Manitoba Education
Instruction, Curriculum & Assessment Branch

Manitoba Economic Development and Training
Apprenticeship Manitoba

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High School Technical-Vocational Trades Training

Manitoba

Today's Agenda

Part 1: Welcome and Introductions

- **Roles and Responsibilities**
- **Understanding the Technical-Vocational Education (TVE) Program Pathways**
- **Apprenticeship-Accredited TVE clusters**

Part 2: Health Break – 5 minutes

- **Apprenticeship and Training in Manitoba Overview**
- **The Red Seal Program**
- **The Occupational Standards and Red Seal Exam**
- **Technical Training Documents**
- **How to Become Accredited**

Part 3: Health Break – 10 minutes

- **Know Your Documents**
- **How TVE Curriculum is Developed with Apprenticeship Standards**
- **Unpacking It All: GLOs, SLOs, Apprenticeship Standards, Practical and Theory Hours, and Supporting Documents.**

Part 4: Health Break – 5 minutes

- **Blended Learning Approaches**
- **Supports, Resources, and Tools**
- **FAQs**
- **References/Links /Contacts**
- **Evaluation**

Introductions

- Instruction Curriculum and Assessment Branch (ICAB)
  - Kim Poirier – Consultant, Technology Education
  - Jackie Knight – Consultant, Technology Education
  - Gilles Landry – Consultant, Technical-Vocational Education

Introductions, continued

- Apprenticeship Manitoba (AM)
  - Gabriel Chung – A/Manager Training Standards
  - Tiffany Stepaniuk – Operations Officer and Education Liaison
  - Apprenticeship Training Coordinators:
    - Linh Dang
    - Jeannette Desmarais
    - Jenna Smid

Roles and Responsibilities

- Department of Education
  - Instruction, Curriculum and Assessment Branch
- Department of Economic Development and Training
  - Apprenticeship Manitoba

- ❑ Senior Years Technology Education Program Diploma
- ❑ Technical-Vocational Education (TVE) Programming
- ❑ Accreditation & Level 1 Recognition
- ❑ High School Apprenticeship Program (HSAP)

Understanding Technical-Vocational Education (TVE)

- TVE plays a key role in Manitoba's educational structure and provides students with the skills they need to compete in the world of work in today's society.

TVE

- Over 35 different clusters
- Skilled Trades, Occupations, Certifications, Career Exploration
- **14 possible Accredited Apprenticeship Manitoba programs (clusters)**
- **On-the-job work placements and High School Apprenticeship Program (HSAP)**

Technical-Vocational Education

Aircraft Maintenance Technology
Automotive Technology
Aviation and Aerospace Technologies
Baking and Pastry Arts
Broadcast Media Technology
Cabinet and Furniture Making
Carpentry
Child Care
Collision Repair and Refinishing Technology
Culinary Arts
Dental Assisting
Dental Technology
Design Drafting
Electrical Trades Technology
Electronics Technology
Esthetics
- Nail Technology
- Skin Care Technology

Fashion Design and Technology
Graphic Design
Hairstyling
Health Care Assistant
Heavy Duty Equipment Technician
Horticulture
Interactive Digital Media
Jewellery and Metalsmithing
Machining Technology
Mining Engineering Technology
Motion Picture Arts
Networking and Cyber Security
Photography
Pilot Ground School
Plumbing and Pipe Trades
Print Media
Refrigeration and Air Conditioning
Resources and Environmental Management
Sound Engineering
Sustainable Energy
Welding Technology

High School Apprenticeship Program (HSAP)

Up to 8 high school credits

14 TVE clusters eligible for Accreditation with Apprenticeship Manitoba

- Aircraft Maintenance Technology
- Automotive Technology
- Cabinet and Furniture Making
- Carpentry
- Collision Repair and Refinishing Technology
- Culinary Arts
- Electrical Trades Technology
- Esthetics; Nail Technology and Skin Care Technology
- Hairstyling
- Heavy Duty Equipment Tech
- Horticulture
- Machining Technology
- Plumbing and Pipe Trades
- Welding

What is TVE?

Industry-certified teacher

Industry experience into the classroom

Builds skills in one specific trade or trained occupation

Transitions students to post-secondary or employment

It starts with Qualified Red Seal Certified TVE Teachers

- Skilled Trades Teachers have a

impact on student daily lives and their future career success

as a tradesperson!

Manitoba

Pathways to Apprenticeable Trades in High School

Option 1

Non-Accredited Technical Vocational Education (TVE) Cluster

HIGH SCHOOL CREDIT
Receive between 8–12 high school credits

APPRENTICESHIP MANITOBA CREDIT
No apprenticeship credit

STILL REQUIRED
After graduation, students can challenge the Level 1 Apprenticeship Manitoba exam or start the post-secondary apprenticeship program (an employer/trainer is required). All technical training and on-the-job hours are still required

Option 2

Accredited Technical Vocational Education (TVE) Cluster

HIGH SCHOOL CREDIT
Receive between 8–12 high school credits

APPRENTICESHIP MANITOBA CREDIT
Receive Level 1 of Apprenticeship Manitoba technical training and trade specific hours toward required calendar time in the post-secondary apprenticeship program

STILL REQUIRED
Students must fulfil Level 1 on-the-job practical hours requirements upon starting a post-secondary apprenticeship (an employer/trainer is required)

Option 3

High School Apprenticeship Program (HSAP)

HIGH SCHOOL CREDIT
Receive one HSAP high school credit for every 110 hours of on-the-job practical work (max 8 credits) and an employer/trainer is required

APPRENTICESHIP MANITOBA CREDIT
Receive on-the-job practical hours toward Level 1 in a post-secondary apprenticeship **AND** tuition exemption (depends on how many hours worked)

STILL REQUIRED
Students must fulfil Level 1 technical training requirements upon starting a post-secondary apprenticeship (an employer/trainer is required)

Option 4

Accredited Technical Vocational Education (TVE) Cluster AND High School Apprenticeship Program (HSAP)

HIGH SCHOOL CREDIT
Receive between 8–12 high school credits **AND** Receive one HSAP high school credit for every 110 hours of on-the-job practical work (max 8 credits) and an employer/trainer is required

APPRENTICESHIP MANITOBA CREDIT
Receive Level 1 technical training credit **AND** on-the-job practical hours credit **AND** tuition exemption (depends on how many hours worked) Eligible students can register for Level 2 technical training.

STILL REQUIRED
Students must have an employer/trainer to register a post-secondary apprenticeship for Level 2

technical training hours + on-the-job practical hours + calendar time = Level 1 Trade Training

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Trades Training Program Options	High School Credits Available	Apprenticeship Manitoba Credit and Accreditation	Still Required and Next Steps
Non-Accredited Technical Vocational Education (TVE) Cluster Students enrolled in a trade related non-accredited TVE cluster	Students would receive between 8–12 TVE high school credits only.	Non-accredited programs would not be recognized for Level 1 accreditation unless students challenge the Level 1 exam and complete the required on-the-job hours.	Once both the Level 1 challenge exam and on-the-job hours are complete, students would register for Level 2 in a post-secondary apprenticeship program. **Or** after graduation, students can find an employer, register with Apprenticeship Manitoba and discuss the option of challenging the Level 1 exam with the employer and Apprenticeship Training Coordinator (ATC). **Or** decide to take all levels of technical training from the beginning.
In-School Accredited Technical Vocational Training Program (Accredited TVE Cluster) An Apprenticeship Manitoba accredited technical training program available in high school that provide the technical vocational training credit towards completion of a Level 1 apprenticeship in a specific trade.	Students receive between 9–12 high school credits for in-school accredited technical vocational training programs. Students will receive credit for Level 1 technical training when they register as a post-secondary apprentice in the specific trade training program.	Students receive Level 1 technical training exemption when they register as a post-secondary apprentice and receive trade specific hours toward their calendar time. Schools must apply for accreditation from Apprenticeship Manitoba. Schools must meet Apprenticeship Manitoba accreditation standards in curriculum, facility and teacher qualifications to be an accredited training facility. Accreditation Guidelines are available from Apprenticeship Manitoba.	Students are required to find an employer, register with Apprenticeship Manitoba to receive the exemption which enables Level 2 training eligibility and continue to accumulate on-the-job hours. Pre-employment course for Level 1 from a post-secondary facility is **not** required if the in-school accredited technical vocational training program was successful.
High School Apprenticeship Program (HSAP) Students may engage in on-the-job training as a registered apprentice in a specific skilled trade area. The employer or trainer must be a certified red seal journeyperson or apply for designated trainer designation.	Receive one HSAP academic credit for every 110 hours of work. (maximum 8 credits—all at 40S level).	Students enter into an apprenticeship agreement with Apprenticeship Manitoba, the high school and an employer who ensures there is a certified red seal journeyperson or designated trainer on site. Once the student is registered, students may accrue on-the-job experience and hours toward Level 1 practical hours requirement and high school credits.	Students provide Apprenticeship Manitoba with their Grade 12 transcript and Report of Hours (blue book) to confirm graduation, hours and credits, and intention to continue in apprenticeship in the post-secondary program which will also make them eligible for all levels of technical training.
Both In-School Accredited Technical Vocational Training Program and HSAP It is possible for students to enroll in both the in-school technical vocational training program and the HSAP program while in high school.	Students would receive between 8–12 TVE high school credits for the in-school technical vocational training program **and** up to 8 HSAP high school credits for on-the-job practical experience hours.	The in-school technical vocational training program must be an accredited Apprenticeship Manitoba program. All required hours for the in-school technical vocational training must be completed in school (between 880 and 1400). HSAP requires students, employer and school to register the HSAP agreement to begin accumulating on-the-job hours and credits.	Students provide Apprenticeship Manitoba with their Grade 12 transcript and Report of Hours (blue book) to confirm graduation, hours and credits from both the accredited program and HSAP credits. This submission also indicates their intent to transfer into the post-secondary apprenticeship. This transfer will allow the apprentice to begin their required/remaining levels of technical training.

HSAP & APPRENTICESHIP

High School Apprenticeship Program (HSAP)

- Get on-the-job training with an employer (paid work)
- Earn academic credits toward your high school diploma
- Earn hours towards your post-secondary apprenticeship

- Students must be 16 years old

OPTION 3 OR 4 - BOTH ARE GREAT PATHWAYS!

https://www.edu.gov.mb.ca/k12/cur/teched/index.html

Get Started

Technology Education

- Applied Commerce Education (formerly Business and Marketing Education)
- Cooperative Vocational Education
- Distance Learning
- Funding
- High School Apprenticeship Program
- Human Ecology
- Industrial Arts
- Resources
- Safety Preparation for Student Career Learning and Work Experiences
- Senior Years Technology Education Program
- Subject Table Handbook – Technology Education
- Youth Work Experience Hiring Incentive
- What's New
- Contacts

Related Links

Technology Education

Welcome!

Technology Education Program: Required and Recommended Teacher Certification Qualifications (288 KB)
The Technology Education Program and Recommended Teacher Certification Requirements document is a new resource to provide information, clarify expections, and support school divisions and school adherence to teacher certification requirements for Technical Vocational Education (TVE) programs offered in high schools in Manitoba.

New Graduation Requirements for the Senior Years Technology Education Program (SYTEP) diploma.
Effective September 2018, *History of Canada* (30F) will become a compulsory credit for students graduating in 2020/21 and subsequent years. The framework for structuring the credit courses and clusters are outlined in the Graduation Requirements for the Technology Education Program.

Start Your Skills Training in High School
This poster/post-card outlines Technology Education courses in Technical Vocational, Industrial Arts, Human Ecology, Applied Commerce, High School Apprenticeship Program and includes information on Career Development courses and credits. It is designed to provide information to students, schools, school divisions and parents on programming that is available for high school students.

Quick Links

- Apprenticeship Manitoba
- Education for Sustainable Development
- Career Development

Resources

- Event Calendar
- Online Catalogues
- Schools in Manitoba
- Updates
- Workshop Registration System

https://www.edu.gov.mb.ca/k12/cur/teched/sy_tech_program.html

manitoba.ca > Education > K-12 > Curriculum > Technology Education

Get Started

- Technology Education
- Applied Commerce Educat (formerly Business and Marketing Education)
- Cooperative Vocational Education
- Distance Learning
- Funding
- High School Apprenticeship Program
- Human Ecology
- Industrial Arts
- Resources
- ty Preparation for Student Learning and Work
- Ex nces
- **Senior Years Technology Education Program**
  - Aircraft Maintenance Technology
  - Automotive Technology
  - Aviation and Aerospace Technologies
  - Baking and Pastry Arts
  - Broadcast Media
  - Cabinet and Furniture Making

Technology Education

Senior Years Technology Education Program

The Senior Years Technology Education program consists of 17 compulsory credits and an approved cluster of 8 to 14 compulsory technology education credits.

New Graduation Requirements for the Senior Years Technology Education Program (SYTEP) diploma. Effective September 2018, *History of Canada 30F* will become a compulsory credit for students graduating in 2020/21 and subsequent years.

Students wishing to graduate from a Senior Years Technology Education Program must fulfill the minimum 30 credit graduation requirement. A cluster of technology education courses must be an approved group of 8 to 14 department developed and/or approved courses which facilitate the transition from school to work.

The framework for structuring the credit courses and clusters are outlined in the Graduation Requirements for the Technology Education Program.

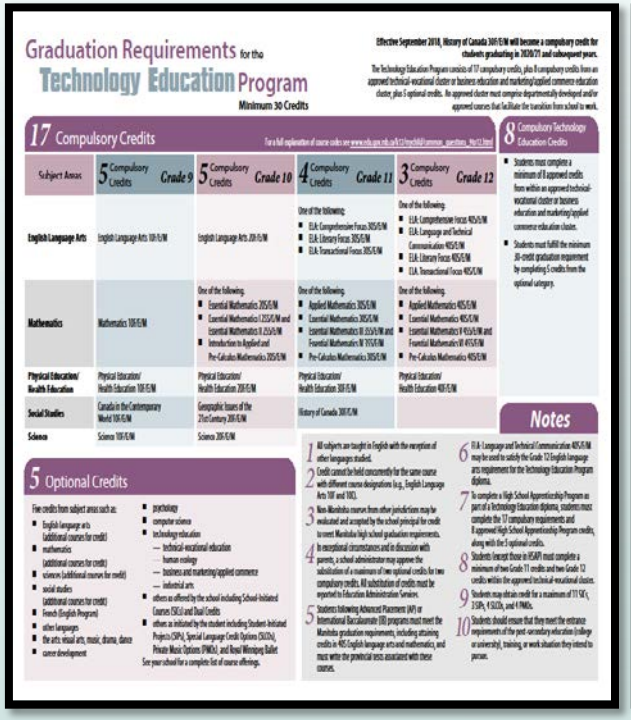
Technical-Vocational Education Overview

Technical-Vocational Education Overview (702 KB) Updated!
This document provides the philosophical and pedagogical underpinnings for the development of curriculum and the teaching of courses in the Senior Years Technology Education Programs (Technical-Vocational).

Exploration of Technical-Vocational Education: Manitoba Technical-Vocational Curriculum Framework of Outcomes

Grade 9 Exploration of Technical-Vocational Education (Draft 2016) (119 KB)

Senior Years Technology Education Diploma



Graduation Requirements for the Technology Education Program

Minimum 30 Credits

Effective September 2018, History of Canada 30F/S/M will become a compulsory credit for students graduating in 2020/21 and subsequent years.

The Technology Education Program consists of 17 compulsory credits, plus 8 compulsory credits from an approved technical-vocational cluster or business education and marketing/applied commerce education cluster, plus 5 optional credits. An approved cluster must comprise departmentally developed and/or approved courses that facilitate the transition from school to work.

17 Compulsory Credits

For a full explanation of course codes see www.edu.gov.mb.ca/k12/frenchlil/common_questions_ftp/13.html

Subject Areas	5 Compulsory Credits Grade 9	5 Compulsory Credits Grade 10	4 Compulsory Credits Grade 11	3 Compulsory Credits Grade 12
English Language Arts	English Language Arts 10F/S/M	English Language Arts 20F/S/M	One of the following: • ELA: Comprehensive Focus 30S/S/M • ELA: Literary Focus 30S/S/M • ELA: Transactional Focus 30S/S/M	One of the following: • ELA: Comprehensive Focus 40S/S/M • ELA: Language and Technical Communication 40S/S/M • ELA: Literary Focus 40S/S/M • ELA: Transactional Focus 40S/S/M
Mathematics	Mathematics 10F/S/M	One of the following: • Essential Mathematics 20S/S/M • Essential Mathematics I 22S/S/M and Essential Mathematics II 23S/S/M • Introduction to Applied and Pre-Calculus Mathematics 20S/S/M	One of the following: • Applied Mathematics 30S/S/M • Essential Mathematics 30S/S/M • Essential Mathematics III 35S/S/M and Essential Mathematics IV 37S/S/M • Pre-Calculus Mathematics 30S/S/M	One of the following: • Applied Mathematics 40S/S/M • Essential Mathematics 40S/S/M • Essential Mathematics V 45S/S/M and Essential Mathematics VI 47S/S/M • Pre-Calculus Mathematics 40S/S/M
Physical Education/ Health Education	Physical Education/ Health Education 10F/S/M	Physical Education/ Health Education 20F/S/M	Physical Education/ Health Education 30F/S/M	Physical Education/ Health Education 40F/S/M
Social Studies	Canada in the Contemporary World 10F/S/M	Geographic Issues of the 21st Century 20F/S/M	History of Canada 30F/S/M	
Science	Science 10F/S/M	Science 20F/S/M		

5 Optional Credits

Five credits from subject areas such as:

- English language arts (additional courses for credit)
- mathematics (additional courses for credit)
- sciences (additional courses for credit)
- social studies (additional courses for credit)
- French (English Program)
- other languages
- the arts: visual arts, music, drama, dance
- career development
- psychology
- computer science
- technology education
  - technical-vocational education
  - human ecology
  - business and marketing/applied commerce
  - industrial arts
- others as offered by the school including School-Initiated Courses (SICs) and Dual Credits
- others as initiated by the student including Student-Initiated Projects (SIPs), Special Language Credit Options (SLCOs), Private Music Options (PMOs), and Royal Winnipeg Ballet

See your school for a complete list of course offerings.

8 Compulsory Technology Education Credits

- Students must complete a minimum of 8 approved credits from within an approved technical-vocational cluster or business education and marketing/applied commerce education cluster.
- Students must fulfill the minimum 30-credit graduation requirement by completing 5 credits from the optional category.

Notes

1. All subjects are taught in English with the exception of other languages studied.
2. Credit cannot be held concurrently for the same course with different course designations (e.g., English Language Arts 10F and 10S).
3. Non-Manitoba courses from other jurisdictions may be evaluated and accepted by the school principal for credit toward Manitoba high school graduation requirements.
4. In exceptional circumstances and in discussion with parents, a school administrator may approve the substitution of a maximum of two optional credits for two compulsory credits. All substitution of credits must be reported to Education Administration Services.
5. Students following Advanced Placement (AP) or International Baccalaureate (IB) programs must meet the Manitoba graduation requirements, including attaining credits in 40S English language arts and mathematics, and must write the provincial exit assessment with these courses.
6. ELA: Language and Technical Communication 40F/S/M may be used to satisfy the Grade 12 English language arts requirement for the Technology Education Program diploma.
7. To complete a High School Apprenticeship Program as part of a Technology Education diploma, students must complete the 17 compulsory requirements and 8 approved High School Apprenticeship Program credits, along with the 5 optional credits.
8. Students (except those in HSAP) must complete a minimum of two Grade 11 credits and two Grade 12 credits within the approved technical-vocational cluster.
9. Students may obtain credit for a maximum of 11 SICs, 3 SIPs, 9 SLCOs, and 4 PMOs.
10. Students should ensure that they meet the entrance requirements of the post-secondary education (college or university), training, or work situation they intend to pursue.

Graduation Requirements for the French Immersion Program

TECHNOLOGY EDUCATION

Minimum 30 credits of which a minimum of 14 taught in French

Effective September 2018, Grade 11 History of Canada will be a compulsory credit for students graduating with a Technology Education Diploma in 2020/21 and subsequent years. This means that Grade 10 students entering the program in September 2018 will require the credit to graduate in June 2021.

21 Compulsory Credits

Compulsory Subjects

Grade 9 — 6 credits	Grade 10 — 6 credits	Grade 11 — 5 credits	Grade 12 — 4 credits
French Language Arts • Français langue seconde – immersion	French Language Arts • Français langue seconde – immersion	French Language Arts • Français langue seconde – immersion : langue et communication	French Language Arts • Français langue seconde – immersion : langue et communication
English Language Arts • English Language Arts	English Language Arts • English Language Arts	English Language Arts - 1 of the following: • ELA - Imm: Comprehensive Focus • ELA - Imm: Literary Focus • ELA - Imm: Transactional Focus	English Language Arts - 1 of the following: • ELA - Imm: Comprehensive Focus • ELA - Imm: Literary Focus • ELA - Imm: Transactional Focus • ELA - Imm: Language and Technical Communications (see number 6 from Notes on next page)
Mathematics • Mathématique or Mathematics	Mathematics - 1 of the following: • Mathématique au quotidien or Essential Mathematics • Mathématiques au quotidien I and Mathématiques au quotidien II or Essential Mathematics I and Essential Mathematics II • Introduction aux mathématiques appliquées et au pré-calcul or Introduction to Applied and Pre-Calculus Mathematics	Mathematics - 1 of the following: • Mathématique appliquée or Applied Mathematics • Mathématiques au quotidien or Essential Mathematics • Mathématiques au quotidien III and Mathématiques au quotidien IV or Essential Mathematics III and Essential Mathematics IV • Mathématiques pré-calcul or Pre-Calculus Mathematics	Mathematics - 1 of the following: • Mathématique appliquée or Applied Mathematics • Mathématiques au quotidien or Essential Mathematics • Mathématiques au quotidien V and Mathématiques au quotidien VI or Essential Mathematics V and Essential Mathematics VI • Mathématiques pré-calcul or Pre-Calculus Mathematics
Éducation physique et Éducation à la santé or Physical Education/Health Education	Éducation physique et Éducation à la santé or Physical Education/Health Education	Éducation physique et Éducation à la santé or Physical Education/Health Education	Éducation physique et Éducation à la santé or Physical Education/Health Education
Social studies • Le Canada dans le monde contemporain or Canada in the Contemporary World	Social studies • Les enjeux géographiques du XXIe siècle or Geographic Issues of the 21st Century	Social studies • Histoire du Canada or History of Canada	
Science • Sciences de la nature or Science	Science • Sciences de la nature or Science		

Exigences d'obtention du diplôme

Programme français au secondaire

ÉTUDES TECHNOLOGIQUES

Minimum de 30 crédits

À partir de septembre 2018, le crédit du cours Histoire du Canada, 11e année deviendra obligatoire aux finissants de 2020-2021 pour l'obtention du diplôme du Programme d'études technologiques au secondaire. Autrement dit, les élèves de 10e année qui entreront dans ce programme en septembre 2018 devront avoir ce crédit pour obtenir leur diplôme en juin 2021.

21 crédits obligatoires

Matières obligatoires

9e année — 6 crédits	10e année — 6 crédits	11e année — 5 crédits	12e année — 4 crédits
Français • Français langue première	Français • Français langue première	Français • Français langue première : langue et communication	Français • Français langue première : langue et communication
Anglais • Anglais	Anglais • Anglais	Anglais, un des suivants : • Anglais : comprehensive focus • Anglais : Literary Focus • Anglais : transactional focus	Anglais, un des suivants : • Anglais : Comprehensive Focus • Anglais : Literary Focus • Anglais : Transactional Focus • Anglais : Language and Technical Communications (voir numéro 6 dans la section Notes à la page suivante)
Mathématiques • Mathématiques	Mathématiques, un des suivants : • Mathématiques au quotidien • Mathématiques au quotidien I et Mathématiques au quotidien II • Introduction aux mathématiques appliquées et au pré-calcul	Mathématiques, un des suivants : • Mathématiques appliquées • Mathématiques au quotidien • Mathématiques au quotidien III et Mathématiques au quotidien IV • Mathématiques pré-calcul	Mathématiques, un des suivants : • Mathématiques appliquées • Mathématiques au quotidien • Mathématiques au quotidien V et Mathématiques au quotidien VI • Mathématiques pré-calcul
Éducation physique et Éducation à la santé	Éducation physique et Éducation à la santé	Éducation physique et Éducation à la santé	Éducation physique et Éducation à la santé
Sciences humaines • Le Canada dans le monde contemporain	Sciences humaines • Les enjeux géographiques du XXIe siècle	Sciences humaines • Histoire du Canada	
Sciences de la nature	Sciences de la nature		

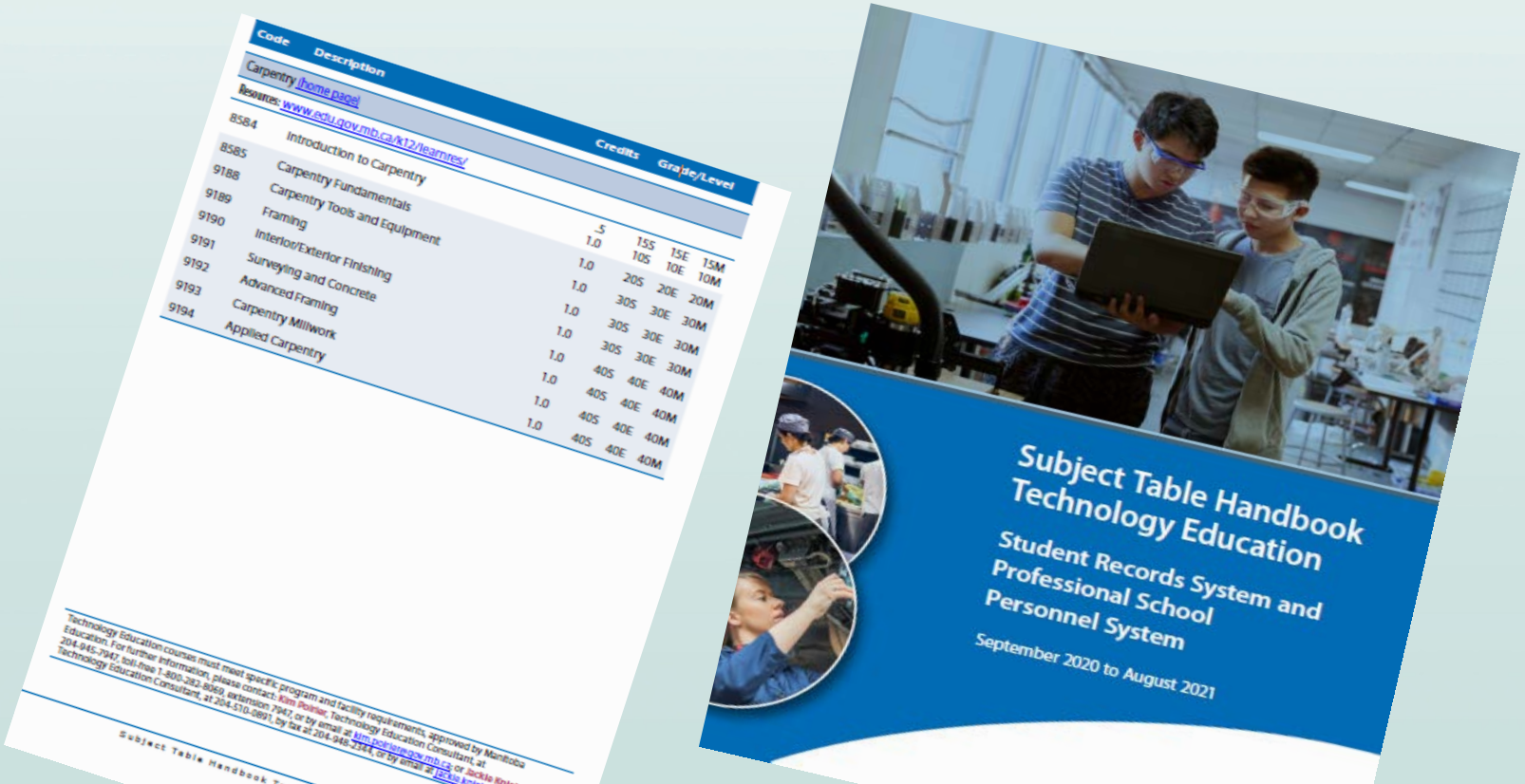
[English Program]

[French Immersion Program]

[Français Program]

Senior Years Technology Education Subject Table Handbook

- Subject Table Handbook
- www.edu.gov.mb.ca/k12/docs/policy/sthte/docs/sthte_2020-2021.pdf



What is a TVE cluster?

- An approved TVE cluster is composed of departmentally developed courses in **one specific trade** or trained occupation that facilitates the transition from school to either post-secondary training (such as the training provided through Apprenticeship Manitoba) or entry into the workforce (often in an entry-level position).
- Examples include Carpentry, Hairstyling, Culinary Arts, Automotive Technology, etc.
- Note that Manitoba Education & Apprenticeship Manitoba use slightly different names (e.g., Carpentry vs. Carpenter)

Approval of TVE Cluster

Schools need to consult with ICAB staff before deciding to offer any TVE cluster to ensure successful implementation. ICAB staff will help with the following:

- Identifying **vocationally certified** teachers
  - Industry certification (**journeyperson** for trades)
  - Minimum **6 years** in the trade
  - Hold RRC's TVE **Teacher Education Diploma**
- Determining **student interest** to sustain the cluster in the long term
- Determining **employment opportunities** in that region
- Acquiring **facilities and equipment**
- Determining funding supports and reporting
- Ensuring Workplace Safety and Health requirements are in place

How many courses are in each TVE cluster?

- **Most** clusters are composed of **eight required courses*** from Grades 10 to 12, resulting in 880 hours of instruction (110 hours/course x 8 courses):
  - one at Grade 10
  - three at Grade 11
  - four at Grade 12
- The optional Grade 9 course can be taught as a full or half credit.
  - It *cannot* be applied toward the TVE full cluster requirement.
- All clusters include at least **enough courses to complete the Level 1** time requirements from Apprenticeship Manitoba (typically 280–350 hours)
  - *except for the beauty trades (Hairstyling, Skin Care Technology, and Nail Technology), which have only **one level** requiring more hours

Can schools offer less than a complete cluster of TVE courses?

- Manitoba Education is mandated to determine the number of courses in all subject areas, both TVE and non-TVE, and whether schools should teach complete or incomplete clusters.
- Schools teaching a TVE cluster need to offer a full cluster of courses (typically eight credits).*
- A complete cluster is required so that students have the time to learn all the skills, knowledge, and attitudes required to achieve Level 1 accreditation in that trade, or its equivalent in a non-trade cluster.

Not all trades are the same

- There are over 55 trade programs in Manitoba.

- Trades are classified as either compulsory or voluntary. When a trade is deemed *compulsory,* it requires you to be registered as an apprentice OR you must already be a certified journeyperson in order to work in the trade in Manitoba.

Authorization to Practice

- If you are in the trades of Hairstylist and Esthetician, Apprenticeship Manitoba issues an Authorization to Practice with your Certificate of Qualification.
- The Authorization to Practice must be renewed every two years and must be available upon request at the work site.
- A person cannot legally work in the Hairstylist or Esthetician trades without a valid Authorization to Practice.

Health Break

Back in 5 minutes

https://www.edu.gov.mb.ca/k12/cur/tech ed/index.html

Apprenticeship Manitoba

Apprenticeship Manitoba: www.gov.mb.ca/tradecareers

Apprenticeship Overview

Apprentices learn skills in a classroom, as well as through paid, on the-job training with an employer.

- Apprentices register for training in a trade with Apprenticeship Manitoba and their employer.
- Apprenticeship Manitoba organizes technical (in-school) training through the three public colleges in Manitoba (RRC, ACC, and UCN).
- Upon completion of all requirements of the trade, an apprentice receives a *Certificate of Qualification*.

Includes HSAP

Apprentices spend on average, 80% of their training time on the job (40–44 weeks/year) and are mentored by a certified journeyperson/designated trainer.

Includes TVE High School programs

Apprentices go to school an average of 4–12 weeks/year or 20% of their training time.

Apprenticeship and Certification Board

- Provides governance and leadership.
- Apprenticeship Manitoba (AM) supports the Board by helping it reach annual strategic goals.
- The Executive Director of AM is the Secretary to the Board, and is the main contact for interprovincial and pan-Canadian apprenticeship initiatives.

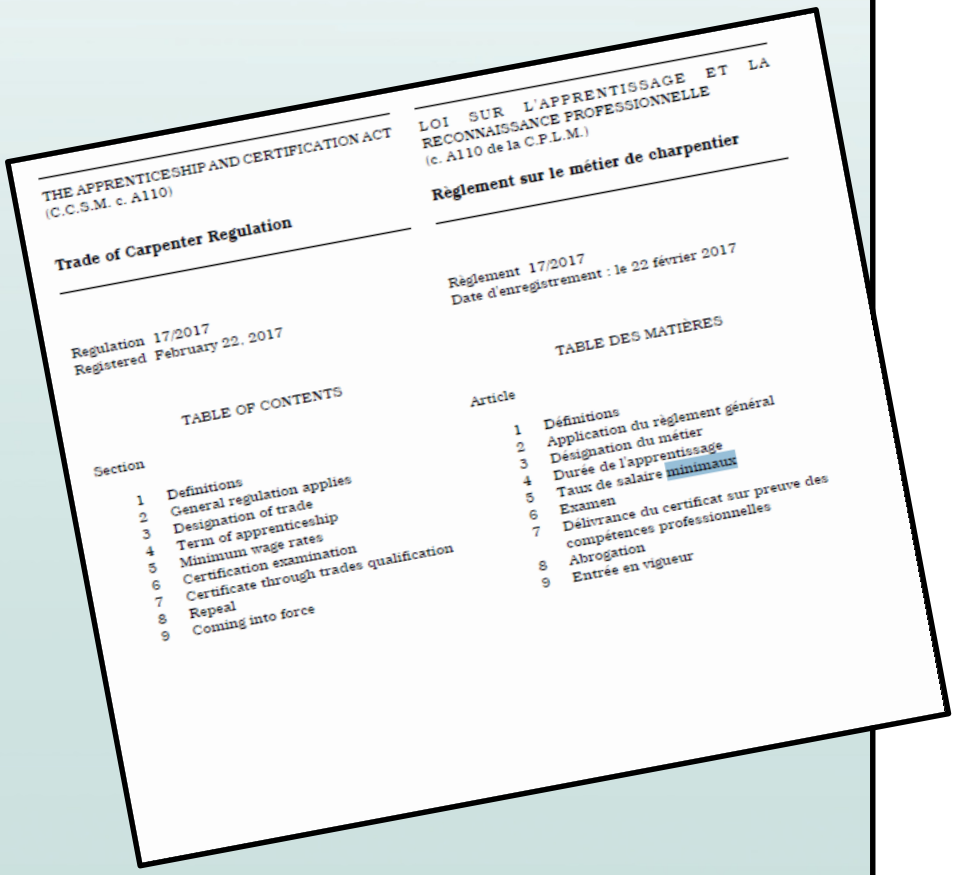
Apprenticeship Manitoba

- Apprenticeship Manitoba (AM) is responsible for the administration of legislation and regulations related to designated trades in Manitoba, *The Apprenticeship and Certification Act* and its regulations

- AM coordinates the training and qualifications system that delivers accredited, structured, workplace-based skills and technical training to apprentices, leading to journeyperson certification.

- Additionally, AM facilitates certification through trade qualification for experienced tradespeople who seek formal certification in their trade.

Trade Regulations



THE APPRENTICESHIP AND CERTIFICATION ACT
(C.C.S.M. c. A110)

Trade of Carpenter Regulation

Regulation 17/2017
Registered February 22, 2017

TABLE OF CONTENTS

Section

LOI SUR L'APPRENTISSAGE ET LA RECONNAISSANCE PROFESSIONNELLE
(c. A110 de la C.P.L.M.)

Règlement sur le métier de charpentier

Règlement 17/2017
Date d'enregistrement : le 22 février 2017

TABLE DES MATIÈRES

Article

Definitions
1 The following definitions apply in this regulation.

"**carpenter**" means a person who, to the standard indicated in the national occupational analysis for the trade, constructs, renovates and repairs residential, civil, institutional, commercial and industrial structures made of wood, steel, concrete and other material and interprets construction documents, drawings and building codes. (« charpentier »)

"**trade**" means the trade of carpenter. (« métier »)

General regulation applies
2 The provisions, including the definitions, of the *Apprenticeship and Certification — General Regulation*, Manitoba Regulation 154/2001, apply to the trade unless inconsistent with a provision of this regulation.

Designation of trade
3 The trade of carpenter is a designated trade.

Term of apprenticeship
4 The term of apprenticeship in the trade is four levels, with each level consisting of a period of at least 12 months during which the apprentice must complete 1,800 hours of technical training and practical experience.

Minimum wage rates
5(1) Unless otherwise prescribed by a payment agreement or enactment that is more favourable to the apprentice, the hourly wage rate for an apprentice during practical experience must not be less than

(a) 65% of the reference wage rate during the first level;

(b) 75% of the reference wage rate during the second level;

(c) 80% of the reference wage rate during the third level; and

(d) 90% of the reference wage rate during the fourth level.

Définitions
1 Les définitions qui suivent s'appliquent au présent règlement.

« **charpentier** » Personne qui, en conformité avec l'analyse professionnelle nationale applicable au métier, construit, rénove et répare des structures résidentielles, civiles, institutionnelles, commerciales et industrielles faites notamment en bois, en acier et en béton et interprète des dossiers de projet, des plans et des codes du bâtiment. ("carpenter")

« **métier** » Le métier de charpentier. ("trade")

Application du règlement général
2 Les dispositions du *Règlement général sur l'apprentissage et la reconnaissance professionnelle*, R.M. 154/2001, y compris ses définitions, s'appliquent au métier, sauf en cas d'incompatibilité avec les dispositions du présent règlement.

Désignation du métier
3 Le métier de charpentier est un métier désigné.

Durée de l'apprentissage
4 La durée de l'apprentissage du métier est constituée de 4 niveaux, chacun d'une période minimale de 12 mois au cours de laquelle l'apprenti doit consacrer 1 800 heures à la formation technique et à l'expérience pratique.

Taux de salaire minimaux
5(1) Sous réserve des dispositions d'une entente salariale ou d'un texte plus avantageuses pour l'apprenti, les taux de salaire horaire d'un apprenti qui acquiert de l'expérience pratique ne peuvent être inférieurs à ce qui suit :

a) pour le premier niveau, 65 % du taux de salaire de référence;

b) pour le deuxième niveau, 75 % du taux de salaire de référence;

c) pour le troisième niveau, 80 % du taux de salaire de référence;

d) pour le quatrième niveau, 90 % du taux de salaire de référence.

Manitoba

PROGRAM PROGRAMME
EXCELLENCE
RED SEAL · SCEAU ROUGE

- The **Canadian Council of Directors of Apprenticeship (CCDA)** is responsible for the ongoing oversight and management of the Inter-Provincial Red Seal Program.
- Membership includes Directors of Apprenticeship from all provinces and territories. The Executive Director is responsible for consulting with industry, and represents Manitoba on the Canadian Council of Directors of Apprenticeship (CCDA).
- Through this program, the provinces and territories work with industry to develop the occupational standards and certification examinations for 56 skilled trades.
- The Red Seal Program allows greater mobility for certified workers. Those who hold a Red Seal may work anywhere in Canada where their trade is designated without having to write further certification examinations for their trade.
- Most Manitoba apprenticeable trades are Red Seal endorsed.

Interprovincial Standards Red Seal Program: www.red-seal.ca

Red Seal Harmonization Initiative

- National development activities began in 2015.
  - 42 different trades so far with recent Phase 7
  - 24 trades harmonized in Manitoba, with 13 more in progress

- The focus is on substantive alignment across all provinces and territories in these four areas:
  - Use of Red Seal trade name
  - Consistent total training hours
  - Consistent total training levels
  - Sequencing of training

Red Seal Endorsement (RSE)

- Red Seal Endorsement (RSE) Acronym
- In 2015, the Canadian Council of Directors of Apprenticeship (CCDA) announced the official recognition of the “RSE” acronym (Red Seal Endorsement) for qualified skilled journeypersons.
- The RSE acronym is used by journeypersons who have obtained a Red Seal endorsement on their provincial or territorial trade certificate. Anyone holding a valid Red Seal endorsement may use RSE on their business cards and signatures (e.g., John or Jane Doe, RSE).
- The Red Seal Endorsement acronym should only be used by journeypersons who have obtained a Red Seal endorsement on their provincial or territorial trade certificate by successfully completing a Red Seal examination.
- For further details please visit http://www.red-seal.ca/about/pr.4gr.1m-eng.html.

Occupational Standards

- Red Seal Occupational Standards (RSOS), National Occupational Analysis (NOA), Provincial Occupational Standards (POS), Provincial Occupational Analysis (POA)

- They are jointly developed by industry representatives from each province and territory and apprenticeship staff. Each RSOS/NOA/POS/POA is reviewed every 4–5 years and updated as required to ensure it continues to be representative of the trade.

- The RSOS/NOA/POS/POA Pie chart shows the average percentage of the total number of questions on the certification examination assigned to assess each Block
- We also seek input from industry representatives for:
  - RSOS/NOA/POS/POA initial draft reviews, workshop, validation and weighting
  - Technical Training documents (Level chart, Units, RSOS/NOA/POS/POA Subtask to Unit Comparison).

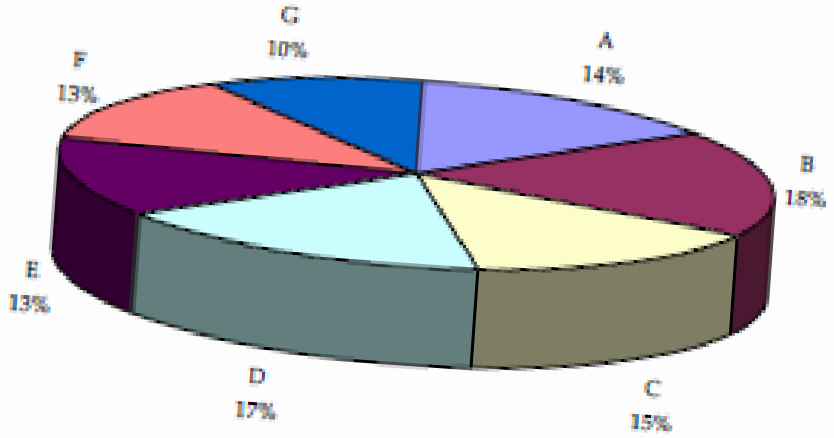
- The RSOS/NOA/POS/POA outlines the primary activities of a trade and is the base document for the development of examinations and technical training in Manitoba.

- It is organized by Major Work Activities (MWAs) or Blocks with each further comprised of Tasks and Subtasks.

Manitoba

APPENDIX E

PIE CHART*



TITLES OF BLOCKS

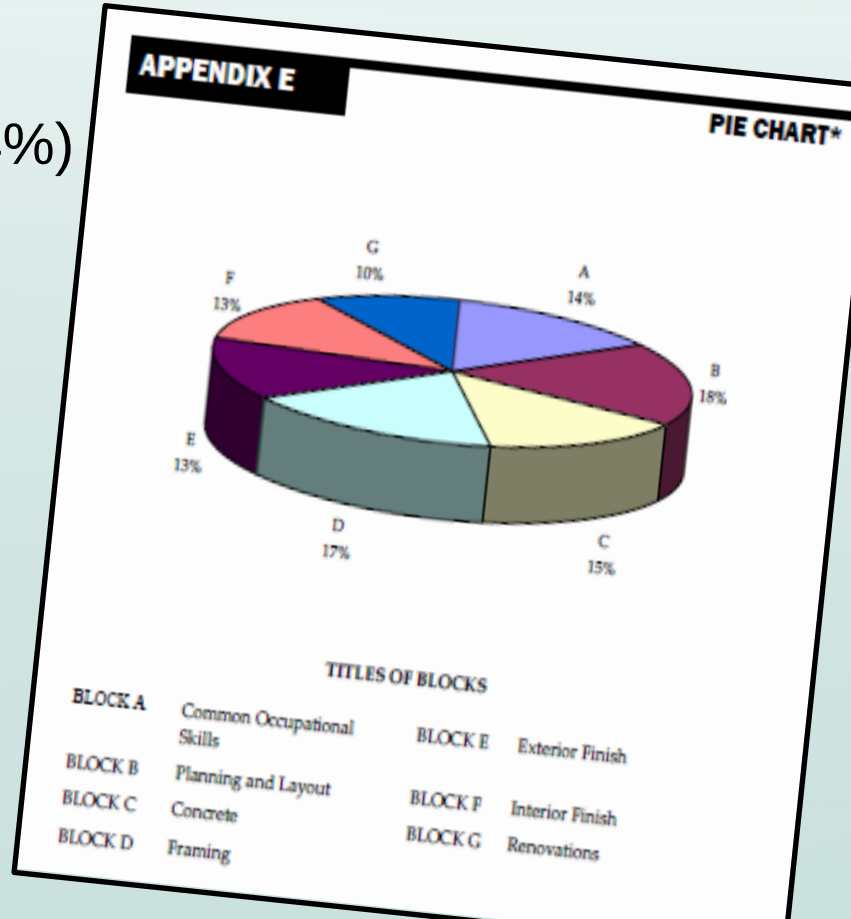
BLOCK A	Common Occupational Skills	BLOCK E	Exterior Finish
BLOCK B	Planning and Layout	BLOCK F	Interior Finish
BLOCK C	Concrete	BLOCK G	Renovations
BLOCK D	Framing		

Red Seal Examinations

Percentage of questions for each "block" on carpenter examination.

- Common occupational skills (14%)
- Planning and Layout (18%)
- Concrete (15%)
- Framing (17%)
- Exterior finish (13%)
- Interior finish (13%)
- Renovations (10%)

- For a total of 100%



Manitoba

MAJOR WORK ACTIVITY A

Performs common occupational skills

TASK A-1 Performs safety-related functions

TASK DESCRIPTOR

Proper use of personal protective equipment (PPE) and safe work practices is essential due to the fact that automotive service technicians are using hazardous materials and potentially dangerous equipment.

A-1.01 Maintains safe work environment

Essential Skills	Oral Communication, Document Use, Thinking

NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	NV	NV	NV

SKILLS

	Performance Criteria	Evidence of Attainment
A-1.01.01P	recognize potential *worksite hazards* and *hazardous materials*	*worksite hazards* and *hazardous materials* are identified according to *safety regulations*
A-1.01.02P	apply jurisdictional *safety regulations*	jurisdictional *safety regulations* are located, identified and applied
A-1.01.03P	handle, remove and dispose of *hazardous materials*	*hazardous materials* are handled, removed and disposed of according to jurisdictional regulations and manufacturers' information
A-1.01.04P	perform sensory inspection of vehicles	vehicles are inspected prior to test drive to ensure safe operation
A-1.01.05P	maintain clean and clutter-free work area	work area is clean and clutter-free according to jurisdictional regulations and workplace policies
A-1.01.06P	adhere to manufacturers' safety guidelines	manufacturers' safety guidelines are followed when working on a vehicle or using equipment
A-1.01.07P	remove, repair or replace defective equipment	defective equipment is removed, repaired or replaced according to manufacturers' information
A-1.01.08P	report *hazards* and safety concerns to supervisor	supervisor is notified of all *hazards* and safety concerns

Manitoba

MAJOR WORK ACTIVITY B

Performs hair and scalp care

TASK B-5 Analyzes and responds to hair and scalp conditions

TASK DESCRIPTOR

Hair and scalp care allow the stylist to perform current and future services and make product recommendations to ensure the maintenance of the client's hair. Hair and scalp analysis enable styli make informed decisions promoting optimum health and condition of both the hair and scalp.

B-5.01 **Analyzes hair and scalp for non-chemical services**

	SKILLS	
	Performance Criteria	**Evidence of Attainment**
B-5.01.01P	determine ***hair characteristics***	***hair characteristics*** are determined visually inspecting the hair and feeling hair with hands and fingers
B-5.01.02P	identify ***scalp disorders and conditions***	***scalp disorders and conditions*** are identified by visually inspecting the ha

BLOCK B

Trends — The tools and methods us easier to use with the adv for instance is often com using software with resp advancements in layou for improved accuracie

Related Components — All components appl

Tools and Equipment — See Appendix A.

Task 5 — Interprets docu

Context — Carpenters m understand construction

Required Knowledge

K 1 — types of drawi as-builts

K 2 — drawing com

K 3 — client and m

BLOCK B PLANNING AND LAYOUT

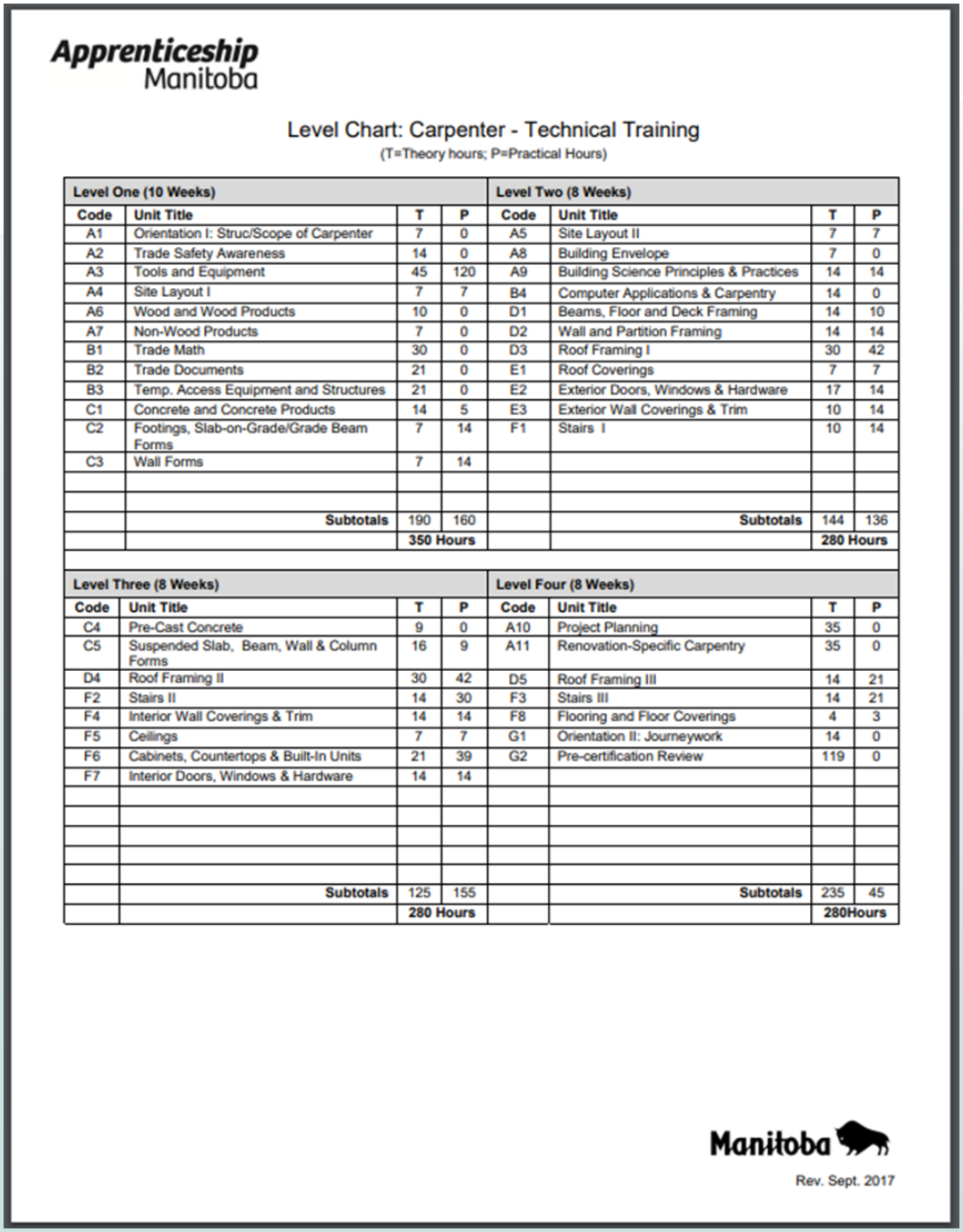
Trends	The tools and methods used for planning and layout are becoming easier to use with the advance of modern technology. Project planning for instance is often completely outlined prior to the start of a project using software with respect to time, labour and materials. Recent advancements in layout equipment and techniques are paving the way for improved accuracies and efficiencies in construction.
Related Components	All components apply.
Tools and Equipment	See Appendix A.

Task 5 Interprets documentation.

Context	Carpenters must locate information in various documents and understand the relationship between them in order to form a plan of construction.

Required Knowledge

K 1	types of drawings such as site, architectural, structural, mechanical and as-builts
K 2	drawing components such as lines, symbols, legends and schedules
K 3	client and manufacturers' specifications



Apprenticeship Manitoba

Level Chart: Carpenter - Technical Training

(T=Theory hours; P=Practical Hours)

Level One (10 Weeks)				Level Two (8 Weeks)			
Code	**Unit Title**	**T**	**P**	**Code**	**Unit Title**	**T**	**P**
A1	Orientation I: Struc/Scope of Carpenter	7	0	A5	Site Layout II	7	7
A2	Trade Safety Awareness	14	0	A8	Building Envelope	7	0
A3	Tools and Equipment	45	120	A9	Building Science Principles & Practices	14	14
A4	Site Layout I	7	7	B4	Computer Applications & Carpentry	14	0
A6	Wood and Wood Products	10	0	D1	Beams, Floor and Deck Framing	14	10
A7	Non-Wood Products	7	0	D2	Wall and Partition Framing	14	14
B1	Trade Math	30	0	D3	Roof Framing I	30	42
B2	Trade Documents	21	0	E1	Roof Coverings	7	7
B3	Temp. Access Equipment and Structures	21	0	E2	Exterior Doors, Windows & Hardware	17	14
C1	Concrete and Concrete Products	14	5	E3	Exterior Wall Coverings & Trim	10	14
C2	Footings, Slab-on-Grade/Grade Beam Forms	7	14	F1	Stairs I	10	14
C3	Wall Forms	7	14				
	Subtotals	190	160		**Subtotals**	144	136
		350 Hours				**280 Hours**	

Level Three (8 Weeks)				Level Four (8 Weeks)			
Code	**Unit Title**	**T**	**P**	**Code**	**Unit Title**	**T**	**P**
C4	Pre-Cast Concrete	9	0	A10	Project Planning	35	0
C5	Suspended Slab, Beam, Wall & Column Forms	16	9	A11	Renovation-Specific Carpentry	35	0
D4	Roof Framing II	30	42	D5	Roof Framing III	14	21
F2	Stairs II	14	30	F3	Stairs III	14	21
F4	Interior Wall Coverings & Trim	14	14	F8	Flooring and Floor Coverings	4	3
F5	Ceilings	7	7	G1	Orientation II: Journeywork	14	0
F6	Cabinets, Countertops & Built-In Units	21	39	G2	Pre-certification Review	119	0
F7	Interior Doors, Windows & Hardware	14	14				
	Subtotals	125	155		**Subtotals**	235	45
		280 Hours				**280Hours**	

Manitoba

Rev. Sept. 2017

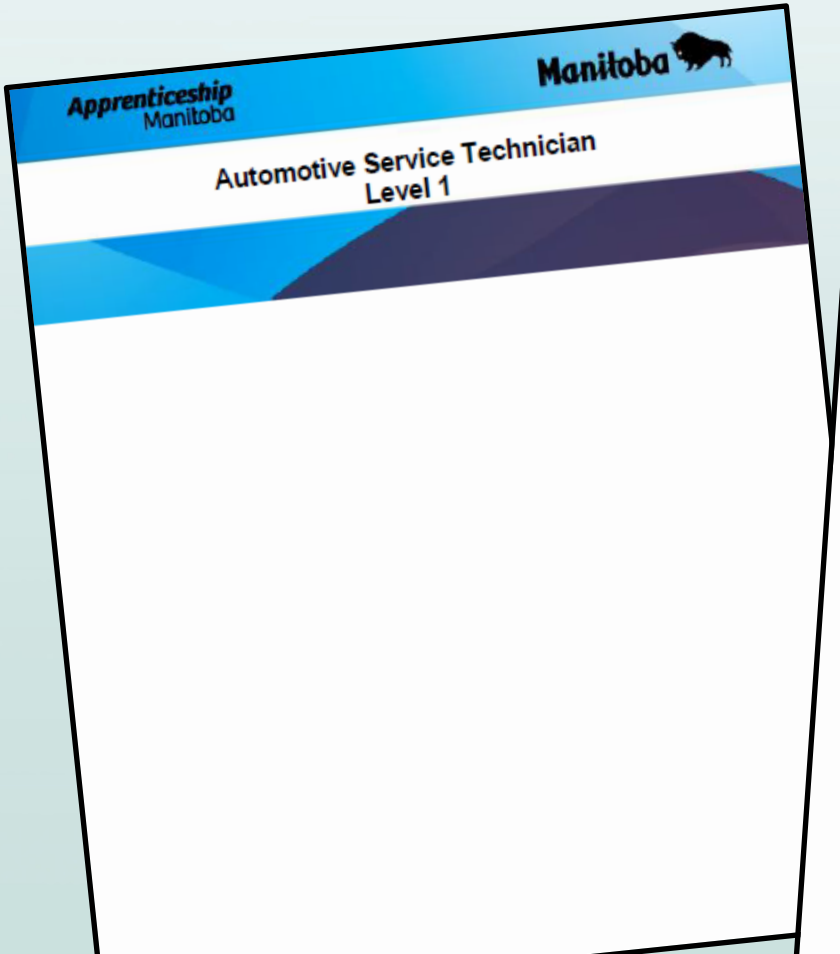
Manitoba

Apprenticeship Manitoba Level Chart

- Represents the technical training content and standards written in learning objectives

Manitoba

Technical Training Unit Outlines


Apprenticeship Manitoba

Manitoba

Automotive Service Technician
Level 1

Apprenticeship Manitoba

Automotive Service Technician

Unit: A6 Engine Fundamentals

Level: One
Duration: 28 hours
Theory: 21 hours
Practical: 7 hours

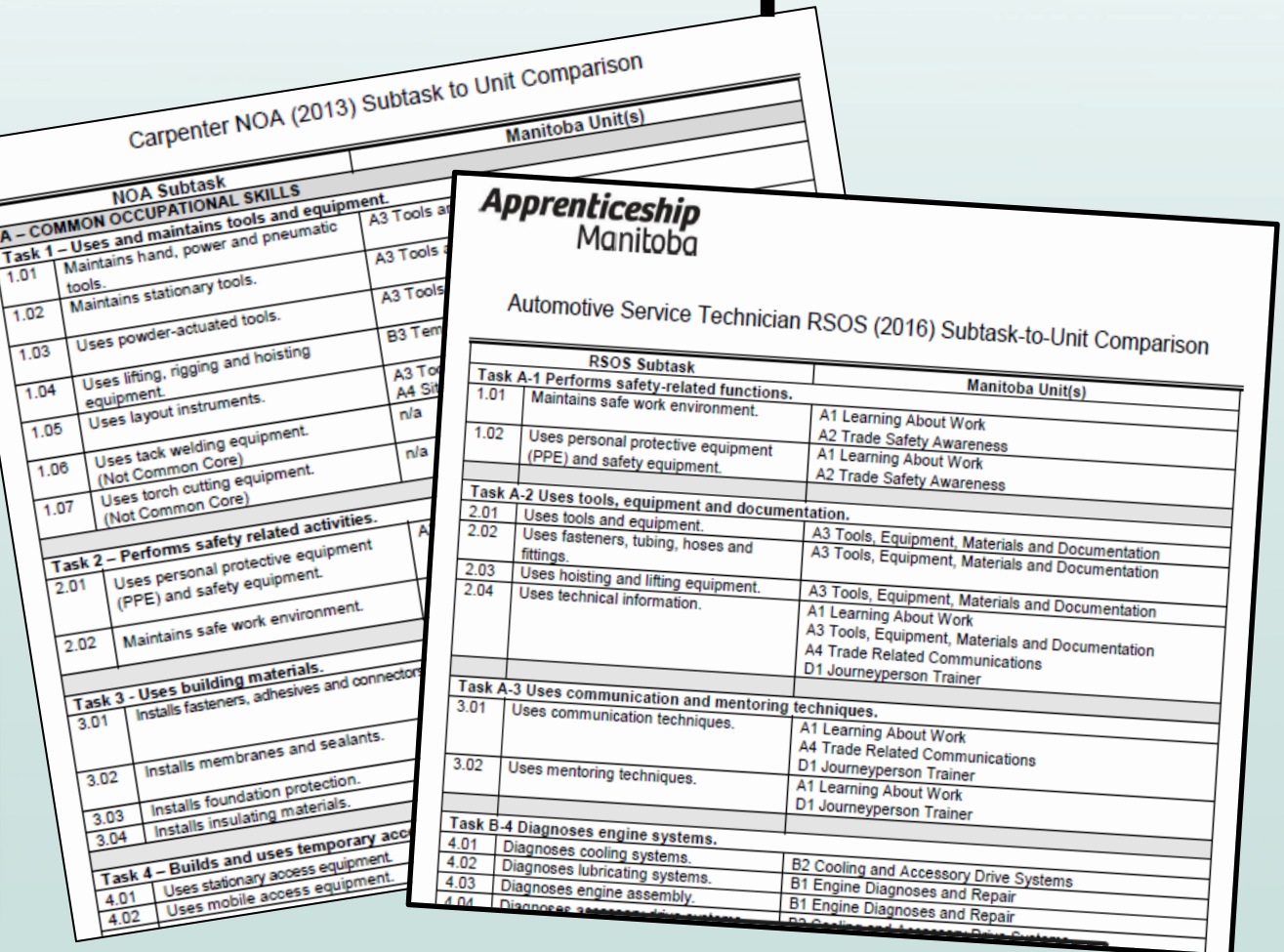
Overview:

This unit is designed to provide the apprentice with the knowledge about engine principles when working with today's automotive vehicles and light trucks. Beginning with terminology and internal combustion principles, the unit covers types of engine classifications and configurations, types of valve train configurations; the unit also covers calculations related to engine displacement, compression ratios, horsepower, area and volume.

Objectives and Content:

		Percent of Unit Mark (%)
1.	**Define terminology associated with engines.**	6%
2.	**Explain internal combustion principles.**	15%
3.	**Identify types of engine classifications.**	
	a. Fuel	6%
	* Diesel	
	* Gasoline	
	* Alternate fuels	
	b. Stroke	
4.	**Identify types of engine configurations and describe their construction.**	
	a. Inline	6%
	b. Rotary	
	c. Opposed	
	d. V	
5.	**Identify types of valve train configurations and describe their construction.**	30%
	a. Push rod	
	b. Overhead cam	
	c. Multi-valve	
	d. Solenoid operation	

RSOS/NOA/POS/POA Subtask to Unit Comparison



Carpenter NOA (2013) Subtask to Unit Comparison

NOA Subtask		Manitoba Unit(s)
A – COMMON OCCUPATIONAL SKILLS		
Task 1 – Uses and maintains tools and equipment.		
1.01	Maintains hand, power and pneumatic tools.	A3 Tools a
1.02	Maintains stationary tools.	A3 Tools
1.03	Uses powder-actuated tools.	A3 Tools
1.04	Uses lifting, rigging and hoisting equipment.	B3 Tem
1.05	Uses layout instruments.	A3 To A4 Sit
1.06	Uses tack welding equipment. (Not Common Core)	n/a
1.07	Uses torch cutting equipment. (Not Common Core)	n/a
Task 2 – Performs safety related activities.		A
2.01	Uses personal protective equipment (PPE) and safety equipment.	
2.02	Maintains safe work environment.	
Task 3 - Uses building materials.		
3.01	Installs fasteners, adhesives and connectors	
3.02	Installs membranes and sealants.	
3.03	Installs foundation protection.	
3.04	Installs insulating materials.	
Task 4 – Builds and uses temporary acc		
4.01	Uses stationary access equipment.	
4.02	Uses mobile access equipment.	

Apprenticeship Manitoba

Automotive Service Technician RSOS (2016) Subtask-to-Unit Comparison

RSOS Subtask		Manitoba Unit(s)
Task A-1 Performs safety-related functions.		
1.01	Maintains safe work environment.	A1 Learning About Work A2 Trade Safety Awareness
1.02	Uses personal protective equipment (PPE) and safety equipment.	A1 Learning About Work A2 Trade Safety Awareness
Task A-2 Uses tools, equipment and documentation.		
2.01	Uses tools and equipment.	A3 Tools, Equipment, Materials and Documentation
2.02	Uses fasteners, tubing, hoses and fittings.	A3 Tools, Equipment, Materials and Documentation
2.03	Uses hoisting and lifting equipment.	A3 Tools, Equipment, Materials and Documentation
2.04	Uses technical information.	A1 Learning About Work A3 Tools, Equipment, Materials and Documentation A4 Trade Related Communications D1 Journeyperson Trainer
Task A-3 Uses communication and mentoring techniques.		
3.01	Uses communication techniques.	A1 Learning About Work A4 Trade Related Communications D1 Journeyperson Trainer
3.02	Uses mentoring techniques.	A1 Learning About Work D1 Journeyperson Trainer
Task B-4 Diagnoses engine systems.		
4.01	Diagnoses cooling systems.	B2 Cooling and Accessory Drive Systems
4.02	Diagnoses lubricating systems.	B1 Engine Diagnoses and Repair
4.03	Diagnoses engine assembly.	B1 Engine Diagnoses and Repair
4.04	Diagnoses [illegible]	[illegible]

- The comparison chart shows where the subtasks are taught in the units.
- Certification examination questions are based on the subtasks.

Apprenticeship Manitoba Accreditation

- Apprenticeship Manitoba will formally recognize training providers where they can demonstrate they meet the standards identified for
  - Instructor qualifications
  - Curriculum
  - Facility and equipment audit
- Certificate of Accreditation (valid for 3 years)
- Graduates from accredited programs must achieve a cumulative average of 70% or better in all trade-related subjects for that program.

How to become accredited

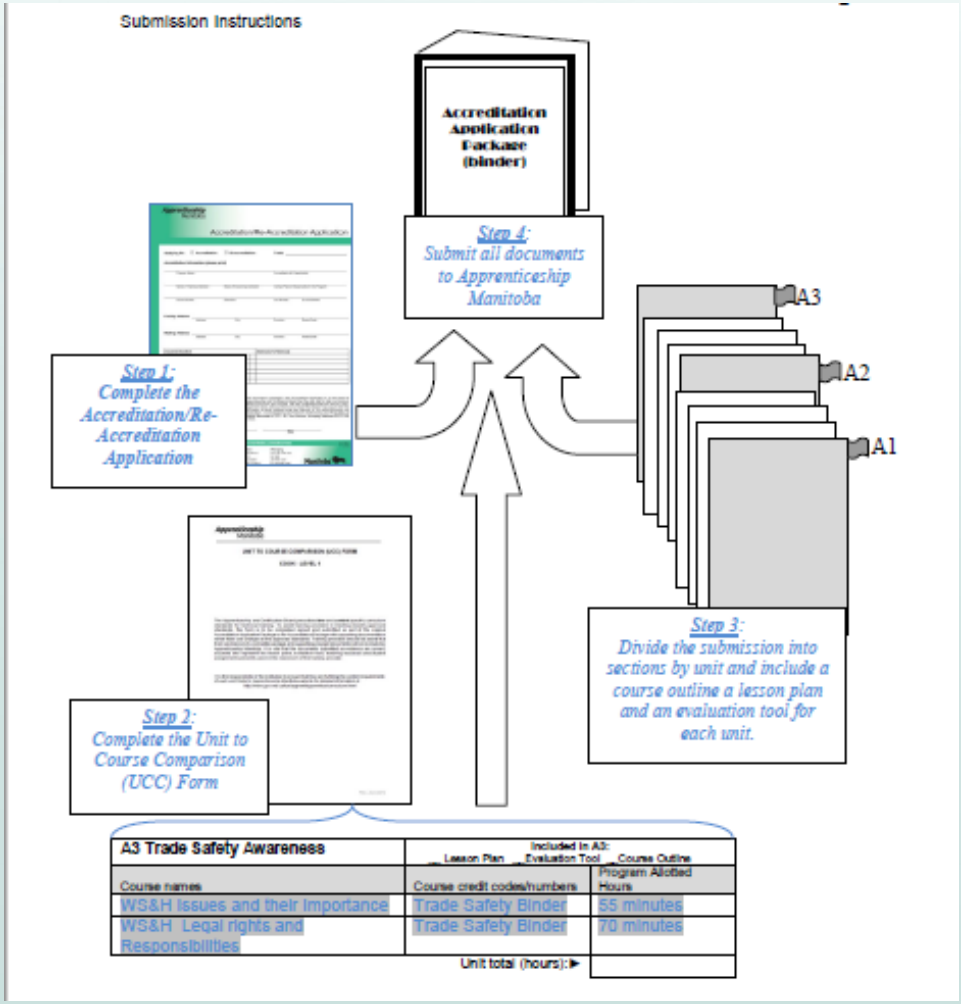
- A school must submit an Accreditation Application in accordance with Apprenticeship Manitoba's Accreditation Guidelines.

- School/facility will be assessed by an industry representative accompanied by Apprenticeship Manitoba staff.

- Curriculum submission (UCC) must demonstrate coverage of the trade’s training standards.

- Benefits of Accreditation

How to become accredited



When you become accredited

The following AM Branch staff support the accreditation application, process, and monitoring:

- Yvonne Hansen, Accreditation Coordinator
- Apprenticeship Training Coordinators (ATCs
- Training Standards Coordinators (TSCs)

Apprenticeship Training Coordinator (ATC) Contacts for the 14 TVE Programs eligible for Accreditation

Aircraft Maintenance Tech - Brent Maslow (brent.maslow@gov.mb.ca)

Automotive Tech - Dave Winterflood (david.winterflood@gov.mb.ca)

Cabinet and Furniture Making - Ian Smith (ian.smith@gov.mb.ca)

Carpentry - Jean-Luc Beaudry (jean-luc.beaudry@gov.mb.ca)

Collision Repair and Refinishing Tech - Dave Winterflood (david.winterflood@gov.mb.ca)

Culinary Arts - Ian Smith (ian.smith@gov.mb.ca)

Electrical Trades Tech - Linh Dang (linh.dang@gov.mb.ca)

Esthetics; Nail Technology and Skin Care Technology - Peter Goodson (peter.goodson@gov.mb.ca)

Hairstyling - Jeannette Desmarais (jeannette.desmarais@gov.mb.ca)

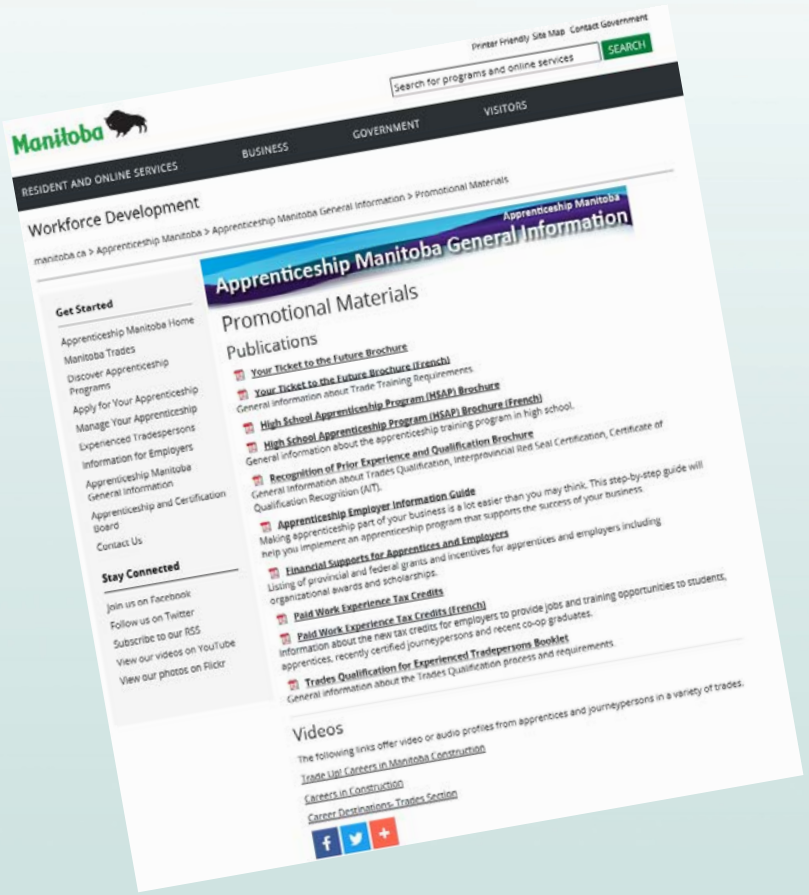
Heavy Duty Equipment Tech - Ray Klassen (raymond.klassen@gov.mb.ca)

Horticulture - Ian Smith (ian.smith@gov.mb.ca)

Machining Technology - Shirli Vilenski-East (shirli.vilenskieast@gov.mb.ca)

Plumbing and Pipe Trades - Craig Zieske (craig.zieske@gov.mb.ca)

Welding - Jenna Smid (jenna.smid@gov.mb.ca)



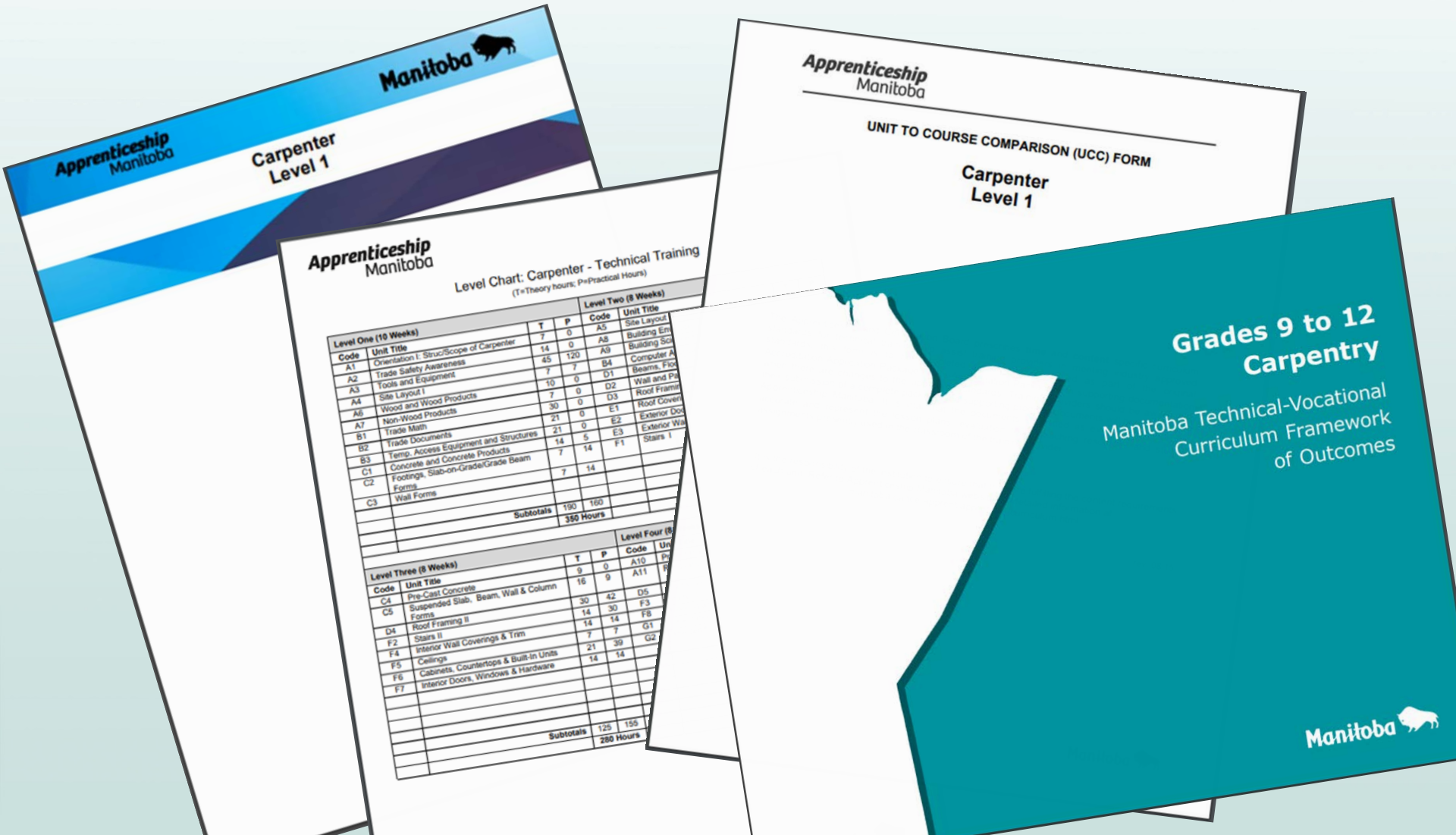
Health Break

Back in 10 Minutes

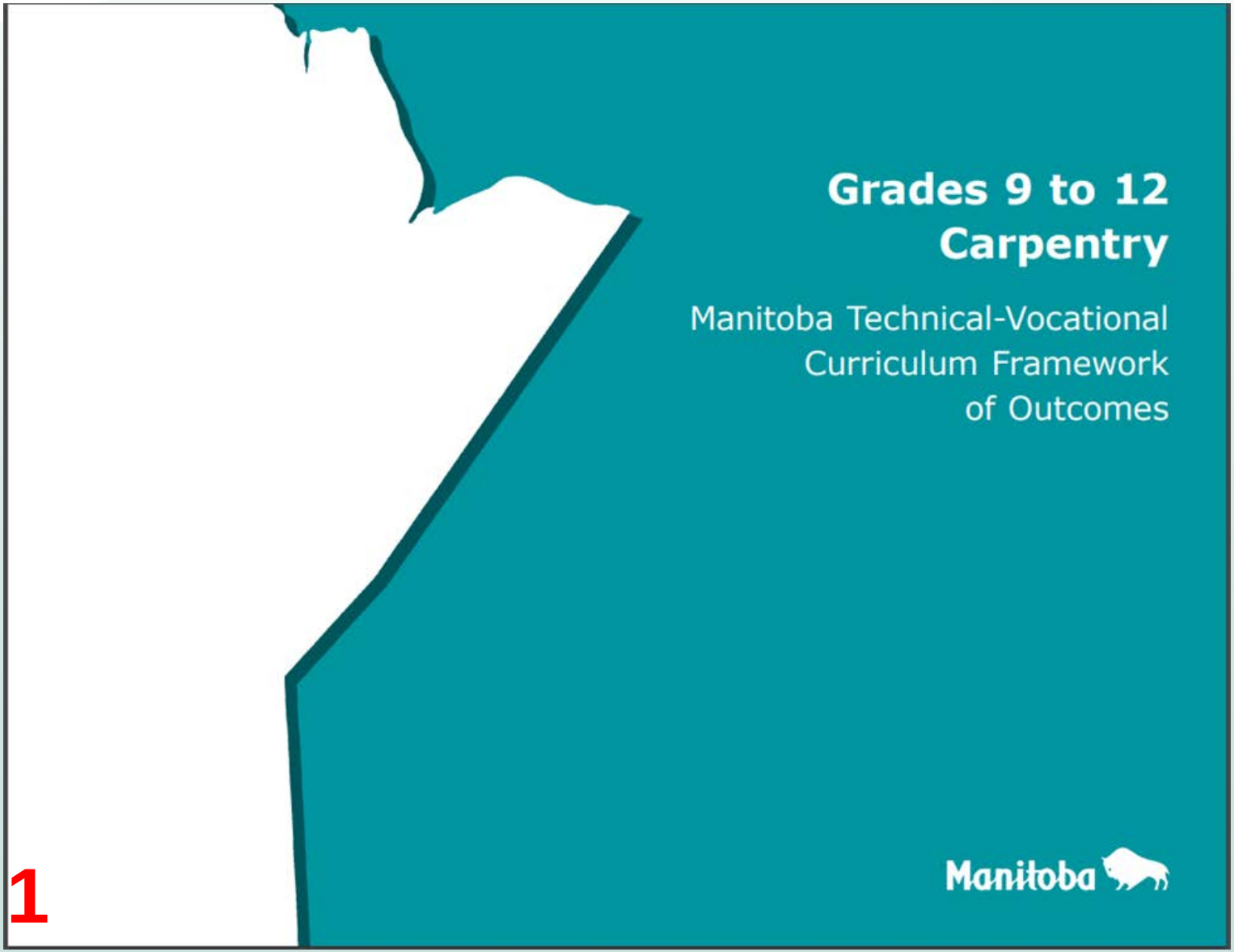
https://www.gov.mb.ca/wd/apprenticeship/generalinfo/promomaterials.html

Manitoba

Know Your Documents

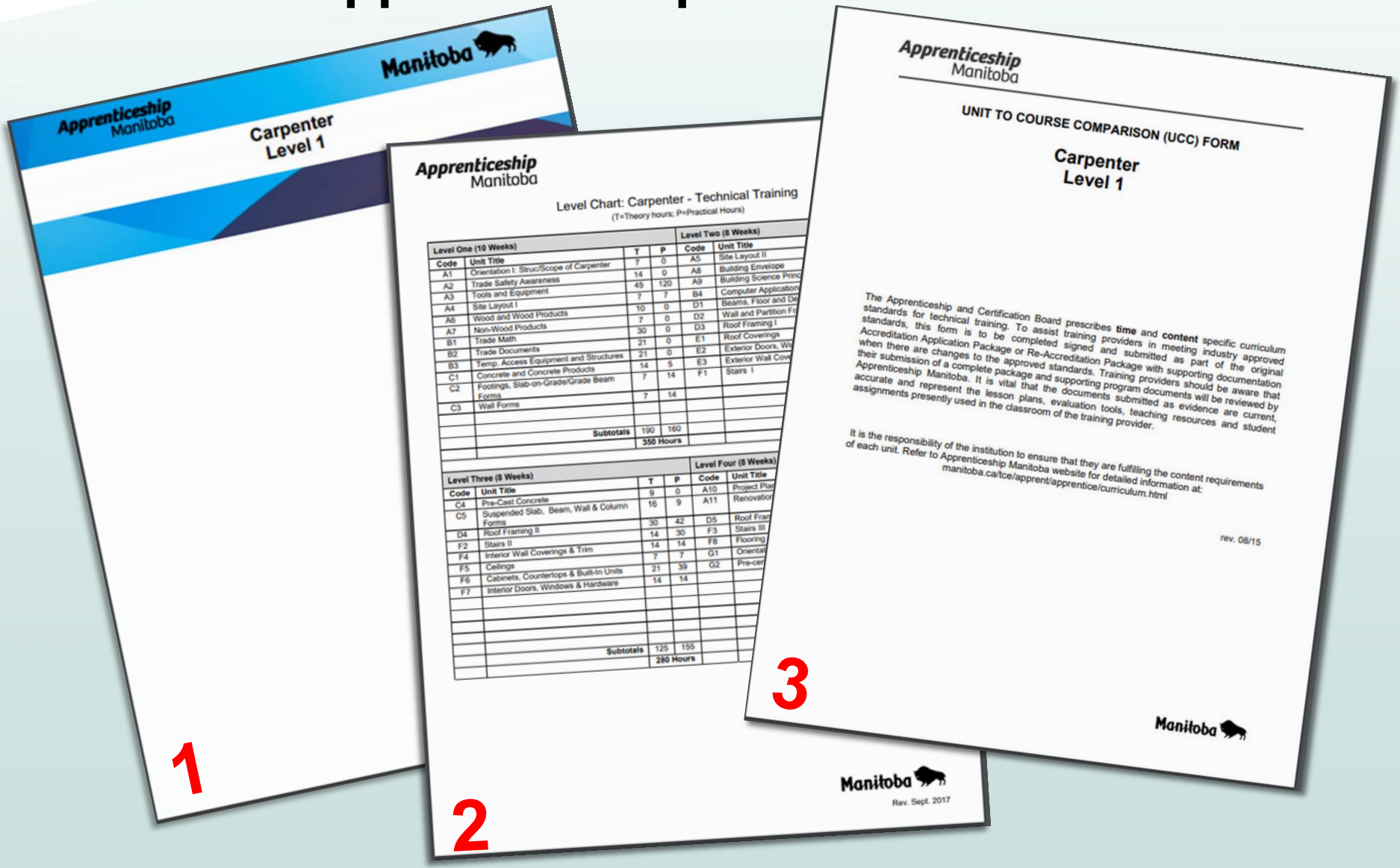


K-12 Manitoba Education Example

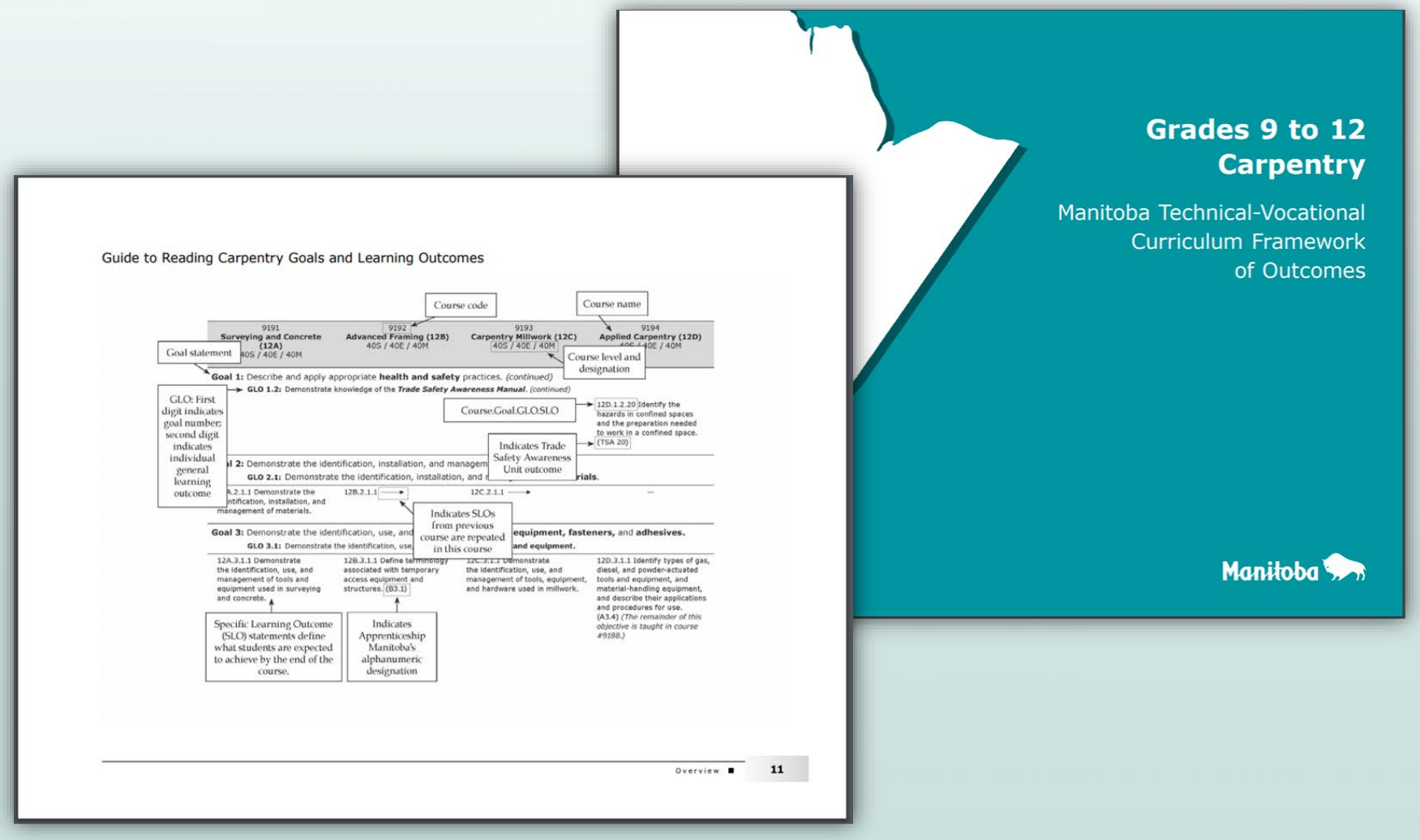


Manitoba

3 from Apprenticeship Manitoba



Manitoba Education Curriculum

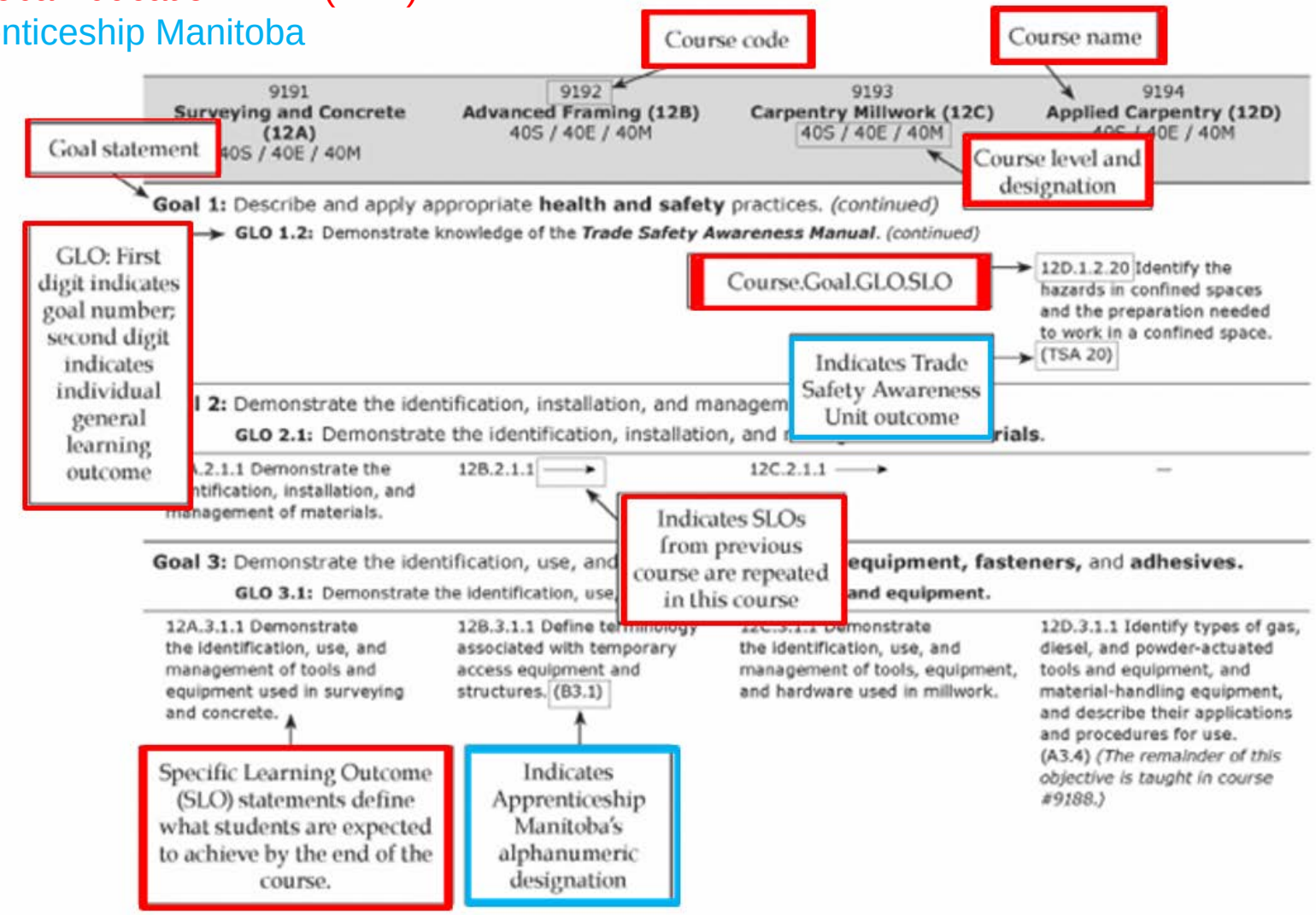


Manitoba

Guide to Reading Carpentry Goals and Learning Outcomes

Manitoba Education K-12 (TVE)

Apprenticeship Manitoba



8584 **Introduction to Carpentry (9)** 15S / 15E / 15M 10S / 10E / 10M	8585 **Carpentry Fundamentals (10)** 20S / 20E / 20M	9188 **Carpentry Tools and Equipment (11A)** 30S / 30E / 30M	9189 **Framing (11B)** 30S / 30E / 30M	9190 **Interior/Exterior Finishing (11C)** 30S / 30E / 30M
Goal 3: Demonstrate the identification, use, and management of **tools, equipment, fasteners,** and **adhesives.**				
GLO 3.1: Demonstrate the identification, use, and management of **tools and equipment.**				
9.3.1.1 Identify hazards and describe safe work practices pertaining to tools and equipment. (A3.2)	10.3.1.1 →	11A.3.1.1 →	11B.3.1.1 →	11C.3.1.1 →
9.3.1.2 Define terminology associated with tools and equipment. (A3.1)	10.3.1.2 →	11A.3.1.2 Identify types of hand, power, pneumatic, stationary, measuring, and layout tools and equipment, and describe their applications and procedures for use. (A3.4) *(The remainder of this objective is taught in course #9194.)*		
9.3.1.3 Identify tools and equipment.	10.3.1.3 Identify the factors to consider when selecting tools and equipment. (A3.7)	11A.3.1.3 Describe the procedures used to inspect, maintain, and store hand, power, pneumatic, stationary, measuring, and layout tools and equipment, and describe their applications and procedures for use. (A3.6) *(The remainder of this objective is taught in course #9194.)*		

9191 **Surveying and Concrete (12A)** 40S / 40E / 40M	9192 **Advanced Framing (12B)** 40S / 40E / 40M	9193 **Carpentry Millwork (12C)** 40S / 40E / 40M	9194 **Applied Carpentry (12D)** 40S / 40E / 40M
Goal 3: Demonstrate the identification, use, and management of **tools, equipment, fasteners,** and **adhesives.** *(continued)* **GLO 3.2:** Demonstrate the identification, use, and management of **fasteners and adhesives**.			
12A.3.2.1 Demonstrate the identification, use, and management of fasteners and adhesives.	12B.3.2.1 →	12C.3.2.1 →	12D.3.2.1 →
Goal 4: Demonstrate the basic **skills** of carpentry. **GLO 4.1:** Demonstrate the skills related to **project drawings and specifications**.			
12A.4.1.1 Interpret codes, regulations, and specifications pertaining to project drawings, specifications, and trade documentation. (B2.2) *(This objective is also taught in course #9189.)*	12B.4.1.1 Identify types of specification documents and describe their applications. (B2.3) *(This objective is also taught in course #9189.)*	12C.4.1.1 Demonstrate the ability to interpret blueprints and to produce drawings and layouts.	12D.4.1.1 Identify documentation related to modifications of drawings and specifications, and describe their applications. (B2.6) 12D.4.1.2 Explain resolution protocols to follow when a conflict is identified within a set of project documents. (B2.8) 12D.4.1.3 Demonstrate the literacy skills required to participate fully in the construction or renovation of a structure.

(B2.3) indicates that teachers must refer to the Level 1 document & teach the content found there.

Since there is no alphanumeric code, it is **not** from Apprenticeship MB.

Content Found Only in the Level 1 Document

Apprenticeship Manitoba

Carpenter

Unit: **B2 Trade Documents**

Level: One
Duration: 21 hours
Theory: 21 hours
Practical: 0 hours

Overview:

Upon completion of this unit the apprentice will demonstrate knowledge of project drawings and specifications, basic sketching techniques, and of the procedures used to interpret and extract information from drawings and specifications.

Objectives and Content:	**Percent of Unit Mark (%)**
1. Define terminology associated with project drawings and specifications.	**5%**
2. Interpret codes, regulations and specifications pertaining to project drawings, specifications and trade documentation. a. Federal b. Provincial/territorial c. Municipal	**20%**
3. Identify types of specification documents and describe their applications. a. Code books b. Contract specifications c. Manufacturers' specifications d. Energy efficiency guides e. Safety manuals/instructions f. Operating manuals g. Permits	**30%**

Teachers must teach and assess this content. It is found **only** here, and **not** in the curriculum.

Individual Course Files

Technology Education

Senior Years Technology Education Program

Grades 9 to 12 Carpentry
Manitoba Technical-Vocational Curriculum Framework of Outcomes (2017)

This document and specific sections are available for download as PDF files.

Grades 9 to 12 Carpentry (1.0 MB)

Unit to Course Comparison (UCC) Form (500 KB)

Individual Courses::

- 8584: Introduction to Carpentry (9) (15S/15E/15M/10S/10E/10M) (120 KB)
- 8585: Carpentry Fundamentals (10) (20S/20E/20M) (134 KB)
- 9188: Carpentry Tools and Equipment (11A) (30S/30E/30M) (126 KB)
- 9189: Framing (11B) (30S/30E/30M) (127 KB)
- 9190: Interior/Exterior Finishing (11C) (30S/30E/30M) (121 KB)
- 9191: Surveying and Concrete (12A) (40S/40E/40M) (152 KB)
- 9192: Advanced Framing (12B) (40S/40E/40M) (126 KB)
- 9193: Carpentry Millwork (12C) (40S/40E/40M) (109 KB)
- 9194: Applied Carpentry (12D) (40S/40E/40M) (140 KB)

Grade 10 Carpentry Fundamentals: Individual Course File

8585 Carpentry Fundamentals (10)
20S/20E/20M

Course Description

This course gives students a broad, introductory overview to the carpentry cluster. Students will develop basic knowledge, skills, and attitudes related to carpentry.

Goal 1: Describe and apply appropriate **health and safety** practices.

GLO 1.1: Describe and apply appropriate **health and safety** practices.

- SLO 10.1.1.1 Demonstrate an understanding of and adherence to health and safety practices.
- SLO 10.1.1.2 Identify personal protective equipment (PPE) and procedures. (A2.2)
- SLO 10.1.1.3 Identify safety requirements as they apply to WHMIS with emphasis on the following:
  - WHMIS as a system
  - provincial regulation under *The Safety and Health Act*
  - federal *Hazardous Products Act*
  - WHMIS generic training
  - description of WHMIS (include varieties of WHMIS certification) (A2.8)

GLO 1.2: Demonstrate knowledge of the ***Trade Safety Awareness Manual***.

No applicable SLOs.

Goal 2: Demonstrate the identification, installation, and management of **materials**.

GLO 2.1: Demonstrate the identification, installation, and management of **materials**.

- SLO 10.2.1.1 Identify hazards and describe safe work practices pertaining to handling wood and wood products. (A6.2)
- SLO 10.2.1.2 Define terminology associated with wood and wood products. (A6.1)
- SLO 10.2.1.3 Identify hazards and describe safe work practices pertaining to handling non-wood products. (A7.2)

Goal 3: Demonstrate the identification, use, and management of **tools, equipment, fasteners**, and **adhesives**.

GLO 3.1: Demonstrate the identification, use, and management of **tools and equipment**.

- SLO 10.3.1.1 Identify hazards and describe safe work practices pertaining to tools and equipment. (A3.2)
- SLO 10.3.1.2 Define terminology associated with tools and equipment. (A3.1)
- SLO 10.3.1.3 Identify the factors to consider when selecting tools and equipment. (A3.7)

GLO 3.2: Demonstrate the identification, use, and management of **fasteners and adhesives**.

- SLO 10.3.2.1 Demonstrate the identification, use, and management of fasteners and adhesives.

Goal 4: Demonstrate the basic **skills** of carpentry.

GLO 4.1: Demonstrate the skills related to **project drawings and specifications**.

- SLO 10.4.1.1 Define terminology associated with project drawings and specifications. (B2.1)
- SLO 10.4.1.2 Identify drafting instruments and describe their applications and procedures for use. (B2.5)
- SLO 10.4.1.3 Identify drawing projections and views, and describe their applications. (B2.7)
- SLO 10.4.1.4 Demonstrate basic sketching techniques. (B2.10)

GLO 4.2: Demonstrate the carpentry skills related to **layout, measurement, and assembly**.

- SLO 10.4.2.1 Demonstrate the skills required to lay out projects.
- SLO 10.4.2.2 Demonstrate the skills required to measure efficiently and accurately, to 1/16th of an inch.
- SLO 10.4.2.3 Demonstrate the skills required to prepare and assemble a project.
- SLO 10.4.2.4 Perform basic arithmetic operations. (B1.1)
- SLO 10.4.2.5 Perform linear measurement. (B1.2)
- SLO 10.4.2.6 Apply geometrical principles. (B1.5) *(This objective is also taught in course #9192.)*

Apprenticeship Manitoba

Level Chart: Carpenter - Technical Training

(T=Theory hours; P=Practical Hours)

Level One (10 Weeks)				Level Two (8 Weeks)			
Code	**Unit Title**	**T**	**P**	**Code**	**Unit Title**	**T**	**P**
A1	Orientation I: Struc/Scope of Carpenter	7	0	A5	Site Layout II	7	7
A2	Trade Safety Awareness	14	0	A8	Building Envelope	7	0
A3	Tools and Equipment	45	120	A9	Building Science Principles & Practices	14	14
A4	Site Layout I	7	7	B4	Computer Applications & Carpentry	14	0
A6	Wood and Wood Products	10	0	D1	Beams, Floor and Deck Framing	14	10
A7	Non-Wood Products	7	0	D2	Wall and Partition Framing	14	14
B1	Trade Math	30	0	D3	Roof Framing I	30	42
B2	Trade Documents	21	0	E1	Roof Coverings	7	7
B3	Temp. Access Equipment and Structures	21	0	E2	Exterior Doors, Windows & Hardware	17	14
C1	Concrete and Concrete Products	14	5	E3	Exterior Wall Coverings & Trim	10	14
C2	Footings, Slab-on-Grade/Grade Beam Forms	7	14	F1	Stairs I	10	14
C3	Wall Forms	7	14				
	Subtotals	190	160		**Subtotals**	144	136
		350 Hours				**280 Hours**	

Level Three (8 Weeks)				Level Four (8 Weeks)			
Code	**Unit Title**	**T**	**P**	**Code**	**Unit Title**	**T**	**P**
C4	Pre-Cast Concrete	9	0	A10	Project Planning	35	0
C5	Suspended Slab, Beam, Wall & Column Forms	16	9	A11	Renovation-Specific Carpentry	35	0
D4	Roof Framing II	30	42	D5	Roof Framing III	14	21
F2	Stairs II	14	30	F3	Stairs III	14	21
F4	Interior Wall Coverings & Trim	14	14	F8	Flooring and Floor Coverings	4	3
F5	Ceilings	7	7	G1	Orientation II: Journeywork	14	0
F6	Cabinets, Countertops & Built-In Units	21	39	G2	Pre-certification Review	119	0
F7	Interior Doors, Windows & Hardware	14	14				
	Subtotals	125	155		**Subtotals**	235	45
		280 Hours				**280Hours**	

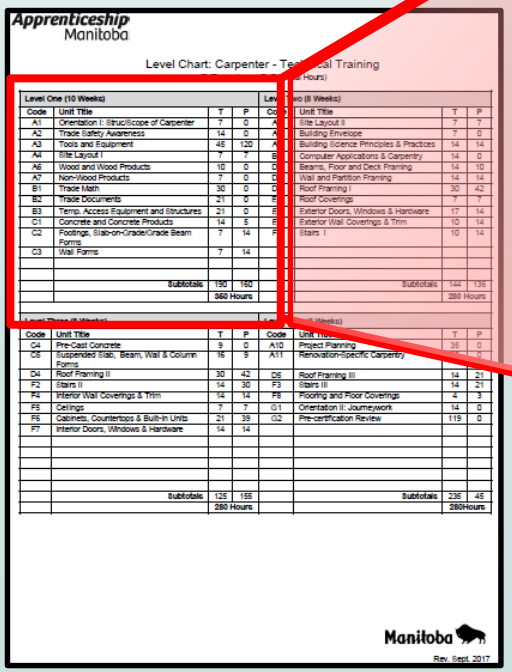
Manitoba

Rev. Sept. 2017

Manitoba

Apprenticeship Manitoba Level Chart

High School TVE programs correspond to Level 1


Apprenticeship Manitoba

Level Chart: Carpenter - Technical Training

Manitoba

Rev. Sept. 2017

Level One (10 Weeks)				Level Two (8 Weeks)		
Code	Unit Title	T	P	Code	Unit Title	T	P
A1	Orientation I: Struc/Scope of Carpenter	7	0	A5	Site Layout II	7	7
A2	Trade Safety Awareness	14	0	A8	Building Envelope	7	0
A3	Tools and Equipment	45	120	A9	Building Science Principles & Practices	14	14
A4	Site Layout I	7	7	B4	Computer Applications & Carpentry	14	0
A6	Wood and Wood Products	10	0	D1	Beams, Floor and Deck Framing	14	10
A7	Non-Wood Products	7	0	D2	Wall and Partition Framing	14	14
B1	Trade Math	30	0	D3	Roof Framing I	30	42
B2	Trade Documents	21	0	E1	Roof Coverings	7	7
B3	Temp. Access Equipment and Structures	21	0	E2	Exterior Doors, Windows & Hardware	17	14
C1	Concrete and Concrete Products	14	5	E3	Exterior Wall Coverings & Trim	10	14
C2	Footings, Slab-on-Grade/Grade Beam Forms	7	14	F1	Stairs I	10	14
C3	Wall Forms	7	14				
	Subtotals	190	160		Subtotals	144	136
		350 Hours				280 Hours	

Level Three (8 Weeks)				Level Four (8 Weeks)			
Code	Unit Title	T	P	Code	Unit Title	T	P
C4	Pre-Cast Concrete	9	0	A10	Project Planning	35	0
C5	Suspended Slab, Beam, Wall & Column Forms	16	9	A11	Renovation-Specific Carpentry		
D4	Roof Framing II	30	42	D5	Roof Framing III	14	21
F2	Stairs II	14	30	F3	Stairs III	14	21
F4	Interior Wall Coverings & Trim	14	14	F8	Flooring and Floor Coverings	4	3
F5	Ceilings	7	7	G1	Orientation II: Journeywork	14	0
F6	Cabinets, Countertops & Built-In Units	21	39	G2	Pre-certification Review	119	0
F7	Interior Doors, Windows & Hardware	14	14				
	Subtotals	125	155		Subtotals	236	45
		280 Hours				280Hours	

Level One (10 Weeks)			
Code	**Unit Title**	**T**	**P**
A1	Orientation I: Struc/Scope of Carpenter	7	0
A2	Trade Safety Awareness	14	0
A3	Tools and Equipment	45	120
A4	Site Layout I	7	7
A6	Wood and Wood Products	10	0
A7	Non-Wood Products	7	0
B1	Trade Math	30	0
B2	Trade Documents	21	0
B3	Temp. Access Equipment and Structures	21	0
C1	Concrete and Concrete Products	14	5
C2	Footings, Slab-on-Grade/Grade Beam Forms	7	14
C3	Wall Forms	7	14
	Subtotals	190	160
		350 Hours	

Example: Carpentry

350 Hours

Level One (10 Weeks)			
Code	**Unit Title**	**T**	**P**
A1	Orientation I: Struc/Scope of Carpenter	7	0
A2	Trade Safety Awareness	14	0
A3	Tools and Equipment	45	120
A4	Site Layout I	7	7
A6	Wood and Wood Products	10	0
A7	Non-Wood Products	7	0
B1	Trade Math	30	0
B2	Trade Documents	21	0
B3	Temp. Access Equipment and Structures	21	0
C1	Concrete and Concrete Products	14	5
C2	Footings, Slab-on-Grade/Grade Beam Forms	7	14
C3	Wall Forms	7	14
	Subtotals	190	160
		350 Hours	

Apprenticeship Manitoba
Carpenter Technical Training

X~2.5

880 Hours

Gr. 9 Introduction to Carpentry (optional)

Gr. 10 Carpentry Fundamentals

Gr. 11 Carpentry Tools and Equipment
Gr. 11 Framing
Gr. 11 Interior/Exterior Finishing

Gr. 12 Surveying and Concrete
Gr. 12 Advanced Framing
Gr. 12 Carpentry and Millwork
Gr. 12 Applied Carpentry

High School Cluster
8 courses

Example: Carpentry

350 Hours

Level One (10 Weeks)			
Code	**Unit Title**	**T**	**P**
A1	Orientation I: Struc/Scope of Carpenter	7	0
A2	Trade Safety Awareness	14	0
A3	Tools and Equipment	45	120
A4	Site Layout I	7	7
A6	Wood and Wood Products	10	0
A7	Non-Wood Products	7	0
B1	Trade Math	30	0
B2	Trade Documents	21	0
B3	Temp. Access Equipment and Structures	21	0
C1	Concrete and Concrete Products	14	5
C2	Footings, Slab-on-Grade/Grade Beam Forms	7	14
C3	Wall Forms	7	14
	Subtotals	190	160
		350 Hours	

Apprenticeship Manitoba
Carpenter Technical Training

X~2.5

880 Hours

Goal 1: Describe and apply appropriate health and safety practices.

Goal 2: Demonstrate the identification, installation, and management of materials.

Goal 3: Demonstrate the identification, use, and management of tools, equipment, fasteners, and adhesives.

Goal 4: Demonstrate the basic skills of carpentry.

Goal 5: Follow the ethical and legal standards that pertain to carpentry.

Goal 6: Demonstrate employability skills.

Goal 7: Demonstrate an awareness of sustainability as it pertains to carpentry.

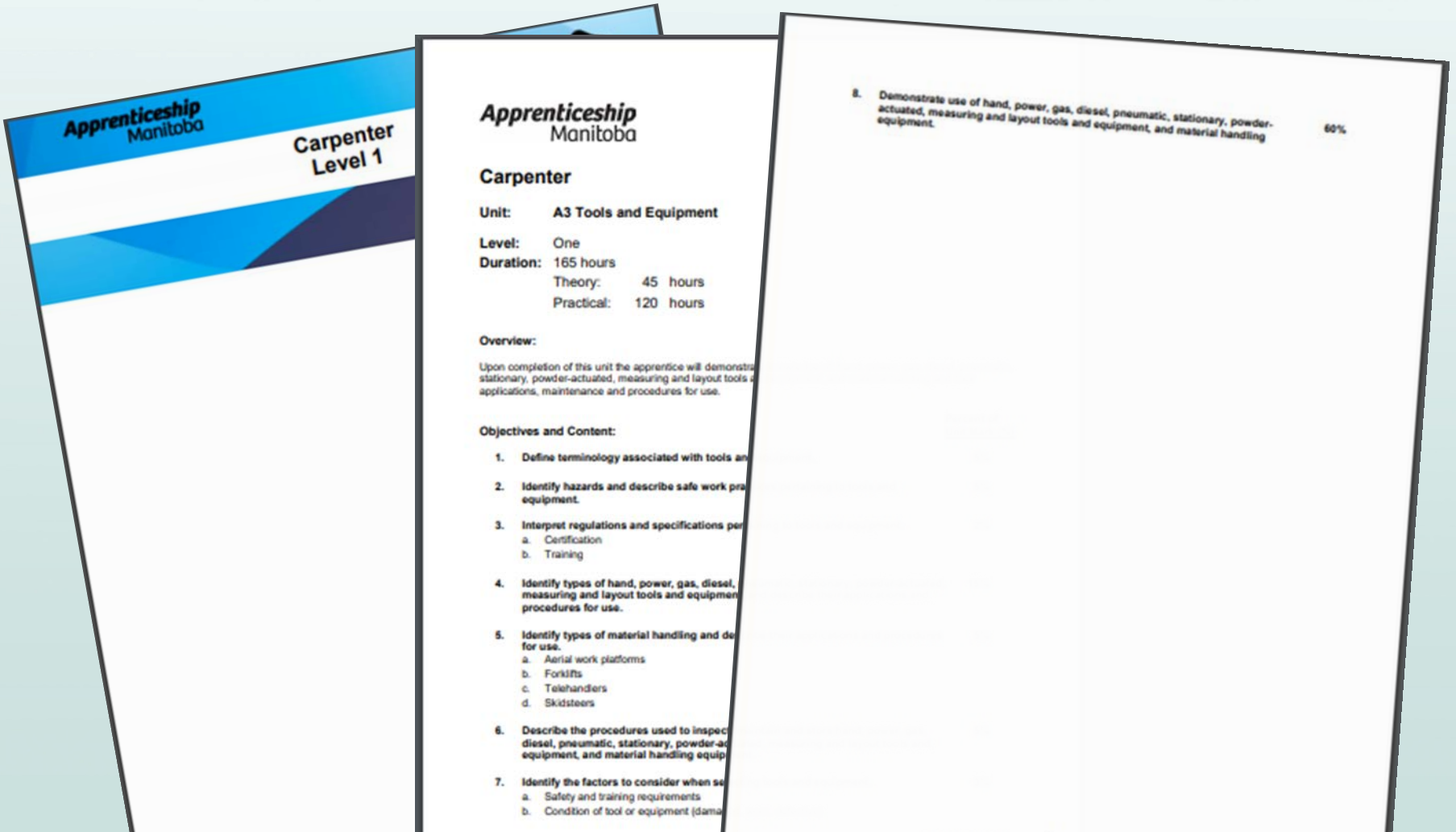
Goal 8: Demonstrate an understanding of the structure and scope of carpentry.

Goal 9: Demonstrate an understanding of the evolution of carpentry, including its technological progression and emerging trends.

High School Cluster
8 courses

Manitoba

Technical Training Unit Outlines

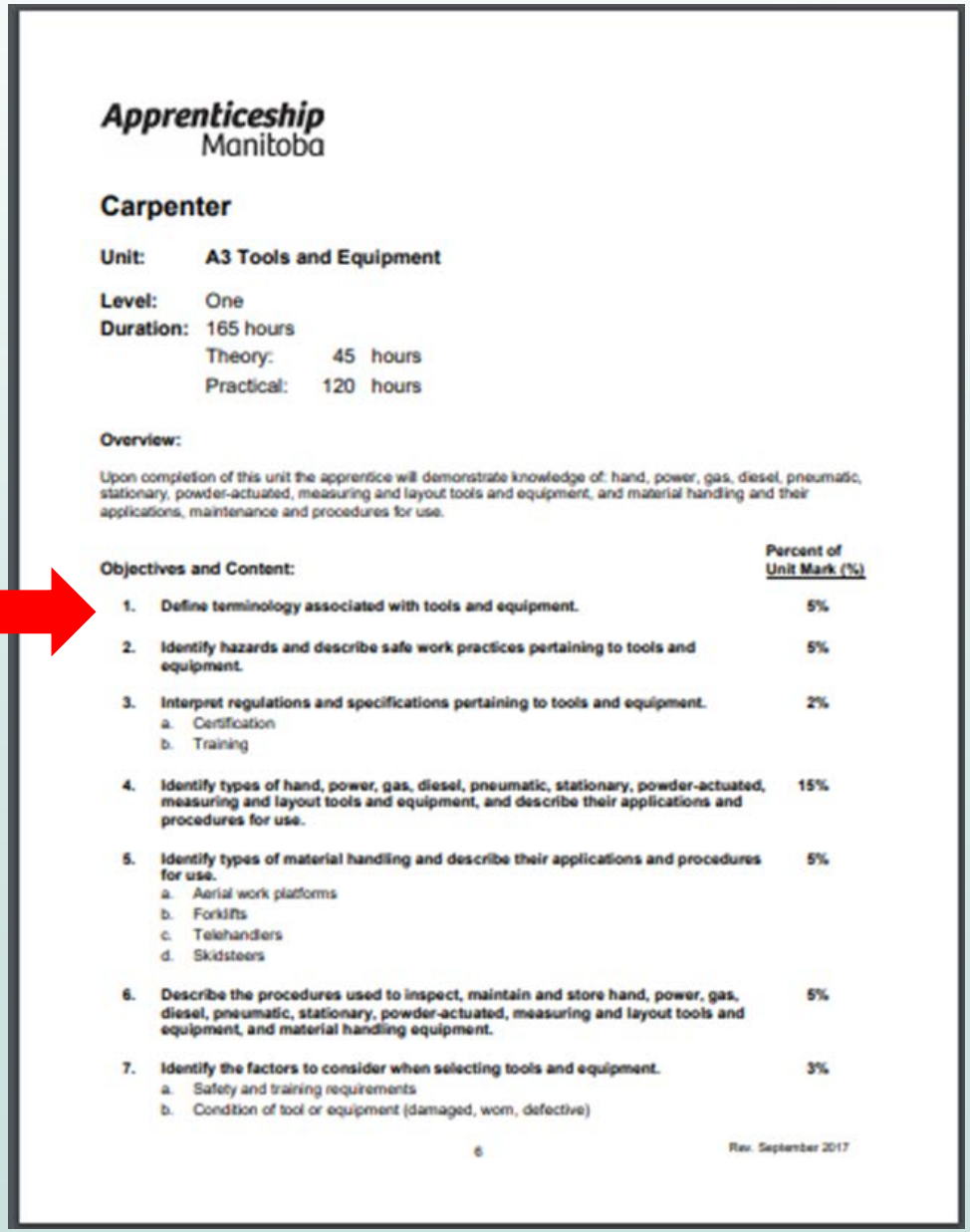


Carpentry Technical Training Unit Outline

Unit A3
Tools and Equipment

Objective 1

Alphanumeric Designation in TVE Curriculum A3.1



Apprenticeship Manitoba

Carpenter

Unit: **A3 Tools and Equipment**

Level: One
Duration: 165 hours
Theory: 45 hours
Practical: 120 hours

Overview:

Upon completion of this unit the apprentice will demonstrate knowledge of: hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and material handling and their applications, maintenance and procedures for use.

Objectives and Content:	Percent of Unit Mark (%)
1. **Define terminology associated with tools and equipment.**	5%
2. **Identify hazards and describe safe work practices pertaining to tools and equipment.**	5%
3. **Interpret regulations and specifications pertaining to tools and equipment.** a. Certification b. Training	2%
4. **Identify types of hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and describe their applications and procedures for use.**	15%
5. **Identify types of material handling and describe their applications and procedures for use.** a. Aerial work platforms b. Forklifts c. Telehandlers d. Skidsteers	5%
6. **Describe the procedures used to inspect, maintain and store hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and material handling equipment.**	5%
7. **Identify the factors to consider when selecting tools and equipment.** a. Safety and training requirements b. Condition of tool or equipment (damaged, worn, defective)	3%

Carpentry A3.8
“Demonstrate…”
(practical outcome)

8.	**Demonstrate use of hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and material handling equipment.**	**60%**

A3.8 is referenced in the high school curriculum and on the UCC form, making the connection between the requirements of Apprenticeship Manitoba and the K–12 Manitoba curriculum.

Apprenticeship Manitoba

Carpenter

Unit: **A3 Tools and Equipment**

Level: One

Duration: 165 hours

Theory: 45 hours

Practical: 120 hours

A3.1 to A3.7

A3.8

Overview:

Upon completion of this unit the apprentice will demonstrate knowledge of: hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and material handling and their applications, maintenance and procedures for use.

Objectives and Content:	**Percent of Unit Mark (%)**
1. Define terminology associated with tools and equipment.	**5%**
2. Identify hazards and describe safe work practices pertaining to tools and equipment.	**5%**

UCC
Unit to Course Comparison

Manitoba

Apprenticeship Manitoba

UNIT TO COURSE COMPARISON (UCC) FORM

Carpenter
Level 1

The Apprenticeship and Certification Board prescribes **time** and **content** specific curri
standards for technical training. To assist training providers in meeting industry ap
standards, this form is to be completed signed and submitted as part of the
Accreditation Application Package or Re-Accreditation Package with supporting docum
when there are changes to the approved standards. Training providers should be aw
their submission of a complete package and supporting program documents will be rev
Apprenticeship Manitoba. It is vital that the documents submitted as evidence ar
accurate and represent the lesson plans, evaluation tools, teaching resources ar
assignments presently used in the classroom of the training provider.

It is the responsibility of the institution to ensure that they are fulfilling the content r
of each unit. Refer to Apprenticeship Manitoba website for detailed information at:
manitoba.ca/tce/apprent/apprentice/curriculum.html

Demonstration of coverage of the Apprenticeship Manitoba technical training standard must include:

- Fully completed columns with course name(s), course credit code(s)/number(s) and the time allocated to the standards by the applicant.
- Submission of all Course Outlines.
- Supporting program documents: Lesson Plans, Evaluation Tools within the specific Apprenticeship Manitoba unit.

Submissions must include a balanced variety of supporting documentation to demonstrate adequate scope of technical training.

Tip: We do not require duplicates of supporting program documents within a submission package. If one of your Course Outlines is referenced more than once, place the one (1) copy in the first reference. For every other unit that refers to that Course Outline, include a note to indicate where the outline is located.

A1 Orientation I: Structure and Scope of Carpenter	Include: __ Lesson Plan __Evaluation Tool __Course Outline	
Course names	Course credit codes/numbers	Time Allocated (Hours) Theory and Practical
Grade 12 Applied Carpentry GLO 8.1 (Objective **A1.1**)	9194	2.8 hours
Grade 12 Applied Carpentry GLO 8.2 (Objectives **A1.2, A1.3, A1.4**)	9194	4.2 hours
	Unit total (hours): ▶	**7.0 hours**

A2 Trade Safety Awareness	Include: Lesson Plan Evaluation Tool Course Outline	
Course names	Course credit codes/numbers	Time Allocated (Hours) Theory and Practical
Grade 12 Applied Carpentry GLO 1.1 (Objectives **A2.1, A2.3, A2.4, A2.5, A2.6, A2.7, A2.9**)	9194	10.5 hours
Grade 10 Carpentry Fundamentals Grade 11 Carpentry Tools and Equipment Grade 11 Framing Grade 11 Interior/Exterior Finishing GLO 1.1 (Objective **A2.2**)	8585 9188 9189 9190	2.1 hours
Grade 10 Carpentry Fundamentals Grade 11 Carpentry Tools and Equipment Grade 11 Framing Grade 11 Interior/Exterior Finishing GLO 1.1 (Objective **A2.8**)	8585 9188 9189 9190	1.4 hours
	Unit total (hours): ▶	**14.0 hours**

It is the responsibility of the institution to demonstrate full coverage of the content requirements of each unit. Refer to Apprenticeship Manitoba website for detailed information at:
manitoba.ca/tce/apprent/apprentice/curriculum.html

UCC Form

MB Education Course Codes

This heading represents Unit A3 in Level 1, which includes 8 objectives (A3.1...A3.8)

A3 Tools and Equipment	__ Lesson Plan __ Evaluation Tool __ Course Outline	**Include:**
Course names	Course credit codes/numbers	Time Allocated (Hours) Theory and Practical
Grade 10 Carpentry Fundamentals GLO 3.1 (Objective **A3.1, A3.7**))	8585	13.2 hours
Grade 10 Carpentry Fundamentals Grade 11 Carpentry Tools and Equipment Grade 11 Framing Grade 11 Interior/Exterior Finishing GLO 3.1 (Objective **A3.2**)	8585 9188 9189 9190	8.3 hours **165 hours x 5% = 8.3 hours**
Grade 12 Advanced Framing GLO 3.1 (Objective **A3.5**)	9192	8.2 hours
Grade 11 Carpentry Tools and Equipment Grade 12 Applied Carpentry GLO 3.1 (Objective **A3.4, A3.6, A3.8**)	9188 9194	132.0 hours
Grade 12 Advanced Framing GLO 5.1 (Objective **A3.3**)	9192	3.3 hours
	Unit total (hours):▶	**165 hours**

Objectives A3.1 & A3.7 are taught only in this course

Objective A3.2 is taught in GLO 3.1 in 4 courses

Understand Your Hours:

putting it all together

Carpentry Technical Training
A3 Tools and Equipment

Manitoba

TVE

Grades 9 to 12
Carpentry

A3 Tools and Equipment

Include: __Lesson Plan __Evaluation Tool __Course Outline

UCC

Course names	Course credit codes/numbers	Time Allocated (Hours) Theory and Practical
Grade 10 Carpentry Fundamentals GLO 3.1 (Objective **A3.1, A3.7**))	8585	13.2 hours
Grade 10 Carpentry Fundamentals Grade 11 Carpentry Tools & Equipment Grade 11 Framing Grade 11 Interior / Exterior Finishing GLO 3.1 (Objective **A3.2**)	8585 9188 9189 9190	8.2 hours
Grade 12 Advanced Framing GLO 3.1 (Objective **A3.5**)	9192	8.2 hours
Grade 11 Carpentry Tools & Equipment Grade 12 Applied Carpentry GLO 3.1 (Objective **A3.4, A3.6, A3.8**)	9188 9194	132.0 hours
Grade 12 Advanced Framing GLO 5.1 (Objective **A3.3**)	9192	3.3 hours
	Unit total (hours):►	**165 hours**

Apprenticeship Manitoba

Carpenter Level 1

Technical Training Unit Outline

Apprenticeship Manitoba

Carpenter

Unit: **A3 Tools and Equipment**

Level: One

Duration: 165 hours
Theory: 45 hours
Practical: 120 hours

Overview

Upon completion of this unit the apprentice will demonstrate knowledge of: hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and material handling and their applications, maintenance and procedures for use.

Objectives and Content:	**Percent of Unit Mark (%)**
1. **Define terminology associated with tools and equipment.**	5%
2. **Identify hazards and describe safe work practices pertaining to tools and equipment.**	5%
3. **Interpret regulations and specifications pertaining to tools and equipment.** a. Certification b. Training	2%
4. **Identify types of hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and describe their applications and procedures for use.**	15%
5. **Identify types of material handling and describe their applications and procedures for use.** a. Aerial work platforms b. Forklifts c. Telehandlers d. Skidsteers	5%
6. **Describe the procedures used to inspect, maintain and store hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and material handling equipment.**	5%
7. **Identify the factors to consider when selecting tools and equipment.** a. Safety and training requirements b. Condition of tool or equipment (damaged, worn, defective)	3%
8. **Demonstrate use of hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and material handling equipment.**	60%

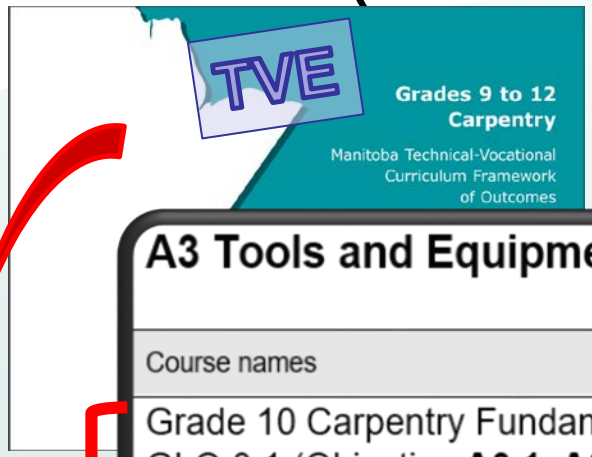
6 Rev. September 2017

Level Chart

Level One (10 Weeks)

Code	Unit Title	T	P
A1	Orientation I: Struc/Scope of Carpenter	7	0
A2	Trade Safety Awareness	14	0
A3	Tools and Equipment	45	120
A4	Site Layout I	7	7
A6	Wood and Wood Products	10	0
A7	Non-Wood Products	7	0
B1	Trade Math	30	0

Carpentry Technical Training
A3 Tools and Equipment
165 hours (45 Theory, 120 Practical)



A3 Tools and Equipment

UCC

Include:
__ Lesson Plan __Evaluation Tool __Course Outline

Course names	Course credit codes/numbers	Time Allocated (Hours) Theory and Practical
Grade 10 Carpentry Fundamentals GLO 3.1 (Objective **A3.1, A3.7)**)	8585	13.2 hours
Grade 10 Carpentry Fundamentals Grade 11 Carpentry Tools & Equipment Grade 11 Framing Grade 11 Interior / Exterior Finishing GLO 3.1 (Objective **A3.2**)	8585 9188 9189 9190	8.2 hours
Grade 12 Advanced Framing GLO 3.1 (Objective **A3.5**)	9192	8.2 hours
Grade 11 Carpentry Tools & Equipment Grade 12 Applied Carpentry GLO 3.1 (Objective **A3.4, A3.6, A3.8**)	9188 9194	132.0 hours
Grade 12 Advanced Framing GLO 5.1 (Objective **A3.3**)	9192	3.3 hours
	Unit total (hours):▶	**165 hours**

Carpentry Technical Training
A3 Tools and Equipment
165 hours (45 Theory, 120 Practical)

Manitoba

UCC

A3 Tools and Equipment	Include: _ Lesson Plan __Evaluation Tool __Course Outline	
Course names	Course credit codes/numbers	Time Allocated (Hours) Theory and Practical
Grade 10 Carpentry Fundamentals GLO 3.1 (Objective **A3.1, A3.7**))	8585	13.2 hours
Grade 10 Carpentry Fundamentals Grade 11 Carpentry Tools & Equipment Grade 11 Framing Grade 11 Interior / Exterior Finishing GLO 3.1 (Objective **A3.2**)	8585 9188 9189 9190	8.2 hours
Grade 12 Advanced Framing GLO 3.1 (Objective **A3.5**)	9192	8.2 hours
Grade 11 Carpentry Tools & Equipment Grade 12 Applied Carpentry GLO 3.1 (Objective **A3.4, A3.6, A3.8**)	9188 9194	132.0 hours
Grade 12 Advanced Framing GLO 5.1 (Objective **A3.3**)	9192	3.3 hours
	Unit total (hours):►	**165 hours**

Level Chart

Level One (10 Weeks)			
Code	**Unit Title**	**T**	**P**
A1	Orientation I: Struc/Scope of Carpenter	7	0
A2	Trade Safety Awareness	14	0
A3	Tools and Equipment	45	120
A4	Site Layout I	7	7
A6	Wood and Wood Products	10	0
A7	Non-Wood Products	7	0
B1	Trade Math	30	0

Carpentry Technical Training
A3 Tools and Equipment
165 hours (45 Theory, 120 Practical)

Manitoba

A3 Tools and Equipment — UCC — Include: __ Lesson Plan __Evaluation Tool Course Outline

Course names	Course credit codes/numbers	Time Allocated (Hours) Theory and Practical
Grade 10 Carpentry Fundamentals GLO 3.1 (Objective **A3.1, A3.7**))	8585	13.2 hours
Grade 10 Carpentry Fundamentals Grade 11 Carpentry Tools & Equipment Grade 11 Framing Grade 11 Interior / Exterior Finishing GLO 3.1 (Objective **A3.2**)	8585 9188 9189 9190	8.2 hours
Grade 12 Advanced Framing GLO 3.1 (Objective **A3.5**)	9192	8.2 hours
Grade 11 Carpentry Tools & Equipment Grade 12 Applied Carpentry GLO 3.1 (Objective **A3.4, A3.6, A3.8**)	9188 9194	132.0 hours
Grade 12 Advanced Framing GLO 5.1 (Objective **A3.3**)	9192	3.3 hours
	Unit total (hours):►	**165 hours**

Apprenticeship Manitoba — Carpenter Level 1 — Manitoba

Technical Training Unit Outline

Apprenticeship Manitoba

Carpenter

Unit: **A3 Tools and Equipment**

Level: One

Duration: 165 hours
Theory: 45 hours
Practical: 120 hours

Overview

Upon completion of this unit the apprentice will demonstrate knowledge of: hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and material handling and their applications, maintenance and procedures for use.

Objectives and Content:	Percent of Unit Mark (%)
1. **Define terminology associated with tools and equipment.**	5%
2. **Identify hazards and describe safe work practices pertaining to tools and equipment.**	5%
3. **Interpret regulations and specifications pertaining to tools and equipment.** a. Certification b. Training	2%
4. **Identify types of hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and describe their applications and procedures for use.**	15%
5. **Identify types of material handling and describe their applications and procedures for use.** a. Aerial work platforms b. Forklifts c. Telehandlers d. Skidsteers	5%
6. **Describe the procedures used to inspect, maintain and store hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and material handling equipment.**	5%
7. **Identify the factors to consider when selecting tools and equipment.** a. Safety and training requirements b. Condition of tool or equipment (damaged, worn, defective)	3%
8. **Demonstrate use of hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and material handling equipment.**	60%

Rev. September 2017

Carpentry Technical Training
A3 Tools and Equipment

Manitoba

TVE

Grades 9 to 12
Carpentry

UCC

A3 Tools and Equipment

Include: __Lesson Plan __Evaluation Tool __Course Outline

Course names	Course credit codes/numbers	Time Allocated (Hours) Theory and Practical
Grade 10 Carpentry Fundamentals GLO 3.1 (Objective **A3.1, A3.7**))	8585	13.2 hours
Grade 10 Carpentry Fundamentals Grade 11 Carpentry Tools & Equipment Grade 11 Framing Grade 11 Interior / Exterior Finishing GLO 3.1 (Objective **A3.2**)	8585 9188 9189 9190	8.2 hours
Grade 12 Advanced Framing GLO 3.1 (Objective **A3.5**)	9192	8.2 hours
Grade 11 Carpentry Tools & Equipment Grade 12 Applied Carpentry GLO 3.1 (Objective **A3.4, A3.6, A3.8**)	9188 9194	132.0 hours
Grade 12 Advanced Framing GLO 5.1 (Objective **A3.3**)	9192	3.3 hours
	Unit total (hours):►	**165 hours**

Level Chart

Level One (10 Weeks)

Code	Unit Title	T	P
A1	Orientation I: Struc/Scope of Carpenter	7	0
A2	Trade Safety Awareness	14	0
A3	Tools and Equipment	45	120
A4	Site Layout I	7	7
A6	Wood and Wood Products	10	0
A7	Non-Wood Products	7	0
B1	Trade Math	30	0

Apprenticeship Manitoba

Carpenter Level 1

Technical Training Unit Outline

Apprenticeship Manitoba

Carpenter

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7. **Identify the factors to consider when selecting tools and equipment.** a. Safety and training requirements b. Condition of tool or equipment (damaged, worn, defective)	3%
8. **Demonstrate use of hand, power, gas, diesel, pneumatic, stationary, powder-actuated, measuring and layout tools and equipment, and material handling equipment.**	60%

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Points to Remember:

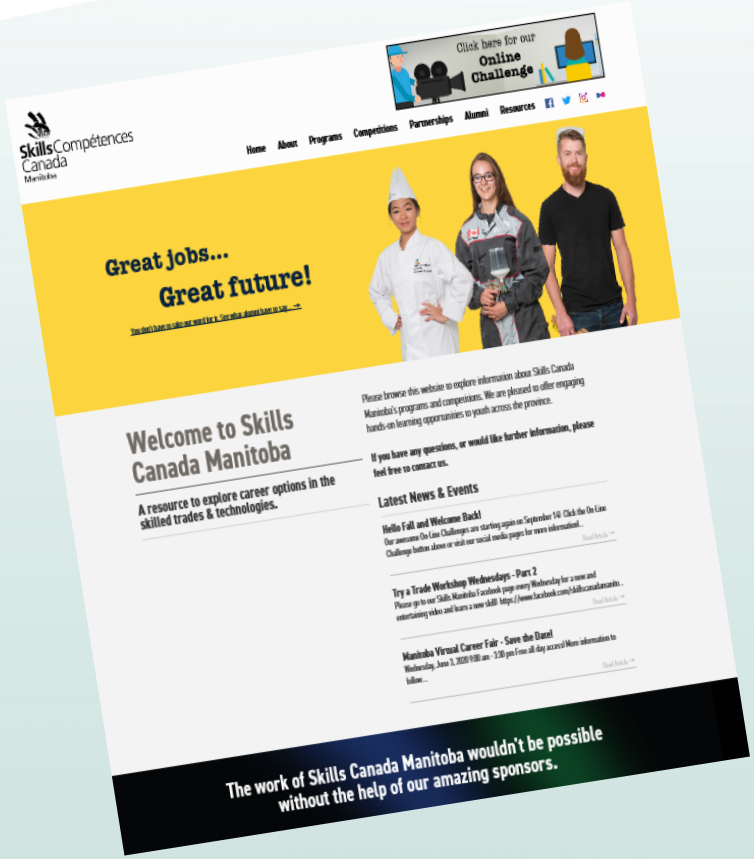
- There are more hours in TVE courses than the Apprenticeship Manitoba Technical Training minimum (for Carpentry, about 2.5 times more).

- Hours referenced in TVE as Apprenticeship Manitoba Technical Training occur more often at Grades 11 and 12.

- The completed UCC charts on our website are a *guideline* offered as a support to teachers. Planning requires teacher professional judgment.

- Teachers should chart both theory and practical hours to maintain accurate program records.

Manitoba



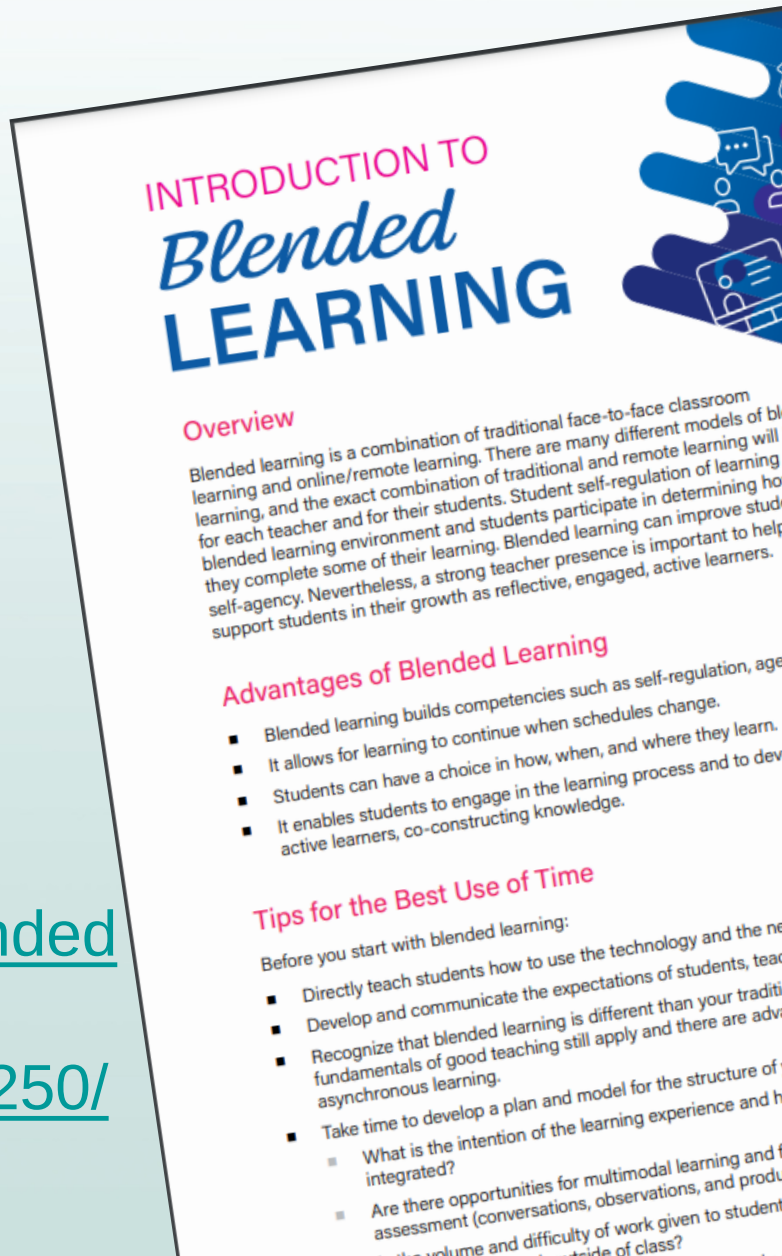
Health Break

Back in 5 minutes

https://skillsmanitoba.ca/

Blended Learning

- Blended learning involves the *thoughtful integration* of traditional face-to-face and online/remote learning experiences.


INTRODUCTION TO
Blended
LEARNING

Overview

Blended learning is a combination of traditional face-to-face classroom learning and online/remote learning. There are many different models of bl learning, and the exact combination of traditional and remote learning will for each teacher and for their students. Student self-regulation of learning blended learning environment and students participate in determining ho they complete some of their learning. Blended learning can improve stud self-agency. Nevertheless, a strong teacher presence is important to help support students in their growth as reflective, engaged, active learners.

Advantages of Blended Learning

- Blended learning builds competencies such as self-regulation, age
- It allows for learning to continue when schedules change.
- Students can have a choice in how, when, and where they learn.
- It enables students to engage in the learning process and to dev active learners, co-constructing knowledge.

Tips for the Best Use of Time

Before you start with blended learning:

- Directly teach students how to use the technology and the ne
- Develop and communicate the expectations of students, teac
- Recognize that blended learning is different than your traditi fundamentals of good teaching still apply and there are adva asynchronous learning.
- Take time to develop a plan and model for the structure of
  - What is the intention of the learning experience and h integrated?
  - Are there opportunities for multimodal learning and f assessment (conversations, observations, and produ
  - volume and difficulty of work given to student outside of class?

https://www.edu.gov.mb.ca/k12/dl/blended_learning.html
https://app.mapleforem.ca/en/groups/250/wiki/pages/2192

Tips for Blended Learning

- Pick a model or technology you are comfortable with and master it.
- Take time to introduce processes before content. Keep things simple.
- Teach with intention—carefully design activities and assessments.
- Communicate, communicate, communicate!

Practical Learning in a TVE Blended Environment

Know the difference between

- ***Applied Learning*** *(applying the concepts; may include designs, models, etc.)*
- ***Practice***
- ***Practical Learning*** *(Apprenticeship standards)*

Practical Learning in a TVE Blended Environment

- Safety First!

  See the Safety Plan Framework for resources:

  https://www.edu.gov.mb.ca/k12/cur/cardev/safety-docs/safety_plan_framework.pdf

NOTE: Accredited practical hours can only occur in an accredited facility with an approved instructor.

Additional Resources

Additional Resources

Online textbooks and distance learning resources for purchase

- Manitoba Professional Learning Environment (Maple)
  - To join https://mapleforem.ca
  - TE resources (Maple TE wiki) https://app.mapleforem.ca/en/groups/244/wiki/pages/1876
  - Place to share teacher-created content

Additional Resources

- Trade Safety Awareness Curriculum:

https://www.gov.mb.ca/wd/apprenticeship/generalinfo/print,instructoreducators.html

Additional Resources

- Safety
  - SafeWork Manitoba
    https://www.safemanitoba.com/
  - Safe Workers of Tomorrow
    http://workersoftomorrow.com/
  - Construction Safety Association of Manitoba (CSAM)
    https://www.constructionsafety.ca/

Additional Resources

- A list of Manitoba trades is found here: http://www.manitoba.ca/wdis/apprenticeship/discover/mbtrades/index.html

- Skills Manitoba: https://skillsmanitoba.ca/

- Apprenticeship Manitoba Promotional Materials: https://www.gov.mb.ca/wd/apprenticeship/generalinfo/promomaterials.html

Frequently Asked Questions

- **Are there restrictions on what students can do on the job (tasks) even as an apprentice?**
- Students, parents, teachers, and employers should be aware of what young workers can or cannot do on a work site. Every trade is different. The following links and information will assist in understanding the requirements.
  - Employment Standards
    https://www.gov.mb.ca/labour/standards/doc,young-workers,factsheet.html
  - Young Worker Readiness Certificate Course
    https://www.safemanitoba.com/Education/Pages/YWRCC.aspx
  - Reading and understanding the Trade Profiles to understand the requirements:
    https://www.gov.mb.ca/wd/apprenticeship/discover/mbtrades/index.html

Frequently Asked Questions

- **Do the optional Grade 9 courses count towards the required eight courses required for the SYTEP diploma?**
- To graduate from a **Senior Years Technology Education Program**, students must fulfill the graduation requirements outlined by Manitoba Education and complete a minimum of eight credits from an approved cluster of technology education courses. The Grade 9 courses are considered a sampling or introductory course only. The main “cluster” begins with the Grade 10 course and includes a minimum of require Grades 10–12 courses in that cluster. This is outlined in the Technical-Vocational Overview at https://www.edu.gov.mb.ca/k12/cur/teched/sytep/docs/tve_overview.pdf and we have also outlined it in the Subject Table Handbook, page 2: https://www.edu.gov.mb.ca/k12/docs/policy/sthte/docs/sthte_2020-2021.pdf.

Frequently Asked Questions

- **What are the differences between trade and non-trade TVE clusters?**
- Some TVE subject areas are designated as trades. Those that are not designated as trades are classified as trained occupations.
  - **Trades** are designated as such by Apprenticeship Manitoba. This has implications for the curriculum and the certification of teachers. Only certified journeypersons can teach TVE trade clusters, such as Automotive Technician and Hairstyling.
  - **Non-trades or trained occupations** are those that are **not** designated as such by Apprenticeship Manitoba. These include TVE subject areas such as Aviation and Aerospace Technologies, Early Childhood Education (ECE), and Broadcast Technology. In order to teach these clusters, teachers must have training and certification in these areas.

Frequently Asked Questions

- **Would Apprenticeship Manitoba accept work experience in place of the practical portion of technical training?**
- No, only accredited facilities can provide the theory and practical trade standard requirements towards Apprenticeship Technical Training. Accreditation is considered equivalent to Level 1 Apprenticeship Technical Training for the trade (theory and practical). The third element to an Apprenticeship program is the on-the-job hours. ALL three elements must be completed to be recognized as having completed the Level 1 requirements.

Frequently Asked Questions

- **How will schools address the missed practical application portion (outcomes/hours) for technical-vocational programming needed for accreditation or certification when the only option is a remote learning or a blended learning option?**
- Students may receive high school credits based on the theory and the applied learning portion if students are meeting learning outcomes. Additional “practical” learning will require gap training for certification once access to facilities is available. School divisions will plan and may collaborate with other school divisions and Manitoba Education for flexible scheduling options for gap training.

Q & A Sessions, Recording, and Resources

- Dates for Q & A sessions and a copy of the recorded session will be provided soon.
- Please have your questions ready for the Q & A sessions.
- If you have not registered for a Q & A session or the webinar recording, you can still submit a registration form.

We value your feedback

You will receive a short survey about this webinar. Please take the time to fill it out. Your feedback is very valuable to us.

Thank you

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