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Secondary Education in the Provinces and Territories of Canada: A Student Transfer Guide 2023–24

Manitoba

Part 1 – Summary Statement

1.1 Introduction

In Manitoba, K–12 education is governed principally by [The Public Schools Act](#) and [The Education Administration Act](#), as well as regulations made under both Acts. Rights and responsibilities of the Minister of Education and the rights and responsibilities of school boards, principals, teachers, parents, and students are set out in the legislation. English and French are the two official languages of instruction in Manitoba. For more information, see: [Going to School in Manitoba | Manitoba Education and Early Childhood Learning \(gov.mb.ca\)](#)

1.2 Organization of School System

In Manitoba, K–12 education is governed principally by *The Public Schools Act* and *The Education Administration Act* as well as regulations made under both Acts. Rights and responsibilities of the Minister of Education and the rights and responsibilities of school boards, principals, teachers, parents, and students are set out in legislation. Children who are six years of age or older on December 31 in a given year have the right to attend school from the beginning of the fall term of that calendar year until they receive a graduation diploma, or until the last school day of June in the calendar year in which they become 21 years of age.

Manitoba's K–12 provincial education system is comprised of public schools, funded and non-funded independent schools, and homeschools.

- Public Schools are governed by locally elected school division/district boards, in accordance to provincial statutes, regulations and policies. They are funded by a combination of direct provincial funding and special taxation levies. All Canadian citizens and landed immigrants residing with a parent or legal guardian in Manitoba have the right to attend public schools subject to provincial regulations.
- Funded independent schools must be legally incorporated, employ certified teachers and teach the Manitoba curriculum.
- Non-funded independent schools are encouraged to be legally incorporated, but it is not required. Non-funded independent schools are not required to employ certified teachers or teach the Manitoba curriculum, but the curriculum chosen for instruction must be approved by the department.
- When parents choose to homeschool their child, they are responsible for obtaining resources and materials for the program of study. Provincial funding is not available to families who homeschool.

To obtain a Manitoba high school diploma, students in Grades 9 through 12 must accumulate a minimum of 30 credits from a combination of compulsory and optional courses. Four diploma programs are available: English, French Immersion, Français, and Senior Years Technology Education.

1.3 Explanation of Terms Used (including special-education/student-services terms)

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.

Community Service Student-Initiated Project (CSSIP): Student volunteer community experience that does not need to be registered with Manitoba Education and Early Childhood Learning.

Complete (CO): Designation for a final passing grade for courses that use “Complete” and “Incomplete” for grades.

Cultural Exploration Student-Initiated Project (CESIP): Student volunteer cultural experience that does not need to be registered with Manitoba Education and Early Childhood Learning.

EAL (E): Educational programming designed to focus on learning goals in the context of a given subject area that is based on a student’s assessed level of EAL proficiency and assists the student in making the transition into regular Senior Years programming. An EAL individual educational plan (EAL-IEP) is required for each student.

Foundation (F): Educational programming that is broadly based and appropriate for all students, and leads 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.

General (G): General 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.

Incomplete (IN): Designation for a final grade with insufficient evidence of learning for courses that use “Complete” and “Incomplete” for grades.

Individual Education Plan (IEP): A type of student-specific plan that documents student-specific outcomes (SSOs) that are in domains outside of the provincial curriculum. For more information, see: [Standards for Appropriate Educational Programming in Manitoba \(gov.mb.ca\)](https://www.gov.mb.ca/education/standards-for-appropriate-educational-programming-in-manitoba)

Individualized Programming (I): Programming intended for students whose diagnosed intellectual disability/intellectual developmental disorder is so severe or profound that they do not benefit from participating in curricula developed or approved by Manitoba Education and Early Childhood Learning. Appropriate educational programming would involve identifying highly individualized functional learning experiences related to building independence in domains outside of the provincial curriculum and documenting these in an individual education plan (IEP). For more information, see: [Supporting Inclusion: Modification and Individualized Programming in Manitoba Schools \(gov.mb.ca\)](https://www.gov.mb.ca/education/supporting-inclusion-modification-and-individualized-programming-in-manitoba-schools)

Modification (M): Changes made by the school support team to the number, essence, or content of provincial grade-level expected learning outcomes (ELOs) in a subject/course to meet the learning needs of a student who, through a specialized assessment, has been identified as having an intellectual deficit. Changes to the grade-level ELOs are documented in a student-specific plan (e.g. a curriculum modification plan).

School-Initiated Course (SIC): Course developed locally and registered with Manitoba Education and Early Childhood Learning.

Student-Initiated Project (SIP): Project initiated by a student in area of special interest and registered with Manitoba Education and Early Childhood Learning.

Specialized Programming (S): Educational programming in specialized areas leading to further studies beyond Senior Years (e.g., apprenticeship, college, and university). When a subject area is compulsory and there is more than one option, the designation will be S.

Standing (S): Designation for a final passing grade for a post-secondary (college or university) course.

Student-Specific Plan: A written plan that addresses a student’s unique learning needs.

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.

1.4 Course Designation

Course Numbering

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

First Character

- 1 - courses developed for Grade 9
- 2 - courses developed for Grade 10
- 3 - courses developed for Grade 11
- 4 - courses developed for Grade 12

Second Character

- 0 - courses developed by Manitoba Education and Early Childhood Learning for one (1.0) credit
- 5 - courses developed by Manitoba Education and Early Childhood Learning for a half (0.5) credit
- 1 - courses developed by schools or school divisions and registered by Manitoba Education and Early Childhood Learning (includes SICs and SIPs)
- 2 - courses developed externally by an educational authority (International Baccalaureate and Advanced Placement courses) and, in the case of dual credit, post-secondary institution (college or university)

Third Character

- G – General
- F – Foundation
- S – Specialized
- E – EAL
- M – Modified
- I – Individualized
- C – College-Level
- U – University-Level

1.5 Time Allotments and Course Load

The Grades 9–12 credit system provides flexibility for students to pursue courses best suited to their individual requirements and aspirations. A student may earn one (1.0) credit by successfully completing a course of study designed for approximately 110 hours of instruction. A student may earn a half-credit (0.5) by successfully completing a course of study designed for approximately 55 hours of instruction.

School calendars are established annually, averaging 194 school days per year, of which 10 are non-instructional days provided for in Regulation 101/95 of The Public Schools Act of Manitoba to be used for professional development, teacher in-service, parent-teacher conferences, administration, and pupil evaluation.

1.6 Curriculum Organization

Manitoba offers four official school programs: English Program, French Immersion Program, Français Program and Senior Years Technology Education Program. All curricula are organized by discipline, cluster, and grade level with a consistent structure and format that maintains the language of its discipline or cluster.

Details regarding each program can be found here: [School Programs | Manitoba Education and Early Childhood Learning \(gov.mb.ca\)](https://www.gov.mb.ca/schools/programs/)

1.7 Prerequisites and/or Co-requisites

Course prerequisites are not required across Grades 9–12 with the exception of Career Development Internship and Credit for Employment. Locally, school divisions or schools may require prerequisites and/or co-requisites.

1.8 Assessment and Evaluation Practices; and Transcripts (including issuing authority)

Manitoba mandates a provincial report card in Grades 1–12 for all public schools. Schools, outside of the public-school system may also use the provincial report provided all requirements related to its use are followed. The provincial report card provides clear, consistent information for parents based on a coherent framework for assessment, grading, and reporting. Manitoba Provincial Report Card Policy and Guidelines may be viewed here: [Manitoba Provincial Report Card Policy and Guidelines | Manitoba Education and Early Childhood Learning \(gov.mb.ca\)](#)

In Grades 9–12 student marks, obtained through classroom- and/or school-based evaluation, are reported as percentages, with the exception of Grades 11 and 12 Physical Education/Health Education which are reported as Complete (CO) or Incomplete (IN). The report card also indicates total credits earned for all courses to inform placement. Additional information on assessment and grading can be found here: [Assessment and Evaluation | Manitoba Education and Early Childhood Learning \(gov.mb.ca\)](#)

1.9 List of Graduation Credentials (including credentials giving access to postsecondary education), Requirements for Graduation, and Issuing Authorities

From Grade 9–12, students earn course credits towards high school graduation. To obtain a Manitoba high school diploma, students must accumulate a minimum of 30 credits from a combination of compulsory and optional courses.

Four diploma programs are available in Manitoba, each with specific compulsory and optional course requirements. [Graduation Requirements | Manitoba Education and Early Childhood Learning \(gov.mb.ca\)](#)

1. **Senior Years English Program:** Minimum 17 compulsory credits and 13 optional credits. [Graduation Requirements for the English Program \(gov.mb.ca\)](#)
2. **Senior Years Français Program:** Minimum 21 compulsory credits and 9 optional credits. <https://www.edu.gov.mb.ca/m12/polapp/docs/prog-fran.pdf>
www.edu.gov.mb.ca/k12/policy/gradreq/docs/grad_req_en.pdf.
3. **Senior Years French Immersion Program:** Minimum 21 compulsory credits and 9 optional credits. Fourteen credits must be taught in French: 4 credits in Grade 9, 4 credits in Grade 10, 3 credits in Grade 11, and 3 credits in Grade 12. [Graduation Requirements for the french immersion program \(gov.mb.ca\)](#)
4. **Senior Years Technology Education Program:**
 - English Technology Education Diploma** – Students must earn a minimum of 17 compulsory credits, plus 8 compulsory credits from an approved technical-vocational cluster or applied commerce education cluster, and 5 optional credits to meet the requirements of the English Technology Education Program Graduation Diploma. [Graduation Requirements for the Technology Education Program \(gov.mb.ca\)](#)
 - **Français Technology Education Diploma** – Students must earn a minimum of 21 compulsory credits, plus 8 compulsory credits from an approved technical-vocational cluster or applied commerce education cluster, and 1 optional credit to meet the requirements of the Français Technology Education Program Graduation Diploma.
 - **French Immersion Technology Education Diploma** – Students must earn a minimum of 21 compulsory credits, plus 8 compulsory credits from an approved technical-vocational cluster or applied commerce education cluster, and 1 optional credit to meet the requirements of the French Immersion Technology Education Program Graduation Diploma. A minimum of 14 credits must be taught in French; 4 credits in Grade 9, 4 credits in Grade 10, 3 credits in Grade 11, and 3 credits in Grade 12.

Grade 9 to 12 Mature Student Diploma

In Manitoba, students may be eligible for a Mature Student Diploma if they:

- (a) are 19 years of age or over at the time of enrolment in a school division/district or Adult Learning Centre, or will reach the age of 19 before completion of the course(s) in which they are enrolled;
- (b) have been out of school six months or more, and out of school long enough for the class, of which one was last a member, to have graduated from Senior Years; and
- (c) have not obtained a high school diploma. Students can enrol in a school division/district or ALC for the purpose of obtaining the Mature Student High School Diploma if they are eligible as described above.

Additional information is available at: [Senior 1 to Senior 4 Mature Student Graduation Requirements \(2003\) \(gov.mb.ca\)](#) for details.

Certificate of Completion – This certificate recognizes the achievement of students with intellectual disabilities who benefit from a highly individualized and functionally appropriate learning experience. Guidelines for awarding a Certificate of Completion may be viewed here: [Guidelines for Awarding a Certificate of Completion for an Individualized Senior Years Program \(gov.mb.ca\)](#)

1.10 Other types of Programs

Advanced Placement and International Baccalaureate Courses

Students may take Grade 11 and Grade 12 International Baccalaureate (IB) and Advanced Placement (AP) courses for credit. Schools offering these courses must ensure that students do not receive credit for similar courses based on provincial curricula. For more information, see:

[Graduation Requirements | Manitoba Education and Early Childhood Learning \(gov.mb.ca\)](#)

Cadets

Students may earn up to two credits through the Cadet Basic and Advanced training programs. These credits are recognized only as additional credits beyond the minimum 30 credits required for high school graduation. For more information, see:

[Policy for Recognition of Completion of Cadet Training Programs \(gov.mb.ca\)](#)

Credit for Employment and Career Development Internship

Credit for Employment (CFE) allows students to earn high school credit for paid work experience. Students may earn a maximum of two CFE credits towards high school graduation. Career Development Internship (CDI) allows students to earn high school credit through unpaid internships. Student may earn a maximum of two CDI credits towards high school graduation. For more information, see: [Career Development | Manitoba Education and Early Childhood Learning \(gov.mb.ca\)](#)

High School Apprenticeship Program

The High School Apprenticeship Program (HSAP) allows students to begin apprenticeship training while in high school. Students may earn up to eight credits towards high school graduation and collect apprenticeship hours. For more information, see: [Province of Manitoba | aesi - Apprenticeship Manitoba \(gov.mb.ca\)](#)

Mature Student High School Diploma Program

The Mature Student High School Diploma is an alternative route to graduation available to students who meet the mature student eligibility requirements. For more information, see: [Senior 1 to Senior 4 Mature Student Graduation Requirements \(2003\) \(gov.mb.ca\)](#)

Private Music Option

Students can earn a maximum of four credits through the Private Music Option. These credits are recognized only as additional credits beyond the minimum 30 credits required for high school graduation and final marks are reported as “S” for “Standing”. For more information, see: [Arts Education: Music | Manitoba Education and Early Childhood Learning \(gov.mb.ca\)](#)

Recognizing Post-Secondary Courses for Dual Credit

Post-secondary courses can be offered to students while they are attending high school or an Adult Learning Centre. Student may earn a post-secondary credit which counts toward fulfilling the requirements for high school graduation. For more information, see: [Policy for Recognizing Post-Secondary Courses for Dual Credit \(gov.mb.ca\)](#)

School-Initiated Courses and Student-Initiated Projects

School-Initiated Courses (SICs) and Student-Initiated Projects (SIPs) are developed by schools to meet local needs and interests. SICs and SIPs may count as optional credits for high school graduation. For more information, see: https://www.edu.gov.mb.ca/k12/policy/sics_sips.html.

Special Language Credit Option

Students may earn a maximum of four credits through the Special Language Credit Option (one at each of the Grade 9–12 levels) that count towards high school graduation. For more information, see: [Special Language Credit Option | Manitoba Education and Early Childhood Learning \(gov.mb.ca\)](#)

1.11 Assessment of Out-of-Province/Out-of-Territory and Foreign Studies

Transfer Students

Students transferring to Manitoba’s school system as resident students will have their courses evaluated to determine whether Manitoba credits can be granted. School principals are responsible for making grade level placement decisions, and determining whether non-Manitoba course completions should receive Manitoba credits. For more information, see: [Evaluating Non-Manitoba Course Completions for Senior Years Credits | Manitoba Education and Early Childhood Learning \(gov.mb.ca\)](#).

High School Graduation Requirements for International Students

Manitoba welcomes international students. The *Manitoba Graduation Requirements for Students Presenting Non-Canadian Transcripts for Credit Towards a Manitoba High School Diploma* policy is designed to help international students succeed in Manitoba. For more information, see: [Policy for Recognizing Post-Secondary Courses for Dual Credit \(gov.mb.ca\)](#)

Part 2 — Summary of Course Content

Summary of Course Content — Manitoba Education and Early Childhood Learning

Information for all the Grades 9—12 courses for Manitoba Education and Early Childhood Learning are presented in Part 2, including course descriptions and links to specific curricula. For the main webpage for Manitoba curricula, see: [Curriculum | Manitoba Education and Early Childhood Learning \(gov.mb.ca\)](https://www.edu.gov.mb.ca/k12/cur/ela/doc/s/s1_framework/index.html).

For information regarding the *Subject Table Handbook* and the *Subject Table Handbook Technology Education*, see: [Subject Table Handbook | Manitoba Education and Early Childhood Learning \(gov.mb.ca\)](https://www.edu.gov.mb.ca/k12/cur/ela/doc/s/s2_framework/index.html).

2.1 English (First Language)

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	English Language Arts (10F/E/M)	0001	Grade 9	In this course, students listen, speak, read, write, view, and represent to explore thoughts, ideas, feelings, and experiences. They learn to comprehend and respond personally and critically to texts, manage ideas and information, enhance the clarity and artistry of communication, and celebrate and build community. Students are expected to create and communicate, take risks, provide and receive feedback, and reflect on their growth as language learners and users.	N/A	https://www.edu.gov.mb.ca/k12/cur/ela/doc/s/s1_framework/index.html
Manitoba	English Language Arts (20F/E/M)	0001	Grade 10	In this course, students use language to make sense of and bring order to their world. Students use language to examine new experiences and knowledge in relation to their prior knowledge, experiences, and beliefs. Students develop and apply a growing repertoire of strategies as they listen, speak, read, write, view, and represent to comprehend, create, and think critically through language variety of texts for authentic purposes and audiences.	N/A	https://www.edu.gov.mb.ca/k12/cur/ela/doc/s/s2_framework/index.html
Manitoba	English Language Arts: Comprehensive Focus (30S/E/M)	0092	Grade 11	In this course, students develop a range of literacy skills that deepen their engagement with an appreciation of a variety of texts. Students engage with and compose texts for multiple purposes. The texts explored and created in the Comprehensive fall along a continuum that includes equal time and focus on both pragmatic and aesthetic uses. Students use and interpret a range of media, manage data and information efficiently, and plan and work in creative collaboration.	N/A	https://www.edu.gov.mb.ca/k12/cur/ela/doc/s/s3_framework/index.html
Manitoba	English Language Arts: Literary Focus (30S/E/M)	0093	Grade 11	In this course, students are provided with opportunities to enrich their lives and their understanding of themselves and the world through engagement with aesthetic texts. Students engage with and compose texts for a variety of purposes. Students learn the	N/A	https://www.edu.gov.mb.ca/k12/cur/ela/doc/s/s3_framework/index.html

				conventions of various aesthetic forms. They explore the effect of a range of voices, diction, and forms in self-expression, and they explore the creative potential of collaboration.		
Manitoba	English Language Arts: Transactional Focus (30S/E/M)	0094	Grade 11	In this course, students learn a range of knowledge, skills and strategies, and attitudes that help them function more effectively in various communities, from the classroom to the global community. Students engage with and compose texts primarily for pragmatic purposes. Students enhance their skill in shaping communication for their audience. They learn the conventions of various pragmatic forms and the purpose and effect of these conventions.	N/A	https://www.edu.gov.mb.ca/k12/cur/ela/docs/s3_framework/index.html
Manitoba	English Language Arts: Comprehensive Focus (40S/E/M)	0092	Grade 12	In this course, students develop a range of literacy skills that deepen their engagement with an appreciation of a variety of texts. Students engage with and compose texts for a variety of purposes. They are provided with opportunities to use, compare, and compose a range of texts with approximately equal time devoted to pragmatic and aesthetic uses. Through a wide variety of learning experiences, students use and interpret a range of media, manage data and information efficiently, and plan and work in creative collaboration.	N/A	https://www.edu.gov.mb.ca/k12/cur/ela/docs/s4_framework/index.html
Manitoba	English Language Arts: Literary Focus (40S/E/M)	0093	Grade 12	In this course, students are provided with opportunities to enrich their lives and their understanding of themselves and the world through engagement with aesthetic texts. Students engage with and compose texts for a variety of purposes. Students enhance their skill in reading and appreciating a range of forms, genres, and media, and they learn the conventions of various aesthetic forms. They explore the effect of a range of voices, diction, and forms in self-expression, and they explore the creative potential of collaboration.	N/A	https://www.edu.gov.mb.ca/k12/cur/ela/docs/s4_framework/index.html
Manitoba	English Language Arts: Transactional Focus (40S/E/M)	0094	Grade 12	In this course, students learn a range of knowledge, skills and strategies, and attitudes that help them function more effectively in various communities, from the classroom to the global community. Students engage with and compose texts primarily for pragmatic uses. Students enhance their skill in shaping communication for their audience. They learn the conventions of various pragmatic forms and the purpose and effect of these conventions.	N/A	https://www.edu.gov.mb.ca/k12/cur/ela/docs/s4_framework/index.html
Manitoba	English Language Arts: Language & Technical Communication (40S)*	0030	Grade 12	This course is an optional credit for students who have fulfilled the compulsory requirements for Grade 12 English Language Arts (Comprehensive, Literary, or Transactional Focus). It provides students with the opportunity to apply those skills in a specialized language area, to develop greater objectivity in dealing with content,	N/A	https://www.edu.gov.mb.ca/k12/cur/ela/docs/s4-techcomm.html

				<p>and to engage in learning that will help them function effectively and independently after high school.</p> <p>*Note: Students who are vocational program majors in the Senior Years English Technology Education Program may take this course as their single compulsory Grade 12 English Language Arts credit.</p>		
Manitoba	Reading is Thinking (15S, 25S, 35S)	0788	Grade 9, 10, 11	<p>This course is designed to address the literacy needs (with emphasis on reading) of students in high school to develop the necessary attitudes, knowledge, skills, and strategies to be successful in their learning across curriculum. It focuses on three Big Ideas: Thinking About Self, Thinking About Text, and Thinking About the World, and is designed with responsive instruction in mind and, therefore, focuses on the growth and progress of learners.</p> <p>Schools report <i>Reading is Thinking</i> as Complete (CO) or Incomplete (IN) on the Provincial Report Card.</p>	N/A	This curriculum is not available online.
Manitoba	Reading is Thinking (10S, 20S, 30S)	0789	Grade 9, 10, 11	<p>This course is designed to address the literacy needs (with emphasis on reading) of students in high school to develop the necessary attitudes, knowledge, skills, and strategies to be successful in their learning across curriculum. It focuses on three Big Ideas: Thinking About Self, Thinking About Text, and Thinking About the World, and is designed with responsive instruction in mind and, therefore, focuses on the growth and progress of learners.</p> <p>Schools report <i>Reading is Thinking</i> as Complete (CO) or Incomplete (IN) on the Provincial Report Card.</p>	N/A	This curriculum is not available online.

2.2 French (First Language)

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	Français Langue Première (10F/M/L, 20F/M/L)	0407	Grade 9, 10	During this course, students continue to learn the French language while reinvesting and transferring what they have learned in a variety of tasks to communicate orally and in writing effectively in everyday and school contexts, and thus use the French language to think, to learn, to build an identity and to evolve in their cultural space.	N/A	https://www.edu.gov.mb.ca/m12/progetu/fl1/doc_cur.html
Manitoba	FL1 : Langue et Communication (30S/M/L, 40S/M/L)	0431	Grade 11, 12	During this course, students continue their learning of the French language while reinvesting and transferring what they have learned in a variety of tasks to communicate effectively orally and in writing in everyday and school contexts, and thus use the French language to think, to learn, to build an identity and to evolve in their cultural space.	N/A	https://www.edu.gov.mb.ca/m12/progetu/fl1/doc_cur.html
Manitoba	FL1 : Communication Médiatique (40S/M/L)	0426	Grade 12	As the media, particularly the electronic media, play an increasingly important role in our society, this course enables students to explore media communication. They have the opportunity to exercise and deepen their critical thinking skills with regard to various media products. Students also have the opportunity to create media products, such as a video, and thus demonstrate their creativity. More broadly, students deepen their understanding and appreciation of media language (images, framing, editing, etc.).	N/A	https://www.edu.gov.mb.ca/m12/progetu/fl1/doc_cur.html
Manitoba	FL1 : Littératures Francophones (40S/M/L)	0427	Grade 12	This course enables students to explore the world of French-language literary texts from here and elsewhere, past and present. Students have the opportunity to discover texts and authors, to respond to the content and style of texts, and to think critically and creatively, especially when working on projects.	N/A	https://www.edu.gov.mb.ca/m12/progetu/fl1/doc_cur.html

2.3 Indigenous Language Education

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	Current Topics in FNMI Studies (40S/E/M)	0103	Grade 12	This course supports the empowerment of students through the exploration of the histories, traditions, cultures, worldviews, and contemporary issues of Indigenous peoples in Canada and worldwide. Students gain knowledge and develop the values, as well as the critical thinking, communication, analytical, and inquiry skills, that will enable them to understand past and present realities of Indigenous Peoples. This knowledge enables Indigenous students to be active global citizens and give non-Indigenous students an understanding of the Indigenous worldviews, histories and cultures, enabling them to engage in an informed and respectful way.	N/A	https://www.edu.gov.mb.ca/k12/abedu/foundation_gr12/index.html

2.4 English (Second/Additional Language)

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	EAL for Academic Success: S4 Learners (40S/M)	5301	Grade 12	<p>This course is designed for advanced-level EAL students who wish to further develop the academic English language skills required for success in Senior Years and post-secondary education. It is designed to help ensure success for learners across subject areas. Students develop skills such as interpreting and producing texts, inquiry, and classroom interactions. Students have opportunities to acquire and use vocabulary relevant to a broad range of general, academic, and content/topic specific vocabulary, linguistic structures, processes, and tasks typical of various subject areas.</p> <p>This course may be recorded as a full credit course or as two half-credit courses, whichever is most advantageous to the student.</p>	N/A	https://www.edu.gov.mb.ca/k12/cur/eal/senior4/index.html
Manitoba	LAL Foundational Numeracy Phase 1A (15F)	0329	Grade 9	<p>This course is drawn from learning outcomes in Kindergarten to Grade 8 Mathematics: Manitoba Curriculum Framework of Outcomes. This course is designed to address the mathematical and the language needs of individual LAL students to successfully prepare students entering Grade 9 mathematics. It addresses selected topics within four strands in the Manitoba mathematics curriculum as well as a financial literacy component. There are two sets of expectations for each math topic—mathematical outcomes and language goals.</p> <p>Schools report LAL Foundational Numeracy Phase 1A as Complete (CO) or Incomplete (IN) on the Provincial Report Card.</p>	N/A	https://www.edu.gov.mb.ca/k12/cur/eal/lal-numeracy/sy/index.html
Manitoba	LAL Foundational Numeracy Phase 1B (15F)	0330	Grade 9	<p>This course is drawn from learning outcomes in Kindergarten to Grade 8 Mathematics: Manitoba Curriculum Framework of Outcomes. This course is designed to address the mathematical and the language needs of individual LAL students to successfully prepare students entering Grade 9 mathematics. It builds on learning from Phase 1A and addresses selected topics within four strands in the Manitoba mathematics curriculum as well as a financial literacy component. There are two sets of expectations for each math topic—mathematical outcomes and language goals.</p> <p>Schools report LAL Foundational Numeracy Phase 1B as Complete (CO) or Incomplete (IN) on the Provincial Report Card.</p>	N/A	https://www.edu.gov.mb.ca/k12/cur/eal/lal-numeracy/sy/index.html

Manitoba	LAL Transitional Numeracy Phase 2A (15F)	0331	Grade 9	<p>This course is drawn from learning outcomes in Kindergarten to Grade 8 Mathematics: Manitoba Curriculum Framework of Outcomes. This course is designed to address the mathematical and the language needs of individual LAL students to successfully prepare students entering Grade 9 mathematics. It builds on learning from Phase 1B and addresses selected topics within four strands in the Manitoba mathematics curriculum as well as a financial literacy component. There are two sets of expectations for each math topic—mathematical outcomes and language goals.</p> <p>Schools report LAL Transitional Numeracy Phase 2A as Complete (CO) or Incomplete (IN) on the Provincial Report Card.</p>	N/A	https://www.edu.gov.mb.ca/k12/cur/eal/lal- numeracy/sy/index.html
Manitoba	LAL Transitional Numeracy Phase 2B (15F)	0332	Grade 9	<p>This course is drawn from learning outcomes in Kindergarten to Grade 8 Mathematics: Manitoba Curriculum Framework of Outcomes. This course is designed to address the mathematical and the language needs of individual LAL students to successfully prepare students entering Grade 9 mathematics. It builds on learning from Phase 2A and addresses selected topics within four strands in the Manitoba mathematics curriculum as well as a financial literacy component. There are two sets of expectations for each math topic—mathematical outcomes and language goals.</p> <p>Schools report LAL Foundational Numeracy Phase 1B as Complete (CO) or Incomplete (IN) on the Provincial Report Card.</p> <p>Note: Upon completion of the course, the expectation is that students transition to the Grade 9 Mathematics course.</p>	N/A	https://www.edu.gov.mb.ca/k12/cur/eal/lal- numeracy/sy/index.html
Manitoba	EAL Literacy Stage 1 (10F)	0349	Grade 9	<p>This course is designed for students to gain the knowledge, skills, strategies, and attitudes to become proficient in the English language for social and academic purposes and to become inter-culturally competent citizens. Students learn to use words, short phrases, and memorized expressions to communicate in structured and familiar contexts. They begin to read and produce short, simple texts based on previously taught language, with a focus on learning the vocabulary needed for daily life. The Big Ideas are synthesized from those outlined in the Senior Years EAL Framework leading to a deeper and more nuanced understanding by the end of EAL Stage 3.</p>	N/A	This curriculum will be posted for the 2023/2024 school year.
Manitoba	EAL Literacy Stage 2 (20F)	0352	Grade 10	<p>This course is designed for students to gain the knowledge, skills, strategies, and attitudes to become proficient in the English language for social and academic purposes and to become inter-culturally competent citizens. Students learn to use short phrases and sentences</p>	N/A	This curriculum will be posted for the 2023/2024 school year.

				to communicate in routine personal and classroom interactions. Students learn to read simple texts containing several connected ideas, produce comprehensible written sentences, and use some academic language to complete school tasks. The Big Ideas in this course are synthesized from those outlined in the Senior Years EAL Framework leading to a deeper and more nuanced understanding of each Big Idea by the end of EAL Stage 3.		
Manitoba	EAL Literacy Stage 3 (30F)	0353	Grade 11	This course is designed for students to gain the knowledge, skills, strategies, and attitudes needed to become proficient in the use of the English language for social and academic purposes and to become inter-culturally competent citizens. Students learn to communicate clearly in a variety of familiar and unfamiliar social and classroom contexts that are longer and more complex. Students learn to read and produce texts of several paragraphs that use more complex structures and vocabulary. The Big Ideas in this course are synthesized from the strands outlined in the Senior Years EAL Framework leading to a deeper and more nuanced understanding of each Big Idea by the end of EAL Stage 3.	N/A	This curriculum will be posted for the 2023/2024 school year.
Manitoba	LAL Literacy Phase 1A (15F)	0355	Grade 9	This course is designed to address the fundamentals of literacy and the language needs of individual LAL students. It addresses selected topics within all four LAL domains (linguistic competency, contextual applications, intercultural and global citizenship, and strategic competency) from the Manitoba LAL curriculum. Students develop literacy while they simultaneously build their language proficiency and foundational subject-area academic knowledge. The goal is to welcome students into the school and help them adapt to the classroom and school environment.	N/A	This curriculum will be posted for the 2023/2024 school year.
Manitoba	LAL Literacy Phase 1B (15F)	0366	Grade 9	This course builds on the goals of LAL Literacy Phase 1A. It addresses the fundamentals of literacy and the language needs of individual LAL students. It addresses selected topics within all four LAL domains (linguistic competency, contextual applications, intercultural and global citizenship, and strategic competency) from the Manitoba LAL curriculum. Students develop literacy while they simultaneously build their language proficiency and foundational subject-area academic knowledge. The goal is to welcome students into the school and help them adapt to the classroom and school environment.	N/A	This curriculum will be posted for the 2023/2024 school year.

Manitoba	LAL Literacy Phase 2A (25F)	0384	Grade 10	<p>This course is designed to address the fundamentals of literacy and the language needs of individual LAL students. It addresses selected topics within all four LAL domains (linguistic competency, contextual applications, intercultural and global citizenship, and strategic competency) from the Manitoba LAL curriculum. Students develop literacy while they simultaneously build their language proficiency and foundational subject-area academic knowledge.</p> <p>The goal is to provide opportunities for students to develop good interpersonal communication and foundational academic English language skills that can be applied across different subject areas.</p>	N/A	This curriculum will be posted for the 2023/2024 school year.
Manitoba	LAL Literacy Phase 2B (25F)	0385	Grade 10	<p>This course is designed to address the fundamentals of literacy and the language needs of individual LAL students. It addresses selected topics within all four LAL domains (linguistic competency, contextual applications, intercultural and global citizenship, and strategic competency) from the Manitoba LAL curriculum. Students develop literacy while they simultaneously build their language proficiency and foundational subject-area academic knowledge.</p> <p>This course builds on the goals of LAL Literacy Phase 2A which is to provide opportunities for students to develop good interpersonal communication and foundational academic English language skills that can be applied across different subject areas.</p> <p>Successful completion of LAL Literacy 2B indicates students are ready for additional EAL courses at a Stage 2 or 3 level and subject-specific courses with E-credit designations.</p>	N/A	This curriculum will be posted for the 2023/2024 school year.

2.5 French (Second/Additional Language)

P/T	Course Name	Course Code	Grade/ Level	Description	Prerequisite	Link
Manitoba	Français L2 : Communication et Culture (10F/M, 20F/M)	0403	Grade 9, 10	In this course, students expand their use of vocabulary and complex linguistic structures, enhancing their ability to express ideas, thoughts, opinions and points of view. They read a variety of texts with increasingly complexity, making personal connections and reacting both orally and in writing. Students write texts composed of several paragraphs on subjects related to their personal lives and to social issues. They develop intercultural competence as they explore beliefs, customs, values and behaviours of francophone and other cultures.	N/A	https://www.edu.gov.mb.ca/m12/frpub/ped/fdb/cadre_4-12/index.html
Manitoba	Français L2 : Communication et Culture (30S/M, 40S/M)	0403	Grade 11, 12	In this course, students participate in increasingly complex, spontaneous, and sustained conversations related to their personal lives, as well as to social and global issues. They express and justify their opinions and feelings, give advice, make predictions, and debate different points of view. They speak French with a certain confidence and independence. They read and interact with a variety of genres with sophisticated text. Students write various detailed, organized, structured and sequenced texts on a wide range of personal, social and global issues. They use vocabulary in all verb tenses and moods to communicate a written message.	N/A	https://www.edu.gov.mb.ca/m12/frpub/ped/fdb/cadre_4-12/index.html

2.6 French (Immersion)

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	Français Arts Langagiers - Immersion (10F/M/L, 20F/M/L)	0401	Grade 9, 10	Pendant ce cours, l'apprenant est en mesure d'explorer la langue française à travers l'étude et la production d'une variété de textes et d'en discuter avec autrui de façon cohérente et respectueuse. L'apprenant apprend à mettre à profit une écoute active dans différents contextes de communication et est appelé à examiner son point de vue, ses valeurs et le bien-fondé des idées.	N/A	https://www.edu.gov.mb.ca/m12/progetu/fl1/doc_cur.html
Manitoba	FL2-Imm. : Langue et communication (30S/M/L, 40S/M/L)	0432	Grade 11, 12	Pendant ce cours, l'apprenant est en mesure d'explorer la langue française à travers l'étude et la production d'une variété de textes et d'en discuter avec autrui de façon cohérente et respectueuse. L'apprenant apprend à mettre à profit une écoute active dans différents contextes de communication et est appelé à examiner son point de vue, ses valeurs et le bien-fondé des idées. L'apprenant développe son aptitude pour l'analyse des idées et des perspectives des autres et d'en délibérer afin d'approfondir sa compréhension et sa perspective.	N/A	https://www.edu.gov.mb.ca/m12/progetu/fl1/doc_cur.html
Manitoba	FL2-Imm. : Communication Médiatique (40S/M/L)	0428	Grade 12	Ce cours est centré sur l'exploration de l'univers des textes littéraires francophones. Les supports de ces textes sont d'ordre textuel, oral, visuel, médiatique ou informatique.	N/A	https://www.edu.gov.mb.ca/m12/frpub/ped/fl2/dmo_s4/index.html
Manitoba	FL2-Imm. : Littératures Francophones (40S/M/L)	0429	Grade 12	Ce cours est centré sur l'exploration des textes médiatiques et, plus largement, du monde de la communication médiatique.	N/A	https://www.edu.gov.mb.ca/m12/frpub/ped/fl2/dmo_s4/index.html

2.7 Other Languages

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	English/Cree Bilingual Programming (10F/M, 20F/M, 30S/M, 40S/M)	3906	Grade 9, 10, 11, 12	English/Cree Bilingual Programming is not yet available in Senior Years.	N/A	
Manitoba	English/Filipino Bilingual Programming (10F/M, 20F/M, 30S/M, 40S/M)	0389	Grade 9, 10, 11, 12	English/Filipino Bilingual Programming is not yet available in Senior Years.	N/A	
Manitoba	English/German Bilingual Programming (10F/M, 20F/M, 30S/M, 40S/M)	3921	Grade 9, 10, 11, 12	<p>The courses provide opportunities for students to expand their use of both English and German through listening, speaking, reading, writing, viewing, and representing. Students will explore, understand, create, and critically respond to texts from different genres and cultural traditions in bilingual contexts. Students will experiment with and apply new language structures and vocabulary for purpose and audience.</p> <p>Over time, students will enhance the clarity and artistry of their communication in English and German. They will understand the dynamic nature of culture through the various perspectives of history, diversity, and change, including the beliefs, customs, values, and practices of German peoples.</p>	N/A	https://www.edu.gov.mb.ca/k12/cur/languages/german/framework_ks4/index.html
Manitoba	English/Hebrew Bilingual Programming (10F/M, 20F/M, 30S/M, 40S/M)	3922	Grade 9, 10, 11, 12	English/Hebrew Bilingual Programming is not yet available in Senior Years.	N/A	
Manitoba	English/Ojibwe Bilingual Programming (10F/M, 20F/M, 30S/M, 40S/M)	0390	Grade 9, 10, 11, 12	English/Ojibwe Bilingual Programming is not yet available in Senior Years.	N/A	
Manitoba	English/Punjabi	0395	Grade 9, 10, 11, 12	English/Punjabi Bilingual Programming is not yet available in Senior Years.	N/A	

	Bilingual Programming (10F/M, 20F/M, 30S/M, 40S/M)					
Manitoba	English/Spanish Bilingual Programming (10F/M, 20F/M, 30S/M, 40S/M)	0396	Grade 9, 10, 11, 12	English/Spanish Bilingual Programming is not yet available in Senior Years.	N/A	
Manitoba	English/Ukrainian Bilingual Programming (10F/M, 20F/M, 30S/M, 40S/M)	3920	Grade 9, 10, 11, 12	<p>These courses provide opportunities for students to use English and Ukraine in meaningful and purposeful ways to meet their needs and interests. In bilingual contexts, students explore, understand, create and critically respond to a variety of oral, print, visual and multimodal texts through listening, speaking, reading, writing, viewing, and representing. These courses explore students' personal experiences, community traditions, and Canadian and Ukrainian perspectives.</p> <p>Over time, students will enhance their language and cultural competencies in English and Ukrainian. They will understand how historical and current influences have contributed to diversity in contemporary Ukrainian language and culture.</p>	N/A	https://www.edu.gov.mb.ca/k12/cur/languages/ukrainian/mb_framework/index.html

2.8 Mathematics

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	Advanced Mathematics (I & II) (40S)	3909	Grade 12	In this course, students select eight topics from a list of thirteen, with seven having specific learning outcomes. The core topics include complex numbers, polar coordinates, statistics, number theory, matrices, 3-D geometry, vectors, and conic sections. Additional topics cover fractal geometry, advanced calculus, history of mathematics, computer science applications, combinatorics, and an interdisciplinary project. This course provides flexibility for teachers to choose topics based on student input, fostering a personalized learning experience.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Advanced Mathematics I (45S)	3900	Grade 12	In this course, students select four topics from a list of thirteen, with seven of them having specific learning outcomes. The core topics include complex numbers, polar coordinates, statistics, number theory, matrices and systems of equations, 3-D geometry, vectors, and conic sections. Additional topics cover fractal geometry, advanced calculus, history of mathematics, applications of mathematics to computer science, combinatorics, and an interdisciplinary project. Teachers have the flexibility to choose topics, considering input from students. The chosen topics must be unique for each half-credit.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Advanced Mathematics II (45S)	3907	Grade 12	In this course, students select four topics from a list of thirteen, including complex numbers, statistics, matrices, 3D geometry, vectors, and conic sections. The remaining topics, such as fractal geometry, advanced calculus, history of mathematics, and computer science applications, are optional. Teachers have the flexibility to choose topics based on student input, but each half-credit course must cover distinct topics.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Applied Mathematics (30S/E/M)	3903	Grade 11	In this course, students develop spatial sense and proportional reasoning, including rates, scale diagrams, and understanding scale factors, areas, surface areas, and volumes of similar shapes. They derive proofs, apply the cosine and sine laws, and analyze puzzles and games for logical and spatial reasoning. Statistical reasoning with normal distribution and interpreting data is emphasized, along with algebraic and graphical reasoning involving systems of linear inequalities and quadratic functions. Additionally, students appreciate mathematics' societal role through research and presentation on mathematical historical events or interesting mathematical areas.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html Mathématiques, programme français - Programme d'études : cadre des résultats d'apprentissage de la 9e à la 12e année, 2014 Éducation et

						Apprentissage de la petite enfance Manitoba (gov.mb.ca) Mathématiques, programme d'immersion française - Programme d'études : cadre des résultats d'apprentissage de la 9e à la 12e année, 2014 Éducation et Apprentissage de la petite enfance Manitoba (gov.mb.ca)
Manitoba	Applied Mathematics (40S/E/M)	3903	Grade 12	In this course, students develop number sense in financial applications, analyzing compound interest, investment portfolios, and rent/lease/buy comparisons. They enhance logical reasoning through puzzles, set theory, and conditionals. Critical thinking skills focus on probability interpretation and counting principles. Algebraic and graphical reasoning are honed through studying relations and utilizing various functions. Students explore mathematics' societal role through researching and presenting current events. Critical thinking skills related to measurement design are developed through analyzing objects, shapes, processes, and associated costs.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Essential Mathematics (20S/E/M)	3000	Grade 10	In this course, students enhance critical thinking through spatial puzzles and games. They develop spatial sense by measuring and understanding unit relationships in various systems (International System of Units (SI), American, British). Students convert units, manipulate formulas, and calculate perimeter and area. They demonstrate understanding of triangles, including the Pythagorean theorem and trigonometric ratios. Students learn about transformations, angles, lines, and apply proportional reasoning for consumer decisions related to income, unit pricing, and currency exchange.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Essential Mathematics (30S/E/M)	3000	Grade 11	In this course, students enhance critical thinking through numerical puzzles and games. They learn about compound interest, credit cards, loans, and personal budgeting. Spatial relationships are developed by manipulating formulas for surface area, volume, and capacity using different units. Proportional reasoning is fostered through understanding slope, linear relations, scale, and unit analysis. Students	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html

				explore triangles through trigonometry, modeling, and describing objects. Statistical reasoning is honed through graph creation and interpretation.		
Manitoba	Essential Mathematics (40S/E/M)	3000	Grade 12	In this course, students enhance critical thinking through puzzles and logical reasoning. They learn about vehicle ownership, maintenance, housing costs, and business finance. Future planning involves career choices. Spatial sense is developed through polygon laws and instrument limitations. Statistical reasoning involves central tendency and percentiles. Students develop critical skills related to uncertainty and probability.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Essential Mathematics I (25S/E/M)	3001	Grade 10	In this course, students enhance critical thinking skills by analyzing puzzles and games that involve spatial reasoning. They develop a sense of space through direct and indirect measurement, understanding units of length, area, volume, capacity, and mass in the SI, American, and British Imperial Systems. Converting units and applying formulas for perimeter and area are practiced. Additionally, students demonstrate comprehension of employment earnings, calculating gross and net pay, and manipulating income-related formulas.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Essential Mathematics II (25S/E/M)	3004	Grade 10	In this course, students enhance critical thinking skills by analyzing puzzles and games that involve spatial reasoning. They develop a spatial sense specifically related to triangles by understanding, manipulating, and applying formulas for the Pythagorean theorem and primary trigonometric ratios. Additionally, they demonstrate an understanding of transformations, angles, and lines. Students develop skills in making informed consumer decisions using proportional reasoning for unit pricing and currency exchange. Overall, their spatial sense is further developed through a comprehensive understanding of transformations, angles, and lines.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Essential Mathematics III (35S/E/M)	3005	Grade 11	In this course, students enhance critical thinking skills through the analysis of puzzles and games that involve numerical reasoning. They gain an understanding of compound interest and credit options, such as credit cards and loans, and apply formulas related to simple interest and finance charges. Additionally, students develop an understanding of spatial relationships by manipulating formulas for surface area, volume, and capacity using both Imperial and international units of measurement. Furthermore, they develop statistical reasoning skills by creating and interpreting various graphs.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html

Manitoba	Essential Mathematics I V (35S/E/M)	3006	Grade 11	In this course, students enhance critical thinking through numerical puzzles and games. They learn about money management, personal budgets, and financial services. Proportional reasoning is developed through slope, linear relations, and unit analysis. Students enhance spatial sense with trigonometry and modeling of triangles. Statistical reasoning skills are developed through graph creation and interpretation.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Essential Mathematics V (45S/E/M)	3007	Grade 12	In this course, students enhance critical thinking skills through the analysis of puzzles and games that involve logical reasoning. They gain an understanding of vehicle ownership and operation, including maintenance. Students develop statistical reasoning by exploring measures of central tendency and percentiles. They cultivate spatial sense by considering the limitations of measuring instruments. Additionally, they create a future plan that encompasses potential career choices and their respective requirements.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Essential Mathematics VI (45S/E/M)	3008	Grade 12	In this course, students enhance critical thinking skills through the analysis of puzzles and games that involve logical reasoning. They gain an understanding of housing costs, including house purchase and maintenance. Students develop spatial sense by exploring polygons using the sine law and cosine law. They delve into business finance by demonstrating knowledge of government taxation forms, small business ownership procedures, and evaluating small business viability. Additionally, students develop critical skills related to uncertainty through the application of probability.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Intro. to Applied & Pre-Calculus Math (20S/E/M)	3905	Grade 10	In this course, students develop spatial sense, proportional reasoning, and trigonometric skills related to linear measurements, surface area, volume, and conversions between SI and imperial units. They enhance algebraic reasoning and number sense by understanding factors, irrational numbers, powers, polynomial expressions, and trinomial factoring. Furthermore, students strengthen algebraic and graphical reasoning through the study of relations, functions, and slope.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Intro. to Calculus Math & Advanced Math I (40S)	3908	Grade 12	In this course, students study four topics with specific content outcomes: limits, derivatives, application of derivatives, and integrals. They choose any four topics from a list of thirteen, including core topics like complex numbers, statistics, matrices, and conic sections, as well as additional topics such as fractal geometry and computer science applications. The course offers flexibility for teachers to select topics and encourages student input.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html

Manitoba	Introduction to Calculus (45S)	3940	Grade 12	In this course, students study four topics with specific content outcomes. They learn the concept of limits, which describe function values. Students define the derivative as the slope of a curve at a point, apply differentiation rules, and understand implicit differentiation. They solve problems using derivatives. Additionally, students grasp the concept of integration and understand the inverse relationship between derivatives and integrals.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Mathematics (10F/E/M)	0080	Grade 9	In this course, students learn about rational numbers, square roots, powers, polynomials, and operations on them. They apply the order of operations and generalize patterns. Students graph linear relations, analyze graphs, and solve linear equations and inequalities. They learn about polygon similarities, symmetry, and circle properties. Students calculate surface area, draw scale diagrams, and analyze data. They recognize the role of probability in society.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Pre-Calculus Mathematics (30S/E/M)	3939	Grade 11	In this course, students focus on algebraic reasoning and number sense, including radicals, rational and radical expressions, and equations. They learn about absolute values of real numbers. Trigonometric reasoning involves primary trigonometric ratios, the cosine and sine law, and angles in standard position. Students develop algebraic and graphical reasoning by studying relations involving polynomial expressions, absolute value, quadratic and reciprocal functions, quadratic equations, systems of equations, linear and quadratic inequalities, as well as arithmetic and geometric sequences and series.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Pre-Calculus Mathematics (40S/E/M)	3939	Grade 12	In this course, students focus on trigonometric reasoning. They learn about angles in standard position, apply the equation of the unit circle, and use the six trigonometric ratios. Graphical representation and analysis of trigonometric functions, solving equations, and proving identities are emphasized. Students develop algebraic and graphical reasoning by exploring the effects of transformations on graphs, understanding inverses of relations, and working with logarithms. Additionally, they engage in combinatorics, applying counting principles, determining permutations and combinations, and expanding binomial powers in various ways.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Transitional Mathematics (10F/E/M)	3923	Grade 9	In this course, students develop life-long learning habits through independent and cooperative work. They strengthen their understanding and skills in basic arithmetic, percent, and operations on numbers, algebra, geometry, measurement, and statistics. Students apply strategies to conduct investigations on angles, Pythagoras Theorem, patterns, and relations. They make informed decisions	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html

				related to purchases, nutrition, team operations, and room renovations, considering measurement, percent, ratio, and scale. Justification of decisions is emphasized.		
Manitoba	Transitional Mathematics I (15F/E/M)	3918	Grade 9	In this course, students develop life-long learning habits and strengthen their understanding and skills in various areas. They focus on basic arithmetic, including mental math and estimation, as well as operations on numbers. They work on algebra, geometry, measurement, and statistics. Students apply strategies to investigate angles, Pythagoras Theorem, patterns, and relations. In addition, they make informed decisions on purchases, nutrition, team operations, and room renovations, considering measurements, percent, ratio, and scale. Justification of decisions is emphasized throughout the course.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html
Manitoba	Transitional Mathematics II (15F/E/M)	3919	Grade 9	In this course, students develop life-long learning habits and strengthen their understanding and skills in various areas. They focus on basic arithmetic, including mental math and estimation, as well as operations on numbers. They work on algebra, geometry, measurement, and statistics. Students apply strategies to investigate angles, Pythagoras Theorem, patterns, and relations. In addition, they make informed decisions on purchases, nutrition, team operations, and room renovations, considering measurements, percent, ratio, and scale. Justification of decisions is emphasized throughout the course.	N/A	https://www.edu.gov.mb.ca/k12/cur/math/framework_k_9-12/index.html

2.9 Sciences

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	Biology (30S/E/M)	0124	Grade 11	This course focuses on the Human Body with respect to homeostasis, digestion and nutrition, the respiratory system, excretion, and waste management, concluding with the immune and nervous system. Students look at how technology has affected the wellness of the human body and resulting social issues.	N/A	https://www.edu.gov.mb.ca/k12/cur/science/found/gr11_bio/index.html
Manitoba	Biology (40S/E/M)	0124	Grade 12	This course exposes students to foundational concepts regarding the Biology of the world around us. The interdependence of life is a recurring theme in the course work. Students integrate information gained in previous units and apply that information throughout the semester. Topics of study include Ecology, Biological Diversity and Genetics. Specific emphasis is placed on the use of Biotechnology including genetically modified food, forensics, recombinant DNA technology, Human Genome Project, and Gene Therapy.	N/A	https://www.edu.gov.mb.ca/k12/cur/science/found/gr12_bio/index.html
Manitoba	Chemistry (30S/E/M)	0122	Grade 11	This course provides a solid foundation in the subject of chemistry. Students study the physical properties of matter, including phases and composition of matter. Students look at the properties of gasses and how they relate to the atmosphere. They investigate chemical reactions, apply mathematical principles to their outcomes, and examine the properties of solutions. Students are introduced to organic chemistry. The course helps students to make connections within and across these topics, and to tie their understandings of chemistry to their existing science knowledge.	N/A	https://www.edu.gov.mb.ca/k12/cur/science/found/gr11_chem/index.html
Manitoba	Chemistry (40S/E/M)	0122	Grade 12	This course consists of five units including Kinetics, Chemical Equilibrium, Acid-Base Equilibrium, Solubility Equilibrium and Oxidation-Reduction. Concepts such as factors affecting reaction rates, Le Chatelier's Principle, pH, buffers, and electrochemical cells are explored. Students gain an understanding of observation and inference in this experimental science.	N/A	https://www.edu.gov.mb.ca/k12/cur/science/found/gr12_chem/index.html
Manitoba	Current Topics in Sciences (30S/E/M)	0139	Grade 11	This course integrates the areas of biology, chemistry, physics, geosciences, and space sciences. It shifts focus from teaching concepts and facts, to teaching critical thinking and problem-solving skills developed through the study of a particular topic, from which key concepts and facts will naturally evolve.	N/A	https://www.edu.gov.mb.ca/k12/cur/science/found/topics30s/index.html

Manitoba	Current Topics in Sciences 2 (30S/E/M)	0312	Grade 11	This course integrates the areas of biology, chemistry, physics, geosciences, and space sciences. It shifts focus from teaching concepts and facts, to teaching critical thinking and problem-solving skills developed through the study of a particular topic, from which key concepts and facts will naturally evolve.	N/A	https://www.edu.gov.mb.ca/k12/cur/science/found/c_topics30s/index.html
Manitoba	Current Topics in Sciences 3 (30S/E/M)	0313	Grade 11	This course integrates the areas of biology, chemistry, physics, geosciences, and space sciences. It shifts focus from teaching concepts and facts, to teaching critical thinking and problem-solving skills developed through the study of a particular topic, from which key concepts and facts will naturally evolve.	N/A	https://www.edu.gov.mb.ca/k12/cur/science/found/c_topics30s/index.html
Manitoba	Interdisciplinary Topics in Sciences (40S/E/M)	0140	Grade 12	This course integrates the areas of biology, chemistry, physics, geosciences, and space sciences. It complements the Grade 11 Topics in Science course with its concentration on topics in society, science, and the environment.	N/A	https://www.edu.gov.mb.ca/k12/cur/science/gr12_in_terdisciplinary_draft.pdf
Manitoba	Physics (30S/E/M)	0123	Grade 11	This course includes four areas: Waves, Nature of Light, Mechanics, and Fields. Students learn about the physical characteristics of waves, superposition of waves, and wave interference. The concept of waves continues into the Nature of Light where light is looked at in terms of its wave characteristics and particle characteristics. Students analyze motion with kinematics and Newton's laws. They address the concept of fields with respect to gravitational, magnetic, electric, and electromagnetic fields.	N/A	https://www.edu.gov.mb.ca/k12/cur/science/found/p_hysics30s/index.html
Manitoba	Physics (40S/E/M)	0123	Grade 12	This course includes four areas: Mechanics, Fields, Electricity, and Medical Physics. Students are introduced to the elementary concepts of these units in PH30S apply them to concepts such as projectile motion, circular motion, work and energy, low Earth orbits, electric circuits, and radiation. Students gain an understanding of how science, technology and the environment are related in a physical sense.	N/A	https://www.edu.gov.mb.ca/k12/cur/science/found/p_hysics40s/index.html
Manitoba	Science (10F/E/M)	0120	Grade 9	The course includes four areas: Reproduction, Atoms and Elements, Nature of Electricity, and Exploring the Universe. Students learn about human reproduction and genetics, and atoms and elements as an introduction to the basics of chemistry. Students investigate static and current electricity and explore the Universe via space science and technology.	N/A	https://www.edu.gov.mb.ca/k12/cur/science/found/s1/index.html
Manitoba	Science (20F/E/M)	0120	Grade 10	In this course, students learn about the dynamics of ecosystems, ecosystem relationships, population dynamics, biodiversity, and how human activities affect ecosystems. Students learn about chemical reactions, nomenclature basics, principles of acid-base chemistry, and	N/A	https://www.edu.gov.mb.ca/k12/cur/science/found/s2/index.html

				the effects of chemical use in the environment. They learn about basic kinematics, inertia, force, impulse, and momentum. Students learn about the complex relationships that influence weather and climate, including the impact of human activities on our global climate.		
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2.10 Social Studies

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	Agriculture (30S/G/E/M)	0201	Grade 11	<p>This course now exists as Sustainable Agriculture. It supports learners to gain knowledge and understanding of the:</p> <ul style="list-style-type: none"> ▪ balance between food production activities and protection of the natural resources that agriculture depends on ▪ food system’s ability to generate adequate income to compensate farmers for their time, labour and risk, while they produce agricultural products that are affordable enough for consumers; and ▪ three pillars of sustainability include Economic, Social and Environmental Sustainability, which must be considered and balanced when creating and maintaining sustainable food systems. 	N/A	https://www.edu.gov.mb.ca/k12/cur/socstud/overviews/grade11_agriculture.pdf
Manitoba	Canada in the Contemporary World (10F/E/M)	0101	Grade 9	<p>In this course, students gain knowledge and understanding of the:</p> <ul style="list-style-type: none"> ▪ opportunities and challenges of Canada’s contemporary plurality ▪ overview of Canada today, including demographics, geography, and political organization ▪ influence of land on the development of Canada ▪ historical complexities of citizenship and identity ▪ contemporary Canadian questions and issues within the global context; and ▪ how to become involved in Canadian issues, and how to be informed decision-makers actively involved in their local, nation and global communities. 	N/A	https://www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr9/index.html
Manitoba	Canadian Law (40S/E/M)	0580	Grade 12	<p>In this course, students gain knowledge and understanding of the:</p> <ul style="list-style-type: none"> ▪ major components of Canadian law, beginning with the foundations of law, followed by the Canadian Charter of Rights and Freedoms, criminal law, civil law, and family law; and ▪ topic of their choice through inquiry of one of the following: international law, human rights law, youth and the law, labour law, or environmental law. 	N/A	https://www.edu.gov.mb.ca/k12/cur/socstud/law/index.html
Manitoba	Cinema as a Witness to Modern History (40S/E/M)	1123	Grade 12	<p>This course engages students in the:</p> <ul style="list-style-type: none"> ▪ exploration of the connections among cinema as an art form, cinema as a product of history, and cinema as an interpreter of history; 	N/A	https://www.edu.gov.mb.ca/k12/cur/socstud/cinema_gr12/index.html

				<ul style="list-style-type: none"> ▪ discussion the aesthetic and emotional elements of cinema and students apply historical thinking concepts to the analysis of historical themes as represented in various films and other sources; and ▪ media literacy to understand that film does not simply reflect the past, but interprets and retells the past and, at times, reconstructs it. 		
Manitoba	Geographic Issues of the 21 st Century (20F/E/M)	1180	Grade 11	<p>This course engages students to:</p> <ul style="list-style-type: none"> ▪ explore issues and challenges of the contemporary world; ▪ explore the nature of geography and develop skills related to geographical thinking ▪ use methods and tools of geography, including geographic information systems (GIS) to examine issues and propose solutions ▪ study concepts related to ownership and development of natural resources, production and distribution of food, development of industry and trade, and increasing urbanization; and ▪ become aware of the importance of the environment, stewardship, and sustainable development, as well as the social, political, and economic implications of their personal choices. 	N/A	https://www.edu.gov.mb.ca/k12/cur/socstud/frame_found_sr2/index.html
Manitoba	Geography: World Human (40S/G/E/M)	1126	Grade 12	<p>In this course, students gain knowledge and understanding of the:</p> <ul style="list-style-type: none"> ▪ importance of locations, patterns, distribution, and interrelationships between the physical and human environments in a constantly changing world; and ▪ environmental management and protection, and economic growth in the context of sustainable development as well as the status of and challenges confronting Indigenous peoples in contemporary society. 	N/A	https://www.edu.gov.mb.ca/k12/cur/socstud/9to12.html
Manitoba	Global Issues: Citizenship & Sustainability (40S/E/M)	1128	Grade 12	<p>This course engages students through:</p> <ul style="list-style-type: none"> ▪ exploration of the histories, cultures, worldviews, and current issues of Indigenous peoples ▪ critical thinking, communication, analytical, and inquiry skills to understand past and present realities of Indigenous peoples ▪ exploration of topics like self-determination, self-government, and language and cultural reclamation to understand and build an inclusive future; and ▪ enabling Indigenous students to participate as citizens of their cultural community within Canada today, and as global citizens. 	N/A	https://www.edu.gov.mb.ca/k12/cur/socstud/global_issues/index.html

				Non-Indigenous students become knowledgeable of worldviews, histories, and cultures, at local, national, and global levels.		
Manitoba	History of Canada (30F/E/M)	0105	Grade 11	<p>This course engages students through:</p> <ul style="list-style-type: none"> ▪ enduring understandings and essential questions which focus on a comprehensive history of Canada from pre-contact times to the present; ▪ five themes in Canadian history: First Nations, Métis, and Inuit Peoples; Governance and Economics; French-English Duality; Canada and the World; and, Identity, Diversity, and Citizenship; and ▪ Indigenous perspectives and learning strategies that are integrated throughout the course. 	N/A	https://www.edu.gov.mb.ca/k12/cur/socstud/history_gr11/index.html
Manitoba	History: American (20G/E/M)	0481	Grade 10	<p>In this course, students gain knowledge and understanding of the:</p> <ul style="list-style-type: none"> ▪ significant historical events that shaped the United States; ▪ historical developments that have influenced the world, especially Canada; ▪ impact that American history has had on shaping American society and influencing other areas of the world; ▪ personalities who, in a significant way, shaped American history and to examine briefly their contributions; and ▪ Colonization, Revolution, and Constitution; Territorial Expansion, Civil War and Reconstruction; Economic, Social and Political Developments, from 1865 - 1919; Foreign Policy and Domestic Changes from 1895 - 1945; and, the United States since World War II. 	N/A	https://www.edu.gov.mb.ca/k12/cur/socstud/9to12.html
Manitoba	History: Western Civilization (40S/G/E/M)	1136	Grade 12	<p>In this course, students gain knowledge and understanding of:</p> <ul style="list-style-type: none"> ▪ how Canadian society and other Western societies evolved and were shaped by complex movements and events; and ▪ why and how the following six concepts have influenced the development of Western civilization during different periods of time: religion, ideology, humanism, individualism, secularism, and scepticism. 	N/A	https://www.edu.gov.mb.ca/k12/cur/socstud/9to12.html

2.11 Physical Education

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	Physical Education/Health Education (10F/E/M, 20F/E/M)	0169	Grade 9, 10	In this course, students select, apply, adapt, and refine movements relating to the variety of physical activities they were exposed to in the middle years. The focus is on helping students build a positive self-image, develop acceptance of self and others, and make health-enhancing decisions. Students learn how to make informed decisions related to key health issues. The intent of the curriculum is to help students develop the necessary skills for lifelong physical activity participation and to prevent or avoid the health issues that affect youth, such as unhealthy dietary behaviours and behaviours that cause injury.	N/A	https://www.edu.gov.mb.ca/k12/cur/physhlth/foundation_s1-2/index.html
Manitoba	Physical Education/Health Education (30F/E/M)	0169	Grade 11	In this course, students participate or specialize in activities of their choice. Students choose safe, ethical, and developmentally appropriate physical activities to contribute to the goals of their physical activity plan. There is a focus on accessing accurate and useful information to make informed decisions for mental health and substance use. The social impact of sport is examined with a focus on sport participation, sporting behaviours and the impact of sport on social issues. The intent of this course is to help students develop the necessary knowledge, skills, and attitudes in personal planning for lifelong physical activity participation.	N/A	https://www.edu.gov.mb.ca/k12/cur/physhlth/frame_foundation_gr11/index.html
Manitoba	Physical Education/Health Education (40F/E/M)	0169	Grade 12	In this course, students participate or specialize in activities of their choice. Students develop an understanding of how to acquire/maintain personal health and fitness and take ownership of their fitness through regular participation in physical activity. There is a focus on accessing accurate and useful information to make informed decisions for healthy nutritional practices. Healthy and unhealthy relationships are examined with a focus on communication, rights and responsibilities, supports and services. The intent of this course is to help students develop the necessary knowledge, skills, and attitudes in personal planning for lifelong physical activity participation.	N/A	https://www.edu.gov.mb.ca/k12/cur/physhlth/frame_foundation_gr12/index.html Éducation physique et Éducation à la santé - Programme d'études : cadre manitobain des résultats d'apprentissage et document de mise en œuvre, 12e année - Pour un mode de vie actif et sain Éducation et Apprentissage de la petite enfance Manitoba (gov.mb.ca)

2.12 Arts

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	Dance 1A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Dance 1A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0174	Grade 9, 10, 11, 12	<p>During this course, the student:</p> <ul style="list-style-type: none"> ▪ develops language and practices for making dance. (MAKING) ▪ generates, develops, and communicates ideas for creating dance. (CREATING) ▪ develops understandings about the significance of dance by making connections to various contexts of times, places, social groups, and cultures. (CONNECTING) ▪ uses critical reflection to inform dance learning and to develop agency and identity. (RESPONDING) 	N/A	<p>https://www.edu.gov.mb.ca/m12/progetu/arts/fl2/danse/cadre_9-12.html</p> <p>https://www.edu.gov.mb.ca/m12/progetu/arts/fl1/danse/cadre_9-12.html</p> <p>https://www.edu.gov.mb.ca/k12/cur/arts/dance/framework_9-12.html</p>
	Dance 1B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0175				
	Dance 2A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Dance 2A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0176				
	Dance 2B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0177				
	Dance 3A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M)	0178				

	Dance 3A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)					
Manitoba	Dance 3B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0179	Grade 9, 10, 11, 12	<p>During this course, the student:</p> <ul style="list-style-type: none"> ▪ develops language and practices for making dance. (MAKING) ▪ generates, develops, and communicates ideas for creating dance. (CREATING) ▪ develops understandings about the significance of dance by making connections to various contexts of times, places, social groups, and cultures. (CONNECTING) ▪ uses critical reflection to inform dance learning and to develop agency and identity. (RESPONDING) 	N/A	https://www.edu.gov.mb.ca/m12/progetu/arts/fl2/danse/cadre_9-12.html https://www.edu.gov.mb.ca/m12/progetu/arts/fl1/danse/cadre_9-12.html https://www.edu.gov.mb.ca/k12/cur/arts/dance/framework_9-12.html
	Dance 4A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Dance 4A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0180				
	Dance 4B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0181				
	Dance 5A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Dance 5A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0182				
	Dance 5B (15S/E/M, 25S/E/M,	0189				

	35S/E/M, 45S/E/M)					
	Dance 6A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Dance 6A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0194				
	Dance 6B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0195				
Manitoba	Dance 7A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Dance 7A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0196	Grade 9, 10, 11, 12	<p>During this course, the student:</p> <ul style="list-style-type: none"> ▪ develops language and practices for making dance. (MAKING) ▪ generates, develops, and communicates ideas for creating dance. (CREATING) ▪ develops understandings about the significance of dance by making connections to various contexts of times, places, social groups, and cultures. (CONNECTING) ▪ uses critical reflection to inform dance learning and to develop agency and identity. (RESPONDING) 	N/A	https://www.edu.gov.mb.ca/m12/progetu/arts/fl2/danse/cadre_9-12.html https://www.edu.gov.mb.ca/m12/progetu/arts/fl1/danse/cadre_9-12.html https://www.edu.gov.mb.ca/k12/cur/arts/dance/framework_9-12.html
	Dance 7B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0197				
	Dance 8A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Dance 8A (15S/E/M,	0198				

	25S/E/M, 35S/E/M, 45S/E/M)					
	Dance 8B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0238				
Manitoba	Drama 1A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Drama 1A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0239	Grade 9, 10, 11, 12	During this course, the student: <ul style="list-style-type: none"> develops language and practices for making drama. (MAKING) generates, develops, and communicates ideas for creating drama. (CREATING) generates, develops, and communicates ideas for creating drama. (CONNECTING) develops understandings about the significance of the dramatic arts by making connections to various contexts of times, places, social groups, and cultures. (RESPONDING) 	N/A	https://www.edu.gov.mb.ca/m12/progetu/arts/fl2/drama/index.html https://www.edu.gov.mb.ca/m12/progetu/arts/fl1/drama/index.html https://www.edu.gov.mb.ca/k12/cur/arts/drama/index.html
Manitoba	Drama 1B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0241	Grade 9, 10, 11, 12	During this course, the student: <ul style="list-style-type: none"> develops language and practices for making drama. (MAKING) generates, develops, and communicates ideas for creating drama. (CREATING) generates, develops, and communicates ideas for creating drama. (CONNECTING) develops understandings about the significance of the dramatic arts by making connections to various contexts of times, places, social groups, and cultures. (RESPONDING) 	N/A	https://www.edu.gov.mb.ca/m12/progetu/arts/fl2/drama/index.html https://www.edu.gov.mb.ca/m12/progetu/arts/fl1/drama/index.html https://www.edu.gov.mb.ca/k12/cur/arts/drama/index.html
	Drama 2A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Drama 2A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0242				
	Drama 2B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0243				

	Drama 3A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Drama 3A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0244				
	Drama 3B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0245				
	Drama 4A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Drama 4A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0246				
	Drama 4B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0247				
Manitoba	Drama 5A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Drama 5A (15S/E/M, 25S/E/M,	0248	Grade 9, 10, 11, 12	During this course, the student: <ul style="list-style-type: none"> ▪ develops language and practices for making drama. (MAKING) ▪ generates, develops, and communicates ideas for creating drama. (CREATING) ▪ generates, develops, and communicates ideas for creating drama. (CONNECTING) 	N/A	https://www.edu.gov.mb.ca/m12/progetu/arts/fl2/drama/index.html https://www.edu.gov.mb.ca/m12/progetu/arts/fl1/drama/index.html

	35S/E/M, 45S/E/M)			<ul style="list-style-type: none"> develops understandings about the significance of the dramatic arts by making connections to various contexts of times, places, social groups, and cultures. (RESPONDING) 		https://www.edu.gov.mb.ca/k12/cur/arts/drama/index.html
	Drama 5B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0249				
	Drama 6A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Drama 6A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0252				
	Drama 6B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0253				
	Drama 7A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Drama 7A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0254				
	Drama 7B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0255				
Manitoba	Drama 8A (10S/E/M,	0256	Grade 9, 10, 11, 12	During this course, the student:	N/A	

	20S/E/M, 30S/E/M, 40S/E/M) Drama 8A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)			<ul style="list-style-type: none"> ▪ develops language and practices for making drama. (MAKING) ▪ generates, develops, and communicates ideas for creating drama. (CREATING) ▪ generates, develops, and communicates ideas for creating drama. (CONNECTING) ▪ develops understandings about the significance of the dramatic arts by making connections to various contexts of times, places, social groups, and cultures. (RESPONDING) 		https://www.edu.gov.mb.ca/m12/progetu/arts/fl2/drama/index.html https://www.edu.gov.mb.ca/m12/progetu/arts/fl1/drama/index.html https://www.edu.gov.mb.ca/k12/cur/arts/drama/index.html
	Drama 8B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0257				
Manitoba	Music 1A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Music 1A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0258	Grade 9, 10, 11, 12	<p>During this course, the student:</p> <ul style="list-style-type: none"> ▪ develops language and practices for making music. (MAKING) ▪ generates, develops, and communicates ideas for creating music. (CREATING) ▪ develops understandings about the significance of music by making connections to various contexts of times, places, social groups, and cultures. (CONNECTING) ▪ uses critical reflection to inform music learning and to develop agency and identity. (RESPONDING) 		https://www.edu.gov.mb.ca/m12/progetu/arts/fl2/musique/index.html https://www.edu.gov.mb.ca/m12/progetu/arts/fl1/musique/index.html https://www.edu.gov.mb.ca/k12/cur/arts/music/index.html
	Music 1B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0259				
	Music 2A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Music 2A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0260				

	Music 2B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0261				
Manitoba	Music 3A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Music 3A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0262	Grade 9, 10, 11, 12	<p>During this course, the student:</p> <ul style="list-style-type: none"> ▪ develops language and practices for making music. (MAKING) ▪ generates, develops, and communicates ideas for creating music. (CREATING) ▪ develops understandings about the significance of music by making connections to various contexts of times, places, social groups, and cultures. (CONNECTING) ▪ uses critical reflection to inform music learning and to develop agency and identity. (RESPONDING) 	N/A	<p>https://www.edu.gov.mb.ca/m12/progetu/arts/fl2/musique/index.html</p> <p>https://www.edu.gov.mb.ca/m12/progetu/arts/fl1/musique/index.html</p> <p>https://www.edu.gov.mb.ca/k12/cur/arts/music/index.html</p>
	Music 3B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0263				
	Music 4A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Music 4A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0264				
	Music 4B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0265				
	Music 5A (10S/E/M, 20S/E/M,	0266				

	30S/E/M, 40S/E/M) Music 5A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)					
	Music 5B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0267				
Manitoba	Music 6A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Music 6A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0268	Grade 9, 10, 11, 12	During this course, the student: <ul style="list-style-type: none"> ▪ develops language and practices for making music. (MAKING) ▪ generates, develops, and communicates ideas for creating music. (CREATING) ▪ develops understandings about the significance of music by making connections to various contexts of times, places, social groups, and cultures. (CONNECTING) ▪ uses critical reflection to inform music learning and to develop agency and identity. (RESPONDING) 	N/A	https://www.edu.gov.mb.ca/m12/progetu/arts/fl2/musique/index.html https://www.edu.gov.mb.ca/m12/progetu/arts/fl1/musique/index.html https://www.edu.gov.mb.ca/k12/cur/arts/music/index.html
	Music 6B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0269				
	Music 7A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Music 7A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0270				
	Music 7B (15S/E/M,	0271				

	25S/E/M, 35S/E/M, 45S/E/M)					
	Music 8A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Music 8A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0272				
	Music 8B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0273				
Manitoba	Visual Arts 1A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Visual Arts 1A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0274	Grade 9, 10, 11, 12	During this course, the student : <ul style="list-style-type: none"> ▪ develops language and practices for making visual art. (Making) ▪ generates, develops, and communicates ideas for creating visual arts. (Creating) ▪ develops understandings about the significance of the visual arts by making connections to various contexts of times, places, social groups, and cultures. (Connecting) ▪ uses critical reflection to inform visual arts learning and to develop agency and identity. (Responding) 	N/A	https://www.edu.gov.mb.ca/m12/progetu/arts/fl2/visuel/index.html https://www.edu.gov.mb.ca/m12/progetu/arts/fl1/visuel/index.html https://www.edu.gov.mb.ca/k12/cur/arts/visual/index.html
	Visual Arts 1B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0275				
	Visual Arts 2A (10S/E/M,	0276				

	20S/E/M, 30S/E/M, 40S/E/M) Visual Arts 2A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)					
	Visual Arts 2B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0277				
	Visual Arts 3A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Visual Arts 3A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0283				
	Visual Arts 3B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0284				
Manitoba	Visual Arts 4A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M)	0285	Grade 9, 10, 11, 12	During this course, the student : <ul style="list-style-type: none"> ▪ develops language and practices for making visual art. (Making) ▪ generates, develops, and communicates ideas for creating visual arts. (Creating) 	N/A	https://www.edu.gov.mb.ca/m12/progetu/arts/fl2/visuel/index.html

Visual Arts 4A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)		<ul style="list-style-type: none"> ▪ develops understandings about the significance of the visual arts by making connections to various contexts of times, places, social groups, and cultures. (Connecting) ▪ uses critical reflection to inform visual arts learning and to develop agency and identity. (Responding) 	https://www.edu.gov.mb.ca/m12/progetu/arts/fl1/visuel/index.html https://www.edu.gov.mb.ca/k12/cur/arts/visual/index.html
Visual Arts 4B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0286		
Visual Arts 5A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Visual Arts 5A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0287		
Visual Arts 5B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0288		
Visual Arts 6A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Visual Arts 6A (15S/E/M,	0289		

	25S/E/M, 35S/E/M, 45S/E/M)					
	Visual Arts 6B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0292				
Manitoba	Visual Arts 7A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Visual Arts 7A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0293	Grade 9, 10, 11, 12	During this course, the student : <ul style="list-style-type: none"> ▪ develops language and practices for making visual art. (Making) ▪ generates, develops, and communicates ideas for creating visual arts. (Creating) ▪ develops understandings about the significance of the visual arts by making connections to various contexts of times, places, social groups, and cultures. (Connecting) ▪ uses critical reflection to inform visual arts learning and to develop agency and identity. (Responding) 	N/A	https://www.edu.gov.mb.ca/m12/progetu/arts/fl2/visuel/index.html https://www.edu.gov.mb.ca/m12/progetu/arts/fl1/visuel/index.html https://www.edu.gov.mb.ca/k12/cur/arts/visual/index.html
	Visual Arts 7B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0294				
	Visual Arts 8A (10S/E/M, 20S/E/M, 30S/E/M, 40S/E/M) Visual Arts 8A (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0295				

	Visual Arts 8B (15S/E/M, 25S/E/M, 35S/E/M, 45S/E/M)	0296				
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2.13 Technology

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	Comprehensive-Technology Education (15G/E/M)	0214	Grade 9	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Workplace Safety, Equipment, Materials and Products, Processes, Technical Progression and Trends, Structure and Scope, Cross-Curricular Skills, Sustainability, Ethical and Legal Standards, and Employability Skills. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html
Manitoba	Industrial Arts: Power Mechanics Technology - Applied Technology (40S/E/M)	7997	Grade 12	In this course, students apply the skills, knowledge, and values learned in previous courses to initiate the diagnosis, repair, and maintenance of power mechanics systems. They learn the teamwork skills required to research and design solutions to complex, real world problems, whose solutions may include emerging technologies. Students will demonstrate awareness of the purpose of power mechanics, along with its challenges, including environmental concerns. They explore the power mechanics industry, including career and training opportunities, the scope of the industry, and typical workplaces and occupations.	N/A	This curriculum is not available online.
Manitoba	Industrial Arts: Automotive Technology - Power Mechanics Technology (10G/E/M, 20G/E/M, 30S/G/E/M, 40S/G/E/M)	7965	Grade 9, 10, 11, 12	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Energy Conversion, Engine Systems, Electrical Systems, Mechanical Systems, Chassis Systems, Climate Control Systems, Assembly/Disassembly Tools, Diagnostic Tools, and Environmental Impact, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/automotive/index.html

Manitoba	Industrial Arts: Automotive Technology - Power Mechanics Technology (15G/E/M, 25G/E/M)	7966	Grade 9, 10	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Energy Conversion, Engine Systems, Electrical Systems, Mechanical Systems, Chassis Systems, Climate Control Systems, Assembly/Disassembly Tools, Diagnostic Tools, and Environmental Impact, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/automotive/index.html
Manitoba	Industrial Arts: Applied Technology Power Mechanics Technology (40S/G/E/M)	7997	Grade 12	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Energy Conversion, Engine Systems, Electrical Systems, Mechanical Systems, Chassis Systems, Climate Control Systems, Assembly/Disassembly Tools, Diagnostic Tools, and Environmental Impact, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/automotive/index.html
Manitoba	Industrial Arts: Design Drafting - Drafting Design Technology (15G/E/M, 25G/E/M)	7952	Grade 9, 10	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Tools and Equipment, Drawing Interpretation, Technical Sketching, Geometric Application, Production (Working) Drawings, Applications, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/automotive/index.html

Manitoba	Industrial Arts: Design Drafting - Drafting Design Technology (10G/E/M, 20G/E/M, 30S/G/E/M, 40S/G/E/M)	7953	Grade 9, 10, 11, 12	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Tools and Equipment, Drawing Interpretation, Technical Sketching, Geometric Application, Production (Working) Drawings, Applications, and Current Innovation. 		https://www.edu.gov.mb.ca/k12/cur/teched/sytep/design/drafting/index.html
Manitoba	Industrial Arts: Electronics Technology - Applied Technology (40S/G/E/M)	7997	Grade 12	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Tools and Equipment, Circuit Construction, Components, Laws and Theory, Circuits, and Systems Applications, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electronics/index.html
Manitoba	Industrial Arts: Electronics Technology - Electricity/Electronics Technology (15G/E/M, 25G/E/M)	7973	Grade 9, 10	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Tools and Equipment, Circuit Construction, Components, Laws and Theory, Circuits, and Systems Applications, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electronics/index.html

Manitoba	Industrial Arts: Electronics Technology - Electricity/Electronics Technology (10G/E/M, 20G/E/M, 30S/G/E/M, 40S/G/E/M)	7974	Grade 9, 10, 11, 12	<p>This course includes the following content:</p> <p>Fundamental Skills: Technical communications, problem solving, and information management.</p> <p>Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork.</p> <p>Production Skills: Tools and Equipment, Circuit Construction, Components, Laws and Theory, Circuits, and Systems Applications, and Current Innovation.</p>	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electronics/index.html
Manitoba	Industrial Arts: Graphics - Applied Technology (40S/G/E/M)	7997	Grade 12	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Image Acquisition, Still Image Production, Binding and Packaging, Animated Images, Video Editing, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ia_framework/index.html
Manitoba	Industrial Arts: Graphics - Graphic Communication Technology (10G/E/M, 20G/E/M, 30S/G/E/M, 40S/G/E/M)	7958	Grade 9, 10, 11, 12	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Image Acquisition, Still Image Production, Binding and Packaging, Animated Images, Video Editing, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ia_framework/index.html
Manitoba	Industrial Arts: Graphics - Graphic Communication Technology (15G/E/M, 25G/E/M)	7959	Grade 9, 10	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Image Acquisition, Still Image Production, Binding and Packaging, Animated Images, Video Editing, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ia_framework/index.html

Manitoba	Industrial Arts: Metalwork - Applied Technology (10G/E/M, 20G/E/M, 30S/G/E/M, 40S/G/E/M)	7980	Grade 9, 10, 11, 12	This course includes the following content: <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Metallurgy, Measurement and Layout, Separation, Fastening, Forming and Casting, Finishing, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ia_framework/index.html
Manitoba	Industrial Arts: Metalwork - Applied Technology (15G/E/M, 25G/E/M)	7981	Grade 9, 10	This course includes the following content: <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Metallurgy, Measurement and Layout, Separation, Fastening, Forming and Casting, Finishing, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ia_framework/index.html
Manitoba	Industrial Arts: Woodwork - Applied Technology (40S/E/M)	7997	Grade 12	This course includes the following content: <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Wood, Products and Processes, Measurement and Layout, Separation, Fastening, Wood Joints, Finishing, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ia_framework/index.html
Manitoba	Industrial Arts: Woodwork - Construction Technology (40S/G/E/M)	7994	Grade 12	This course includes the following content: <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Wood, Products and Processes, Measurement and Layout, Separation, Fastening, Wood Joints, Finishing, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ia_framework/index.html

Manitoba	Industrial Arts: Woodwork - Furniture Design Technology (40S/G/E/M)	7995	Grade 12	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Wood, Products and Processes, Measurement and Layout, Separation, Fastening, Wood Joints, Finishing, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ia_framework/index.html
Manitoba	Industrial Arts: Woodwork - Manufacturing Technology (40S/G/E/M)	7996	Grade 12	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Wood, Products and Processes, Measurement and Layout, Separation, Fastening, Wood Joints, Finishing, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ia_framework/index.html
Manitoba	Industrial Arts: Woodwork - Woodwork Technology (10G/E/M, 20G/E/M, 30S/G/E/M, 40S/G/E/M)	7990	Grade 9, 10, 11, 12	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Wood, Products and Processes, Measurement and Layout, Separation, Fastening, Wood Joints, Finishing, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ia_framework/index.html
Manitoba	Industrial Arts: Woodwork - Woodwork Technology (15G/E/M, 25G/E/M)	7991	Grade 9, 10	<p>This course includes the following content:</p> <ul style="list-style-type: none"> • Fundamental Skills: Technical communications, problem solving, and information management. • Personal Skills: Time management, ethical decision-making, career planning, safe practices, positive attitude, and teamwork. • Production Skills: Wood, Products and Processes, Measurement and Layout, Separation, Fastening, Wood Joints, Finishing, and Current Innovation. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ia_framework/index.html

Manitoba	Human Ecology - Applied Family Studies (40S/E/M)	0491	Grade 12	This course prepares students for a caregiving role with infants, toddlers, and children through the study of child development. The skills and knowledge are applied to a 40-hour practical experience with children where students observe, guide behaviour, ensure health and safety, and participate in play-based learning experiences. This course provides a foundation for further study within the field of early childhood education and related careers.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/home_ec.html
Manitoba	Human Ecology - Environmental Design (35S/E/M)	0490	Grade 11	This course focuses on the development of skills, terms, and knowledge in the field of housing and interior design. The principles and elements of design form the foundation of the course through the application of drafting and designing living spaces. Students identify consumer decisions and housing security within the built environment, and the ability to meet the needs of individuals, families, and communities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Environmental Design (45S/E/M)	0490	Grade 12	This course focuses on the development of skills, terms, and knowledge in the field of housing and interior design. The principles and elements of design form the foundation of the course through the application of digital drafting and designing living spaces. Students investigate consumer decisions and housing security within the built environment, and the ability to meet the needs of individuals, families, and communities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Environmental Design (30S/E/M)	0490	Grade 11	This course focuses on the development of skills, terms, and knowledge in the field of housing and interior design. The principles and elements of design form the foundation of the course through the application of drafting and designing living spaces. Students identify social justice, sustainability, consumer decisions, and housing security issues within the built environment, and demonstrate the ability to meet the needs of individuals, families, and communities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Environmental Design (40S/E/M)	0490	Grade 12	This course focuses on the development of skills, terms, and knowledge in the field of housing and interior design. The principles and elements of design form the foundation of the course through the application of digital drafting and designing living spaces. Students investigate social justice, sustainability, consumer decisions, housing security, and economic and legal considerations within the built environment, and demonstrate the ability to meet the needs of individuals, families, and communities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html

Manitoba	Human Ecology - Family Studies (15S/E/M)	0487	Grade 9	This course explores adolescent development from the perspective of the adolescent student. Topics include building skills and knowledge in developing positive relationships to enhance personal health and wellness within the context of their own family dynamics and the community in which they live.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Family Studies (25S/E/M)	0487	Grade 10	This course focuses on the skills and knowledge parents and caregivers need, with emphasis on maternal health, pregnancy, birth, and the early years of human development. Students learn about the developmental needs, effective care, and guidance of young children. The development of these skills and knowledge enhance their overall well-being now as adolescents and in the future as parents and caregivers.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Family Studies (35S/E/M)	0487	Grade 11	This course focuses on children's and adolescents' relationships within their families. Students learn about developmental needs, effective care, and positive interactions with children/adolescents. The skills and knowledge that students gain provide them with the opportunity to make informed decisions related to parenting, relationships, and families.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Family Studies (45S/E/M)	0487	Grade 12	This course emphasizes the transition from adolescence to adulthood with the ability to examine and practise skills that help develop healthy interpersonal relationships. The skills and knowledge provide the opportunity for students to make informed and responsible life management choices now and in the future.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Family Studies (10S/E/M)	0487	Grade 9	This course explores adolescent development from the perspective of the adolescent student. Topics include building skills and knowledge in developing positive relationships to enhance personal health and wellness within the context of their own family dynamics and the community in which they live.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Family Studies (20S/E/M)	0487	Grade 10	This course focuses on the skills and knowledge parents and caregivers need, with emphasis on maternal health, pregnancy, birth, and the early years of human development. Students learn about the developmental needs, effective care, and guidance of young children. The development of these skills and knowledge enhance their overall well-being now as adolescents and in the future as parents and caregivers.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html

Manitoba	Human Ecology - Family Studies (30S/E/M)	0487	Grade 11	This course focuses on children's and adolescents' relationships within their families. Students learn about developmental needs, effective care, and positive interactions with children/adolescents. The skills and knowledge that students gain provide them with the opportunity to make informed decisions related to parenting, relationships, and families.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Family Studies (40S/E/M)	0487	Grade 12	This course emphasizes the transition from adolescence to adulthood with the ability to examine and practise skills that help develop healthy interpersonal relationships. The skills and knowledge provide the opportunity for students to make informed and responsible life management choices now and in the future.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Food and Nutrition (15S/E/M)	0489	Grade 9	This course focuses on the individual and the relationships and influences that affect food choices. Students examine the fundamentals of nutrition and learn how to apply the information to their lives. The course provides opportunities for students to develop safe food handling and food preparation skills in a practical setting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Food and Nutrition (25S/E/M)	0489	Grade 10	This course focuses on the individual within the family unit and the influence that marketing and media have on family food choices. Students gain a strong understanding of the categories of nutrients, why our bodies need them, and what foods are consumed for health and well-being. The course provides opportunities for students to further develop food preparation skills in a practical setting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Food and Nutrition (35S/E/M)	0489	Grade 11	This course focuses on the individual within the community and Canada, including the influence regions have on our food choices and personal practices. Students examine food availability within Manitoba. Students analyze the nutritional composition of food and reflect on their own nutritional choices. This course provides opportunities for students to apply food preparation skills in a practical setting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Food and Nutrition (45S/E/M)	0489	Grade 12	This course is a critical examination of the individual as a responsible citizen. It explores sustainability and ethical practices within food production and access. Students examine food security and barriers that exist to achieve food security for all people. Students investigate solutions to local and global food accessibility. This course provides the opportunity for students to apply food preparation skills in a practical setting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html

Manitoba	Human Ecology - Food and Nutrition (10S/E/M)	0489	Grade 9	This course focuses on the individual and the relationships and influences that affect food choices. Students examine the fundamentals of nutrition and learn how to apply the information to their lives. The course provides opportunities for students to develop safe food handling and food preparation skills in a practical setting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Food and Nutrition (20S/E/M)	0489	Grade 10	This course focuses on the individual within the family unit and the influence that marketing and media have on family food choices. Students gain a strong understanding of the categories of nutrients, why our bodies need them, and what foods are consumed for health and well-being. The course provides opportunities for students to further develop food preparation skills in a practical setting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Food and Nutrition (30S/E/M)	0489	Grade 11	This course focuses on the individual within the community and Canada, including the influence regions have on our food choices and personal practices. Students are exposed to food and production in Manitoba and examine food availability within Manitoba. Students analyze the nutritional composition of food and reflect on their own nutritional choices. This course provides opportunities for students to apply food preparation skills in a practical setting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Food and Nutrition (40S/E/M)	0489	Grade 12	This course is a critical examination of the individual as a responsible citizen. It explores sustainability and ethical practices within food production and access. Students examine food security and barriers that exist to achieve food security for all people. Students investigate solutions to local and global food accessibility. This course provides the opportunity for students to apply food preparation skills in a practical setting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Human Ecology (10S/E/M)	0486	Grade 9	This course explores family studies, food and nutrition, and textile arts and design. Family studies explores adolescent development. Food and nutrition focuses on the individual and the relationships and influences that affect food choices. Students examine the fundamentals of nutrition and develop safe food handling and preparation. The textile arts and design component explores textiles and how these can be constructed, designed, used, and obtained. Students examine sustainability of local communities, and an introduction to environmental design.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html

Manitoba	Human Ecology - Human Ecology (20S/E/M)	0486	Grade 10	This course explores family studies, food and nutrition, and textile arts and design. Family studies focuses on the skills and knowledge parents and caregivers need, with emphasis on maternal health, pregnancy, birth, and the early years of human development. Food and nutrition focuses on the influence that marketing and media have on food choices and their impact on health and well-being. Textile arts and design examines a broader understanding of textile uses and techniques achieved through practical experiences. Students examine socially conscious manufacturing, clothing security, regional design styles, costume development, and environmental design.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Human Ecology (30S/E/M)	0486	Grade 11	This course addresses family studies, food and nutrition, and textile arts and design. Family studies focuses on the relationships of children and adolescents within families. Students learn about developmental needs, effective care, and positive interactions with children/adolescents. Food and nutrition focuses on the individual within the community and Canada, including the influence regions have on our food choices. Textile arts and design focuses on enhanced skill development with textile products. Students examine manufacturer's and consumers' social responsibilities and the significance of various symbols and adornments in a variety of Canadian cultures.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Human Ecology (40S/E/M)	0486	Grade 12	This course includes: family studies, food and nutrition, and textile arts and design. Family studies emphasizes the transition from adolescence to adulthood with the ability to examine and practise skills that help develop healthy interpersonal relationships. Food and nutrition is a critical examination of the individual as a responsible citizen through examining food security and accessibility. Textile arts and design focuses on advanced skill development with textile products. Students examine accessibility and use of textiles, manufacturing social responsibilities, and global influences on design trends.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html

Manitoba	Human Ecology - Textile Arts and Design (15S/E/M)	0488	Grade 9	This course explores the basic knowledge and skills required to design and create textile products. Students explore the impact that fashion has on consumer choices and its influence on relationships. The course introduces the student to citizenship and sustainability through knowledge, action, and projects. Students become aware of issues in the textile industry and their impact on the environment and people through social justice and clothing security challenges. This course provides a brief introduction to the study of environmental design.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Textile Arts and Design (25S/E/M)	0488	Grade 10	This course examines the knowledge and skills required to design and create textile products. Students examine the basics of creative costuming, cultural fashion design, and consumer practices that have an impact on individuals within their community. The course focuses on student citizenship and product sustainability through knowledge, action, and projects. Students are challenged to address issues within the textile industry and their impact on the environment, in addition to social justice and clothing security challenges. This course provides a brief introduction to the study of environmental design.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Textile Arts and Design (35S/E/M)	0488	Grade 11	This course focuses on enhanced knowledge and skill development in textile design and construction. Students examine the areas of creative costuming, cultural fashion design, and consumer practices that have an impact on individuals and communities. This course follows the fashion industry through design and illustration, marketing, and merchandising while acknowledging the environmental and social justice influences on local communities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Textile Arts and Design (45S/E/M)	0488	Grade 12	This course focuses on advanced knowledge and skill development in textile design and construction. Students examine in depth the areas of creative costuming, cultural fashion design, and consumer practices that have an impact on individuals and communities. This course follows the fashion industry through design and illustration, marketing, and merchandising while acknowledging the environmental and social justice influences on global communities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html

Manitoba	Human Ecology - Textile Arts and Design (10S/E/M)	0488	Grade 9	This course explores the basic knowledge and skills required to design and create textile products. Students explore the impact that fashion has on consumer choices and its influence on relationships. The course introduces the student to citizenship and sustainability through knowledge, action, and projects. Students become aware of issues in the textile industry and their impact on the environment and people through social justice and clothing security challenges. This course provides a brief introduction to the study of environmental design.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Textile Arts and Design (20S/E/M)	0488	Grade 10	This course examines the knowledge and skills required to design and create textile products. Students examine the basics of creative costuming, cultural fashion design, and consumer practices that have an impact on individuals within their community. The impact of fashion on consumer choices and relationships are explored in more depth. Students address issues within the textile industry and their impact on the environment, in addition to social justice and clothing security challenges. This course provides a brief introduction to the study of environmental design.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Textile Arts and Design (30S/E/M)	0488	Grade 11	This course focuses on enhanced knowledge and skill development in textile design and construction. Students examine the areas of creative costuming, cultural fashion design, and consumer practices that have an impact on individuals and communities. This course follows the fashion industry through design and illustration, marketing, and merchandising while acknowledging the environmental and social justice influences on local communities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html
Manitoba	Human Ecology - Textile Arts and Design (40S/E/M)	0488	Grade 12	This course focuses on advanced knowledge and skill development in textile design and construction. Students examine in depth the areas of creative costuming, cultural fashion design, and consumer practices that have an impact on individuals and communities. This course follows the fashion industry through design and illustration, marketing, and merchandising while acknowledging the environmental and social justice influences on global communities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/he_framework/index.html

Manitoba	Applied Commerce Education: Individual Course - Business Innovations (10S/E/M)	0315	Grade 9	This introductory course allows students to sample the various strands within the applied commerce education program. It offers students the opportunity to explore commerce-related topics, such as economics, entrepreneurship, business, marketing, technology, and finance. Students apply the concepts and strategies they learn to a variety of creative business projects or simulations.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html
Manitoba	Applied Commerce Education: Finance Strand - Personal Finance (20S/E/M)	0324	Grade 10	This course focuses on developing fundamental financial literacy skills, including the value of money, basic economics, budgeting, saving, financial institution services, and investing. This is especially relevant to high school students, since they are entering the workforce and are considering future purchases that require financial planning, such as buying a car, travelling, or pursuing post-secondary education.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html
Manitoba	Applied Commerce Education: Finance Strand - Accounting Essentials (30S/E/M)	0309	Grade 11	This course helps students gain an understanding of basic accounting. With an emphasis on accounting for a service business, students apply their knowledge and skills to complete the stages of the accounting cycle. Students interested in pursuing post-secondary studies in any business discipline benefit considerably by completing this course.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html
Manitoba	Applied Commerce Education: Finance Strand - Accounting Systems (40S/E/M)	0310	Grade 12	This course is an extension of Course 0309 (Accounting Essentials). It includes an introduction to financial analysis and corporate accounting. With an emphasis on accounting for a merchandising business, students apply their knowledge and skills to complete the stages of the accounting cycle. The skills acquired in this course are useful when pursuing a career in business or accounting, and essential for everyday life.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html

Manitoba	Applied Commerce Education: Finance Strand - Economic Principles (40S/E/M)	0318	Grade 12	This course focuses on both microeconomic and macroeconomic principles including supply and demand, market influences, the global market, and economic decision making. This course helps students explore how the economy impacts their personal and business decisions at a local, national, and global level. Students learn more about their roles in the economy and how economic conditions affect short- and long-term decision making.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html
Manitoba	Applied Commerce Education: Entrepreneurship Strand - Entrepreneurship (20S/E/M)	0319	Grade 10	This course focuses on developing the foundational skills and ideas needed to plan and develop a business. This course is relevant to high school students since many are already involved in their communities and are starting to recognize various needs and opportunities in their areas. Students begin by evaluating innovation, inventions, and innovative ideas. They learn the process of planning, marketing, and implementing a venture. This course is designed for students interested in business principles related to the ownership and management of a business.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html
Manitoba	Applied Commerce Education: Entrepreneurship Strand - Venture Development (30S/E/M)	0327	Grade 11	This course builds upon the concepts and ideas studied in Entrepreneurship 0319. Students focus on planning, creating, implementing, evaluating, and growing their own business ventures. Venture Development is designed for students interested in starting their own businesses and in furthering their knowledge of business ownership and management principles.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html
Manitoba	Applied Commerce Education: Entrepreneurship Strand - Business Management (40S/E/M)	0316	Grade 12	This course focuses on developing skills in planning, leading, organizing, controlling, and staffing. Students study various management styles and participate in activities related to human resources, inventory, finance, and project management. This course is designed for students interested in furthering their knowledge of management strategies used in various settings and furthering their knowledge of business ownership.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html

Manitoba	Applied Commerce Education: Commerce Strand - Creative Promotions (20S/E/M)	0317	Grade 10	This course helps students develop an understanding of promotional communication from both a theoretical and a practical approach. The course focuses on advertising strategies, direct marketing, personal selling, sales promotions, and public relations. Students apply these concepts and their creativity to design a variety of promotional and advertising material. Creative Promotions is designed for students who are looking to expand their business knowledge regarding communicating effectively and creatively.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html
Manitoba	Applied Commerce Education: Commerce Strand - Retailing Perspectives (30S/E/M)	0325	Grade 11	This course helps students gain an understanding of retailing from both a theoretical and a practical approach. This course provides insight on the various types of retail establishments and forms of ownership. It emphasizes the retailing operations of a physical and an online environment. Retailing Perspectives focuses on the financially sustainable strategies retailers use to appeal to consumers. This course is designed for students interested in managing or owning their own retail establishment.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html
Manitoba	Applied Commerce Education: Commerce Strand - Marketing and Digital Commerce (40S/E/M)	0323	Grade 12	This course helps students develop an understanding of marketing activities theoretically and practically. The course focuses on applying marketing concepts, principles, and strategies in making decisions related to product, price, place, and promotion. Students apply these through hands-on applications and the creation of a marketing plan.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html
Manitoba	Applied Commerce Education: Technologies, Topics, and Trends Strand - Business Communications (30S/E/M)	0314	Grade 11	This course focuses on communication skills and techniques that are essential in business. Students develop effective written, verbal, interpersonal, and visual communication skills. Students learn how to use current technologies to create communications that are clear, concise, and designed for business. This course is designed for students interested in pursuing post-secondary studies in the business field. It is a desirable course option for future entrepreneurs or any individual who wants to develop effective workplace communication skills.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html

Manitoba	Applied Commerce Education: Technologies, Topics, and Trends Strand - Applied Business Technologies (30S/E/M)	0311	Grade 11	This course focuses on integrating advanced software features commonly used in business. It is designed for students interested in learning about collaboration, digital communication, and customization of presentation software to create, edit, and manage business documents, using advanced features of word processing, spreadsheet, and database applications. Topics include multimedia elements such as creating and manipulating images, graphics, videos, and animations. This course is designed to improve students' transferable skills, which increases their success in the business world.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html
Manitoba	Applied Commerce Education: Technologies, Topics, and Trends Strand - Topics and Trends in Business (40S/E/M)	0326	Grade 12	This course uses an inquiry-based learning model to allow students to explore current and/or emerging topics, trends, and opportunities related to business at a local, national, or global level. Students design, recommend, and/or implement an action plan based on their inquiry findings. This course is designed to allow students to focus on issues about which they are passionate.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/ace_framework/index.html

2.14 Guidance and Career Education

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	Career Development Internship (CDI) (35G, 45G, 30G, 40G)	0305	Grade 11, 12	This course allows students to earn up to 2 credits for an unpaid internship. It aims to acknowledge and promote the skills development and experience gained by students during internships. The Career Development Internship Guidelines assist educators (teachers/CDI facilitators) in overseeing the planning, monitoring, evaluation, and reporting of student experiences in relation to the CDI. These guidelines provide information for on-site internship supervisors, who are workplace employees responsible for welcoming and supporting students during their internship.	Successful completion of a Career Development Life/Work full (1.0) or half-credit (0.5) course.	https://www.edu.gov.mb.ca/k12/cur/cardev/cdi/index.html
Manitoba	Credit for Employment (CFE) (35G, 30G)	0304	Grade 11	This course allows students to earn up to 2 credits for paid employment, recognizing the value of on-the-job work experience. Credit for Employment provides students with the opportunity to gain valuable skills development and experience, helping them understand the relevance of education and the importance of career readiness.	Successful completion of a half-credit (0.5) Career Development Life/Work course prior to registering for the CFE, or while completing the CFE.	https://www.edu.gov.mb.ca/k12/cur/cardev/cdi/index.html
Manitoba	Credit for Employment (CFE) (45G, 40G)	0304	Grade 12	This course enables students to earn up to 2 credits for paid employment. It acknowledges the importance of on-the-job work experience in fostering valuable skills and practical knowledge. Through the Credit for Employment program, students can enhance their comprehension of the practical applications of education and the significance of preparing for their future careers.	Successful completion of a half-credit (0.5) Career Development Life/Work course prior to registering for the CFE, or while	https://www.edu.gov.mb.ca/k12/cur/cardev/cdi/index.html

					completing the CFE.	
Manitoba	Life/Work Building (35S/E/M, 30S/E/M)	0099	Grade 11	This course includes five themes: Personal Management, Career Exploration, Learning and Planning, Job Seeking and Maintenance, and Career and Community Experiences. Grade 11 focuses on personal management, work-life balance, and high school transition.	N/A	https://www.edu.gov.mb.ca/k12/cur/cardev/gr11_found/index.html
Manitoba	Life/Work Exploration (15S/E/M, 10S/E/M)	0097	Grade 9	This course includes five themes: Personal Management, Career Exploration, Learning and Planning, Job Seeking and Maintenance, and Career and Community Experiences. Grade 9 covers career development with a focus on self-esteem, self-assessment, work information, and high school course selection.	N/A	https://www.edu.gov.mb.ca/k12/cur/cardev/gr9_found/index.html
Manitoba	Life/Work Planning (25S/E/M, 20S/E/M)	0098	Grade 10	This course includes five themes: Personal Management, Career Exploration, Learning and Planning, Job Seeking and Maintenance, and Career and Community Experiences. Grades 9-10 focus on self-reflection and career exploration.	N/A	https://www.edu.gov.mb.ca/k12/cur/cardev/gr10_found/index.html
Manitoba	Life/Work Transitioning (45S/E/M, 40S/E/M)	0100	Grade 12	This course includes five themes: Personal Management, Career Exploration, Learning and Planning, Job Seeking and Maintenance, and Career and Community Experiences. Grades 11-12 emphasize community experiences and transition planning. These curricula provide essential learning outcomes for successful life/work transitions.	N/A	https://www.edu.gov.mb.ca/k12/cur/cardev/gr12_found/index.html
Manitoba	Transitioning to the Workplace, University, and College (45S/E/M, 40S/E/M)	9809	Grade 12	This course prepares students for a successful transition to the workplace after high school or postsecondary studies. It caters to students who don't have practical experiences, work experience, or volunteering. It complements other courses that include these components, such as career development, technical-vocational education, industrial arts, human ecology, and employment and internship options.	N/A	https://www.edu.gov.mb.ca/k12/cur/cardev/curdocs.html

2.15 Vocational and Applied Education and Training

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	Exploration of Technical-Vocational Education (15S/E/M, 10S/E/M)	9174	Grade 9	This course provides students with the opportunity to become familiar with one or more TVE clusters, allowing them to make an informed decision before enrolling in one.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html
Manitoba	Aircraft Maintenance Technology: Exploring Aircraft Maintenance Technology (15S/E/M, 10S/E/M)	8504	Grade 9	This course is intended for students wishing to sample aircraft maintenance technology.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aircraft/index.html
Manitoba	Aircraft Maintenance Technology: Aircraft Engines (30S/E/M)	8528	Grade 11	This course is intended for students considering specialization in aircraft maintenance technology. The curriculum content focuses on turbine and reciprocating engines, including hands-on activities with engines. Topics include engine components and theory of operation.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aircraft/index.html
Manitoba	Aircraft Maintenance Technology: Aircraft Ground Handling (30S/E/M)	8529	Grade 11	This course is intended for students continuing in the specialization phase of aircraft maintenance technology. The curriculum content focuses on an introduction to aircraft ground handling, and the mathematics and physics relevant to aircraft maintenance technology. Topics include safely performing ground handling and servicing of aircraft and selecting and using appropriate fire extinguishers for fire suppression.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aircraft/index.html
Manitoba	Aircraft Maintenance Technology: Aircraft Drawings and Documents (30S/E/M)	8530	Grade 11	This course is intended for students completing the specialization phase of aircraft maintenance technology. The curriculum content focuses on an introduction to the drawings and documents used in aircraft maintenance. Topics include reading and interpreting common types of aircraft technical drawings encountered in day-to-day aircraft maintenance and repair and creating sketches and/or drawings that accurately transmit	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aircraft/index.html

				technical information, as well as reading and interpreting documents.		
Manitoba	Aircraft Maintenance Technology: Aircraft Structures and Materials (40S/E/M)	8531	Grade 12	This course is intended for students entering the transition phase of aircraft maintenance technology. The curriculum content focuses on a description of metallic and non-metallic structures. Topics include types of aircraft structures, including materials.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aircraft/index.html
Manitoba	Aircraft Maintenance Technology: Aircraft Hardware (40S/E/M)	8532	Grade 12	This course is intended for students in the transition phase of aircraft maintenance technology. The curriculum content focuses on an introduction to threaded and non-threaded fasteners and plumbing. Topics include the selection and installation of aircraft hardware and ensuring that installed hardware is certified and traceable.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aircraft/index.html
Manitoba	Aircraft Maintenance Technology: Aircraft Structural Repair (40S/E/M)	8533	Grade 12	This course is intended for students in the transition phase of aircraft maintenance technology. The curriculum content focuses on an introduction to repairing the structures of aircraft. Topics include the maintenance of aircraft metallic and non-metallic structures including hands-on projects.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aircraft/index.html
Manitoba	Aircraft Maintenance Technology: Aircraft Systems (40S/E/M)	8534	Grade 12	This course is intended for students transitioning from Aircraft maintenance technology. The curriculum content focuses on an overview of the maintenance of the systems found in aircraft. Topics include fuel systems, landing gear, and hydraulic and pneumatic systems.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aircraft/index.html
Manitoba	Automotive Technology: Introduction to Automotive Technology (10S/E/M, 15S/E/M)	8695	Grade 9	This is an optional course intended for students wishing to sample automotive technology. The emphasis is on hands-on activities. Students are introduced to safety, tools, equipment, automotive systems, and service procedures.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/automotive/index.html
Manitoba	Automotive Technology: Automotive Systems and	8696	Grade 9	In this course, students learn safety, tools and equipment, automotive systems, and service procedures. They are introduced to diagnostic strategies and learn about tires, wheels, and hubs.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/automotive/index.html

	Service (20S/E/M)					
Manitoba	Automotive Technology: Engine Fundamentals and Service (30S/E/M)	8697	Grade 11	In this course, students learn the procedures to service, repair, and replace engines and their components. They learn about the mathematics required for the automotive trade.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/automotive/index.html
Manitoba	Automotive Technology: Chassis Fundamentals and Service (30S/E/M)	8698	Grade 11	In this course, students describe, diagnose, and repair braking, steering, and suspension systems. They develop an understanding of the principles of wheel and steering alignment and be able to apply the principles to diagnose and align steering systems.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/automotive/index.html
Manitoba	Automotive Technology: Drivetrain Fundamentals and Service (30S/E/M)	8699	Grade 11	In this course, students develop an understanding of the different drivetrain configurations and their components. They diagnose and repair a variety of drivetrain components.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/automotive/index.html
Manitoba	Automotive Technology: Automotive Electrical Systems (40S/E/M)	8700	Grade 12	In this course, students learn about the principles of electricity and electronics as they relate to automotive systems. They diagnose, service, and repair automotive electrical circuits and components.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/automotive/index.html
Manitoba	Automotive Technology: Vehicle Systems Part 1 (40S/E/M)	8701	Grade 12	In this course, students' knowledge in electrical systems is further enhanced by learning about the principles of ignition, control, and communications systems. They diagnose, service, and repair ignition, control, and communications systems.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/automotive/index.html
Manitoba	Automotive Technology: Vehicle Systems Part 2 (40S/E/M)	8702	Grade 12	In this course, students learn about the principles of fuel supply, metering, and vehicle emissions. They use an electronic diagnostic interface to diagnose, service, and repair engine management and emission systems. They learn about hybrid and electrical vehicles.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/automotive/index.html
Manitoba	Automotive Technology: Applied	8703	Grade 12	In this course, students demonstrate the ability to diagnose and correct customer concerns and to complete vehicle repairs to	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/automotive/index.html

	Diagnostic Strategies (40S/E/M)			accepted industry standards. They learn about body components and trim.		
Manitoba	Aviation and Aerospace Technologies: Exploration of Aviation and Aerospace Technologies (15S/E/M, 10S/E/M)	8543	Grade 9	This is an optional half-credit or full-credit course intended for students wishing to sample aviation and aerospace technologies. The curriculum content focuses on an exploration of the maintenance and manufacturing of aircraft.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aviation/index.html
Manitoba	Aviation and Aerospace Technologies: Introduction to Aviation and Aerospace Technologies (20S/E/M)	8544	Grade 10	This course is intended for students wishing to investigate aviation and aerospace technologies. The curriculum content focuses on the maintenance and manufacturing of aircraft.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aviation/index.html
Manitoba	Aviation and Aerospace Technologies: Aircraft Components and Functions (30S/E/M)	8545	Grade 11	This course is intended for students considering specialization in aviation and aerospace technologies. The curriculum content focuses on fabrication of metallic and non-metallic structures and reciprocating engines. Topics include theory of flight and aerodynamics.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aviation/index.html
Manitoba	Aviation and Aerospace Technologies: Aircraft Materials and Fabrication (30S/E/M)	8546	Grade 11	This course is intended for students continuing in the specialization phase of aviation and aerospace technologies. The curriculum content provides an introduction to the materials and fabrication processes of aircraft structures. Topics include airframe sheet metal processes and composite fabrication.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aviation/index.html
Manitoba	Aviation and Aerospace Technologies: Reciprocating	8547	Grade 11	This course is intended for students completing the specialization phase of aviation and aerospace technologies. The curriculum content provides an introduction to the operation and maintenance of reciprocating engines.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aviation/index.html

	Engines (30S/E/M)					
Manitoba	Aviation and Aerospace Technologies: Aircraft Structure and Repair (40S/E/M)	8548	Grade 12	This course is intended for students entering the transition phase of aviation and aerospace technologies. The curriculum content provides an introduction to the construction and repair of metallic and non-metallic structures.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aviation/index.html
Manitoba	Aviation and Aerospace Technologies: Aircraft Electrical Systems (40S/E/M)	8549	Grade 12	This course is intended for students in the transition phase of aviation and aerospace technologies. The curriculum content provides an introduction to aircraft electrical components and functions.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aviation/index.html
Manitoba	Aviation and Aerospace Technologies: Aircraft Systems and Propulsion (40S/E/M)	8561	Grade 12	This course is intended for students in the transition phase of aviation and aerospace technologies. The curriculum content provides an introduction to turbine engines, propellers, hydraulic, pneumatic, pitot-static, and fuel systems. Topics include the inspection and maintenance of the above systems and gas turbine theory.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aviation/index.html
Manitoba	Aviation and Aerospace Technologies: Applied Aviation Aerospace Technologies (40S/E/M)	8562	Grade 12	This course is intended for students transitioning from aviation and aerospace technologies. The curriculum content provides students the opportunity to synthesize their previously learned skills and knowledge to facilitate entry into the workforce.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/aviation/index.html
Manitoba	Baking and Pastry Arts: Exploration of Baking and Pastry Arts (15S/E/M, 10S/E/M)	8231	Grade 9	This is an optional course intended for students wishing to explore the baking and pastry arts. The emphasis is on introductory, hands-on activities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/baking/index.html

Manitoba	Baking and Pastry Arts: Introduction to Baking and Pastry Arts (20S/E/M)	8324	Grade 10	This course is intended to introduce students to a potential career in baking and pastry arts. The emphasis is on hands-on activities, covering a wide spectrum of baking; including cookies, cakes, quick breads, yeast-dough products, pies, and pastries.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/baking/index.html
Manitoba	Baking and Pastry Arts: Quick Breads, Cookies, Doughnuts, and Pies (30S/E/M)	8338	Grade 11	This course is intended for students who are considering a career in baking and pastry arts. The emphasis is on the preparation of quick breads, cookies, doughnuts, and pies.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/baking/index.html
Manitoba	Baking and Pastry Arts: Yeast-Dough Products (30S/E/M)	8339	Grade 11	This course is intended for students who are considering a career in baking and pastry arts. The emphasis is on the preparation of yeast-dough products such as breads, rolls, cinnamon buns, and pretzels.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/baking/index.html
Manitoba	Baking and Pastry Arts: Cakes, Fillings, Icings, and Decorations (30S/E/M)	8358	Grade 11	This course is intended for students who are considering a career in baking and pastry arts. The emphasis is on the preparation of cakes, pastry cream, mousse, icings, and decorations.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/baking/index.html
Manitoba	Baking and Pastry Arts: Tarts and Special Pastries (40S/E/M)	8359	Grade 12	This course is intended for students who are intending to pursue a career in baking and pastry arts. The emphasis is on French, international, modern, elegant, and fancy pastries and desserts.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html
Manitoba	Baking and Pastry Arts: Modern and Classic Desserts, and Plating Techniques (40S/E/M)	8374	Grade 12	This course is intended for students who are intending to pursue a career in baking and pastry arts. The emphasis is on modern and classic desserts, including frozen desserts, and plating technique.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/baking/index.html

Manitoba	Baking and Pastry Arts: Advanced Bread Products (40S/E/M)	8375	Grade 12	This course is intended for students who are intending to pursue a career in baking and pastry arts. The emphasis is on artisan bread, rolls, crackers, unleavened bread, and bannock.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/baking/index.html
Manitoba	Baking and Pastry Arts: Advanced Baking and Pastries (40S/E/M)	8998	Grade 12	This course is intended for students who are intending to pursue a career in baking and pastry arts. The emphasis is on specialty cakes, as well as chocolate, marzipan, and sugar decoration.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/baking/index.html
Manitoba	Broadcast Media Technology: Exploration of Broadcast Media Technology (15S/E/M, 10S/E/M)	9114	Grade 9	This course is designed for students who wish to explore the broadcast media industry. Students develop the skills necessary to produce audio and video projects. They are introduced to the basic principles and concepts involved in producing content for conventional broadcasting and new media.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/broadcast_media/index.html
Manitoba	Broadcast Media Technology: Introduction to Broadcast Media Technology (20S/E/M)	9116	Grade 10	This course is designed for students who are interested in broadcast media. Students are introduced to the tasks and equipment used in audio, video, and film production in a variety of projects. They learn the basic skills, duties, and roles involved in the pre-production, production, and post-production of different types of media. They develop a stronger understanding of the importance of media in today's society.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/broadcast_media/index.html
Manitoba	Broadcast Media Technology: Multi-Camera Production for Broadcast Media (30S/E/M)	9117	Grade 11	This course focuses on basic multi-camera production in a studio setting. Students are introduced to the various roles involved in a studio and control room environment. They develop an understanding of and create scripts, lineups, and content for their productions. They produce various types of video programs in a multi-camera production environment.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/broadcast_media/index.html
Manitoba	Broadcast Media Technology:	9118	Grade 11	This course focuses on non-linear post-production for broadcast media. Students are introduced to non-linear editing software and learn basic editing skills. They set up software, manage files,	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/broadcast_media/index.html

	Video Post-Production for Broadcast Media (30S/E/M)			and import and export projects. They are exposed to compositing and graphic design elements in the editing software.		
Manitoba	Broadcast Media Technology: Single Camera Production for Broadcast Media (30S/E/M)	9119	Grade 11	This course is designed to enhance all aspects of single camera production when on location or in the field. Students discuss and enhance previous skills in all areas of production. They learn theory related to lighting, camera functions and operation, script writing, storyboarding, and editing techniques. This course introduces interviewing techniques and three-point lighting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/broadcast_media/index.html
Manitoba	Broadcast Media Technology: Electronic News Gathering for Broadcast Media (40S/E/M)	9120	Grade 12	This course focuses on television news field reporting. Students discuss and produce news items for various media platforms. They are assigned various job roles in electronic newsgathering, including reporting, producing, camera operation, and post-production editing. Students analyze and critique various news outlets and styles of electronic news gathering.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/broadcast_media/index.html
Manitoba	Broadcast Media Technology: Documentary and Film Production for Broadcast Media (40S/E/M)	9121	Grade 12	This course is designed to expose students to the film industry by having them produce short films and documentaries either on location or in a studio or on a sound stage. Students learn the various job roles, as well as all areas of production. They analyze and critique various films and documentaries for style, storytelling, and cultural impact.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/broadcast_media/index.html
Manitoba	Broadcast Media Technology: Advanced Multi-Camera Production for Broadcast	9122	Grade 12	This course is designed to provide an in-depth analysis of multi-camera video production for news and sporting events in a studio setting. It includes advanced training in multi-camera video production. Students produce professional quality newscasts or live sports coverage upon the completion of this course.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/broadcast_media/index.html

	Media (40S/E/M)					
Manitoba	Broadcast Media Technology: Applied Broadcast Media Technology (40S/E/M)	9123	Grade 12	In this course, students initiate and manage the production and transmission of projects. They create a portfolio and a résumé to explore employment opportunities. Students learn the business practices of media outlets, as well as self-marketing strategies.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/broadcast_media/index.html
Manitoba	Cabinet and Furniture Making: Exploration of Cabinetmaking (15S/E/M, 10S/E/M)	9176	Grade 9	This optional course allows students to explore cabinetmaking. It can be offered as either a half credit or a full credit.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/cabinet_furniture/index.html
Manitoba	Cabinet and Furniture Making: Introduction to Cabinetmaking (20S/E/M)	9177	Grade 10	This course gives students a broad, introductory overview of cabinet and furniture making. Students learn about hand, power, pneumatic, stationary, measuring, and layout tools and equipment, their applications, and procedures for their use. Students develop basic knowledge, skills, and attitudes related to cabinet and furniture making.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/cabinet_furniture/index.html
Manitoba	Cabinet and Furniture Making: Cabinetmaking Tools and Equipment (30S/E/M)	9178	Grade 11	This course is a continuation of Course 9177. Students learn more advanced operations of tools and equipment, along with their set-up and maintenance, while completing a project.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/cabinet_furniture/index.html
Manitoba	Cabinet and Furniture Making: Cabinet and Furniture Design (30S/E/M)	9179	Grade 11	In this course, students learn the principles of cabinet and furniture design, and learn to produce shop drawings.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/cabinet_furniture/index.html

Manitoba	Cabinet and Furniture Making: Cabinetry (30S/E/M)	9181	Grade 11	In this course, students are introduced to the construction of residential cabinetry. Students learn about cabinetmaking materials, fasteners, adhesives, and hardware, while constructing a basic cabinet that incorporates a drawer and a door.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/cabinet_furniture/index.html
Manitoba	Cabinet and Furniture Making: Furniture Making (40S/E/M)	9182	Grade 12	In this course, students are introduced to furniture construction. Students learn about furniture woods, adhesives, and hardware. They produce joints as part of furniture-making projects.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/cabinet_furniture/index.html
Manitoba	Cabinet and Furniture Making: Advanced Cabinetry (40S/E/M)	9183	Grade 12	This course is a continuation of Course 9181 (Cabinet and Furniture Making: Cabinetry). Students design a kitchen and participate in the construction of a set of cabinets.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/cabinet_furniture/index.html
Manitoba	Cabinet and Furniture Making: Advanced Furniture Making (40S/E/M)	9185	Grade 12	This course is a continuation of Course 9182 (Cabinet and Furniture Making: Furniture Making). Students complete an advanced furniture-making project of their own design.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/cabinet_furniture/index.html
Manitoba	Cabinet and Furniture Making: Applied Cabinet and Furniture Making (40S/E/M)	9186	Grade 12	In this course, students synthesize knowledge, skills, and attitudes they have learned in previous courses in order to complete projects. They prepare to transition into the cabinet and furniture making industry.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/cabinet_furniture/index.html
Manitoba	Carpentry: Introduction to Carpentry (15S/E/M, 10S/E/M)	8584	Grade 9	This optional course allows students to explore carpentry. It can be offered as either a half- or full-credit course.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/carpentry/index.html

Manitoba	Carpentry: Carpentry Fundamentals (20S/E/M)	8585	Grade 10	This course gives students a broad, introductory overview to the carpentry cluster. Students develop basic knowledge, skills, and attitudes related to carpentry.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/carpentry/index.html
Manitoba	Carpentry: Carpentry Tools and Equipment (30S/E/M)	9188	Grade 11	In this course, students learn about hand, power, pneumatic, stationary, measuring, and layout tools and equipment, and their applications, maintenance, and procedures for use.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/carpentry/index.html
Manitoba	Carpentry: Framing (30S/E/M)	9189	Grade 11	In this course, students learn basic framing techniques.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/carpentry/index.html
Manitoba	Carpentry: Interior/Exterior or Finishing (30S/E/M)	9190	Grade 11	In this course, students learn basic installation techniques for interior and/or exterior finishes.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/carpentry/index.html
Manitoba	Carpentry: Surveying and Concrete (40S/E/M)	9191	Grade 12	In this course, students demonstrate knowledge of site layout tools, equipment, and processes. They demonstrate knowledge of concrete and concrete products, footings, slab-on-grade, grade beam forms, and wall forms.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/carpentry/index.html
Manitoba	Carpentry: Advanced Framing (40S/E/M)	9192	Grade 12	This course is a continuation of Course 9189 (Carpentry: Framing). In this course, students extend what they learned in that course.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/carpentry/index.html
Manitoba	Carpentry: Carpentry Millwork (40S/E/M)	9193	Grade 12	In this course, students are introduced to the knowledge, skills, and attitudes related to the manufacturing and installation of millwork.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/carpentry/index.html
Manitoba	Carpentry: Applied Carpentry (40S/E/M)	9194	Grade 12	In this course, students synthesize knowledge, skills, and attitudes learned in previous courses to complete projects. They prepare for Level 1 Accreditation with Apprenticeship Manitoba and demonstrate knowledge of the Trade Safety Awareness Manual.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/carpentry/index.html
Manitoba	Child Care: Introduction to	8650	Grade 9	This curriculum is under review and is not available online.	N/A	N/A

	Child Care (10S/E/M)					
Manitoba	Child Care: Introduction to Child Care (15S/E/M)	8651	Grade 9	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Introduction to Infants (20S/E/M)	8652	Grade 10	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Introduction to Preschool (20S/E/M)	8653	Grade 10	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Children's Behaviour (30S/E/M)	8654	Grade 11	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Curriculum Ideas (30S/E/M)	8655	Grade 11	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Human Development (30S/E/M)	8656	Grade 11	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Child Care Techniques (30S/E/M)	8657	Grade 11	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Introduction to	8658	Grade 11	This curriculum is under review and is not available online.	N/A	N/A

	School Age (30S/E/M)					
Manitoba	Child Care: Introduction to Applied Child Care (30S/E/M)	8659	Grade 11	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Historical Perspectives (30S/E/M)	8660	Grade 11	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Communicatio n Skills (30S/E/M)	8661	Grade 11	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Family Dynamics and Child Abuse (40S/E/M)	8662	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Curriculum Planning (40S/E/M)	8663	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Advanced Preschool (40S/E/M)	8664	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Advanced School Age (40S/E/M)	8665	Grade 12	This curriculum is under review and is not available online.	N/A	N/A

Manitoba	Child Care: Applied Child Care (40S/E/M)	8666	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Child Care: Advanced Applied Child Care (40S/E/M)	8667	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Collision Repair and Refinishing Technology: Exploration of Collision Repair and Refinishing Technology (15S/E/M, 10S/E/M)	9028	Grade 9	This is an optional course intended for students wishing to sample the trade. The emphasis is on hands-on learning activities. Students learn to follow safety procedures, select, and use common hand and power tools, operate a metal inert gas (MIG) welder on sheet metal, repair minor damage, and prepare panels for painting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/collision/index.html
Manitoba	Collision Repair and Refinishing Technology: Introduction to Collision Repair and Refinishing Technology (20S/E/M)	9029	Grade 10	In this course, the emphasis is on hands-on learning activities. Students learn to follow safety procedures, select and use hand and power tools and abrasives, operate a metal inert gas (MIG) welder on sheet metal, operate oxyacetylene welding and cutting equipment, repair minor damage, apply body filler, prepare panels for painting, and detail vehicles.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/collision/index.html
Manitoba	Collision Repair and Refinishing Technology: Fundamentals of Collision	9030	Grade 11	In this course, students learn about vehicle construction, and the use of materials, fasteners, and adhesives. They apply measuring and estimating skills to restore vehicles to original manufacturer's specifications. They select materials, tools, and equipment for surface preparation, clean and sand vehicles,	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/collision/index.html

	Repair and Refinishing Technology (30S/E/M)			apply masking materials, operate and maintain paint spray guns, and demonstrate paint shop health and safety practices.		
Manitoba	Collision Repair and Refinishing Technology: Automotive Metals and Welding (30S/E/M)	9031	Grade 11	In this course, students learn about metallurgy, focusing on the types of metals used in vehicle construction. Students develop welding skills while operating and maintaining different types of welding equipment, such as metal inert gas (MIG), oxyacetylene, plasma arc, and resistance spot welding equipment.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/collision/index.html
Manitoba	Collision Repair and Refinishing Technology: Corrosion Protection (30S/E/M)	9032	Grade 11	In this course, students learn about corrosion, oxidation, and electrolysis, and the theory behind corrosion protection. They learn to select materials, tools, and equipment for surface preparation, clean and sand substrates, apply masking materials, and operate and maintain spray guns in order to protect surfaces from corrosion.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/collision/index.html
Manitoba	Collision Repair and Refinishing Technology: Damage Analysis and Structural Repairs (40S/E/M)	9033	Grade 12	In this course, students increase their knowledge of and skills in analyzing damage, planning repairs, and measuring and straightening. They repair and replace damaged panels and structural components, repair and replace glass components, and restore corrosion protection.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/collision/index.html
Manitoba	Collision Repair and Refinishing Technology: Weld-On and Bolt-On Panel Replacement (40S/E/M)	9034	Grade 12	In this course, students learn to remove and replace interior/exterior trim and hardware, and transfer components, replace bolt-on and weld-on body panels, replace outer door panels, and adjust body panels and bumper assemblies.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/collision/index.html

Manitoba	Collision Repair and Refinishing Technology: Surface Preparation and Refinishing (40S/E/M)	9035	Grade 12	In this course, students learn to prepare vehicles for spot repairs, panel repairs, blending, and complete refinishing. Students mix and prepare paints for spraying. They refinish, reassemble, and clean vehicles for delivery, and follow paint shop health and safety practices.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/collision/index.html
Manitoba	Collision Repair and Refinishing Technology: Colour Theory and Career Preparation (40S/E/M)	9036	Grade 12	In this course, students learn colour theory and tinting principles as they spot repair and blend with refinishing materials, refinish plastic parts, perform final detailing, and correct common paint problems. They learn the skills required to transition from high school to the workplace and create a portfolio and resumé.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/collision/index.html
Manitoba	Culinary Arts: Exploration of the Culinary Arts (15S/E/M, 10S/E/M)	8790	Grade 9	This is an optional course intended for students wishing to explore the culinary arts. The emphasis is on hands-on activities. Students are introduced to sanitation and safety, tools and equipment, knife handling and safety, and general preparation procedures for different types of food and beverage.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/culinary_arts/index.html
Manitoba	Culinary Arts: Cooking Principles (20S/E/M)	8791	Grade 10	This course focuses on an introduction to the Culinary Arts. The emphasis is on hands-on activities. Students learn the specifics of sanitation and safety in a commercial kitchen. They learn about tools and equipment, knife handling and safety, and general preparation procedures for different types of food and beverage. The course provides information and practical experience on the effects of heat on food, setting up workstations, cooking terms and methods, principles for seasoning and flavouring, and how to read and follow recipes. Students practice measurement and scaling techniques.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/culinary_arts/index.html
Manitoba	Culinary Arts: Garde Manger (30S/E/M)	8792	Grade 11	This course focuses on the cold kitchen. Students learn to prepare salads and dressings, sandwiches, canapés, and hors d'oeuvres. Garnishing techniques are emphasized with the presentation of completed products on platters and plates.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/culinary_arts/index.html

Manitoba	Culinary Arts: Patisserie and Baking (30S/E/M)	8793	Grade 11	This course focuses on the theory behind and preparation of patisserie and baking products such as yeast and non-yeast doughs, pies, cakes, tortes, icings, pastries, shortbreads, cookies, custards, and fillings.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/culinary_arts/index.html
Manitoba	Culinary Arts: Vegetables, Fungi, Starches, and Farinaceous Products (30S/E/M)	8794	Grade 11	This course focuses on the theory behind and preparation of vegetables, fruits, potatoes, pasta, rice, and other grains and farinaceous products.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/culinary_arts/index.html
Manitoba	Culinary Arts: Stocks, Soups, and Sauces (40S/E/M)	8795	Grade 12	This course focuses on the theory behind, and preparation of, stocks, soups, and the five mother sauces and secondary sauces.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/culinary_arts/index.html
Manitoba	Culinary Arts: Breakfast and Dairy (40S/E/M)	8796	Grade 12	This course focuses on the theory behind and preparation of a wide range of breakfast items such as egg-based dishes, pancakes, crepes, waffles, French toast, breakfast pastries, and breakfast meats. Students learn about the theory behind and preparation of dairy products and beverages. They examine the theory behind and laws pertaining to the use and serving of alcoholic beverages.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/culinary_arts/index.html
Manitoba	Culinary Arts: Menu Planning and Food Costing (40S/E/M)	8797	Grade 12	This course focuses on the theory behind and preparation of a variety of meats, poultry, fish, and seafood. Students learn about the composition, structure, quality, grading, and basic cuts of meats, poultry, fish, and seafood.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/culinary_arts/index.html
Manitoba	Culinary Arts: Meats, Poultry, Fish, and Seafood (40S/E/M)	8798	Grade 12	This course focuses on the planning of classical and modern menus, food costing, controlling costs, price changes, receiving/storing/ordering food, recording inventory, developing menu prices, determining yield factors, and setting food cost percentages. Students learn the basic principles of nutrition and Canada's Food Guide, as well as their use in planning healthy menus. Students learn about managing culinary facilities, such as restaurants, cafeterias, and hotel banquet rooms, preparing	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/culinary_arts/index.html

				them for further studies in management and enabling them to be better team members. They learn about the place of alcoholic beverages in the culinary arts, as well as pertinent regulations.		
Manitoba	Dental Assisting: Introduction to Dental Assisting (30S/E/M)	8563	Grade 11	<p>This course corresponds with the Red River College courses, “Nutrition and Dental Anatomy” and “Professional Development”. It addresses the:</p> <ul style="list-style-type: none"> ▪ importance of nutrition and its relation to general and dental health; ▪ development and anomalies of primary and permanent dentition; ▪ identification of primary and permanent dentition using tooth morphology and landmarks; ▪ history, ethics, and jurisprudence of the dental profession; and ▪ roles and responsibilities of the dental team, with emphasis on the dental assistant. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_asst/index.html
Manitoba	Dental Assisting: Human Body Systems (30S/E/M)	8564	Grade 11	<p>This theory-based course corresponds with the Red River College course, “Life Sciences”. It addresses:</p> <ul style="list-style-type: none"> ▪ systems of the body, with emphasis on the head and neck; and ▪ the study of various lesions found in the oral cavity pharmacology, as it relates to dentistry. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_asst/index.html
Manitoba	Dental Assisting: Restorative Dentistry (30S/E/M)	8593	Grade 11	<p>This course corresponds with the Red River College course, “Operative Dentistry”. It addresses the:</p> <ul style="list-style-type: none"> ▪ formation and repair of dental decay; ▪ roles and responsibilities of the dental assistant for restorative procedures; ▪ manipulation of dental materials used in restorative dentistry; and ▪ process of fabricating mouth guards and whitening trays 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_asst/index.html
Manitoba	Dental Assisting: Dental Office Administration (30S/E/M)	8594	Grade 11	<p>This course corresponds with the Red River College course, “Communications”. It addresses:</p> <ul style="list-style-type: none"> ▪ the effective interpersonal relations and written communication; ▪ dental office management and dental software; ▪ job-search skills; and 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_asst/index.html

				<ul style="list-style-type: none"> the development and implementation of dental health presentations. 		
Manitoba	Dental Assisting: Intraoral Skills I (40S/E/M)	8606	Grade 12	<p>This course corresponds with the Red River College courses, “Moisture Control, and Radiology” and “Sealants”. It addresses:</p> <ul style="list-style-type: none"> moisture control techniques and their applications; the principles and safety of dental radiography and digital imaging; the process of exposing, processing, and mounting intraoral radiographs; and indications for and placement of sealant. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_asst/index.html
Manitoba	Dental Assisting: Intraoral Skills II (40S/E/M)	8607	Grade 12	<p>This course corresponds with the Red River College courses, “Polishing and Fluoride, Additional Skills” and “Impressions”. It addresses:</p> <ul style="list-style-type: none"> the anatomy of the oral cavity, with emphasis on periodontal structures; oral deposits and their removal; rubber cup polishing and topical fluoride application; patient education on oral hygiene techniques; the placement of desensitizing agents, topical anaesthetic, bases, liners, matrix bands, and wedges, and the removal of sutures; and techniques used for preliminary alginate impressions 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_asst/index.html
Manitoba	Dental Assisting: Dental Specialties (40S/E/M)	8608	Grade 12	<p>This course corresponds with the Red River College course, “Dental Specialties”. It addresses the:</p> <ul style="list-style-type: none"> role of the dental assistant in periodontics, oral surgery, endodontics, prosthodontics, and orthodontics; and manipulation of dental materials used in dental specialties. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_asst/index.html
Manitoba	Dental Assisting: Introduction to Patient Care (40S/E/M)	8609	Grade 12	<p>This course corresponds with the Red River College courses, “Diagnosis and Patient Management” and “Infection Control and Safety”. It addresses:</p> <ul style="list-style-type: none"> techniques used during clinical examinations and diagnostic procedures; documentation and charting of patient records; role of the dental assistant in the management of patients with special needs and with dental and medical emergencies; techniques used for obtaining vital signs; 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_asst/index.html

				<ul style="list-style-type: none"> ▪ foundations of microbiology and techniques to prevent the transmission of disease; and ▪ principles of the Workplace Hazardous Materials Information System. 		
Manitoba	Dental Technology: Introduction to Dental Technology Removable Prosthesis (30S/E/M)	8624	Grade 11	This course introduces students to the topics of safety, anatomy, physiology, model preparation, the mechanics and movements of the jaw, and the preparation of waxing for denture construction.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_tech/index.html
Manitoba	Dental Technology: Design and Fabrication of Removable Prosthesis (30S/E/M)	8625	Grade 11	This course addresses the topics of safety, anatomy, physiology, and the design and fabrication of removable dental appliances, as well as the repair of these appliances. It includes the study of partial denture design and fabrication.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_tech/index.html
Manitoba	Dental Technology: Introduction to Orthodontics (30S/E/M)	8626	Grade 11	This course includes a review of safety and the science of dental procedures, while introducing the skills required for manipulating wires and acrylic to fabricate orthodontic appliances. The anatomical study helps students understand tooth repositioning and the appliances associated with orthodontics.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_tech/index.html
Manitoba	Dental Technology: Design and Fabrication of Orthodontic Appliances (30S/E/M)	8627	Grade 11	This course focuses on anatomy and the science of dental materials at an advanced level, as well as on the design and fabrication of functional orthodontic appliances, bruxism appliances, bleaching trays, and apnea devices.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_tech/index.html
Manitoba	Dental Technology: Introduction to Fixed	8628	Grade 12	This course addresses the topics of safety, anatomy, physiology, the science of dental materials, and model preparation. The study of metallurgy and its function provides the foundation for crown and bridge construction.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_tech/index.html

	Prosthodontics : Crown and Bridge Technology (40S/E/M)					
Manitoba	Dental Technology: Design and Fabrication of Fixed Prosthodontics : Crown and Bridge Technology (40S/E/M)	8629	Grade 12	This course focuses on the topics of safety, anatomy, physiology, and the design, fabrication, and repair of fixed dental appliances. It includes the study of long-span bridge fabrication and advanced substructure design.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_tech/index.html
Manitoba	Dental Technology: Introduction to Dental Ceramic Technology (40S/E/M)	8670	Grade 12	This course introduces the study of dental ceramic technology. Students manipulate materials to construct a variety of ceramic-fused-to-metal restorations. The course includes the study of anatomy, aesthetics, function, and colour to help introduce the science of various dental restorations.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_tech/index.html
Manitoba	Dental Technology: Design and Fabrication of Dental Ceramic Restorations (40S/E/M)	8671	Grade 12	In this course, students progress into advanced all-ceramic restorations and multiple-unit restorations. This incorporates computer-aided design/computer-aided manufacturing (CAD/CAM) technology in design and milling techniques.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/dental_tech/index.html
Manitoba	Design Drafting: Introduction to Design Drafting (15S/E/M, 10S/E/M)	8434	Grade 9	This course is intended for students wishing to sample architectural/engineering/interior design drafting. The curriculum content focuses on an exploration of design drafting. The emphasis is on exploring artistic and technical computer drawings using project-based activities. Students present their design solutions to others. Topics include introductions to: freehand sketching, principles of design, drafting standards, materials and processes, computer modelling,	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/design_drafting/index.html

				architectural/engineering basics. It includes an exploration of safety, employability skills, career development, sustainability, and new and emerging technologies in design drafting.		
Manitoba	Design Drafting: Design Drafting Essentials 1 (20S/E/M)	8435	Grade 10	This course is intended for students wishing to explore architectural/mechanical design drafting. The curriculum content focuses on an introduction to architectural/mechanical design drafting. The emphasis is on project-based learning activities. Students present their design solutions to others. Topics include: freehand sketching, principles of design, drafting standards, materials and processes, computer modelling, architectural/mechanical basics The course includes an introduction to safety, employability skills, career development, sustainability, and new and emerging technologies in design drafting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/design_drafting/index.html
Manitoba	Design Drafting: Design Drafting Essentials 2 (30S/E/M)	8436	Grade 11	This course is intended for students wishing to specialize in architectural/mechanical design drafting. The curriculum content focuses on architectural/mechanical design drafting. Students present their design solutions to others. The emphasis is on project-based learning activities. Topics include: freehand sketching, principles of design, drafting standards, materials and processes, computer modelling, architectural/mechanical concepts, architectural plan and elevation drawing, mechanical multi-view drawings The course includes safety, employability skills, career development, sustainability, and new and emerging technologies in design drafting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/design_drafting/index.html
Manitoba	Design Drafting: Architectural Design Drafting (30S/E/M)	8437	Grade 11	This course is intended for students continuing in the specialization phase of architectural design drafting. The curriculum content focuses on the design of a residence. Students present their design solutions to others. Topics include: freehand sketching, principles of design, drafting and construction standards, construction materials and processes, computer modelling and selection of building components, floor plan and elevation drawings, and interior design. The course includes safety, employability skills, career development,	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/design_drafting/index.html

				sustainability, and new and emerging technologies related to architectural design.		
Manitoba	Design Drafting: Engineering Design Drafting (30S/E/M)	8438	Grade 11	This course is intended for students continuing in the specialization phase of engineering design drafting. The curriculum content focuses on engineering product design. Students present their design solutions to others. Topics include: freehand sketching, principles of design, drafting and engineering standards, manufacturing materials, fasteners, standard components, and processes, computer model parts, assemblies, and sub-assemblies, part and assembly drawings. The course includes safety, employability skills, career development, sustainability, and new and emerging technologies related to engineering design.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/design_drafting/index.html
Manitoba	Design Drafting: Advanced Engineering Design Drafting (40S/E/M)	8439	Grade 12	This course is intended for students in the transition phase of engineering design drafting. The curriculum content focuses on engineering product design and manufacturing. Students present their design solutions to others. Topics include: principles of design, drafting, engineering, and manufacturing standards, manufacturing materials, fasteners, standard components, and processes, computer model parts, assemblies, and sub-assemblies for visualization, simulations, and finite element analysis, part, assembly, and development drawings. Students apply safety procedures and employability skills independently. Students continue to develop their knowledge, skills, and attitudes in the areas of career development, sustainability, and new and emerging technologies in engineering design drafting and manufacturing.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/design_drafting/index.html
Manitoba	Design Drafting: Advanced Architectural Design Drafting (40S/E/M)	8648	Grade 12	This course is intended for students in the transition phase of architectural design drafting. The curriculum content provides for an overview of residential building systems. Students present their design solutions to others. Topics include: drafting and construction standards, building materials and systems (e.g., foundation, electrical, HVAC), architectural technical drawings, including foundation, electrical, HVAC, site plans, and section and detail drawings, civil engineering concepts (structural, topographical). Students apply safety procedures and	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/design_drafting/index.html

				employability skills independently. Students continue to develop their knowledge, skills, and attitudes in the areas of career development, sustainability, and new and emerging technologies in architectural design drafting.		
Manitoba	Design Drafting: Applied Architectural Design Drafting (40S/E/M)	8649	Grade 12	This course is intended for students transitioning to industry or post-secondary education from design drafting. Teachers have the flexibility of focusing on applied architectural and/or applied civil engineering projects. The curriculum content provides for the application of designing client-specific residential architectural and/or civil engineering construction projects. Communication with the client and construction professionals determine the project scope and proposed design solution. Students design their proposal, create a presentation, and present their design solutions to others. Students apply safety procedures and employability skills independently. They demonstrate their knowledge, skills, and attitudes in career and portfolio development, sustainability, and new and emerging technologies in architectural and civil design drafting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/design_drafting/index.html
Manitoba	Design Drafting: Applied Engineering Design Drafting (40S/E/M)	8669	Grade 12	This course is intended for students transitioning to industry or post-secondary education from design drafting. The curriculum content provides for the application of the design process for client-specific engineering and manufacturing projects. Communication with the client and engineering professionals determine the project scope and proposed design solutions. Students design their proposal, create a presentation with working drawings, and present their design solutions to others. Students apply safety procedures and employability skills independently. Students demonstrate their knowledge, skills, and attitudes in the areas of career and portfolio development, sustainability, and new and emerging technologies in engineering design drafting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/design_drafting/index.html
Manitoba	Electrical Trades Technology: Exploration of Electrical	9054	Grade 9	This is an optional course intended for students wishing to sample the electrical trades. The emphasis is on hands-on activities. Students are introduced to safety, tools, and equipment for electrical/electronic systems.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electrical/index.html

	Trades Technology (15S/E/M, 10S/E/M)					
Manitoba	Electrical Trades Technology: Introduction to Electrical Trades Technology (20S/E/M)	9055	Grade 10	In this course, students are introduced to basic electrical concepts. They begin to design and wire circuits. Students are introduced to safety, tools, and equipment for electrical/electronic systems.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electrical/index.html
Manitoba	Electrical Trades Technology: Electrical Trades DC Fundamentals (30S/E/M)	9056	Grade 11	In this course, students are introduced to electrical/electronics technology by studying DC circuit theory. Areas of study include instrumentation, measurement, component recognition, value determination, and fabrication. Students learn Ohm's law as it relates to series, parallel, and combination circuits.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electrical/index.html
Manitoba	Electrical Trades Technology: Residential Wiring (30S/E/M)	9057	Grade 11	In this course, students are introduced to Canadian Electrical Code (CEC) standards. They learn to design, install, test, and troubleshoot branch circuits, and become familiar with the tools, techniques, materials, and devices associated with it. Students are introduced to blueprint reading.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electrical/index.html
Manitoba	Electrical Trades Technology: Electrical Wiring Methods (30S/E/M)	9058	Grade 11	In this course, students are introduced to alternative wiring methods and the CEC codes associated with them. They work with various types of raceways and cables, and become familiar with the tools, techniques, materials, and devices associated with them.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electrical/index.html
Manitoba	Electrical Trades Technology:	9059	Grade 12	In this course, students build on the knowledge and skills that they learned in residential wiring, including home automation technologies, and service and demand load calculations.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electrical/index.html

	Advanced Residential Wiring (40S/E/M)					
Manitoba	Electrical Trades Technology: Electrical Trades AC Fundamentals (40S/E/M)	9060	Grade 12	In this course, students become familiar with AC theory, including electrical fundamentals, magnetism, electromagnetism, and RLC circuits. Students focus on cross-curricular knowledge from mathematics and physics.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electrical/index.html
Manitoba	Electrical Trades Technology: Advanced Electrical Wiring Methods (40S/E/M)	9061	Grade 12	In this course, students build on the knowledge and skills that they learned in Electrical Wiring Methods. Students are introduced to motor controls, PLCs, raceway calculations, voice data video (VDV) structured cabling, as well as retrofitting and/or upgrading existing electrical installations.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electrical/index.html
Manitoba	Electrical Trades Technology: Applied Electrical Trades Technology (40S/E/M)	9062	Grade 12	In this course, students synthesize and apply knowledge and skills acquired in all previous courses to design, install, troubleshoot, and document electrical circuits with a minimum of supervision and direction. Students focus on skills and activities to ease in the transition to employment or post-secondary education.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electrical/index.html
Manitoba	Electronics Technology: Exploration of Electronics Technology (15S/E/M, 10S/E/M)	9037	Grade 9	This optional course can be taught as a half or full credit. Students explore various aspects of the electronics industry that equips them to make an informed decision about pursuing more courses in this subject area. Students learn about terminology, basic electrical theory, and electronic test equipment.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html

Manitoba	Electronics Technology: Introduction to Electronics Technology (20S/E/M)	9038	Grade 10	In this course, students are introduced to electronics technology by studying DC circuit theory. Areas of study include instrumentation, measurement, component recognition, value determination, and fabrication. Students learn Ohm's Law as it relates to series, parallel, and combination circuits.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electronics/index.html
Manitoba	Electronics Technology: Electronics AC Circuit Fundamentals (30S/E/M)	9039	Grade 11	This course builds on the electrical theory learned in Introduction to Electronics Technology. It focuses on AC waveforms and how they interact with reactive components in RL, RC, and RCL series and parallel circuits. They explore frequency-sensitive circuits.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electronics/index.html
Manitoba	Electronics Technology: Semiconductor Technology and Signal Devices (30S/E/M)	9048	Grade 11	In this course, students learn about semiconductor materials and device construction, and how they affect current flow. They learn about low power signal devices, such as diodes and transistors, and how they are used in simple circuits.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electronics/index.html
Manitoba	Electronics Technology: Semiconductor Power Devices (30S/E/M)	9049	Grade 11	This course builds on the semiconductor theory learned in Semiconductor Technology and Signal Devices. It focuses on power devices, such as thyristors, power transistors, and MOSFETs, as well as their applications.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electronics/index.html
Manitoba	Electronics Technology: Digital Devices and Basic Logic (40S/E/M)	9050	Grade 12	This course focuses on the branch of electronics technology dealing with binary states. Students learn the difference between analog and digital signals as well as the different number systems employed in digital systems. Students learn the basic logic gates and how they are combined to solve digital logic problems.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electronics/index.html
Manitoba	Electronics Technology: Advanced Digital Systems (40S/E/M)	9051	Grade 12	This course builds on the skills and theory learned in Digital Devices and Basic Logic. It focuses on higher-level functions such as multiplexers, decoders, counters, displays, etc.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electronics/index.html

Manitoba	Electronics Technology: Microprocessors (40S/E/M)	9052	Grade 12	This course focuses on the branch of digital logic dealing with programmable devices. Students learn basic programming control structures and how to use microprocessors to perform rudimentary functions.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electronics/index.html
Manitoba	Electronics Technology: Microprocessor Applications (40S/E/M)	9053	Grade 12	This course builds on the skills and theory learned in Microprocessors. It focuses on higher-level functions such as analog to digital and digital to analog conversion, pulse-width modulation, and frequency sampling.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/electronics/index.html
Manitoba	Esthetics: Nail Technology: Exploration of Esthetics (15S/E/M, 10S/E/M)	9063	Grade 9	This is an optional course intended for students wishing to sample esthetics. It provides entry-level instruction in nail technology and/or skin care technology. Students can receive either a half credit or a full credit.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/esthetics/index.html
Manitoba	Esthetics: Nail Technology: Introduction to Esthetics (20S/E/M)	9064	Grade 10	This course introduces students to nail technology and skin care technology. It is a course for both professions, containing common elements from each. Students in this course are required to describe some introductory nail and skin care services. They are not required to demonstrate procedures in the area in which the teacher is not certified. For example, a teacher who is a certified nail technician, but not a certified skin care technician is not required to have students demonstrate skin care procedures, and vice versa.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/esthetics/index.html
Manitoba	Esthetics: Nail Technology: Manicure and Pedicure Treatments (30S/E/M)	9065	Grade 11	This course places an emphasis on manicures and pedicures, massage, treatments, gel nail polish services, and intermediate nail art.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/esthetics/index.html
Manitoba	Esthetics: Nail Technology: Artificial Nails (40S/E/M)	9066	Grade 12	This course places an emphasis on gel and acrylic nails, 3-D nail art, and nail enhancements.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/esthetics/index.html

Manitoba	Esthetics: Nail Technology: Applied Nail Technology (40S/E/M)	9067	Grade 12	This course places an emphasis on aromatherapy, reflexology, and advanced airbrushing services, business practices, and preparation for the Provincial Nail Technician Examinations.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/esthetics/index.html
Manitoba	Esthetics: Skin Care Technology: Basic Skin Care (30S/E/M)	9068	Grade 11	This course places an emphasis on client care, consultation, basic skin analysis, safety and sanitation, deep cleansing, and exfoliation.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/esthetics/index.html
Manitoba	Esthetics: Skin Care Technology: Intermediate Skin Care (30S/E/M)	9069	Grade 11	This course places an emphasis on intermediate skin analysis, skin types, product knowledge, massage, home maintenance, and electrical modalities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/esthetics/index.html
Manitoba	Esthetics: Skin Care Technology: Advanced Skin Care (30S/E/M)	9074	Grade 11	This course places an emphasis on collagen treatments and chemical peels, advanced massage movements, and facial machines.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/esthetics/index.html
Manitoba	Esthetics: Skin Care Technology: Applied Skin Care (40S/E/M)	9075	Grade 12	This course places an emphasis on specialized masks, and demonstrating the practical skills associated with a variety of facial treatments.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/esthetics/index.html
Manitoba	Esthetics: Skin Care Technology: Hair Removal (40S/E/M)	9076	Grade 12	This course places an emphasis on chemical and physical depilatories, including waxing and sugaring, tweezing, and lash and brow enhancements.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/esthetics/index.html

Manitoba	Esthetics: Skin Care Technology: Makeup Artistry (40S/E/M)	9077	Grade 12	This course places an emphasis on daytime, evening, bridal, fantasy, and mature makeup application, as well as specialized makeup application.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/esthetics/index.html
Manitoba	Esthetics: Skin Care Technology: Spa Services (40S/E/M)	9078	Grade 12	This course places an emphasis on aromatherapy, reflexology, hot stone therapy, massage techniques, body treatments, and preparation for the Provincial Skin Care Technician Examinations.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/esthetics/index.html
Manitoba	Fashion Design and Technology: Exploration of Fashion Design and Technology (15S/E/M, 10S/E/M)	9124	Grade 9	This optional course is designed for students to explore fashion. Students learn the basics of the fashion industry, integrating historical influences with current fashion trends. Students construct a final project incorporating techniques from the sewing and patternmaking portfolios created.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/fashion/index.html
Manitoba	Fashion Design and Technology: Introduction to Fashion Design and Technology (20S/E/M)	9125	Grade 10	This course is designed for students who are interested in fashion. Students study the elements and principles of design and the evolution of fashion. Students design and construct a final garment incorporating techniques from the sewing and patternmaking portfolios created.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/fashion/index.html
Manitoba	Fashion Design and Technology: Knitwear Design and Construction (30S/E/M)	9126	Grade 11	This course provides an overview of knitwear techniques. Students study the anatomy, theory, and evolution of knitwear. Students design and create knitwear garments incorporating techniques from the sewing and patternmaking portfolio created.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/fashion/index.html

Manitoba	Fashion Design and Technology: Semi-Formal Wear Design and Construction (30S/E/M)	9127	Grade 11	This course provides an overview of shirt-, skirt-, and dress-making techniques. Students study the anatomy, theory, and evolution of shirts, skirts, and dresses. Students design and create garments incorporating techniques from the sewing and patternmaking portfolios created.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/fashion/index.html
Manitoba	Fashion Design and Technology: Pant Design and Construction (30S/E/M)	9128	Grade 11	This course provides an overview of pant construction techniques. Students study the anatomy, theory, and evolution of pants. Students design and create pants incorporating techniques from the sewing and patternmaking portfolios created.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/fashion/index.html
Manitoba	Fashion Design and Technology: Tailored Garment Design and Construction (40S/E/M)	9129	Grade 12	This advanced course provides an overview of tailoring techniques. Students study the anatomy, theory, and evolution of tailored garments. Students design and construct a lined tailored jacket incorporating techniques from the sewing and patternmaking portfolios created.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/fashion/index.html
Manitoba	Fashion Design and Technology: Formal Wear Design and Construction (40S/E/M)	9131	Grade 12	This advanced course provides an overview of formal wear techniques. Students study the anatomy, theory, and evolution of formal gowns. Students design and construct a lined gown from the sewing and patternmaking portfolios created.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/fashion/index.html
Manitoba	Fashion Design and Technology: Applied Textile Design (40S/E/M)	9132	Grade 12	This advanced course provides an overview of fabric embellishment techniques. Students explore a variety of surface design applications and produce a sample portfolio incorporating textile design methods.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/fashion/index.html

Manitoba	Fashion Design and Technology: Applied Fashion Entrepreneurship (40S/E/M)	9134	Grade 12	This course provides students with the knowledge, skills, and attitudes required to participate in a successful fashion show production and practicum experience. Students cover the techniques, practices, and terminology used in the fashion industry. The course provides an understanding of the essential components of fashion promotion.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/fashion/index.html
Manitoba	Graphic Design: Exploration of Graphic Design (15S/E/M, 10S/E/M)	9135	Grade 9	This optional course is intended for students wishing to explore graphic design. Students are encouraged to think creatively as they solve basic design challenges.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/graphic_design/index.html
Manitoba	Graphic Design: Fundamentals of Graphic Design (20S/E/M)	9136	Grade 10	This course introduces students to the field of graphic design. Students focus on basic design theory, the design process, and their practical application.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/graphic_design/index.html
Manitoba	Graphic Design: Graphic Design and Layout (30S/E/M)	9137	Grade 11	In this course, students expand the knowledge and skills acquired in Fundamentals of Graphic Design and focus on the theory and practical application of graphic design and layout.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/graphic_design/index.html
Manitoba	Graphic Design: Illustration for Graphic Design (30S/E/M)	9138	Grade 11	In this course, students expand the knowledge and skills acquired in Fundamentals of Graphic Design and focus on the theory and practical application of illustration.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/graphic_design/index.html
Manitoba	Graphic Design: Interactive	9139	Grade 11	In this course, students expand the knowledge and skills acquired in Fundamentals of Graphic Design and focus on the theory and practical application of interactive graphic design.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/graphic_design/index.html

	Graphic Design (30S/E/M)					
Manitoba	Graphic Design: Advanced Graphic Design and Layout (40S/E/M)	9140	Grade 12	In this course, students expand the knowledge and skills acquired in Graphic Design and Layout and focus on the theory and practical application of graphic design and layout to solve client-driven design challenges.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/graphic_design/index.html
Manitoba	Graphic Design: Advanced Illustration for Graphic Design (40S/E/M)	9141	Grade 12	In this course, students expand the knowledge and skills acquired in Illustration for Graphic Design and focus on the theory and practical application of illustration to solve client-driven design challenges.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/graphic_design/index.html
Manitoba	Graphic Design: Advanced Interactive Graphic Design (40S/E/M)	9142	Grade 12	In this course, students expand the knowledge and skills acquired in Interactive Graphic Design and focus on the theory and practical application of interactive graphic design to solve client-driven design challenges.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/graphic_design/index.html
Manitoba	Graphic Design: Graphic Design Portfolio (40S/E/M)	9144	Grade 12	In this course, students apply the knowledge and skills learned in previous courses to produce a graphic design portfolio to obtain entry-level employment or self-employment opportunities, or gain admittance to a post-secondary program.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/graphic_design/index.html
Manitoba	Hairstyling: Exploration of Hairstyling (15S/E/M, 10S/E/M)	9113	Grade 9	This optional half or full-credit course gives students the chance to be creative as they explore hairstyling. It allows teachers the flexibility to select a variety of basic hairstyling and salon services that are engaging to students. Students gain entry-level exposure to hairstyling knowledge and skills, as well personal hygiene, public health, and information on the hairstyling program. Because this course is optional, students do not need to take it to	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hairstyling/index.html

				complete their certification requirements from Apprenticeship Manitoba.		
Manitoba	Hairstyling: Introduction to Hairstyling (20S/E/M)	8312	Grade 10	This course introduces students to hairstyling, with a focus on safety and sanitation, basic tools and equipment, the operation of a hairstyling salon, the workings of the industry, and introductory skills such as braiding, thermal styling, and roller setting. Students learn all of Unit B2: Sanitation and Decontamination in this course.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hairstyling/index.html
Manitoba	Hairstyling: Basic Hairstyling (20S/E/M)	8313	Grade 10	This course focuses on the properties of the hair and scalp, wet hair styling techniques, formal up-dos, shampoos, conditioners, rinses, and treatments. Students learn to conduct hair and scalp analyses. They are introduced to Afro texture hair and other natural hair types. Students learn all of Unit A2: Hair and Scalp Analysis in this course.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hairstyling/index.html
Manitoba	Hairstyling: Basic Haircutting and Thermal Styling (20S/E/M)	8314	Grade 10	This course focuses on the tools and equipment, as well as the anatomy and practical skills required for students to perform basic haircutting and thermal styling.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hairstyling/index.html
Manitoba	Hairstyling: Related Salon Services (20S/E/M)	8315	Grade 10	This course introduces students to salon services such as manicures, facials, makeup, and superfluous hair removal, with an introduction to the practical application of perm wrapping and hair colour techniques. Students begin to interact with clients, in preparation for subsequent courses. Students learn all of Unit A6: New Trends, and all of Unit E2: Thermal Styling in this course.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hairstyling/index.html
Manitoba	Hairstyling: Intermediate Haircutting and Barbering Techniques (30S/E/M)	8316	Grade 11	This course focuses on barbering techniques, including using razors and clippers, with the continued development of haircutting and finishing skills.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hairstyling/index.html

Manitoba	Hairstyling: Hair Colouring(30S/ E/M)	8317	Grade 11	This course focuses on colour theory and the development of hair colouring techniques. Students are introduced to basic colour formulations, and explore the different classifications of hair colour and their applications.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hairstyling/index.html
Manitoba	Hairstyling: Intermediate Hairstyling and Artificial Hair (30S/E/M)	8318	Grade 11	This course focuses on wigs and hair enhancements, with the continued development of wet and thermal hair styling techniques, including Afro texture hair and other natural hair types, as well as advanced braiding techniques. Students learn all of Unit E1: Wigs, Hairpieces, and Hair Extensions in this course.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hairstyling/index.html
Manitoba	Hairstyling: Chemical Texture Services (30S/E/M)	8319	Grade 11	This course focuses on the theoretical and practical applications of permanent waving and wrapping design.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hairstyling/index.html
Manitoba	Hairstyling: Advanced Hairstyling and Colouring (40S/E/M)	8320	Grade 12	This course focuses on advanced colouring techniques including special effects, lightening, colour removal, toning, and corrective colour.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hairstyling/index.html
Manitoba	Hairstyling: Advanced Haircutting and Chemical Texture Services (40S/E/M)	8321	Grade 12	This course focuses on advanced haircutting and the theoretical and practical application of chemical smoothing and relaxing of hair. Students demonstrate two services on Afro texture and other natural hair types. Students learn all of Unit D3: Chemical Smoothing and Relaxing Hair in this course	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hairstyling/index.html
Manitoba	Hairstyling: Salon Operation (40S/E/M)	8322	Grade 12	This course focuses on the business operations of a hair salon, retail and salon management, and the skills to gain employment as an apprentice hairstylist. Students learn all of Unit A5: Retail and Salon Management, Unit H1: Business Fundamentals, and Unit H2: Journeyperson Trainer in this course.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hairstyling/index.html

Manitoba	Hairstyling: Certificate Preparation (40S/E/M)	8323	Grade 12	This course focuses on honing students' skills and timing in barbering, haircutting, thermal styling, roller setting, colour and foil application, and perm winding to prepare students for their Manitoba Hairstylist Practical Examination. Students learn all of Unit H3: Pre-Interprovincial Exam Review and Unit H4: In-School Hairstylist Practical Exam in this course.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hairstyling/index.html
Manitoba	Health Care Assistant: Introduction to Health Care Assistant (10S/E/M)	8800	Grade 9	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Health Care Assistant: Introduction to Health Care Assistant (15S/E/M)	8801	Grade 9	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Health Care Assistant: The Life Cycle (40S/E/M)	8802	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Health Care Assistant: Human Relations (40S/E/M)	8803	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Health Care Assistant: Safety in Health Care (40S/E/M)	8804	Grade 12	This curriculum is under review and is not available online.	N/A	N/A

Manitoba	Health Care Assistant: Body Mechanics and Movement (40S/E/M)	8805	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Health Care Assistant: Nutrition and Hygiene (40S/E/M)	8806	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Health Care Assistant: Procedures and Treatments (40S/E/M)	8807	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Health Care Assistant: Aging and Related Disorders (40S/E/M)	8808	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Health Care Assistant: Life Management (40S/E/M)	8809	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Health Care Assistant: Palliative Care (45S/E/M)	8810	Grade 12	This curriculum is under review and is not available online.	N/A	N/A

Manitoba	Health Care Assistant: Concepts for Practice (40S/E/M)	8811	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Health Care Assistant: Personal Care Skills and Needs (40S/E/M)	8812	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Health Care Assistant: Health and Lifespan Development (45S/E/M)	8813	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Heavy Duty Equipment Technician: Exploration of Heavy Duty Equipment Technician (15S/E/M, 10S/E/M)	8672	Grade 9	This is an optional course intended for students wishing to explore HDE technology. The emphasis is on hands-on experiences. Students are introduced to safety practices, tools, equipment, systems, and service procedures.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hd_eq_uip/index.html
Manitoba	Heavy Duty Equipment Technician: Introduction to Heavy Duty Equipment	8673	Grade 10	In this course, students learn safety practices, tools and equipment, and HDE systems and service procedures, and are introduced to diagnosis strategies.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hd_eq_uip/index.html

	Technician (20S/E/M)					
Manitoba	Heavy Duty Equipment Technician: Diesel Engine Fundamentals and Service (30S/E/M)	8674	Grade 11	In this course, students learn the basic principles of diesel engines, the inner workings and relations of the engine components, and how those relate to vehicle operation. They learn the procedures to service, repair, and replace engines and their components.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hd_eq_uip/index.html
Manitoba	Heavy Duty Equipment Technician: Chassis, Frame and Undercarriage Systems (30S/E/M)	8675	Grade 11	In this course, students learn basic principles of the vehicle chassis, frame, and undercarriage systems. They describe, diagnose, and repair problems with vehicle chassis, frame, and undercarriage systems, and with steering alignment.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hd_eq_uip/index.html
Manitoba	Heavy Duty Equipment Technician: Welding Processes and Fuels (30S/E/M)	8676	Grade 11	In this course, students develop skills in oxyacetylene welding and cutting and metallurgy. The student be able to diagnose and repair a variety of fuel-related problems, and demonstrate familiarity with alternate fuels.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hd_eq_uip/index.html
Manitoba	Heavy Duty Equipment Technician: Standard Transmissions, Drivelines, Transfer Cases, and Power	8677	Grade 12	In this course, students learn the basic principles of standard transmissions, drivelines, transfer cases, and power takeoffs. They service standard transmissions, drivelines, transfer cases, and power takeoffs, and diagnose and repair problems with them.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hd_eq_uip/index.html

	Takeoffs (40S/E/M)					
Manitoba	Heavy Duty Equipment Technician: Tires, Wheels, and Brake Assemblies (40S/E/M)	8678	Grade 12	In this course, students learn about tires, wheels, and brake assemblies. They service tires, wheels, and brake assemblies, and diagnose and repair problems with them.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hd_eq_uip/index.html
Manitoba	Heavy Duty Equipment Technician: Electrical Fundamentals, Computers, and Diagnostic Equipment (40S/E/M)	8679	Grade 12	In this course, students learn electrical fundamentals, computers and diagnostic equipment, and electrical theory, including circuits. They use electronic diagnostic interfaces to service HDE systems and to diagnose and repair problems with them.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hd_eq_uip/index.html
Manitoba	Heavy Duty Equipment Technician: Applied Heavy Duty Equipment Technician (40S/E/M)	8704	Grade 12	In this course, students learn to apply diagnostic strategies to a variety of vehicle systems and components. They demonstrate the ability to address customer concerns by diagnosing and correcting problems, and to complete vehicle repairs to accepted industry standards.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hd_eq_uip/index.html
Manitoba	Horticulture: Exploration of Horticulture (15S/E/M, 10S/E/M)	8717	Grade 9	This is an optional half or full-credit course. It is intended for students wishing to get an overview of the horticulture program. The curriculum focuses on an exploration of landscaping, greenhouse maintenance and production, and plant propagation with an emphasis on hands-on, project-based activities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/hortic_uip/index.html

Manitoba	Horticulture: Introduction to Horticulture (20S/E/M)	8718	Grade 10	This course is intended for students considering specialization in the horticulture program. The curriculum focuses on building knowledge and skills in landscape construction and maintenance, greenhouse maintenance and production, and plant propagation with an emphasis on hands-on, project-based activities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/horticulture/index.html
Manitoba	Horticulture: Applied Horticulture (30S/E/M)	8719	Grade 11	This course is intended for students considering specialization in the horticulture program. The curriculum focuses on plant physiology, morphology, and anatomy. Students synthesize their knowledge and skills to solve problems related to the care and maintenance of plants.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/horticulture/index.html
Manitoba	Horticulture: Introduction to Landscape Maintenance and Construction (30S/E/M)	8733	Grade 11	This course is intended for students continuing in the specialization phase of the horticulture program. The curriculum focuses on an introduction to the maintenance and construction of landscape structures and sites. Students participate in the construction of landscape structures and sites.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/horticulture/index.html
Manitoba	Horticulture: Introduction to Greenhouse Maintenance and Production (30S/E/M)	8734	Grade 11	This course is intended for students completing the specialization phase of the horticulture program. The curriculum focuses on an introduction to the maintenance and production of crops in a greenhouse. Students are introduced to greenhouse propagation and participate in the functioning of a greenhouse.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/horticulture/index.html
Manitoba	Horticulture: Advanced Horticulture (40S/E/M)	8764	Grade 12	This course is intended for students entering the transition phase of the horticulture program. The curriculum focuses on an integration of learned concepts related to plant propagation, maintenance, growing media, and cultural requirements to maximize plant growth and yields. Students are actively involved in plant care and maintenance.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/horticulture/index.html
Manitoba	Horticulture: Applied Landscape	8765	Grade 12	This course is intended for students in the transition phase of the horticulture program. The curriculum focuses on increasing students' knowledge and skills in landscape maintenance and	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/horticulture/index.html

	Maintenance and Construction (40S/E/M)			construction. Students participate in the design, construction, and maintenance of landscape structures and sites.		
Manitoba	Horticulture: Applied Greenhouse Maintenance and Production (under review) (40S/E/M)	8766	Grade 12	This course is intended for students in the transition phase of the horticulture program. The curriculum focuses on increasing students' knowledge and skills in greenhouse maintenance and production. Students participate in the planning and implementation of a greenhouse crop with a focus on productivity.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/horticulture/index.html
Manitoba	Horticulture: Arboriculture (40S/E/M)	8767	Grade 12	This course is intended for students transitioning from the horticulture program. The curriculum focuses on the care and maintenance of woody plants in the landscape. Topics include pruning, establishment, cultural requirements, disease, and pest management, as well as the benefits of trees to the environment.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/horticulture/index.html
Manitoba	Interactive Digital Media: Exploration of Interactive Digital Media (15S/E/M, 10S/E/M)	9093	Grade 9	This optional course is designed for students to explore interactive digital media. Students learn the basic steps in creating digital assets and in coding.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/digital_media/index.html
Manitoba	Interactive Digital Media: Exploration of Interactive Digital Media (10S/E/M)	9094	Grade 10	This course is designed for students interested in interactive digital media. They learn to conceptualize, plan, develop, and publish an interactive digital media project. Projects involve an introduction to asset development and coding.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/digital_media/index.html
Manitoba	Interactive Digital Media: Interactive	9095	Grade 11	In this course, students learn about the design principles required to complete an interactive digital media project, integrating artistic and technical theory and skills.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/digital_media/index.html

	Digital Media Design (30S/E/M)					
Manitoba	Interactive Digital Media: Interactive Digital Asset Creation (30S/E/M)	9096	Grade 11	This course focuses on the creation of original assets to support interactive digital media projects by using a variety of software. Examples of assets include vector images, rasterized images, 2-D animations, 3-D models, sound effects, and rigging.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/digital_media/index.html
Manitoba	Interactive Digital Media: Advanced Interactive Digital Asset Creation (40S/E/M)	9097	Grade 12	This course focuses on the creation of interactive components of projects by using basic coding. Students learn programming theory, and how to incorporate it into interactive digital media projects.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/digital_media/index.html
Manitoba	Interactive Digital Media: Project Management for Interactive Digital Media (40S/E/M)	9098	Grade 12	This course builds on the skills and knowledge learned in Course 9096 (Interactive Digital Asset Creation). Students learn the skills related to creating advanced features of dynamic asset creation, and to applying code to assets.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/digital_media/index.html
Manitoba	Interactive Digital Media: Advanced Coding for Interactive Digital Media (40S/E/M)	9099	Grade 12	This course builds on the skills and knowledge learned in Course 9097 (Coding for Interactive Digital Media). Students learn to code in more than one language, focusing on advanced programming theory and techniques	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/digital_media/index.html

Manitoba	Interactive Digital Media: Project Management for Interactive Digital Media (40S/E/M)	9100	Grade 12	In this course, students collaborate with others as they apply the knowledge and skills learned in previous courses in order to create, manage, and release an authentic interactive digital media project.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/digital_media/index.html
Manitoba	Interactive Digital Media: Futures in Interactive Digital Media (40S/E/M)	9101	Grade 12	In this course, students synthesize and apply skills and knowledge learned in previous courses to create their own portfolio site to prepare them for either self-employment, entry-level employment, or post-secondary opportunities in interactive digital media.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/digital_media/index.html
Manitoba	Jewellery and Metalsmithing: Exploration of Jewellery/Metalsmithing (15S/E/M, 10S/E/M)	8768	Grade 9	This is an optional half or full-credit course. It is intended for students wishing to sample jewellery and metalsmithing. The curriculum content focuses on an exploration of basic skills including sawing, drilling, polishing, construction with sheet and wire, and lost wax casting with an emphasis on hands-on, project-based activities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/jewellery/index.html
Manitoba	Jewellery and Metalsmithing: Introduction to Jewellery/Metalsmithing (20S/E/M)	8769	Grade 10	This course is intended for students wishing to investigate jewellery and metalsmithing. The curriculum content focuses on a more advanced exploration of basic skills, as well as riveting and simple stone setting with an emphasis on hands-on, project-based activities.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/jewellery/index.html
Manitoba	Jewellery and Metalsmithing: Lost Wax Casting (30S/E/M)	8799	Grade 11	This course is intended for students considering specialization in jewellery and metalsmithing. The curriculum content focuses on an understanding of wax carving, casting, and finishing. Students use this process to create rings, pendants, and other jewellery.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/jewellery/index.html

Manitoba	Jewellery and Metalsmithing: Basic Construction and Soldering (30S/E/M)	8814	Grade 11	This course is intended for students continuing in the specialization phase of the jewellery and metalsmithing program. The curriculum content focuses on an understanding of cold connections such as rivets, tabs, and links, as well as basic hard soldering. Students use these materials and processes to create jewellery.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/jewellery/index.html
Manitoba	Jewellery and Metalsmithing: Forging and Forming (30S/E/M)	8823	Grade 11	This course is intended for students completing the specialization phase of the jewellery and metalsmithing program. The curriculum content focuses on an understanding of forging and forming non-ferrous metals, including the use of hammers, anvils, and other forging and forming equipment. Students use these tools and processes to create jewellery.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/jewellery/index.html
Manitoba	Jewellery and Metalsmithing: Jewellery Repair (40S/E/M)	8824	Grade 12	This course is intended for students entering the transition phase of the jewellery and metalsmithing program. The curriculum content focuses on an extension of knowledge and skills learned in previous courses to repair jewellery, including ring sizing, chain soldering, clasp repair, re-tipping, and electroplating. Students use these materials and processes for live jewellery repairs.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/jewellery/index.html
Manitoba	Jewellery and Metalsmithing: Advanced Construction and Soldering (40S/E/M)	8838	Grade 12	This course is intended for students entering the transition phase of the jewellery and metalsmithing program. The curriculum content focuses on an extension of the knowledge and skills learned in Course 8814 (Basic Construction and Soldering), including hinges, tubing, and box clasps. Students use these materials and processes to create jewellery.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/jewellery/index.html
Manitoba	Jewellery and Metalsmithing: Gem Setting (40S/E/M)	8839	Grade 12	This course is intended for students entering the transition phase of the jewellery and metalsmithing program. The curriculum content focuses on an understanding of basic gemmology and stone-setting techniques, including bezel, basket, and claw settings. Students use these materials and processes to create jewellery that includes set stones	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/jewellery/index.html

Manitoba	Jewellery and Metalsmithing: Advanced Gem Setting (40S/E/M)	8840	Grade 12	This course is intended for students entering the transition phase of the jewellery and metalsmithing program. The curriculum content focuses on an extension of the knowledge and skills learned in Course 8839 (Gem Setting), including pearls, rubbed settings, and channel settings. Students use these materials and processes to create jewellery that includes set stones.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/jewellery/index.html
Manitoba	Machining Technology: Exploration of Machining Technology (15S/E/M, 10S/E/M)	8841	Grade 9	This is an optional course intended for students who wish to sample machining technology. Students develop skills and knowledge necessary to perform basic calculations, basic machine and work set-up, and basic cutting of material in a safe, efficient, and responsible manner through the application of practical projects. An appreciation for the machining program is fostered through a safe, active, exciting, and informative learning environment.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/machining/index.html
Manitoba	Machining Technology: Exploration of Machining Technology (20S/E/M)	8842	Grade 10	In this course, students develop skills and knowledge necessary to select, operate, and maintain tools, as well as perform calculations, interpret engineering drawings, work set-up, and machine material in a safe, efficient, and responsible manner through the application of practical projects related to the drilling of holes and sawing of material. Framed as the two fundamental machine tools used in machining, emphasis is placed upon use and maintenance of sharp cutting tools, development of accuracy to produce a quality part, and the respect of safety rules for all machine tools.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/machining/index.html
Manitoba	Machining Technology: Drill Press and Metal-Cutting Saws (30S/E/M)	8843	Grade 11	This course is under review. In this course, students develop skills and knowledge necessary to select, operate, and maintain tools, as well as perform calculations, interpret engineering drawings, work set-up, and machine material in a safe, efficient, and responsible manner through the application of practical projects related to the drilling of holes and sawing of material. Framed as the two fundamental machine tools used in machining, emphasis is placed upon use and maintenance of sharp cutting tools, development of accuracy to produce a quality part, and the respect of safety rules for all machine tools.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/machining/index.html

Manitoba	Machining Technology: Lathe Operations and Grinding I (30S/E/M)	8844	Grade 11	In this course, students develop skills and knowledge necessary to select, operate, and maintain tools, as well as to perform calculations, interpret engineering drawings, work set-up, and machine material in a safe, efficient, and responsible manner through the application of practical projects related to the operation of the conventional lathe. Presented as a precision machining tool, emphasis is placed upon the set-up and machining of cylindrical parts to precise measurements using appropriate tools, speeds, and feed rates. Offhand grinding and maintaining cutting tools with the pedestal grinder is introduced. Opportunity may be taken to introduce CNC lathe machines.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/machining/index.html
Manitoba	Machining Technology: Milling Operations I (30S/E/M)	8845	Grade 11	In this course, students develop skills and knowledge necessary to select, operate, and maintain tools, as well as perform calculations, interpret engineering drawings, work set-up, and machine material in a safe, efficient, and responsible manner through the application of practical projects related to the milling machine. Presented as a precision machining tool, emphasis is placed upon the set-up and machining of flat features and angles to precise measurements using appropriate tools, speeds, and feed rates. Use of various work-holding devices and accessories are put into practice to complete common milling operations. There is an opportunity to introduce CNC lathe machines.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/machining/index.html
Manitoba	Machining Technology: Lathe Operations and Grinding II (40S/E/M)	8855	Grade 12	In this course, students further develop skills and knowledge necessary to select, operate, and maintain tools, as well as to perform calculations, interpret engineering drawings, work set-up, and machine material in a safe, efficient, and responsible manner through the application of practical projects related to the operation of conventional lathe and offhand grinding. Emphasis is placed on taper calculation and turning. Identification, selection, and use of carbide cutting tools are presented to drive the students' knowledge and curiosity to more advanced levels. Offhand grinding is taught to shape and maintain high-speed steel cutters for use in general or special turning applications.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/machining/index.html

Manitoba	Machining Technology: Milling Operations II (40S/E/M)	8856	Grade 12	In this course, students further develop the skills and knowledge necessary to select, operate, and maintain tools, as well as to perform calculations, interpret engineering drawings, work set-up, and machine material in a safe, efficient, and responsible manner through the application of practical projects related to the milling machine. Emphasis is placed upon the set-up of the milling machine accessories and work-holding devices, the dividing head, and rotary table, to assist in the machining of accurate parts. Exploration of how to troubleshoot machining problems when they occur is introduced. Opportunity may be taken to further introduce CNC milling machines and CNC theory.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/machining/index.html
Manitoba	Machining Technology: Applied Machining and Manufacturing Technology (40S/E/M)	8857	Grade 12	In this course, students apply their skills and knowledge to machine projects in a safe, efficient, and responsible manner to industry standards using available machine shop tools. Emphasis is placed upon preparing students to meet the level of skill and knowledge expected of a first-year apprentice. Work experience is most often included as part of this course.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/machining/index.html
Manitoba	Machining Technology: CNC Machining (40S/E/M)	8858	Grade 12	In this course, students develop skills and knowledge necessary to select, operate, and maintain tools, as well as perform calculations, interpret engineering drawings, work set-up, and cut material in a safe, efficient, and responsible manner through the application of practical projects related to CNC machining.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/machining/index.html
Manitoba	Mining Engineering Technology: Introduction to Mining Engineering (15S/E/M, 10S/E/M)	9145	Grade 9	In this optional course, students are introduced to the mining industry and the role of the mining engineering technician.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/mining/index.html
Manitoba	Mining Engineering Technology:	9146	Grade 10	This course is a broad, introductory overview of mining, the mining industry, and mining engineering technology.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/mining/index.html

	Mining Engineering Technology (20S/E/M)					
Manitoba	Mining Engineering Technology: Drafting for Mining Engineering (30S/E/M)	9147	Grade 11	This course is an entry-level design drafting course intended for students wishing to explore drafting as it pertains to mining engineering technology. The curriculum content focuses on an introduction to design drafting, with an emphasis on its use in mines, mining structures, and mining equipment.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/mining/index.html
Manitoba	Mining Engineering Technology: Geological Engineering (30S/E/M)	9148	Grade 11	This course is an introduction to geology, covering the Big Bang to the formation of minerals. The curriculum content focuses on introducing students to the study of the planets, earthquakes, geologic maps, and plate tectonics. This course covers the three rock groups, their chemical makeup, and how they are formed and change over time. Basic identification of minerals and rocks is a large part of this course, with a focus on hands-on practice.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/mining/index.html
Manitoba	Mining Engineering Technology: Surveying for Mining Engineering (30S/E/M)	9149	Grade 11	This course focuses on surveying as it pertains to mining. The curriculum content focuses on introducing students to the principles of accuracy and precision in measuring distance and levelling. The course provides students with exposure and hands-on experience with operating surveying tools. Basic math skills (specifically trigonometry) are required.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/mining/index.html
Manitoba	Mining Engineering Technology: Advanced Geological Engineering (40S/E/M)	9152	Grade 12	This course expands the knowledge and skills students acquired in 9148 Geological Engineering. It introduces students to the geologic processes that affect the deposition of minerals and rocks such as earthquakes, volcanoes, running water, ice, wind, and mass movement. The curriculum focuses on the methods of determining geological time scale in the context of paleontology and the three geological eras, the principles of structural geology as they relate to mining, and more detailed identification of minerals and rocks.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/mining/index.html

Manitoba	Mining Engineering Technology: Mineral Processing (40S/E/M)	9153	Grade 12	This course focuses on the processing of minerals. The curriculum focuses on the milling process, including crushers, ball and rod mills, flotation cells, and furnaces. Students require basic chemistry and math skills.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/mining/index.html
Manitoba	Mining Engineering Technology: Advanced Surveying for Mining Engineering (40S/E/M)	9154	Grade 12	In this course, students expand the knowledge and skills acquired in Course 9149 (Surveying for Mining Engineering). It provides them with exposure and hands-on operation of an engineer's transit and total surveying station. The curriculum focuses on field studies of land, highway, hydrographic, and mine surveying.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/mining/index.html
Manitoba	Mining Engineering Technology: Applied Mining Engineering (40S/E/M)	9155	Grade 12	This course provides students with the opportunity to synthesize and apply all of the knowledge, skills, and values they have learned in previous courses. The curriculum introduces detailed processes in mining, including development of mineshafts, ore extraction and hauling, ore processing, and future trends in mining. Students learn the basic concepts of structures and loads and how they apply to the physical aspects of the mining process. Environmental impact is an important aspect of this course as are ethical practices as they relate to the environment and First Nations concerns.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/mining/index.html
Manitoba	Motion Picture Arts: Exploration of Motion Picture Arts (15S/E/M, 10S/E/M)	9206	Grade 9	This optional course is designed for students to explore the motion picture arts. Students learn the skills to tell stories visually through recording and editing video, sketching, and frame-by-frame animation.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/motion_picture/index.html
Manitoba	Motion Picture Arts: Introduction to	9207	Grade 10	This course introduces students to visual storytelling through the tools of film grammar, cinematography, editing, and sound design.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/motion_picture/index.html

	Motion Picture Arts (20S/E/M)					
Manitoba	Motion Picture Arts: Fundamentals of Animation (30S/E/M)	9208	Grade 11	This course allows students to explore the principles of animation, stop-motion, character animation, rigging, walk cycles, cell animation, lip syncing, and compositing.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/motion_picture/index.html
Manitoba	Motion Picture Arts: Fundamentals of Compositing & Visual Effects (30S/E/M)	9209	Grade 11	In this course, students extend their learning in visual storytelling by using digital tools to add effects and create more impactful moving images. VFX skills learned in this course include motion design, chroma key (green screen), masking, rotoscoping, and demo reel development.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/motion_picture/index.html
Manitoba	Motion Picture Arts: Fundamentals of Pre-Visualization (30S/E/M)	9210	Grade 11	In this course, students explore image creation techniques and traditional theory to create original characters, scenes, settings, props, environments, and concepts for films, animations, and games. The main goal of the course is to develop the student's creative skills while exploring the drawing, digital painting, 2-D environment creation, 3-D models, and practical effects.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/motion_picture/index.html
Manitoba	Motion Picture Arts: Applied Motion Picture Arts (40S/E/M)	9211	Grade 12	In this course, students select an area of specialization in the motion picture arts, and hone their skills in that area.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/motion_picture/index.html
Manitoba	Motion Picture Arts: Motion Picture Arts Project Management (40S/E/M)	9212	Grade 12	In this course, students collaborate with others as they apply the knowledge and skills learned in previous courses to create, manage, and present an authentic motion picture arts project.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/motion_picture/index.html

Manitoba	Motion Picture Arts: Motion Picture Arts Studio Training (40S/E/M)	9213	Grade 12	In this course, students create a career pathway plan to earn industry certification to facilitate their transition into the motion picture arts industry.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/motion_picture/index.html
Manitoba	Motion Picture Arts: Motion Picture Arts Portfolio Development (40S/E/M)	9214	Grade 12	In this course, students refine their professional online identity, and create a portfolio designed to gain employment in the motion picture arts industry.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/motion_picture/index.html
Manitoba	Hotel Hospitality: Beverage Services (40S/E/M)	8825	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Hotel Hospitality: Dining Room Skills (20S/E/M)	8826	Grade 10	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Hotel Hospitality: Dining Room Skills (40S/E/M)	8826	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Hotel Hospitality: Food Preparation (40S/E/M)	8827	Grade 12	This curriculum is under review and is not available online.	N/A	N/A

Manitoba	Hotel Hospitality: Customer Services (40S/E/M)	8828	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Hotel Hospitality: Hotel and Consumer Math (40S/E/M)	8829	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Hotel Hospitality: Tourism (40S/E/M)	8830	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Hotel Hospitality: Reception Desk Skills (40S/E/M)	8831	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Hotel Hospitality: Housekeeping Skills (40S/E/M)	8832	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Hotel Hospitality: Management Skills (40S/E/M)	8833	Grade 12	This curriculum is under review and is not available online.	N/A	N/A

Manitoba	Hotel Hospitality: Applied Reception Services (40S/E/M)	8834	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Hotel Hospitality: Applied Food Preparation (40S/E/M)	8835	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Hotel Hospitality: Applied Dining Room Services (40S/E/M)	8836	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Hotel Hospitality: Applied Management (40S/E/M)	8837	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Networking and Cyber Security: Exploration of Networking and Cyber Security (15S/E/M, 10S/E/M)	9102	Grade 9	In this optional course, students explore the world of networking and cyber security. They learn about hardware, operating systems, and applications.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/networking/index.html

Manitoba	Networking and Cyber Security: Hardware and Software Essentials (20S/E/M)	9103	Grade 10	This course covers the fundamentals of computer hardware and software, and the responsibilities of an IT professional. It is designed for students who want to pursue careers in Information and Communications Technology (ICT) and to gain practical knowledge of how a computer works. Students learn to describe the internal components of a computer, assemble a computer system, install an operating system, and troubleshoot using system tools and diagnostic software. They connect to the Internet and share resources in a networked environment. Additional topics include mobile devices such as tablets, smartphones, and client side virtualization.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/networking/index.html
Manitoba	Networking and Cyber Security: Operating Systems (30S/E/M)	9104	Grade 11	This course covers the installation, deployment, and troubleshooting of the current Microsoft Desktop Operating system. The hands-on approach prepares students to face the real life challenges of a Microsoft desktop technician and assist students in preparing for the Microsoft Technology Associate (MTA) certification exams.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/networking/index.html
Manitoba	Networking and Cyber Security: Networking Technologies (30S/E/M)	9105	Grade 11	The focus of this course is on learning the fundamentals of networking. Students learn both the practical and conceptual skills that build the foundation for understanding basic networking. They: <ul style="list-style-type: none"> ▪ examine human versus network communication and see the parallels between them; ▪ introduce the two major models used to plan and implement networks: OSI and TCP/IP; ▪ learn about the use of the "layered" approach to networks; and ▪ examine the OSI and TCP/IP layers in detail to understand their functions and services. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/networking/index.html
Manitoba	Networking and Cyber Security: Cyber Security Essentials (40S/E/M)	9106	Grade 12	The focus of this course is on learning the fundamentals of cyber security, both in theory and practice. Students learn to secure devices, operating systems, networks, including routers and switches, and their associated software.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/networking/index.html

Manitoba	Networking and Cyber Security: Advanced Operating Systems (40S/E/M)	9107	Grade 12	In this course, students learn to install, deploy, and troubleshoot Linux as a desktop operating system. To avoid confusion between the many flavors of Linux, each with its own Graphical User Interface (GUI), students work with the command line to complete the necessary tasks.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/networking/index.html
Manitoba	Networking and Cyber Security: Advanced Networking Technologies (40S/E/M)	9108	Grade 12	This course is a continuation of Course 9105 (Networking Technologies). Students: <ul style="list-style-type: none"> ▪ continue to examine the OSI and TCP/IP layers in detail to understand their functions and services; ▪ learn about the various network devices and network addressing schemes; ▪ discover types of media used to carry data across the network; and ▪ build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/networking/index.html
Manitoba	Networking and Cyber Security: Server Administration (40S/E/M)	9109	Grade 12	This course gives students practical experience with Microsoft's server operating system and covers users and permissions, security, and server services such as DNS, DHCP, and Active Directory. Students develop the knowledge needed to manage servers on small to large networks. The hands-on approach prepares students to face the real life challenges of a Microsoft professional and assist students in preparing for the Microsoft Technology Associate (MTA) certification exams.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/networking/index.html
Manitoba	Networking and Cyber Security: Applied Networking and Cyber Security (40S/E/M)	9111	Grade 12	In this course, students synthesize and apply knowledge and skills acquired in the previous courses to initiate, complete and document each of the steps involved in the design, installation, configuration, management, securing and troubleshooting of devices, operating systems and applications in an office environment.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/networking/index.html
Manitoba	Photography: Exploration of Photography	9156	Grade 9	This optional course is designed for students to explore photography. Students learn the basic functions of a camera, as well as the introductory skills used in photographic editing. They are introduced to the history of photography, as well as	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/photography/index.html

	(15S/E/M, 10S/E/M)			photography's theoretical principles. They learn how to make the most of available light and how to control it.		
Manitoba	Photography: Introduction to Photography (20S/E/M)	9157	Grade 10	This course is designed for students who are interested in the photography program. Students learn photographic theory, the functions of a camera, as well as photographic editing skills and the history of photography. They explore the use of different light sources.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/photography/index.html
Manitoba	Photography: Photographic Equipment (30S/E/M)	9158	Grade 11	This course focuses on the safe and appropriate use of professional photographic equipment, such as the functions of DSLR cameras, different types of lenses, and tripods. Students learn about different brands and types of DSLR cameras, and the specific uses of each one.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/photography/index.html
Manitoba	Photography: Photographic Lighting (30S/E/M)	9159	Grade 11	This course focuses on all aspects of lighting, including lighting theory, techniques, and styles. Students learn to safely use professional photographic lighting equipment, light modifiers, and ambient light.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/photography/index.html
Manitoba	Photography: Digital Darkroom (30S/E/M)	9160	Grade 11	This course focuses on basic digital editing techniques, including layout, resolution, tonal and colour correction, crop ratios, and output. Students learn to use several types of editing software.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/photography/index.html
Manitoba	Photography: Advanced Photographic Equipment (40S/E/M)	9161	Grade 12	This course builds on the skills and knowledge learned in Course 9158 (Photographic Equipment), focusing on the advanced use of professional photographic equipment. Students use critical thinking skills to select and utilize the most appropriate equipment to complete photographic assignments.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/photography/index.html
Manitoba	Photography: Advanced Photographic Lighting (40S/E/M)	9162	Grade 12	This course builds on the skills and knowledge learned in Course 9159 (Photographic Lighting), focusing on the advanced use of professional photographic lighting. Students use critical thinking skills to manipulate various forms of lighting to complete photographic assignments.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/photography/index.html
Manitoba	Photography: Advanced Digital	9163	Grade 12	This course builds on the skills and knowledge learned in Course 9160 (Digital Darkroom), focusing on advanced digital editing techniques. Students use critical thinking skills to select the most	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/photography/index.html

	Darkroom (40S/E/M)			appropriate software and tools to professionally edit images to achieve desired results.		
Manitoba	Photography: Applied Photography (40S/E/M)	9164	Grade 12	In this course, students initiate and complete all the steps of a photographic assignment, demonstrating mastery of photographic techniques. They research entry-level employment and post-secondary educational opportunities. They complete a resumé and portfolio for finding entry-level employment.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/photography/index.html
Manitoba	Pilot Ground School: Exploration of Aviation (15S/E/M, 10S/E/M)	9196	Grade 9	This optional course can be taught as either a half- or a full credit course. Students have the opportunity to explore the field of aviation, focusing on ground school training for pilots.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/pilot/index.html
Manitoba	Pilot Ground School: Introduction to Aviation (20S/E/M)	9197	Grade 10	In this course, students are introduced to the field of aviation. They explore a variety of topics, including aerodynamics, aircraft mechanics, air law, meteorology, navigation, and human factors.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/pilot/index.html
Manitoba	Pilot Ground School: Principles of Flight (30S/E/M)	9198	Grade 11	In this theoretical course, students focus on aerodynamics, theory of flight, mechanics of aircraft, airframes, air law, radio theory, and aerodromes and airports, as well as engines, systems, and instruments used in aviation.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/pilot/index.html
Manitoba	Pilot Ground School: Meteorology and Navigation (30S/E/M)	9199	Grade 11	In this course, students develop a theoretical and practical understanding of meteorology, and its application to aviation. They develop a theoretical and practical understanding of navigation, especially as it relates to flight planning.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/pilot/index.html
Manitoba	Pilot Ground School: Flight Simulation Lab (30S/E/M)	9201	Grade 11	In this course, students focus on following correct procedures while performing flight training exercises as they fly simulated aircraft. This provides them with the opportunity to incorporate the theory that they have previously learned. As part of their experience flying simulated aircraft, students learn required radio procedures.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/pilot/index.html

Manitoba	Pilot Ground School: Human Factors (40S/E/M)	9202	Grade 12	This course focuses on human factors in aviation, including the pilot and the operating environment, aviation psychology, pilot decision making, and aviation physiology.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/pilot/index.html
Manitoba	Pilot Ground School: Advanced Aviation (40S/E/M)	9203	Grade 12	In this course, students gain an advanced understanding of navigation technologies, aerodynamics, the relationship between meteorological conditions and aircraft performance, and air law.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/pilot/index.html
Manitoba	Pilot Ground School: Aviation Operations (40S/E/M)	9204	Grade 12	In this course, students develop an understanding of all sectors of the aviation industry and focus on the sectors that they are interested in pursuing. They have the opportunity to discover the aviation-related facilities in their area, such as air operators, airports and aerodromes, repair and maintenance facilities, and control towers and centres.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/pilot/index.html
Manitoba	Pilot Ground School: Applied Aviation (40S/E/M)	9205	Grade 12	In this course, students develop an understanding of careers in the aviation industry, including training and employment opportunities, and focus on those careers that they are interested in pursuing. Students meet with people who work in specific aviation careers. They develop a resumé as part of their plan to obtain their preferred aviation-related career.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/pilot/index.html
Manitoba	Plumbing and Pipe Trades: Exploration of Plumbing Pipe Trades (15S/E/M, 10S/E/M)	8859	Grade 9	This is an optional course intended for students wishing to sample plumbing and the pipe trades. The emphasis is on hands-on activities. Students are introduced to safety, tools and equipment, plumbing and piping systems, and service procedures.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/plumbing/index.html
Manitoba	Plumbing and Pipe Trades: Introduction to Plumbing Pipe Trades (20S/E/M)	8876	Grade 10	In this course, students develop skills in plumbing and the pipe trades, but must have knowledge of the basic principles related to piping systems and service. Students learn about safety, tools and equipment, piping systems, and service procedures, and they are introduced to diagnosis strategies.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/plumbing/index.html

Manitoba	Plumbing and Pipe Trades: Introduction to Piping Systems and Theories (30S/E/M)	8877	Grade 11	In this course, students develop skills in plumbing and the pipe trades, but must have knowledge of the basic principles of layout, materials, codes, and design. Students learn the procedures for servicing, repairing, and installing piping systems and their components.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/plumbing/index.html
Manitoba	Plumbing and Pipe Trades: Installation of Plumbing and Piping Systems I (30S/E/M)	8878	Grade 11	In this course, students develop skills in plumbing and the pipe trades, but must have knowledge of the basic principles of supporting and installing a piping system. Students describe, draw out, and demonstrate the ability to install plumbing and piping systems. Students develop an understanding of the principles of grade and drainage and will be able to apply those principles to diagnose plumbing and piping defects.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/plumbing/index.html
Manitoba	Plumbing and Pipe Trades: Installation of Plumbing and Piping Systems II (30S/E/M)	8879	Grade 11	In this course, students develop skills in plumbing and the pipe trades, but must have knowledge of the basic principles of fixture installation and the calculations necessary to properly place and select those fixtures. Students develop an understanding of the different methods that can be used to install systems and when to choose one over another.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/plumbing/index.html
Manitoba	Plumbing and Pipe Trades: Sanitary Venting Systems (40S/E/M)	8981	Grade 12	In this course, students develop skills in sanitary venting, but must have knowledge of the basic principles of grade, siphons, and Venturis. Students learn about the principles of venting and how venting relates to plumbing and piping systems. Students draw a usable blueprint to assist in the installation of a sanitary venting system. Students install, support, and test a sanitary venting system. Students develop a working knowledge of all codes and regulations as they apply to sanitary venting.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/plumbing/index.html
Manitoba	Plumbing and Pipe Trades: Sanitary Drainage Systems (40S/E/M)	8982	Grade 12	In this course, students develop skills in sanitary drainage, but must have knowledge of the basic principles of grade, percentages, and siphonage. Students learn about the principles of drainage and how those principles relate to plumbing and piping systems. Students draw a usable blueprint to assist in the installation of a sanitary drainage system. Students install, support, and test a sanitary drainage system. They develop a working knowledge of all codes and regulations as they apply to sanitary drainage.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/plumbing/index.html

Manitoba	Plumbing and Pipe Trades: Installation of Plumbing and Piping Systems III (40S/E/M)	8984	Grade 12	In this course, students develop skills in plumbing and the pipe trades, but must have knowledge of advanced installation techniques and new green technologies. Students learn about and implement the formulas and calculations that they learned to design and lay out a drain-waste vent (DWV) system, as well as a water supply system. They design and install a water supply system and test a system of their design.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/plumbing/index.html
Manitoba	Plumbing and Pipe Trades: Applied Plumbing and Piping Systems (40S/E/M)	8985	Grade 12	In this course, students extend skills in plumbing and the pipe trades, but must be able to demonstrate the installation and selection of the appropriate fixtures. Students diagnose and correct plumbing and piping defects. They use the newest techniques available and implement them wherever they are practical.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/plumbing/index.html
Manitoba	Print Media: Introduction to Print Production (15S/E/M, 10S/E/M)	8465	Grade 9	This is an optional course (half or full credit) intended for students to sample the print media vocation. The curriculum content focuses on a broad exploration of the entire discipline of print media. The emphasis is on project-based activities. The course includes an exploration of essential skills related to safety and employability. Students explore career development, sustainability, and new and emerging technologies in print media.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/printmedia/index.html
Manitoba	Print Media: Print Production Fundamentals (20S/E/M)	8466	Grade 10	This course is intended for students who wish to explore the print media vocation. The curriculum content focuses on an introduction to the entire discipline of print media. The emphasis is on project-based activities. The course includes an introduction to essential skills related to safety and employability. Students are be introduced to career development, sustainability, and new and emerging technologies in print media.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/printmedia/index.html
Manitoba	Print Media: Design (30S/E/M)	8467	Grade 11	This course is intended for students considering specialization in print media. The curriculum content focuses on the initial stages of design within the print media process. Topics include the following: <ul style="list-style-type: none"> • principles and elements of design • solving design problems • fundamentals of design • page layout • layout software • typography 	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/printmedia/index.html

				The course includes an emphasis on essential skills related to safety and employability skills. Students learn about career development, sustainability, and new and emerging technologies specifically related to print media design.		
Manitoba	Print Media: Pre-press (30S/E/M)	8468	Grade 11	<p>This course is intended for students considering specialization in print media. The curriculum content focuses on the initial stages of prepress within the print media process. Topics include the following:</p> <ul style="list-style-type: none"> • imposition • colour management • file management • image capture • image processing • file packaging • image carrier output <p>The course includes an emphasis on essential skills related to safety and employability. Students learn about career development, sustainability, and new and emerging technologies specifically related to print media design.</p>	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/print-media/index.html
Manitoba	Print Media: Print Production (30S/E/M)	8469	Grade 11	<p>This course is intended for students considering completing the specialization phase in print media. The curriculum content focuses on the initial stages of print production within the print media process. Topics include the following:</p> <ul style="list-style-type: none"> • ink • substrate • substrate path • print production chemicals • print production process • measurements <p>The course includes an emphasis on essential skills related to safety and employability. Students learn about career development, sustainability, and new and emerging technologies specifically related to print media design.</p>	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/print-media/index.html
Manitoba	Print Media: Advanced Design (40S/E/M)	8470	Grade 12	<p>This course is intended for students entering the completion phase of their print media studies. The curriculum content provides an overview of the design process and the application of that process in print media. Topics include: advanced elements and principles of design, advanced colour theory, advanced image manipulation, advanced typography, and advanced page</p>	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/print-media/index.html

				layout. Students independently apply essential skills related to safety and employability. They continue to develop their knowledge, skills, and attitudes in the areas of career development, sustainability, and new and emerging technologies in design specifically related to print media.		
Manitoba	Print Media: Advanced Pre-press (40S/E/M)	8471	Grade 12	This course is intended for students entering the completion phase of their print media studies. The curriculum content provides for an overview of the prepress process and application of that process in print media. Topics include: pagination, colour management, colour separation, advanced imposition, advanced image processing, and pre-press equipment operation and maintenance. Students independently apply essential skills related to safety and employability. They continue to develop their knowledge, skills, and attitudes in the areas of career development, sustainability, and new and emerging technologies in pre-press.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/print-media/index.html
Manitoba	Print Media: Advanced Print Production (40S/E/M)	8472	Grade 12	This course is intended for students entering the completion phase of their print media studies. The curriculum content provides for an overview of the print production process and application of that process in print media. Topics include: print production equipment operation and maintenance, introduction to post press, finishing, advanced colour management, advanced calculations, and bindery. Students independently apply essential skills related to safety and employability. They continue to develop their knowledge, skills, and attitudes in the areas of career development, sustainability, and new and emerging technologies in print production.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/print-media/index.html
Manitoba	Print Media: Applied Print Media (40S/E/M)	8473	Grade 12	This course is intended for students specializing in print media. The curriculum content provides for an overview of the print production process and independent application of that process in print media. Topics include: managing print jobs, communicating with clients, synthesizing skills required to complete print jobs, skills needed to succeed in the print industry, diagnosing print production issues, and professional attitudes towards craftsmanship and print media portfolio. Students independently apply essential skills related to safety and employability. They continue to develop their knowledge, skills, and attitudes in the areas of career development,	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/print-media/index.html

				sustainability, and new and emerging technologies in print production.		
Manitoba	Refrigeration and Air Conditioning: Exploration of Refrigeration and Air Conditioning (15S/E/M, 10S/E/M)	8986	Grade 9	This is an optional course intended for students wishing to sample being a refrigeration and air conditioning mechanic. The emphasis is on hands-on activities. Students are introduced to safety, tools and equipment, refrigeration and air conditioning systems, and service procedures.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/refrigeration/index.html
Manitoba	Refrigeration and Air Conditioning: Introduction to Refrigeration and Air Conditioning (20S/E/M)	8987	Grade 10	In this course, students develop skills in the refrigeration and air conditioning service and repair industry, but must have knowledge of the basic principles related to refrigeration and air conditioning equipment systems and service. Students learn safety, tools and equipment, refrigeration and air conditioning equipment systems, air movement systems, and ductwork fabrication.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/refrigeration/index.html
Manitoba	Refrigeration and Air Conditioning: System Fundamentals (30S/E/M)	8988	Grade 11	In this course, students develop skills in the refrigeration and air conditioning service and repair industry, but must have knowledge of the basic principles of the refrigeration cycle and components, and the basic hand tools necessary to test and install equipment and fabricate sheet metal ducting. Students learn about the procedures to assemble various parts and components.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/refrigeration/index.html
Manitoba	Refrigeration and Air Conditioning: Piping Fundamentals (30S/E/M)	8989	Grade 11	In this course, students develop skills in the refrigeration and air conditioning industry, but must have knowledge of the basic principles of the piping connection and brazing systems, pressure testing, and pipe evacuation systems. Students solder, braze, flare, bend, and assemble various piping materials and test for leaks.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/refrigeration/index.html
Manitoba	Refrigeration and Air Conditioning:	8991	Grade 11	In this course, students develop skills in the refrigeration and air conditioning industry, but must have knowledge of basic electrical systems. Students develop skills in using basic	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/refrigeration/index.html

	Electrical Fundamentals (30S/E/M)			calculations, tools, and meters to test electrical circuits. They are able to do basic assembly of electrical components and wiring.		
Manitoba	Refrigeration and Air Conditioning: Electrical Controls (40S/E/M)	8992	Grade 12	In this course, students develop skills in the refrigeration and air conditioning industry, but must have knowledge of the basic principles of electrical control devices, switches, relays, transformers, and voltage supply systems. Students diagnose, service, and repair standard control systems and electrical components.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/refrigeration/index.html
Manitoba	Refrigeration and Air Conditioning: Refrigeration and Air Cooling Systems (40S/E/M)	8995	Grade 12	In this course, students develop skills in the refrigeration and air conditioning industry, but must have knowledge of the concepts of cooling air and the effects cooling air has on the products in storage and on air properties. Students identify various system components, how they are assembled, and their relationship to one another.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/refrigeration/index.html
Manitoba	Refrigeration and Air Conditioning: Heating, Ventilation, and Air Conditioning Systems (40S/E/M)	8996	Grade 12	In this course, students develop skills in the refrigeration and air conditioning industry, but must have knowledge of heating, ventilation, and air conditioning fundamentals. Students learn how to fabricate and assemble ducting systems and related equipment. Students learn the basic theory of combustion and how warm air heating systems work. They use basic troubleshooting techniques to diagnose and repair basic heating and cooling equipment.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/refrigeration/index.html
Manitoba	Refrigeration and Air Conditioning: Applied Refrigeration and Air Conditioning (40S/E/M)	8997	Grade 12	In this course, students develop skills in the refrigeration and air conditioning service and repair industry, but must have knowledge of the basic principles related to refrigeration and air conditioning equipment systems and service. Students learn safety, tools and equipment, refrigeration and air conditioning equipment systems, air movement systems, and ductwork fabrication.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/refrigeration/index.html

Manitoba	Resources and Environmental Management: Introduction to Resource Management (10S/E/M)	8340	Grade 9	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Resources and Environmental Management: Introduction to Resource Management (15S/E/M)	8341	Grade 9	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Resources and Environmental Management: Woods Orientation (20S/E/M)	8342	Grade 10	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Resources and Environmental Management: Ecology and Field Biology (30S/E/M)	8344	Grade 11	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Resources and Environmental Management: Forest Management (30S/E/M)	8347	Grade 11	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Resources and Environmental Management: Wildlife	8349	Grade 12	This curriculum is under review and is not available online.	N/A	N/A

	Management (40S/E/M)					
Manitoba	Resources and Environmental Management: Fisheries Management (40S/E/M)	8350	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Resources and Environmental Management: Applied Resource Management (40S/E/M)	8353	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Resources and Environmental Management: Botany (30S/E/M)	8354	Grade 11	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Resources and Environmental Management: Geographical Information Systems (40S/E/M)	8355	Grade 12	This curriculum is under review and is not available online.	N/A	N/A
Manitoba	Sound Engineering: Exploration of Sound Engineering (15S/E/M, 10S/E/M)	9165	Grade 9	This optional course is intended for students wishing to explore sound engineering. Students learn the importance of safe practices while performing entry-level activities related to live performances and studio work. They learn to play a musical instrument at an introductory level.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sound/index.html

Manitoba	Sound Engineering: Introduction to Sound Engineering (20S/E/M)	9166	Grade 10	This course introduces students to the field of sound engineering. Students learn the importance of safe practices while performing entry-level activities related to live performances and studio work. Students learn music and audio theory, as well as how to play a musical instrument at an introductory level and participate in a live performance.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sound/index.html
Manitoba	Sound Engineering: Music Theory for Sound Engineering (30S/E/M)	9167	Grade 11	In this course, students learn the audio and music theory required to perform the functions of a sound engineer. Topics include acoustics, frequency, pitch, psychoacoustic phenomena, Fletcher-Munson curves, intervals, and rhythms. Students incorporate music theory into an Overview 5 original composition and participate in an entry-level live performance.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sound/index.html
Manitoba	Sound Engineering: Sound Engineering for Studio Production (30S/E/M)	9168	Grade 11	In this course, students learn the knowledge and skills required to manage a studio recording session, including pre-production and editing.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sound/index.html
Manitoba	Sound Engineering: Sound Engineering for Live Performances (30S/E/M)	9169	Grade 11	In this course, students learn the knowledge and skills required to manage a live performance, including blocking and striking a stage, as well as the pre-production and editing of the performance.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sound/index.html
Manitoba	Sound Engineering: Advanced Music Theory for Sound Engineering (40S/E/M)	9170	Grade 12	This course expands on the knowledge and skills students acquired in Course 9167 (Music Theory for Sound Engineering) and participate in the engineering of a live performance at an intermediate level.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sound/index.html

Manitoba	Sound Engineering: Advanced Sound Engineering for Studio Production (40S/E/M)	9171	Grade 12	This course expands on the knowledge and skills students acquired in Course 9168 (Sound Engineering for Studio Productions). Students, with minimum supervision, initiate and manage a studio session, assuming the role of a technical director. Students demonstrate advanced techniques in editing the production.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sound/index.html
Manitoba	Sound Engineering: Advanced Sound Engineering for Live Performances (40S/E/M)	9172	Grade 12	This course expands on the knowledge and skills students acquired in Course 9169 (Sound Engineering for Live Performances). With a minimum of supervision, students initiate and manage a live performance, assuming the role of a technical director. Students demonstrate the use of advanced techniques in editing the performance.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sound/index.html
Manitoba	Sound Engineering: Applied Sound Engineering (40S/E/M)	9173	Grade 12	In this course, students apply the knowledge and skills learned in previous courses to initiate and manage all aspects of studio productions and live performances at an advanced level.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sound/index.html
Manitoba	Sustainable Energy: Exploration of Sustainable Energy (15S/E/M, 10S/E/M)	8232	Grade 9	This optional course can be taught as either a half or a full credit. It provides a broad introduction to the field of sustainable energy. Students explore historical, current, and emerging alternative energy uses in Manitoba. They focus on safety practices and procedures.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sust_e/energy/index.html
Manitoba	Sustainable Energy: Introduction to Sustainable Energy (20S/E/M)	8233	Grade 10	This course provides a broad introduction to the field of sustainable energy. Students explore historical and current sustainable energy use strategies in Manitoba.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sust_e/energy/index.html

Manitoba	Sustainable Energy: Sustainable Energy: Electrical Systems (30S/E/M)	8234	Grade 11	This course explores systems that generate electricity without using fossil fuels as their primary energy source. Students learn how to size, install, and maintain solar photovoltaic and small wind electrical systems.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sust_energy/index.html
Manitoba	Sustainable Energy: Sustainable Energy: Heating/Cooling Systems (30S/E/M)	8245	Grade 11	This course focuses on how to heat and cool residential and commercial buildings with ground-source heat pumps and with biomass and solar thermal systems.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sust_energy/index.html
Manitoba	Sustainable Energy: Sustainable Energy: Transportation Systems (30S/E/M)	8246	Grade 11	This course explores the advantages and disadvantages of using sustainable energy sources for transportation, compared to using fossil fuels.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sust_energy/index.html
Manitoba	Sustainable Energy: Sustainable Energy: Solar Systems (40S/E/M)	8279	Grade 12	This course focuses on solar energy technologies used to heat buildings and generate electricity. Students become familiar with major solar energy installation sites in Manitoba (e.g., Manitoba Hydro Place solar chimney, Manitoba Housing Authority solar wall, Red River College solar trough). Building on the solar energy basics explored in the Grades 9 to 11 sustainable energy courses, students plan and contribute to the installation of a solar system (either solar photovoltaic or solar thermal).	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sust_energy/index.html
Manitoba	Sustainable Energy: Sustainable Energy: Wind Systems (40S/E/M)	8292	Grade 12	This course focuses on the use of wind energy for generating electricity. It explores both utility-scale wind farms and small wind systems (< 100 kW). Students plan and contribute to the installation of a small wind turbine.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sust_energy/index.html

Manitoba	Sustainable Energy: Sustainable Energy: Biomass Systems (40S/E/M)	8293	Grade 12	This course focuses on the use of biomass energy for electricity, heat, and transportation (e.g., biodiesel). Students explore significant biomass energy installation sites in Manitoba (e.g., Manitoba Hydro's Bioenergy Optimization Program sites), produce test-scale quantities of biodiesel, and plan a biomass heating or power system.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sust_energy/index.html
Manitoba	Sustainable Energy: Current Topics in Sustainable Energy (40S/E/M)	9175	Grade 12	This course gives students the opportunity to investigate current topics, issues, and trends in sustainable energy. It is intended that students determine the topics, issues, and trends they find engaging and relevant.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/sust_energy/index.html
Manitoba	Welding Technology: Exploration of Welding Technology (15S/E/M, 10S/E/M) Technologie de soudage : Exploration des technologies de soudage	8377	Grade 9	This is an optional course intended for students wishing to explore welding technology. The emphasis is on hands-on introductory welding activities. Il s'agit d'un cours optionnel destiné aux élèves qui souhaitent explorer la technologie de soudage. L'accent est mis sur les activités pratiques d'initiation au soudage	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/welding/index.html
Manitoba	Welding Technology: Introduction to Welding Technology (20S/E/M) Technologie de soudage : Initiation à la	8378	Grade 10	This course is intended to introduce students to a potential career in welding. The emphasis is on hands-on basic welding activities using GMAW (MIG), SMAW (ARC), and oxy-acetylene equipment. Ce cours vise à présenter aux élèves les possibilités de carrière en soudage. L'accent est mis sur la pratique d'activités de soudage de base à l'aide du procédé GMAW (MIG), du procédé SMAW (ARC) et de l'équipement oxyacétylénique	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/welding/index.html

	technologie de soudage					
Manitoba	Welding Technology: Metal Design/Fabrication and Oxy-Acetylene Procedures (30S/E/M)	8414	Grade 11	This course is intended for students who are considering a career in welding. The emphasis is on the design and fabrication of intermediate metal projects, as well as on oxyacetylene procedures.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/welding/index.html
Manitoba	Welding Technology: Basic GMAW (MIG) Procedures (30S/E/M)	8474	Grade 11	This course is intended for students who are considering a career in welding. The emphasis is on hands-on basic flat GMAW (MIG) welding procedures.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/welding/index.html
Manitoba	Welding Technology: Basic SMAW (ARC) Procedures (30S/E/M)	8486	Grade 11	This course is intended for students who are considering a career in welding. The emphasis is on hands-on basic flat SMAW (ARC) welding procedures.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/welding/index.html
Manitoba	Welding Technology: Advanced GMAW (MIG) Procedures (40S/E/M)	8487	Grade 12	This course is intended for students who are intending to pursue a career in welding. The emphasis is on hands-on advanced positional GMAW (MIG) welding procedures.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/welding/index.html
Manitoba	Welding Technology: Advanced SMAW (ARC) Procedures (40S/E/M)	8488	Grade 12	This course is intended for students who are intending to pursue a career in welding. The emphasis is on hands-on advanced positional SMAW (ARC) welding procedures.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/welding/index.html

Manitoba	Welding Technology: Advanced Metal Design/Fabrication (40S/E/M)	8489	Grade 12	This course is intended for students who are intending to pursue a career in welding. The emphasis is on the design and fabrication of advanced metal projects.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/welding/index.html
Manitoba	Welding Technology: Applied Specialties and Qualifications (40S/E/M)	8503	Grade 12	This course is intended for students who are intending to pursue a career in welding. The emphasis is on preparing for and performing the Manitoba Welder Practical Examination Structural Level 1 (Canadian Welding Bureau). Students are introduced to hoisting, lifting, and rigging, as well as to access equipment.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sytep/welding/index.html
Manitoba	High School Apprenticeship Program: High School Apprenticeship Program 1 (40S/E/M)	9802	Grade 12	In Manitoba, apprenticeship training is administered by Apprenticeship Manitoba of Advanced Education, Skills and Immigration. More information is provided on their website.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sy_app_option.html
Manitoba	High School Apprenticeship Program: High School Apprenticeship Program 2 (40S/E/M)	9802	Grade 12	In Manitoba, apprenticeship training is administered by Apprenticeship Manitoba of Advanced Education, Skills and Immigration. More information is provided on their website	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sy_app_option.html
Manitoba	High School Apprenticeship Program: High School Apprenticeship Program 3 (40S/E/M)	9803	Grade 12	In Manitoba, apprenticeship training is administered by Apprenticeship Manitoba of Advanced Education, Skills and Immigration. More information is provided on their website.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sy_app_option.html

Manitoba	High School Apprenticeship Program: High School Apprenticeship Program 4 (40S/E/M)	9804	Grade 12	In Manitoba, apprenticeship training is administered by Apprenticeship Manitoba of Advanced Education, Skills and Immigration. More information is provided on their website.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sy_app_option.html
Manitoba	High School Apprenticeship Program: High School Apprenticeship Program 5 (40S/E/M)	9805	Grade 12	In Manitoba, apprenticeship training is administered by Apprenticeship Manitoba of Advanced Education, Skills and Immigration. More information is provided on their website.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sy_app_option.html
Manitoba	High School Apprenticeship Program: High School Apprenticeship Program 6 (40S/E/M)	9806	Grade 12	In Manitoba, apprenticeship training is administered by Apprenticeship Manitoba of Advanced Education, Skills and Immigration. More information is provided on their website.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html https://www.edu.gov.mb.ca/k12/cur/teched/sy_app_option.html
Manitoba	High School Apprenticeship Program: High School Apprenticeship Program 7 (40S/E/M)	9807	Grade 12	In Manitoba, apprenticeship training is administered by Apprenticeship Manitoba of Advanced Education, Skills and Immigration. More information is provided on their website.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sy_app_option.html
Manitoba	High School Apprenticeship Program: High School Apprenticeship Program 8 (40S/E/M)	9808	Grade 12	In Manitoba, apprenticeship training is administered by Apprenticeship Manitoba of Advanced Education, Skills and Immigration. More information is provided on their website.	N/A	https://www.edu.gov.mb.ca/k12/cur/teched/sy_app_option.html

2.16 Other Courses

P/T	Course Name	Course Code	Grade/Level	Description	Prerequisite	Link
Manitoba	Psychology (40S/E/M)	1010	Grade 12	This course introduces students to key topics in psychology, with a focus on areas relevant to their lives. It covers five main content areas. The first section introduces the scientific methods used in psychology and their practical application. Biopsychology explores the biological basis of behavior, including sensation, perception, motivation, emotion, stress, coping, and health. Developmental Psychology focuses on human lifespan changes, personality, and personality assessment. Cognitive Psychology explores learning, memory, thinking, language, and states of consciousness. The theme of Individual Differences examines psychological disorders, treatments, and the social and cultural dimensions of behavior.	N/A	https://www.edu.gov.mb.ca/k12/cur/psych/index.html
Manitoba	Introduction to Tourism (30S/E/M)	0301	Grade 11	This course provides a broad introduction to the field of tourism. Issues surrounding sustainability in tourism are examined in a global, provincial and territorial context. The course includes employability skills, career and educational opportunities, cross-curricular skills, ethical and legal standards, cultural perspectives, and health and safety. Students participate in an on-site visitor experience.	N/A	https://www.edu.gov.mb.ca/k12/cur/tourism/index.html
Manitoba	Sustainable Tourism (40S/E/M)	0302	Grade 12	This course focuses on sustainable tourism in a local context. It includes employability skills, career and educational opportunities, cross-curricular skills, ethical and legal standards, cultural perspectives, and health and safety. Students participate in the design, promotion, and implementation of an on-site visitor experience that showcases their local region.	N/A	https://www.edu.gov.mb.ca/k12/cur/tourism/index.html
Manitoba	World of Religions (45S/E/M)	0606	Grade 12	In this course, students explore the diversity of religions and/or religious perspectives in Canada and globally. Students explore two to three different religions or perspectives and the diversity across and between. They interact with guests of different faiths. This course seeks to help students develop a basic level of 'literacy' about several world religions and/or religious perspectives, explore the similarities and differences across different	N/A	https://www.edu.gov.mb.ca/k12/docs/support/world_religions/index.html

				religions, and the historical and continued significance of religious diversity in Manitoba, Canada and the world. Students learn more about themselves, their personal faith perspectives and practices, and their place within their communities.		
Manitoba	World of Religions (40S/E/M)	0606	Grade 12	In this course, students explore the diversity of religions and/or religious perspectives in Canada and globally. They explore four to six different religions or perspectives and the diversity across and between. Students interact with guests of different faiths. This course seeks to help students develop a basic level of 'literacy' about several world religions and/or religious perspectives, explore the similarities and differences across different religions, and the historical and continued significance of religious diversity in Manitoba, Canada and the world. Students learn more about themselves, their personal faith perspectives and practices, and their place within their communities.	N/A	https://www.edu.gov.mb.ca/k12/docs/support/world_religions/index.html

Contact information for each province and territory will also be included in the guide.

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