30M
9159	Photographic Lighting	1.0	30S	30E	30M
9160	Digital Darkroom	1.0	30S	30E	30M
9161	Advanced Photographic Equipment	1.0	40S	40E	40M
9162	Advanced Photographic Lighting	1.0	40S	40E	40M
9163	Advanced Digital Darkroom	1.0	40S	40E	40M
9164	Applied Photography	1.0	40S	40E	40M
Pilot Ground School Category I Funding ($165.00 per pupil per unit credit)					
9196	Exploration of Aviation* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9197	Introduction to Aviation	1.0	20S	20E	20M
9198	Principles of Flight	1.0	30S	30E	30M
9199	Meteorology and Navigation	1.0	30S	30E	30M
9201	Flight Simulation Lab	1.0	30S	30E	30M
9202	Human Factors	1.0	40S	40E	40M
9203	Advanced Aviation	1.0	40S	40E	40M
9204	Aviation Operations	1.0	40S	40E	40M
9205	Applied Aviation	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Plumbing and Pipe Trades Category I Funding ($165.00 per pupil per unit credit)					
8859	Exploration of Plumbing Pipe Trades* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8876	Introduction to Plumbing Pipe Trades	1.0	20S	20E	20M
8877	Introduction to Piping Systems and Theories	1.0	30S	30E	30M
8878	Installation of Plumbing and Piping Systems I	1.0	30S	30E	30M
8879	Installation of Plumbing and Piping Systems II	1.0	30S	30E	30M
8981	Sanitary Drainage Waste and Venting I	1.0	40S	40E	40M
8982	Sanitary Drainage Waste and Venting II	1.0	40S	40E	40M
8984	Installation of Plumbing and Piping Systems III	1.0	40S	40E	40M
8985	Applied Plumbing and Piping Systems	1.0	40S	40E	40M
Print Media Category I Funding ($165.00 per pupil per unit credit)					
8465	Introduction to Print Production* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8466	Print Production Fundamentals	1.0	20S	20E	20M
8467	Design	1.0	30S	30E	30M
8468	Pre-press	1.0	30S	30E	30M
8469	Print Production	1.0	30S	30E	30M
8470	Advanced Design	1.0	40S	40E	40M
8471	Advanced Pre-press	1.0	40S	40E	40M
8472	Advanced Print Production	1.0	40S	40E	40M
8473	Applied Print Media	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Refrigeration and Air Conditioning Category I Funding ($165.00 per pupil per unit credit)					
8986	Exploration of Refrigeration and Air Conditioning* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8987	Introduction to Refrigeration and Air Conditioning	1.0	20S	20E	20M
8988	System Fundamentals	1.0	30S	30E	30M
8989	Piping Fundamentals	1.0	30S	30E	30M
8991	Electrical Fundamentals	1.0	30S	30E	30M
8992	Electrical Controls	1.0	40S	40E	40M
8995	Refrigeration and Air Cooling Systems	1.0	40S	40E	40M
8996	Heating, Ventilation, and Air Conditioning Systems	1.0	40S	40E	40M
8997	Applied Refrigeration and Air Conditioning	1.0	40S	40E	40M
Resources and Environmental Management Category I Funding ($165.00 per pupil per unit credit)					
8340	Introduction to Resource Management* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	1.0	10S	10E	10M
8341	Introduction to Resource Management* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5	15S	15E	15M
8342	Woods Orientation	1.0	20S	20E	20M
8344	Ecology and Field Biology	1.0	30S	30E	30M
8347	Forest Management	1.0	30S	30E	30M
8349	Wildlife Management	1.0	40S	40E	40M
8350	Fisheries Management	1.0	40S	40E	40M
8353	Applied Resource Management	1.0	40S	40E	40M
8354	Botany	1.0	30S	30E	30M
8355	Geographical Information Systems	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Sound Engineering Category I Funding ($165.00 per pupil per unit credit)					
9165	Exploration of Sound Engineering* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
9166	Introduction to Sound Engineering	1.0	20S	20E	20M
9167	Music Theory for Sound Engineering	1.0	30S	30E	30M
9168	Sound Engineering for Studio Production	1.0	30S	30E	30M
9169	Sound Engineering for Live Performances	1.0	30S	30E	30M
9170	Advanced Music Theory for Sound Engineering	1.0	40S	40E	40M
9171	Advanced Sound Engineering for Studio Production	1.0	40S	40E	40M
9172	Advanced Sound Engineering for Live Performances	1.0	40S	40E	40M
9173	Applied Sound Engineering	1.0	40S	40E	40M
Sustainable Energy Category I Funding ($165.00 per pupil per unit credit)					
8232	Exploration of Sustainable Energy* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8233	Introduction to Sustainable Energy	1.0	20S	20E	20M
8234	Sustainable Energy: Electrical Systems	1.0	30S	30E	30M
8245	Sustainable Energy: Heating/Cooling Systems	1.0	30S	30E	30M
8246	Sustainable Energy: Transportation Systems	1.0	30S	30E	30M
8279	Sustainable Energy: Solar Systems	1.0	40S	40E	40M
8292	Sustainable Energy: Wind Systems	1.0	40S	40E	40M
8293	Sustainable Energy: Biomass Systems	1.0	40S	40E	40M
9175	Current Topics in Sustainable Energy	1.0	40S	40E	40M

Technical-Vocational Education *(continued)*
(www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html)

Code	Description	Credits	Grade/Level		
Welding Technology Category I Funding ($165.00 per pupil per unit credit)					
8377	Exploration of Welding Technology* * Not included in the approved cluster of Technology Education credits for the TVE diploma or program funding.	0.5 1.0	15S 10S	15E 10E	15M 10M
8378	Introduction to Welding Technology	1.0	20S	20E	20M
8414	Basic Metal Design Fabrication and Oxy-Acetylene Procedures	1.0	30S	30E	30M
8474	Basic GMAW (MIG) Procedures	1.0	30S	30E	30M
8486	Basic SMAW (ARC) Procedures	1.0	30S	30E	30M
8487	Advanced GMAW (MIG) Procedures	1.0	40S	40E	40M
8488	Advanced SMAW (ARC) Procedures	1.0	40S	40E	40M
8489	Advanced Metal Design/Fabrication	1.0	40S	40E	40M
8503	Applied Specialties and Qualifications	1.0	40S	40E	40M

Printed in Canada
Imprimé au Canada