TEC-VOC HANDBOOK

Tec-Voc High School
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WINNIPEG SCHOOL DIVISION
INVESTING IN THE FUTURE

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Your Future Begins at Tec-Voc!

Tec-Voc is a four-year senior high school (Grades 9 to 12) which offers a complete range of interesting and challenging courses. Successful completion of these courses will lead to a High School Diploma in accordance with Education Manitoba requirements.

What is unique at Tec-Voc?

Tec-Voc is one of only a few Technical-Vocational High Schools in Manitoba. Students may select courses which develop marketable job skills and assist them in obtaining employment in a trade or the service industry. Students may decide to continue their training at a post secondary institution like Red River Community College. Tec-Voc students can work towards a Level One apprenticeship standing in Machining, Building Construction and Power Mechanics. Tec-Voc students may also take a general program of studies, selecting various academic and optional credits that will lead to a High School Diploma. Many students choose specialized academic technical vocational courses, which meet requirements for University or Community College. Tec-Voc students have the opportunity, with careful course selection, to graduate having met requirements for both Technology Education and University Entrance status.

WINNIPEG SCHOOL DIVISION
INVESTING IN THE FUTURE

PROVINCE OF MANITOBA GRADUATION REQUIREMENTS

THE CREDIT SYSTEM : A credit is earned by the successful completion of a course of study encompassing approximately 110-120 hours of instruction. A half credit involves 55-60 hours. Tec-Voc students need to earn a minimum of Thirty (30) credits to graduate.

GRADE 9	
Language Arts 10F	1 Credit
Supplementary Credit	1 Credit
Mathematics 10F	1 Credit
Science 10F	1 Credit
Social Studies 10F	1 Credit
Physical Education 10F	1 Credit
Technical Vocational Courses	2 Credit
Optional Courses	1 Credit

At Tec-Voc there are two Diploma Programs: The Academic Diploma and The Technical Diploma. Students who meet the requirements of both diplomas will be awarded a dual diploma

ACADEMIC DIPLOMA REQUIREMENTS GRADE 10 TO 12	
GRADE 10	
Career and Technology Studies	1 Credit
English 20F	1 Credit
Mathematics 20S	1 Credit
Science 20F	1 Credit
Geography 20G	1 Credit
Physical Education 20F	1 Credit
Option Courses	Recommend 2-4 Credits
	10 Credits Total
GRADE 11	
English 30S	1 Credit
Mathematics 30S	1 Credit
History 30S	1 Credit
Physical Education	1 Credit
Option Courses	Recommend 2-4 Credits
	6 Credits min
**Science is recommended as an additional credit*	
GRADE 12	
English 40S	1 Credit
Mathematics 40S	1 Credit
Physical Education	1 Credit
Additional Academic Courses	2-4 Credit
**min of 2 at the grade 10 level*	**5 Credit Min**
Option Courses as needed	

TECHNICAL VOCATIONAL DIPLOMA REQUIRMENTS GRADE 10-12	
GRADE 10	
Career and Technology Studies	1 Credit
English 20F	1 Credit
Mathematics 20S	1 Credit
Science 20F	1 Credit
Geography 20G	1 Credit
Physical Education 20F	1 Credit
Technical Vocational Courses	2 Credits
Option Courses	1 Credit
	9 Credits Total
GRADE 11	
English 30S	1 Credit
Mathematics 30S	1 Credit
History 30S	1 Credit
Physical Education	1 Credit
Technical Vocational Courses	4 Credits
Option Courses	2 Credits (min)
	7 Credits min
**Science is recommended as an additional credit*	
**History 30S is required for those Technical Vocational Students seeking a Dual Diploma*	
GRADE 12	
English 40S	1 Credit
Mathematics 40S	1 Credit
Physical Education	1 Credit
Technical Vocational Courses	4 Credits
**minimum of 2 at the grade 12 level*	**7 Credits Total**
Option Courses as needed	

TEC-VOC IS THE SCHOOL FOR YOU

Technical Vocational

Technical Vocational programs enable students to enter the world of work upon graduation or attend college or university providing entrance requirements are met. Students must successfully complete a minimum of 30 credits in total. At Tec-Voc this includes from 8-10 Vocational Technology credits plus 2-4 additional option credits from Grades 9-12 as well as the compulsory academic credits listed below.

Technical Vocational Courses: Students can choose a major area of study from the list which follows:

- Advertising Art
- Aerospace Technologies
- Automotive Technology
- Building Construction
- Business and Computer Technology
- Broadcasting/Media Arts
- Child Care
- Commercial Baking
- Culinary Arts
- Dental Assisting
- Dental Technology
- Design Drafting
- Electrical
- Electronics
- Graphic Arts
- Information Technology
- Machining Technology
- Professional Photography
- Welding Technology

Vocational students who include History 30S and a Grade 12 English other than Language and Technical communication in their program receive **both** a Vocational Diploma and an Academic Diploma. Students may pursue technical vocational training programs along with regular high school courses. Students completing this program will have dual opportunities to pursue a career in a vocational area or continue on to university or college.

Post High School Study

Post High School graduates have a unique opportunity to explore a vocation and obtain a vocational credit. Post High opportunities are based upon availability and interested students should speak to a guidance counsellor and instructor.

Entrance Requirements for Post Secondary Institutions

It is the responsibility of each student who plans to enroll in a post-secondary institution to ensure that he or she takes the specific courses required for entrance. For specific information about these programs, the student should make an appointment with a school counsellor or Career Exploration Intern. Credit checks can be provided by school counsellors. This should be done starting in your grade 10 year.

University Entrance

Guidelines are as follows but are subject to change as per individual University requirements.

1. Standing in 30 credits–high school diploma
2. Five credits at the grade 12 level, so that these 5 credits:
   - cover four different subject areas; and
   - include a minimum of 3 subjects at the 40S level from the list of "Academic 40S Subjects Approved for selection" in three different subject areas, with the remaining two credits selected from grade 12 level subject designated A, G, or S.
3. Certain faculties request specific courses as well as a minimum average in the best three 40S subject areas. Students are encouraged to **consult with their school counsellor** for this information.

Expectations of Students at Tec-Voc High School

It is expected that all students will act responsibly. This implies that everyone will have the opportunity to learn in a safe and stimulating environment, free from harassment or intimidation and in an atmosphere of mutual respect. This spirit of respect is part of the Tec-Voc culture. It is driven by the Code of Conduct, which states:

- Students and staff are to treat each other with respect, courtesy and consideration.
- Students and staff are to show respect for the rights and personal belongings of others.
- Students and staff are to show respect for the school building and school property.

Among the expectations of Tec-Voc students are the following:

- Students are to attend classes regularly and punctually.
- Smoking anywhere in the building or on School Division property is forbidden.
- Cell phones are not to be used during scheduled class time except with permission of staff.
- The front lawn and stairs are out of bounds during regular class times.
- Gang paraphernalia is not to be worn or carried on school property.
- All use of cameras is restricted to school related activities as approved by staff.
- Sitting on the floor in the halls is not allowed.

Dress Code

- Students to dress in a manner that is appropriate to a place of learning.
- Footwear must be worn at all times.
- No headgear is allowed.
- Parkas and jackets will be left in students' lockers.
- We strongly recommend that students leave valuable items at home.

Drugs and Alcohol

A student participating in any school activity under the influence of alcohol or drugs, will be suspended. The parents/guardians will be contacted. Possession or trafficking of drugs, will result in suspension and possible police contact.

YOUR FUTURE BEGINS AT TEC-VOC

Student Behaviour
Most cases involving inappropriate behavior are handled by the teaching staff. In cases where students are uncooperative, they will be referred to one of the principals. Each case will be dealt with using a variety of approaches and resources and range of consequences.

Academic Honesty
Students must understand that the tests/exams they complete and the assignments they submit as evidence of learning must be their own work and that cheating and plagiarism will not be tolerated. Tec Voc will employ a range of consequences to deal with academic dishonesty. This will include actions such as: contact parents, document the incident in the student's file, have the student redo the work honestly, deduct marks for academic dishonesty, or enforce other disciplinary measures.

Visitors
All visitors must report to the main office. We strongly discourage students from having friends from outside the school visiting or meeting them at the school. Students are expected to report anyone who does not have a legitimate reason to be on school grounds or in the building to school staff.

Change of address or phone
If you move during the school year, inform the office immediately. To change your telephone or emergency number call: 204-786-1401. **Please give us your email address.**

Lockers
Lockers are the property of the school and students are allowed to use them to store their school materials and personal items. The school has the legal right to search lockers. Combination locks will be issued by the home room teachers and must be used. Students are expected to keep their combinations confidential. Lockers must be kept in good order and kept locked. Money or other valuables should not be kept in lockers.

Student Parking
A limited number of spaces are available for student parking. There is an annual fee. This rate is subject to change. Only students renting a space are allowed to use the parking lot. Students may NOT park in visitor spots and cars parked illegally will be ticketed and/or towed. Parking permits must be clearly displayed in the vehicles at all times.

Money and Valuables
Students should not bring to school more money than they require for that day. Under no circumstances should anything of value (i.e. cell phones, MP3 players, watches, etc.) be left in a classroom, a locker or a gymnasium change room. The school does not assume responsibility for lost or stolen items.

Lost and Found
Students should check the main office for lost items. Any items found should be taken to the office so they can be reclaimed.

Cafeteria
The Hornet Cafe is the hub of the school, where good food and friends come together. At lunchtime (12:18 - 1:18 pm), join us for hot soup, sandwiches, salads, main course entrees and dessert. Our cafeteria is serviced by our students and we pride ourselves in providing nutritious, healthy menu items. The cafeteria is also used as a study hall (8:00 am - 3:30 pm).

Please respect the usage of the cafeteria by keeping the tables clean and putting garbage in the receptacles provided!

Student Accident Insurance
Accident Insurance is available at a reasonable cost. Application forms are available at the beginning of each school year. Students participating in athletic activities or any other school related activities are strongly urged to have adequate insurance coverage.

The Alumni Association
The Tec-Voc Alumni Association meets regularly. Former students who are interested in helping yearly alumni plans should contact the school office. Those who wish to be on the Alumni mailing list should leave their name, address and telephone number with the office staff.

Attendance
Attendance is an important component of school success. Regular attendance and parental involvement are two major contributors to academic success. The outcomes of courses at Tec Voc involve interaction with other students and practical application of concepts taught. The assignments require class participation, working with other learners, demonstration of skills, involvement in discussion and other activities that can only be assessed through consistent attendance. Legitimate reasons for missing a class would include illness, medical appointments, compassionate leave, driver testing, external examinations and job interviews. Notes or telephone contact are required for all absences.

Students having more than 16 absences in a full credit course, or 8 absences in a half credit course, are at risk of not receiving credit for a course and will have to work with their course teacher to find alternative means of satisfying the course outcomes to obtain credit.

Parents will be contacted daily via e-mail (preferred) or telephone regarding absences. The school will periodically provide the student's advisor with a summary of the students' attendance. If the student demonstrates irregular attendance, the advisor will contact home. If staff advisor efforts are not successful, a counsellor and/or vice principal may arrange for a conference with the parent or guardian and the student. Special arrangements may be negotiated at this time. The student will be responsible for following through with the mutually agreed upon plans make up time, complete assignments and all other requirements to satisfy the outcomes to obtain credit for the course. Failure to follow through will result in the student not getting the credit and withdrawal from the course and/or school.

MORE THINGS TO KNOW ABOUT TEC-VOC

Evaluation and Reporting
A student's standing in academic technical/vocational and business education subjects is determined by evaluating daily work, assignments, tests and exams. In September, teachers will tell the students how their performance will be assessed and evaluated. During the school year, there are four reports issued. One in November, February, April and at the end of June. Parents can contact the school at any time to receive attendance and progress reports or to make appointments to see teachers and/or counsellors.

Parent/Teacher Conferences
Conferences occur two times per year, in the middle of the semester. The Grade 9 program uses the student led conference format for reporting progress to the parent/guardians.

The School Committee (Parent Council)
The Tec-Voc School Committee encourages all parents to get involved in the school. The Council meets regularly to discuss school issues with the Principal and staff representatives. If you would like to come to a meeting, please phone the school.

Student Support Services
Counselling/Guidance
The Counselling Office is located across from the Main Office near the Theatre. It is open during regular school hours from 8:00 - 3:30 daily including lunch hours. Students are encouraged to meet with their assigned guidance counsellor to discuss academic and personal issues. Counsellors can assist students with school planning, personal crisis management, career/post-secondary planning and any other student needs or concerns. Registration and Course Changes are also made through the Counselling Office:

Registration – New Students
Applications are accepted beginning in March and continuing through until August for the following school year. Programs fill up quickly and applications are accepted on a first-come-first served basis. New students can pick up a registration form in the Counselling Office. A copy of the student's transcript and proof of residency must accompany each application.

Registration – Returning Students
Applications for the following school year are completed in school during the March Advisor Meeting and sent home to be signed by parents/guardians. Students should keep in mind that classes fill up quickly and return their applications as soon as possible.

Course Changes
Course changes can be made in the Counselling Office the week prior to the start of each semester. Limited course changes may also be made during the first two weeks of each semester only if space is available in the desired program. Some course changes in the first term may be initiated by teachers.

Withdrawing From School
Any student considering withdrawing from school should meet with their counsellor to discuss possible alternatives. If leaving, students need to pick up a clearance form and have it signed by teachers who will collect any textbooks, library books, and school equipment. The completed form must be returned to the Counselling Office before a transfer and credit statement can be released.

The Work Education Program
The Work Education Program has a full time teacher and career intern who work together to co-ordinate an extensive network of job contacts and opportunities for students. It is a comprehensive program designed to prepare students for their transition from school to work.

Career & Technology Studies Course
The Work Education Program begins in Grade 10 where students are introduced to the world of work through the mandatory Career and Technology Studies Course (LWPR2S). In this full credit course students are immersed in future career exploration, prepare for Career Fair, and develop computer literacy. The focus of the program is to give every student at Tec Voc the necessary skills and abilities to enter the world of work.

Mentorship Program
Another component of the Work Education Program is the Grade 11 Mentorship Program. This program matches students with professionals who work in the students' career area of interest. Students visit the professionals in their workplaces and shadow them. Students get an inside look into their career of choice, while having important questions answered and developing networks of contacts at the same time.

Career Development and Apprenticeship
Students will earn credits by completing a series of career related activities in their chose career area. These activities will be completed during hours outside of the school day. Please see the option course section of the handbook for complete course descriptions.

Work Experience
A key component of our career planning is optional work experience placements. Both vocational and academic students are given the opportunity to be placed in a work environment that best suits their interests where they get "on the job" training and real work experience.

Margaret Crawford Library
The library is a place where students can go to find answers. With extensive print and non-print resources students can discover new ideas and complete inquiry based assignments. There are three staff members, including a Teacher/Librarian, who work with teachers and students on research skills and provide literacy and information support. The goal of the library is to prepare students for the challenges they may find in a technology and information driven world. The library is open during regular school hours 8:00 – 3:30 daily including lunch hours. The library has 21 computers for student use and provides free photocopying to students. Students are encouraged to visit and sign out a book or browse through our magazines.

Resource and Study Skills
The Resource and Study Skills Department is run by a full time specialist teacher. The study skills room is a place where students come to complete their work in a quiet environment which offers extra supports. The Resource Team also assess students in reading and mathematics to enable teachers to program more effectively for diverse student needs.

The Tec Learning Centre (TLC)
The TLC is an excellent resource to help students improve their marks at all levels. TLC is open every Monday to Thursday from 3:30 – 6:30 PM in the Library. Two teachers and three educational assistants are available to provide one-on-one tutoring and help with homework, projects, and research assignments in all subject areas. Computers are also available for student use.
Students are responsible for:
• Attending with the purpose of learning
• Signing in and signing out
• Respecting the quiet space of others
• Observing the Tec-Voc Code of Conduct

KLINIC
The Klinic is a primary care medical clinic for Tec Voc students located on the first floor of the school. It is opened every Wednesday from 9:30-3:30. Students may make confidential appointments to meet with a doctor or nurse for various health concerns.

Alternative Programs
We know that each student is unique in his or her learning. Tec Voc offers alternative programs that respond to student interests and enhance student achievement. These programs include:

Grade 9 Repeater Program
This program allows students who have been unsuccessful in one or more of their core academic subjects to earn their missing credits as needed.

Senior Alternative Program (SAMY)
This individualized instruction repeater program provides students an opportunity to achieve success and gain credit for work in the core subject areas for grades 10 & 11.

Tec-Voc Off Campus Program
The Tec-Voc Off Campus Program is a structured alternative educational setting for Grade 9 & 10 students. Located at 700 Elgin Avenue, the Off Campus Program offers coursework for students aged 14-16 in a small setting with individualized instruction.

LINK Program
(Linking Individuals to New Knowledge)
The LINK Program offers an alternative learning environment for students in Grades 11 & 12. Each student in the program receives an individualized learning plan that consists of specific educational/ vocational goals as well as individual behavior goals. Students must be referred to the program.

Learning Assistance Centre (LAC)
The LAC provides an in-school program that helps students who have trouble achieving in a regular classroom setting. Individual learning plans are developed and administered by the staff of the LAC to ensure student success and create an environment conducive to learning. All core subject areas are taught within the LAC classroom. Students range in age from 14-16 years.

Teenage Parents Program (T.A.P.P.)
The Teenage Parents Program is designed to enable parenting students to complete their high school education. Students with children between the ages of 2 months to 4 years are able to attend regular classes while their infants and toddlers are supervised in the Infant and Child Development Labs. Parenting-students receive counselling support through a partnership with Mount Carmel Clinic and take courses in Family Studies and Foods and Nutrition. Positive physical, social, emotional and cognitive growth and development are stressed. Applications must be made through the Counselling Office. Spaces are limited.

Think Green • Act Gold • Be A Hornet

All Students and staff will show respect for themselves, each other and the school by acting according to the guide for life and learning at Tec-Voc

- *Attend regularly on time and ready to learn with proper supplies and equipment*
- *Participate in learning and contribute to the life and learning of one's self and others*
- *Dress for school in a manner appropriate to a learning and working environment*
- *Use considerate behavior and language in all interactions*
- *Be respectful of Tec-Voc High School and Winnipeg School Division policies related to student and staff conduct*
- *Tec-Voc is a safe and respectful environment free from prejudices, fears and distractions*
- *Everyone at Tec-Voc High School is encouraged to maximize their learning experience and their life as a student or member of staff*
- *All members of the Tec-Voc community are encouraged to take ownership for their behavior, their learning and the environment and culture of Tec-Voc*

Grade 9 Program

One of the main objectives of the Tec-Voc Grade 9 program is to have students make a smooth transition from middle school to high school. Grade 9 at Tec-Voc is taught using a team approach to instruction, discipline and extra-curricular activities. Our home rooms allow staff to closely monitor and assess academic progress and student development. We also offer students a variety of learning experiences including: travel, intramurals, Youth in Philanthropy, volunteerism, production involvement, skiing and cultural events. Students coming to Tec-Voc in Grade 9 must take 6 compulsory academic credits and 3 optional credits from the vocational or other optional courses listed below.

Grade 9

• Language Arts 10F	1 Credit
• Reading is Thinking	1 Credit
• Mathematics 10F	1 Credit
• Science 10F	1 Credit
• Social Studies 10F	1 Credit
• Physical Education 10F	1 Credit
• Technical Vocational Courses	2 Credits
• Option Courses	1 Credit

The vocational courses in Grade 9 expose students to a variety of vocational areas before committing to a specific career area in Grade 10. Should students decide that vocational education is not for them, they can choose a regular academic grade 10 program.

Vocational Options

Students select 4 of the following courses .5 credits each:

- Advertising Art
- Aerospace Technology
- Automotive Technology
- Broadcasting
- Building Construction
- Commercial Baking
- Culinary Arts
- Design Drafting
- Electrical
- Electronics
- Graphic Communication
- Family Studies
- Professional Photography
- Machining Technology
- Welding

Other Options:

Students select 2 of the following half credits

- Art
- Band (no experience necessary)
- Business and Computers
- Choir
- Clothing, Housing and Design
- Dance
- Foods and Nutrition
- Guitar
- Information Technology/Animation
- Recording Technology
- Theatre & Drama

Enrollment in the Grade 9 Program is limited. Applications must be in on time to be considered.

In the Tec-Voc Grade 9 program students are provided with added time and support for Language Arts and Mathematics learning.

Advertising

Are you interested in advertising? Do you have creative ability or artistic talent? The Advertising course is the place to start. Over the three years, you will explore and practice techniques and skills needed to design and produce artwork for commercial purposes. This includes a variety of print media such as newspapers, magazines, signage, logos, displays, promotional pieces and corporate identity.

Today's designers conceptualize and produce graphic art and visual materials to effectively communicate information for publications, advertising, packaging, and electronic media. The Advertising curriculum invites students to create projects based on employment expectations.

Topics include:

- *Principles of design*
- *Drawing techniques & tools*
- *Digital production*
- *Client relations and case studies*
- *Advertising procedure*
- *Layout fundamentals*
- *Typography/lettering*
- *Media awareness*

Grade 10 (ADAV20) (2 Credits)
The first year will introduce students to drawing and design. Students will use a variety of drawing materials and tools and practice with different techniques and mediums. Main topics include colour theory, lettering basics and layout. Advertising procedure and theories will be examined.

Grade 11 (ADAV30) (4 Credits)
The second year will build on design basics and move into more complex projects in advertising layout, typography and computer applications. The school yearbook will be an important focus.

Grade 12 (ADAV40) (4 Credits)
The third year will develop skills to a professional level in the areas of graphic design and print communications. Topics include full advertising campaigns, non-print design, and newspaper layout and production; as well as the opportunity for work experience.

In order to receive an Advertising diploma, a student must complete the 8 credits AND meet the provincial requirements for a high school diploma. With the training you receive in Advertising, you are well prepared to go on to a technical college or a university fine arts program.

Advertising Opportunities
Students may also apply for an entry-level position at these types of businesses:

- *Signage companies*
- *Newspapers & magazines*
- *Publishing companies*
- *Printing & pre-press facilities*
- *Corporate art departments*
- *Packaging facilities*

Tec-Voc strongly recommends that an Advertising student pursue the Dual Diploma. Check with the guidance department for course requirements. The visual communications industry is competitive and most employers require a college diploma in Graphic Design or a university degree in Visual Arts with specialization in graphic design, advertising, or graphic communications. It is advised that students entering into this program also take Photography or Media Arts as a second vocation in grade 9 and 10 as these programs enhance your portfolio for college. Grade 12 students must build a web based portfolio and it is strongly recommended that they take **WEB DEVELOPMENT (ISTV37)** in grade 11 so that they are able to make their web site.

For more information about the Advertising program at Tec-Voc please contact:• MRS. T. GOLDRUP (Advertising Teacher)

Aerospace Technology

Aviation & Aerospace Technology
The Aviation and Aerospace Technologies program provides students with an introduction to the knowledge and skills associated with the manufacturing and maintenance of aircraft. Students who study aviation and aerospace technologies apply problem-based learning that integrates science, technology, engineering, and mathematics.

This program includes both aviation and aerospace. In industry, it is generally accepted that with respect to aircraft maintenance, aviation refers to the maintenance of operational aircraft carried out by Aircraft Maintenance Engineers (AMEs) whether it's repairing aircraft defects, or carrying out minor and major aircraft inspections. Aerospace generally refers to the overhaul and manufacture of aircraft components, including the manufacture of complete aircraft. For instance, a jet engine is overhauled by an aerospace service provider, and installed on the aircraft by an AME.

Aviation and Aerospace Technologies applies student ingenuity with tools, materials, processes, and resources to create solutions and opportunities for themselves and others.

- Aircraft Components & Functions
- Aircraft Engine Fundamentals (both Piston and Gas Turbine)
- Aviation Math & Physics
- Blueprint Reading & Technical Drawings
- Composite Fabrication & Repair
- Human Factors Training
- Mentorship
- Non-Destructive Testing
- Principles of Flight (both Fixed & Rotary)
- Sheet Metal Fabrication & Repair
- Test of Workplace Essential Skills (TOWES) preparation
- WHMIS Certification
- Work Experience

Grade 10 (AETV20) (2 Credits)
This course is intended for students wishing to investigate Aviation and Aerospace Technologies. Curriculum content focuses on the maintenance and manufacturing of aircraft. The emphasis will be on developing hands-on skills through project based activities.

Grade 11 (AETV30) (4 Credits)
This course is intended for students considering specialization in the Aviation and Aerospace Technologies program. Curriculum content focuses on fabrication of metallic and non-metallic structures and reciprocating engines.

Grade 12 (AETV40)(4 Credits)
This course is intended for students entering the transition phase of the Aviation and Aerospace Technologies program. Curriculum content provides for construction and repair of metallic and non-metallic structures, non-destructive testing (NDT), aircraft systems and propulsion, TOWES and WHMIS certification, Human Factors training and ethical and legal requirements in industry.

Post Secondary Opportunities
At Red River/Stevenson we have guaranteed seats for our graduates for the Aircraft Maintenance Engineer (AME) program along with the Gas Turbine and Composite Manufacturing program. The University of Manitoba, which has an aerospace option through Mechanical Engineering, is another viable option for our graduates.

Aerospace Manufacturing and Maintenance Orientation Program (AMMOP)

Target Audience:
18 to 30 years old who want to transition to employment and post-secondary opportunities in the Manitoba Aerospace Industry.

Course Details:
AMMOP is a 10 month program in which students learn the skills that will lead to a career in the Aviation & Aerospace Industry. Students attend from 7:45 to 3:00 for half a week, with perfect attendance being the expectation. The program began 15 years ago under the guidance of our industry partners.

Seventy six percent of our 365 graduates are known to be working or completing post-secondary education in the Aviation & Aerospace Industry

Applicant Requirements:
Students must have completed their grade 12 and be competent in Math, Science and English. An entrance test will be completed in May with applicants subject to reference checks and an interview. Successful applicants will be notified in June for a September start date.

For more information about the Aerospace Technologies program at Tec Voc, please contact MR. G. LINK (Aerospace Coordinator)

Automotive Technology

Tec-Voc's Automotive Technology program is one of the finest high school vocational automotive courses in the province. This program is designed to develop an understanding of the basic purpose, construction, operation and service of all components/assemblies of an automobile. Students will benefit from "hands on" experiences as they service, diagnose and repair vehicles using state of the art tools and equipment.

Areas of study include:
- *Engine Design*
- *Basic Service*
- *Chassis & Brakes*
- *Drive Line Components*
- *Engine Remanufacturing*
- *Fuel Delivery Systems*
- *Electrical Systems and Diagnosis*
- *Fuel Management Systems*

Grade 10 (POMV20) (2 Credits)
An introduction to Automotive Mechanics. Areas of study are: Safety and general shop practice, engine design and operation, basic vehicle maintenance and repair.

Grade 11 (POMV30) (4 Credits)
In the second year, the course becomes more specific. Areas of study are: Engine reconditioning, drive lines and components, brake systems, fuel systems and chassis servicing. Students will spend approximately 60% of their time servicing and repairing a variety of vehicles that are booked into the shop on a weekly basis. The remaining 40% of the course will focus on the study of theoretical aspects of automotive repair within a classroom setting.

Grade 12 (POMV40) (4 Credits)
In the third year, the focus shifts to chassis electrical systems/components, electronic fuel management control systems/components and computerized engine diagnostics and correction. Also, there will be an extensive work experience component where each student will be sent to a car dealership, or other licensed automotive repair facility where they will work with a license automotive technician.

Automotive Technology Opportunities:
Begin your career at one of these places:
- *Automotive dealership*
- *Automotive service centres*
- *Lube centres*
- *Front-end alignment centres*
- *Muffler shops*
- *Remanufacturing shops*
- *Transmission shops*
- *Tune-up centres*

Opportunities in other related areas:
- *Small engine repair shops*
- *Automotive parts sales*
- *Collision repair shops*
- *Automotive detailing*
- *Custom audio/alarm installation*
- *Vehicle sales*
- *Engine machine shops*

Students who enroll in our automotive course can reduce the length of their apprenticeship by maintaining a 70% average throughout the three year program. Upon graduation they will receive level 1 Apprenticeship status in Motor Vehicle Mechanics from us and can begin their career in the automotive service industry. Please contact us for complete information on our apprenticeship program.

For more information about the Automotive Technology program at Tec-Voc, please contact: MR. D. SIGNORE

Broadcasting/Media Arts

This is a course for those with an interest in the production of various electronic media. From the small screen, to the big screen, from the air waves to WIFI, Tec-Voc's new Media Arts program will utilize cutting edge high definition equipment so you can produce your vision. The broadcasting and film industry needs people with a positive attitude, strong communication and teamwork skills.

The course will train you in:
- *Announcing*
- *Audio production*
- *Broadcast/commercial/film script writing*
- *Computerized editing*
- *Computerized graphics*
- *Directing for television and film*
- *Non-linear editing*
- *Video camera operation*
- *Studio production*
- *Live sports production*
- *Commercial production*
- *Live concert production*
- *Film production*
- *Lighting*

Grade 10 (RTBV20) (2 Credits)
First year introduces students to the tasks and equipment used in television, film and radio production by assisting in a variety of projects from concept through to production.

Grade 11 (RTBV30) (4 Credits)
Students will enhance their skills from RTBV21 with the introduction of lighting, professional audio, and advanced editing. Students will produce documentaries, television commercials and participate in live sports/ concert productions.

Grade 12 (RTBV40) (4 Credits)
The third year focuses on developing advanced broadcasting & film techniques. Students produce an assortment of television and film projects with the emphasis on quality and professionalism for "in-house" and "on-air" broadcasts.

Broadcasting Opportunities
When you complete the new Media Arts program, you can begin a career at one of these places:
- *Audio/visual company*
- *Clubs*
- *Communications departments*
- *Corporate video production departments*
- *Educational production facilities*
- *Lighting companies*
- *Recorded music companies*
- *Television stations*
- *Video production (industrial, Government, and religious)*
- *new media & internet companies*

People with a video and audio background are also needed in many other related areas:
- *audio and video rental companies*
- *audio sales*
- *teaching*
- *video sales*

Student's work can be seen on Tec Voc's school website at www.tecvoc.ca. Student work has also aired on television and radio stations around Winnipeg. With this training and the required academics, you can go to a community college or university for journalism or production training. New Media Arts has articulation with Assiniboia Community College in Brandon.

For more information about the Broadcasting/ Media Arts program at Tec-Voc please contact MR. K. Plaetinck

Building Construction

Students enrolling in the Building Construction course should enjoy working with their hands and be willing to do physical work, both inside and outside in all types of weather. Students will learn a wide variety of skills related to carpentry, cabinet making and woodworking. SAFETY is emphasized throughout the entire course.

The course includes:

- *Hand tools*
- *Portable power tools*
- *Stationary woodworking machines*
- *Cabinet making*
- *Roof framing*
- *Framing (wood frame house construction)*
- *Window and door construction/installation*
- *Stair construction*
- *Concrete forming and estimating*
- *Surveying and print reading*
- *CNC Routing/milling*
- *Interior/exterior finishing*

Grade 10 (BUCV20) (2 Credits)
The first year will introduce students to measurement, use and care of hand tools, portable power tools and stationary woodworking machines, project design and layout, material selection and basic finishing techniques.

Grade 11 (BUCV30) (4 Credits)
Emphasis is on developing carpentry skills. The first part of the year is spent on design, layout and construction of cabinets; the remainder is devoted to roof framing and wood frame house construction.

Grade 12 (BUCV40) (4 Credits)
Students will learn to layout, construct and install windows and doors. They will also learn how to layout and build stairs according to local building codes. The final part of the year is spent on surveying, print reading and concrete forming.

Building Construction Opportunities
When you complete the Building Construction program you can pursue a career with:

- *Building contractors*
- *Cabinet/furniture manufacturers*
- *Concrete contractors*
- *Interior/exterior finishing contractors*
- *Renovators*
- *Stair/truss manufacturers*
- *Window/door manufacturers*

Other related areas for employment are:

- *Lumber and material suppliers*
- *Maintenance work*
- *Teaching*
- *Tool suppliers*

Students can also choose to enter apprenticeship or continue their studies at a community college. Our Building Construction program is accredited for Level 1 of Carpentry. Accreditation #AC-045

For more information about the Building Construction program at Tec-Voc, please contact: MR. T. STOKOTELNY

Child Care

This course is for students who have an interest in working with infants, preschool children or school age children. The focus is on learning the basic skills to help children develop physically, socially, emotionally and intellectually.

The program includes:
- *Child development*
- *Family dynamics*
- *Health, Nutrition and Safety*
- *History and Philosophy of child care*
- *Signs and Symptoms of child abuse*
- *Inter-personal communication*
- *Self understanding*

Grade 11 (CHCV30) (4 Credits)
First year students learn methods of guiding children's behavior, observation and report writing techniques, art and children's literature activities.

Grade 12 (CHCV40) (4 Credits)
In the second year, students explore areas of curriculum, inter-personal communication, health and nutrition for children as well as taking part in a work experience block of time.

Child Care Opportunities
Certified child care workers are needed in:
- *Day cares, infant day cares and school age day cares*
- *Day care in private homes (Nannies)*
- *Day cares in school settings*
- *Family day cares*

With further training, child care workers can find employment in the areas:
- *Infant care*
- *Residential programs*
- *Social work (family support workers)*
- *Special needs care*
- *Teaching*
- *Youth care*

Tec-Voc is very fortunate to have an on site facility which provides care for babies (3 months - 24 months) and toddlers (2 years - 4 years). Students have the opportunity to complete their high school requirements while knowing that their children are being looked after. The child care students also have the opportunity for important hands on experience.

Option credits are available to those interested in working with the children in our infant and toddler labs. See the Human Ecology section for more information.

For more information about the Child Care program at Tec-Voc, please contact: MRS. S. KNAZAN (Child Care Instructor)

Commercial Baking

This Tec-Voc course is designed for students who are both curious and interested in baking and would like the opportunity to explore baking as a possible career in the hospitality or service industry. The students are taught in a professional setting that is set up to resemble a commercial bakery.

The baking program includes:
- *Introduction to baking*
- *Introduction to baking desserts, cakes*
- *Production and decorating*
- *Introduction to bread making*
- *Specialty pastries*
- *Bakery management*
- *Hospitality services*

Grade 10 (COBV20) (2 Credits)
First year is an introduction to the bakery using hand tools and stationary equipment. An introduction to the art of cake decorating, recipe and ingredient knowledge, with special emphasis on Health and Safety regulations.

Grade 11 (COBV30) (4 Credits)
Second year students will learn mixing techniques and styles, in all areas of baking. Students will explore all types of bread and pastry making including molding, shaping and braiding and gaining further knowledge in cake decorating and use of the donut fryer.

Grade 12 (COBV40) (4 Credits)
In the third year, students will learn about "puff" and Danish dough along with designing and decorating cakes for special occasions. They will also learn how to divide and multiply recipes and develop an insight of ingredients and recipes. Bakery management skills with emphasis on ordering and stock rotation will be taught. Students will further their skills in all areas of the Bakery.

Baking Career Opportunities
Graduates from this course will have the required skills for employment in the following:
- *In-store bakeries*
- *Large commercial bakeries*
- *Specialty bakeries*
- *Hotel or restaurant dining rooms*
- *Catering companies*
- *Health care food services*
- *Company cafeterias*

Opportunities in other related areas are:
- Bakery management
- Food and equipment sales

For further information about the Commercial Baking program at Tec-Voc, please contact:
- MR. T. WILLERTON (Baking and Cake Decorating Instructor)

Culinary Arts

Few occupations offer the creativity, excitement and opportunities for growth as found in Culinary Arts. Tec-Voc offers a program with personalized instruction, supervised practice and repetition to develop your skills to the highest possible level. Working alongside industry-experienced instructors, you'll learn and perform the hands-on skills chefs use each day in industry. The 3-year program blends practical, theory, entrepreneurship, daily on-the-job training and work experience.

The following topics are covered:

- *Basic cooking procedures*
- *Safety and sanitation*
- *Weights and measures*
- *Soups, stocks and sauces*
- *Garde manger*
- *Baking and pastry, advanced desserts*
- *Egg and breakfast cookery*
- *Meat, poultry and seafood cookery*
- *Vegetables and starch cooking*
- *Kitchen management*
- *Nutrition*
- *Buffet presentation*
- *Fine dining experience*
- *Entrepreneurship*

Grade 10 (COCV20) (2 Credits)
Culinary Arts 20 is an introduction to basic cooking procedures beginning with safety, sanitation, and tool usage. Students will progress through specialty areas such as garde manger, stocks and soups, vegetable cookery, meat cookery, basic baking and nutrition.

Grade 11 (COCV30) (4 Credits)
Culinary Arts 30 is an extension of the skills and procedures learned in grade 10. The students develop skills in meat cutting, breakfast cookery, front of the house table service and customer relations, and nutrition. Students will also learn buffet presentations with emphasis given to culinary presentation showpieces.

Grade 12 (COCV40) (4 Credits)
Culinary Arts 40 is a review of areas covered in grades 10 and 11 with and emphasis on skill mastery. An introduction to fine dining with an emphasis on plate presentation is taught. Students will go out into the food services industry for six weeks on work experience.

Culinary Arts Opportunities
The food service sector has become one of the fastest growing industries in Canada and because of this there is a tremendous shortage of well-trained personnel. Upon graduating various opportunities are available in the industry, such as:

- *Restaurants and hotels*
- *Hospitals and nursing homes*
- *Cafeterias*
- *Catering companies*
- *Hotels*
- *Golf courses and private clubs*
- *Cruise ships*

For more information about the Culinary Arts program at Tec-Voc, please contact: The Chef Instructor

Dental Assisting

This two year course offers the students an opportunity to obtain the technical knowledge and the clinical experience for employment in the dental field. The program consists of eight credits at the **grade 11 and 12 levels.**

The course includes:
- *Dental Anatomy*
- *Dental Practice Management*
- *Four-Handed Dentistry*
- *Interpersonal Relations*
- *Intra-Oral Skills*
- *Introduction to Data Processing*
- *Job Search*
- *Laboratory*
- *Life Sciences*
- *Nutrition*
- *Professional Development*
- *WHMIS*

Dental Assisting Opportunities
Upon completing the Dental Assisting program, students can seek a career in:
- *Dental offices*
- *Hospitals*
- *Community dental clinics*
- *Educational facilities*
- *Government public health programs*

Opportunities in other related areas include:
- *Dental office manager*
- *Dental receptionist*
- *Sales*
- *Insurance companies*

Grade 11 (DEAV30) (4 Credits)
First year is an introduction to the dental profession. Communication skills and management of a dental office are taught. Basic human anatomy (emphasizing head and neck), chairside assisting, use of dental materials, techniques in sterilization and infection control methods are also taught.

Grade 12 (DEAV40) (4 Credits)
The Four-Handed dentistry technique used in general practices as well as in dental specialities are stressed. Intraoral skills such as rubberdam, radiology, sealants, impressions, prophylaxis and fluoride, suture removal, topical anaesthetic, matrix bands and wedges, bases and liners are covered. Throughout the year, there is clinical experience of the intra-oral skills on patients at Red River College. There is also a work experience session at a dental office to give the students an opportunity to apply their acquired skills.

For more information about the Dental Assisting program at Tec-Voc, please contact: MS. D. PARADOSKI (Dental Assisting Instructor)

Dental Technology

A Dental Technologist is a trained specialist who provides a valuable service to dentists, denturists, and other health professionals. A Dental Technologist constructs, fabricates, designs, plans, and manufactures a variety, and range of custom made fixed or removable devices, which the dentist or clinical professional may prescribe. They repair, replace, and make alterations to both fixed or removable appliances that may have been broken, chipped, or need adjustment. This two year program provides the technical training for the fabrication of these appliances. Practical laboratory work is emphasized to better prepare the student for employment in this profession while offering an authentic approach to learning. All work is custom made, and requires specialized, integrated equipment, with specific and specialized materials.

The student receives instruction in the following:

- *Mouth Guards*
- *Custom Impression Trays*
- *Casting Alloys*
- *Anatomical Tooth Carving*
- *Nightguards (Bruxism Appliances)*
- *Model Preparations*
- *Gold Inlays & Onlays*
- *Orthodontic Appliances*
- *Occlusal Rims*
- *Fabrication of Partial Dentures*
- *Relining & Rebasing Dentures*
- *Terminology*
- *T.M.J. appliances*
- *Crowns And Bridges*
- *Cast Partial Designs*
- *Custom Bleaching Trays*
- *Anatomy and Physiology*
- *Porcelain Fused to Metal Substructures*
- *Construction of Complete Dentures*
- *All Ceramic Restorations, Inlays, Onlays, Jackets &Veneers*
- *Composite Inlays, Onlays, Jackets & Veneers*

This course is only available at the grade 11 and 12 levels.

Grade 11 (DETV30) (4 Credits)

Studies in Dental Technology include a close examination of the oral and cranial anatomy as well as the mechanics and movements of the jaw. A group study into the science of dental materials is also incorporated into the program. Students will design and fabricate a variety of removable appliances, and a variety of orthodontic appliances. These include dentures, retainers, mouth guards, and partial dentures. Applicants must have completed Grade 10 and have a high degree of manual dexterity.

Grade 12 (DETV40) (4 Credits)

In this course, Dental Technology extends to the advanced levels including studies into specific oral anatomy and the function and morphology of teeth, an introduction into the field of Metallurgy is also explored. This program includes the study and the mechanics behind fixed restorations, this includes crowns, bridges, all ceramic restorations and a practical look at implants and attachments. Cosmetic Dentistry is explored to better prepare students as technologists in the future of esthetics. Students are trained on the latest CAD/CAM technology. The advanced study of Dental Materials is also incorporated into this program.

Dental Technology Opportunities Graduates can look forward to employment in or as specialized Technologists within:

Fixed Restorations: A fixed dental restoration is an appliance designed to replace a tooth or teeth that may have been lost, damaged, or carries oral diseases. These restorations are distinguished from other restorations by the fact that once they have been placed by a dentist the patient cannot remove them. Such Restorations include; Crowns, bridges, veneers, fixed implant restorations, inlays, onlays, and CAD/ CAM technology.

Removable Restorations: Removable restorations are dental appliances to replace one or more teeth that have been completely lost. These restorations ideally remain stable in normal function but can be removed by the patient for cleaning and at night.

Removable Restorations: are either retained by the patient's soft tissue as in full dentures, supported by other teeth as with partial dentures and over dentures or on implant attachments as with implant retained over dentures and partial dentures.

Maxillofacial: Maxillofacial dental technologist mostly work with Oral and maxillofacial surgeons and make prosthesis for the face and eyes.

Orthodontics: Orthodontic Technologists make removable orthodontic appliances with wires, springs and screws on prescription from the Orthodontist to either move teeth to form a more harmonious occlusion and aesthetic appearance of teeth or to maintain the position of previously moved teeth.

Possible Employment Opportunities:

- *Dental Offices with Laboratories*
- *Dental Laboratories*
- *Dental Sales*
- *Dental Research and Development*
- *Dental Education and Training*
- *Denturist Clinic's*
- *Dental Distributors*
- *Medical Establishments*
- *Materials Research Development*

Graduates have also used the skills learned in this program to further their education in the fields of a Denturist or Dentist. This is the only high school program of its kind in Canada and is accredited with The Manitoba Dental Technologist Association. Practical work experience within a Dental laboratory or Dental office is offered at the Grade 12 level.

- *Relining & Rebasing Dentures*
- *Nightguards (Bruxism Appliances)*
- *Model Preparations*
- *Gold Inlays & Onlays*
- *Cast Partial Designs*
- *Custom Bleaching Trays*
- *Terminology*
- *Anatomical Tooth Carving*
- *T.M.J. appliances*
- *Crowns And Bridges*
- *Casting Alloys*
- *Orthodontic Appliances*
- *Anatomy and Physiology*
- *Composite Inlays, Onlays, Jackets & Veneers*
- *All Ceramic Restorations, Inlays, Onlays, Jackets & Veneers*
- *Porcelain Fused to Metal Substructures*

For more information about the Dental Technology program at Tec-Voc, please contact: MR. J. Grosz R.D.T

Design Drafting

Tec-Voc's Design Drafting program prepares students for careers and college or university training in the Drafting Technologies, Engineering, Manufacturing, Architecture and Interior Design. The primary goal of the program is to prepare students for further education, but some may find employment upon graduation. The students are exposed to drafting and design practices used in today's industries using the latest "Computer Assisted Design Drafting" (CADD) software. The drafting, engineering, and architectural professions seek people with: positive attitudes, skills in problem solving and design, math, literacy, communication, team work and computers. Students have the opportunity to develop these skills in Design Drafting at Tec-Voc.

Grade 10 (TEDV20) (2 Credits)
Students are introduced to basic architectural and engineering drafting practices. These courses provide an introduction to basic design. Students will use a design process to design and computer model a cottage, gain an understanding of interior design and small house construction processes. Students also use engineering CADD software when drawing views of objects, dimensioning, reengineering everyday objects, and inventing new ones. Students compete in the Skills Manitoba 2D AutoCAD competition.

Grade 11 (TEDV30) (4 Credits)
Students are introduced to residential architectural and advanced engineering and manufacturing design drafting.

Architectural Design Drafting:
Students' activities and projects will include:
- Architectural design and presentation drawing
- Advanced 2D and 3D CADD skills
- Working drawings of floor plans and elevations
- Model construction
- Skills Manitoba Architectural design /drafting competition

Engineering Design Drafting
Students' activities and projects will include:
- Engineering design and presentation drawing
- Working and presentation drawings of machine products
- Advanced 2D and 3D CADD skills using Inventor software
- Skills Manitoba Architectural and Mechanical CADD competitions
- Cardboard boat competition
- F1 in Schools competition

Grade 12 (TEDV40) (4 Credits)
The grade 12 courses offer advanced CADD 2D and 3D drawing and design for engineering, architecture, and manufacturing.

Student activities and projects will include:
- Completing a set of architectural drawings of their house designs
- Advanced manufacturing design, drawing, and construction competitions (F1 race car, hovercraft)
- Machine design and reengineering activities
- Furniture design
- Custom design drafting work for school and community clients
- Job preparation and work experience at local industries
- Skills Manitoba Architectural and Mechanical CADD competitions.

All drafting courses are taught using the most current industry standard AutoCAD, AutoCAD Architecture, Revit Architecture, and Inventor, CADD software.

Our agreement with Red River College Civil Engineering Technology allows students to obtain credit for many first year courses.

RAPID PROTOTYPING
We are proud to have a 3D printer, which allows students' 3D designs to be printed in 3D from ABS plastic material.

For more information about the Design Drafting program at Tec-Voc, please contact: • Mr. G. MacRae (Design Drafting Instructor)

Electrical

This is a giant step towards some of the many challenging career opportunities that are presently available in the electrical industry today. Do you like tools and working with your hands? Do you enjoy thinking and problem solving? Would you love to get a job that not only offered higher than average pay, but was interesting as well? Then this is the program you want to enroll in. A good aptitude in science and an interest in mathematics are very helpful. Some of the things you will learn about are:

- *Batteries and battery chargers*
- *Magnets, electromagnets, and electrical coils*
- *Lighting components and apparatus*
- *Basic electronics*
- *Meters and electrical test equipment*
- *Residential wiring/ Blueprint reading*
- *Service entrance and distribution code*
- *A.C. and D.C. electric motors & generators*
- *Motor control*
- *Photoelectric sensors*
- *Robotics*
- *Computer control and programming*

Grade 10 (ELEV20) (2 Credits)
The grade 10 program introduces students to the basic concepts of safety, code electrical construction and maintenance. Students learn to work with batteries and battery chargers, magnets, electromagnets, and electrical coils. Students are also introduced to lighting components and apparatus as well as basic electronics.

Grade 11 (ELEV30) (4 Credits)
The grade 11 class will have shops for 4 periods, every Building on the skills developed in the Grade 10 program, students continue to expand their skills in electronics. Students begin to specialize in meters and electrical test equipment, robotics and computer control and programming. Students in the grade 11 program also learn the fundamentals of residential wiring and blueprint reading as well as service entrance and distribution code.

Grade 12 (ELEV40) (4 Credits)
In the final year of the program students continue to develop their skills at an advanced level in computer control and programming, robotics, meters and electrical test equipment. At this level students also begin working with A.C. and D.C. electric motors and generators, motor control and photoelectric sensors.

A student achieving a 70% average throughout the three grades will be given an apprenticeship.

Prospects for Employment
After successfully completing this program, students may enter an apprenticeship program in either:

- *Electrical construction*
- *Industrial electrical maintenance*
- *Railway electrical maintenance*
- *Electrical utility companies (Hydro)*
- *Telephone and cable companies*

Opportunity for employment can also be found in:

- *Aircraft manufacturing*
- *Bus manufacturing*
- *General building repairs*
- *Electrical product sales*
- *Warehouse parts person*
- *Alarm companies*
- *Appliance repair and service*

For more information about the Electrical program at Tec-Voc, please contact: Mr. Ray Rawluk (Electrical Instructor)

Electronics

Think Green. Electronics crosses over into many different areas communications, home entertainment, home security, health, medical, robotics, and avionics as a few – including renewable energies. Tec Voc is the only high school in the province to offer certification in the installation of small wind and solar energy systems. The many challenges and opportunities in electronics exist because you have an interest in making lives more green, more enjoyable, connected, healthier and secure. It is helpful to have an interest in math and science. In Electronics, you will learn about:

- *Green energies, wind and solar*
- *Components and circuit building*
- *Digital and analog electronics and circuits*
- *Direct and alternating current fundamentals*
- *Meters, oscilloscopes, generators and other equipment*
- *Embedded microcontroller systems*

Electronics will supply you with a strong background of knowledge and skills for a smooth transition into:

- *Pre-employment*
- *Employment*
- *Post-secondary education*

Grade 10 (ELRV20) (2 Credits)
Students will learn basic skills, such as soldering, identifying components and reading schematics, to create and complete take home electronics projects. Students will program and control a simple robot and simple input/output devices that may be found attached to home security systems to understand embedded systems. Hands-on experiences in direct current, series circuits, parallel circuits and the use of meters and other related equipment are used for further understanding in the Grade 11 and Grade 12 courses

Grade 11 (ELRV30) (4 Credits)
Students will understand the fundamentals of semiconductor devices, such as diodes and transistors, by building and analyzing take home projects like a power supply, preamplifier and amplifier. Students will understand and analyze digital concepts by connecting circuits from gates to counters and counting systems using Multisim simulator software. The circuits are downloaded and run on a National Instruments digital platform. Students will build and analyze reactive circuits to understand the effects of an alternating current on reactive components – resistors, capacitors and inductors.

Grade 12 (ELRV40) (4 Credits)
Students will apply topics of learning from grade 10 and grade 11 to a small wind and solar learning station in preparation for certification. Students will also advance their learning and experience of Analog and Digital concepts, such as operational amplifiers, frequency filters, alternating current at an advanced level and other digital circuits and concepts. This level is important for a comfortable transition for those venturing into a postsecondary environment. Work education experiences are also a component of their graduating year.

Electronics Opportunities

- *Small wind and pv solar systems*
- *Alarms, residential or commercial*
- *Telecommunications companies*
- *Automobile electronics and systems*
- *Electrical areas*
- *Aerospace and avionics areas*
- *Industrial electronics*
- *Robotics systems*
- *Medical systems*

Other related opportunities:

- *Province of Manitoba*
- *Manitoba Hydro*
- *Federal Government*
- *The City of Winnipeg*
- *Railway companies*
- *RCMP*
- *Medical equipment sales*
- *Colleges*
- *Universities*
- *Hospitals*

Post High Electronics Program
This 10 month course is open to those between the ages of 18 and 21 who are seeking to enter colleges or universities. Students must be interested in electronics and be a high school graduate. This program is intended to further a student's electronics experiences to a vocational electronics level. This course is intended to provide a smooth transition into college/university level programs or entry level positions. Topics include (but are not limited to):

- Digital concepts, logic and systems
- Alternating current fundamentals
- Passive reactive circuits and filters
- Operational amplifier basics
- Op-amp frequency filters and decibels
- Amplifiers and frequency response
- Semiconductors

The post high student will also complete an industry recognized certified course in the installation of small wind and solar PV systems. There is no cost for the program but students will be required to purchase test vouchers for wind, solar, or wind and solar certification (approximately

For more information about the Electronics program at Tec-Voc, please contact: • Mr. Mark Hanuschuk (Electronics Instructor)

Graphic Communications

People with Graphic Communications training are responsible for producing just about anything printed on paper: books, CD covers, packaging, flyers, greeting cards, calendars, posters, newspapers, and tickets for example. Students will learn a wide range of skills from design, industry standard software (MAC), screen printing, vinyl and sign making, offset printing, bindery and finishing. The topics covered in Graphic Arts include:

- *Layout and design*
- *Typography*
- *Computer page layout- Adobe Indesign*
- *Computer illustration- Adobe Illustrator*
- *Adobe Photoshop- Adobe Photoshop*
- *Vinyl cutting and wide format printing*
- *Offset printing, bindery and finishing*
- *Screen printing*
- *Pad printing*

Grade 10 (GRAV20) (2 Credits)
Students will learn basic graphic communication processes and techniques needed to produce printed materials (offset, digital and screen printing). They will originate ideas for projects such as business cards, t-shirts, magazine covers, 3D glasses and more. Basic Software skills are developed here and are a focus in the first term.

Grade 11 (GRAV30) (4 Credits)
Students will build upon skills acquired in the first year. The emphasis is on typography, imposition, and desktop publishing. Students will also learn operation of offset printing presses, silk screening press and Roland large format printer cutters. Projects such as movie posters, packaging and t-shirt printing will be taught and graphic portfolios will be started this year.

Grade 12 (GRAV40) (4 Credits)
The third year students will focus on advanced computer illustration using Adobe Illustrator, Photo-shop, and In-Design, digital printing, offset technology, sign making and work experience. Live job and year book give this year a real time work experience. Portfolios are a focus of second term where students prepare a collage or university entrance portfolio.

Graphic Arts Opportunities
Upon completion of the Graphic Arts course, you may seek employment with:

- *Advertising firms*
- *Communication departments*
- *Commercial printers*
- *In-plant print shops (within large organizations)*
- *Newspapers/magazines*
- *Quick printers*
- *Service bureaus (design and prepress)*
- *Specialty printers (labeling and packaging)*
- *Trade binderies*
- *Paper suppliers*
- *Printing equipment and supplies companies*
- *Sign companies*
- *Screen printers*

Not all students will continue on to Graphic Arts jobs, however, communication and design skills acquired in this program have proven to be useful to students pursuing other careers. For example, recent Graphic Arts students have gone into Architecture, Engineering and Teacher Education.

For more information about the Graphic Arts program at Tec-Voc, please contact: MRS. T GOLDRUP (Graphic Arts Teacher)

Machining Technology

By definition, a Machinist is a skilled person who can manufacture components from technical drawings using precision measuring tools and a variety of machining tools. All aspects of society today depend on Machinists working in machine shops. All transportation is dependent on skilled Machinists. Consumer goods require Machinists to create plastic injection moulds and to build machines to manufacture consumer goods. When a part on something breaks or wears out a Machinist can build another. Machining Technology at Tec-Voc is a manufacturing environment where students create a wide variety of parts usually from metal. You learn to use different machine and hand tools to shape metals into precision working parts **while having fun!** Students machine different projects for each course which they take home at the end of the course. Tec-Voc Machinists compete in the Skills Competition every year and there are always opportunities to work with other Tec-Voc classes and even other schools.

Grade 10 (MATV20) (2 Credits)
Students will learn an introduction to technical drawing interpretation, hand tools, layout techniques, drill press operation, band saw operation, precision measurement, lathe operation, quality control and computer numerical control (CNC) programming, set-up operation and more.

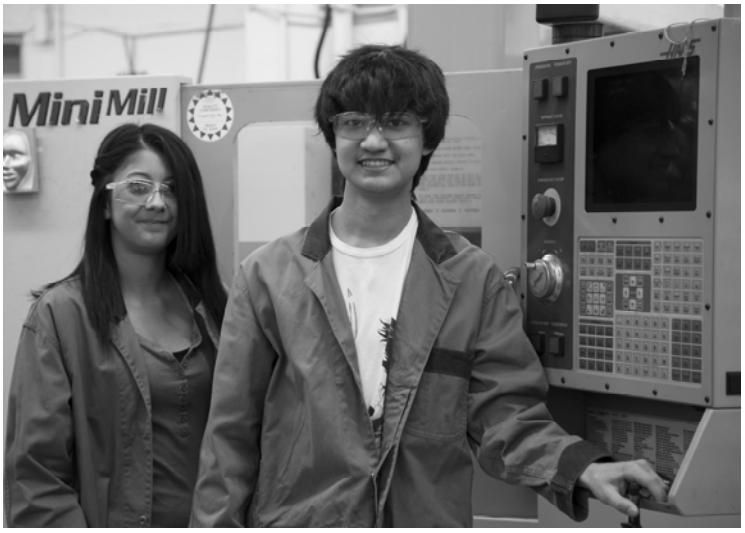
Grade 11 (MATV30) (4 Credits)
Students will learn safety, advanced technical drawing interpretation, advanced lathe operation, introduction to milling machines, advanced quality control and advanced CNC programming set up, operation and more.

Grade 12 (MATV40) (4 Credits)
Students will have the opportunity to improve their skills on all machine shop equipment as well as advanced milling operation, expert advanced lathe operation, expert advanced CNC programming, set-up and operation. There is also opportunity for work experience during this year. Time is taken to prepare students for their transition from high school to work or post secondary education.

Machining Technology Opportunities
Students interested in Machining Technology once educated in this field, can find employment in the following areas:
- *Machinist*
- *Tool Maker*
- *CNC Programmer*
- *CNC Operator*
- *Aerospace Manufacturing*
- *Laser Machine Operator*
- *Quality Control Inspector*
- *Bus Manufacturing*
- *Farm Machinery Manufacturing*
- *Fabricator*
- *Machine Tools Sales*
- *Machine Tool Service*
- *Engineer*
- *Teaching*

Also, Machining Technology is a program that can be very helpful for the students pursuing a post secondary education in the fields of Engineering, Mechanical Drafting, Aerospace, Welding, Automotive Fabrication and more.

Interested in Apprenticeship? Any student who successfully completes this program with a passing grade of 70% or more, and registers as an apprentice within one year of having completed this program will be granted a credit for Level 1 Machinist of the apprenticeship program.



For more information about the Machining Technology program at Tec-Voc, please contact:
- MR. V. HALLDORSON (Machine Technology Instructor/Journeyman Machinist)
- MR. R. THOMSON (Machining Technology Instructor/Journeyman Machinist)

Professional Photography

Tec-Voc is Canada's largest and oldest Photography School. We have an over 8000 square foot, state of the art photographic facility supported by Professional Photographers of Canada/Manitoba. Tec-Voc also offers a Post high one year certificate program, 8 credits. If students want to commit to the program and have an interest in photography, they should come to see this facility:

- Schedule an appointment for a visit
- Go the our website. www.tecvoc.ca.
- Talk to one of our graduates that completed the program and are working in the Photographic Industry.

Grade 10 (PHOV20) (2 Credits)
Grade 10 introduces students to many basic technical skills and processes. They learn how to operate large format cameras as well as 35mm SLR cameras. They learn to do accurate exposure readings using different types of light meters. Students work exclusively with black and white film to learn proper development techniques as well as custom printing techniques. Basic lighting and camera techniques are emphasized in tabletop photography and portraiture assignments.

Grade 11 (PHOV30) (4 Credits)
The course becomes more specialized in grade 11. Students start working full time in the digital world. They are taken to the next level of lighting and camera techniques. They are supplied with professional digital camera equipment and lenses, 15 mm fisheye lens to macro to 300 mm. Specialized types of studio lighting are emphasized. Students use 7 fully equipped studios with professional equipment and studio sets. They are taught the principles of design and composition and use many programs such as: Adobe Photoshop CS4 professional quality image editor, Final Cut Pro for multimedia programming, Dreamweaver for website development. Students are encouraged to photograph family and friends.

Grade 12 (PHOV40) (4 Credits)
In the final year, students continue to refine their skills. Students explore advanced techniques, experimenting and print manipulation. They study creative advanced professional techniques of formal, environmental and fashion portraiture. Heavy emphasis is placed on digital imaging and data management with each student producing a digital multimedia portfolio that showcases his/her best work. Some students spend their final term in a work experience position suited to their specific photography interests.

Post High
This is a full time photography program. Heavy emphasis is placed on digital imaging and data management Post high students learn advanced techniques in studio lighting. They work in fully equipped studios with professional equipment and studio sets. They study creative advanced professional techniques of formal, environmental and fashion portraiture. Their assignments range from fashion, portraiture, commercial, advertising, still life, table top. One of the many assignments is a business proposal were they develop a business identity. They learn the principles of design and composition and use programs Adobe Photoshop CS4 professional quality image editor, Final Cut Pro for multimedia programming, Dreamweaver for website development. Each student produces a digital multimedia portfolio that showcases his/her best work. There are many career opportunities for the photography students graduating from the photography program.

For more information about the Photography program at Tec-Voc, please contact:

- MR. R. GILFILLAN F. Ph Registered Professional Photographer, Master of Photographic Arts and Fellowship of Photography (Instructor for the Gr.11 Gr.12 and PostHigh)
- MR C. Lauder Registered Professional Photographer (Instructor for the Gr. 9 and 10 programs)

Welding Technology

Do you want to make $50,000 to $100,000 a year? If you have been watching the news or reading the newspapers lately, you have almost definitely heard about the shortage of skilled welders in Canada and abroad. The manufacturing and aerospace industry is flourishing in Manitoba and there are plenty of lucrative jobs available in the oil industry. Tec-Voc offers a three year welding program that will give students a wide variety of welding and fabrication experience. Students will have the opportunity to explore the many different and exciting aspects of the welding trade. Students in grade 10 will be offered an introduction to the basic fundamentals of welding including Oxy Acetylene, MIG, and Arc welding. Students in Grades 11 and 12 will be given the opportunity to specialize in TIG welding as well as learn how to use plasma cutting, metal bending and other fabricating equipment. Students in grade 12 will have the opportunity to obtain their C.W.B. welding certification.

Grade 10 (WELDV20) (**2 Credits)**
Introduction to Oxy Acetylene welding
Introduction to MIG welding
Introduction to Arc welding

Grade 11 (WELDV30) (4 Credits)
Positional MIG welding
Positional ARC welding
Introduction to TIG welding

Grade 12 (WELDV40) (4 Credits)
Advanced MIG welding
Advanced ARC welding
Projects and testing
Work experience

Welding Technology Opportunities
Students who complete this program can further their studies at a community college or university. They can also seek immediate employment in the welding industry where they can train as an apprentice. Students interested in Welding Technology, once educated in this field, can find employment in the following areas:

- *Aircraft industry*
- *Construction*
- *Farm machinery manufacturing*
- *Maintenance welding*
- *Metal fabrication*
- *Pressure welding*
- *Welding inspectors*
- *Welding instructors*
- *Welding supplies salesperson*

For more information about the Welding Technology program at Tec-Voc, please contact:
• MR. T. PUNTON (Welding Instructor, Journeyman Welder)

Information Technology

Grade 10

Computer Science (ISTV22) 1 Credit FIT CORE

This course provides an introduction to programming fundamentals. Microsoft Visual Studio will be used to understand the programming fundamentals of logic and decision making structures. Students will be introduced to website creation and design. This course is a popular choice for all students and is required for an ITS vocational diploma.

Maintaining Personal Computers (ISTV21) 1 Credit

Students learn how to purchase, setup and maintain a home computer system. The topics such as computer set-up, internet connectivity, data security, software installation, virus prevention and computer performance are addressed. This course is a popular choice for all students and is required course for an ITS vocational diploma.

Introduction to Multimedia/Animation(ISTV23/ITSV24) (1 Credit)

Students will understand and investigate the multimedia industry. In the first part of the course, students will explore digital image creation, image enhancement, photograph retouching, and image composition using Adobe Photoshop. In the last half of the course, students will learn how to plan and create an animation. Various types of animation will be discussed. Students will be required to create a storyboard, use a timeline, draw and import objects and use key frame animation to produce a final project. This course is a popular choice for all students and an option course for an ITS vocational diploma.

Grade 11

Microcomputer Technician (ISTV33) (1 Credit) FIT NETWORKING

Students will establish office computer systems as the learn the skills of an repair shop technician. Students will establish a variety of computers, laptops and handheld devices on a network using multiple operating systems. This course can be taken in any section as it must be completed before they move on to the System Support course. It is required course for an ITS vocational diploma and a prerequisite for the Systems support course.

Systems Support (ISTV34) (1 Credit) FIT NETWORKING

Students will establish and maintain the connectivity, reliability and security of networked office systems. Students will learn a learn how to set up work stations and proper data and system protection procedures. They will learn how to trouble shoot networks that include a variety of computers, hand held devices, and laptops using multiple operating systems. This course can be taken in any section but the Microcomputer Technician outcomes must be met before attempting this course. It is required course for an ITS vocational diploma and a prerequisite for the Industry certification course.

Software Applications (ISTV37) (1 Credit) FIT SOFTWARE

Students explore how applications are used in business. The use of spreadsheets, databases, communication packages, computer assisted design, geographic information systems, accounting, and presentation programs will be explored. This is a required course for the ITS diploma but many students take this course as one of their options.

Web Development (ISTV31/ISTV32) (1 Credit) FIT INTERACTIVE MEDIA

In this course, students will be introduced to the fundamentals of web design. Students will explore HTML, CSS coding standards. This course will be project based and is an ideal choice for students wanting to establish a web presence. There is no prerequisite for this course.

Computer Science (ISTV35) (1 Credit) FIT SOFTWARE FIT CORE

The course focuses on problem-solving and the development of solutions to programming problems using Microsoft Visual Studio. Students will construct numerous projects ranging from business software solutions to a video game development. There is no prerequisite for this course and this can be used and an University entrance required course.

Multimedia Fundamentals (ISTV36) (1 Credit) FIT INTERACTIVE MEDIA

In the first part of the course, students will learn digital illustration techniques and vector drawing techniques using Illustrator. Students will produce logos, drawings, and a variety of vector based projects. In the second part of the course, students will create interactive web pages, animations, games, and presentations using the Flash authoring environment. This is an option course available to any student. There is no prerequisite for this course.

Grade 12

Industry Certification (ISTV41) (1 Credit) FIT NETWORKING

Students will prepare for examinations to earn industry recognized certifications. The COMPTIA A+ hardware and CISCO CCENT network exam content are completed in this course. The System Support outcomes must be met before attempting this course. This is a required course for the ITS vocational diploma.

Server Security (ISTV47) (1 Credit)

Student will design and create secure network environments using Windows Small Business Server. They will learn how to protect a company's technology assets from security breaches. The prerequisite for this course is Systems Support. This is a required course for ITS vocational diploma.

What is FIT?

FIT is a Canada wide program for high school students. It was designed to prepare students for a world that runs on computers. It provides high school graduates with technology and business/entrepreneurial skills and with essential workplace skills and experiences.

For more information about the FIT program visit us online at www.tecvoc.ca and focusit.ca

You must take FIT CORE the courses:

The FIT CORE requirements are either Computer Science 20S or Computer Science 30S **AND** either Futures In Business/Start Your Own Business 20S or Management 40S.

And then specialize in one or more of the FIT speciality areas below:

FIT NETWORKING FIT INTERACTIVE MEDIA FIT SOFTWARE

Information Technology

Network Infrastructure (ISTV42) (1 Credit)
Student will maintain wired and wireless networks in home and small business environments. They will learn how to incorporate tablets, smart phones and computers into secured networks. The prerequisite for this course is Server Security. This is a required course for the ITS vocational diploma.

Advanced Web Development (ISTV45) (1 Credit)
FIT INTERACTIVE MEDIA
This course explores the development of websites using HTML, CSS, and scripting, and database technologies. Students will install, modify and maintain CMS systems. Students will register domains, maintain external web space, and upload a website to the Internet. The prerequisite is Web Development 30S.

Computer Science (ISTV43) (1 Credit)
FIT SOFTWARE
This course builds upon the earlier programming logic and introduces students to new programming languages commonly used in industry and post-secondary. This course is designed to help students prepare themselves for post secondary study in the field of computer science. This course is recognized as a credit towards university entrance. The prerequisite for this course is Grade 10 or 11 Computer Science.

Multimedia Production (ISTV46) (1 Credit)
Students will be introduced to a 3D image creation and animation environment. Students will explore modeling, lighting, texturing, animation, rendering and using cameras in a 3D environment. Students will be able to use and operate a compositing program along with basic sound editing software. This course is available to all students.

Information Technology Studies Course Listing

Grade 10
Computer Science +
Maintaining Personal Computers +
Introduction to Multimedia/Animation

Grade 11
Microcomputer Technician +
Systems Support +

Software Applications +
Web Development
Computer Science
Multimedia Fundamentals

Grade 12
Industry Certification +
Server Security +
Network Infrastructure+

Advanced Wed Developed
Multimedia Production
Computer Science

+Required Courses
Students must complete 8 courses to receive an Information Technology Studies diploma. Students who enter the program in Grade 11 will not be required to complete the grade 10 courses.

Information Technology Studies

Post-Secondary Program

Network Support Technician (ISTV44)
Target Audience:
18 to 21 year olds who are looking to transition to employment in the IT industry.

Course Details:
This ten month program will provide the adult student with an opportunity to write the COMPTIA A+ hardware and CISCO CCENT network examinations. Students will become proficient at setting up computer security, mobile devices and network routers using multiple operating systems including Apple, Linux and Windows. The practical application of a student's knowledge will be demonstrated both in the classroom and on work experience.

Program Requirements:
Students must be interested in technology and be a high school graduate. Applications will be available in February and successful applicants will be contacted for a June orientation prior to the September start date. There is no cost for this program for WSD residents but students will be required to purchase certification test vouchers in the new year (approximately $150 each).

Business and Computer Technology

Business and Computer Technology Course Listing

Grade 10
Retailing+
Futures /Start Your own Business+

Grade 11
Accounting Principles+
Software Applications +
Entrepreneurship
Promotions
Relations in Business

Grade 12
Accounting Systems
Economics
Marketing Practicum
Management
Law

+Required Courses
Students must complete 8 courses to receive a Business and Computer Technology diploma. Students who enter the program in Grade 11 will not be required to complete the grade 10 courses.

Grade 10
Career and Technology Studies (LWBR2S) (1 Credit)
This course is designed for students to make effective career decisions throughout their lives while utilizing various software applications for personal productivity. In the career portion of the course, students explore potential career choices and post-secondary education required. Students participate in a "Career Fair" sharing their career research with business leaders from the community. This course also develops students' software knowledge including word processing, spreadsheets, the internet and various presentation tools. Students can then apply this knowledge to other courses including math, science, geography, and vocational areas and ultimately as a future employability skill.

Retailing (RETR20S) (1 Credit)
This course provides an introduction to the dynamic world of retailing. Students will learn the basic concepts of selling, pricing, inventory, and marketing. Students will work with business simulations to apply knowledge to a virtual business. This course may include a field trip to a mall to examine the different trends in business. Students will gain practical experience by working in the school store. This is a required course for the Business & Computer Technology diploma but many students take this course as one of their options.

Futures/Start your Own Business (FUBR1G/SYBR2G) (1 Credit) FIT CORE
Students are introduced to the exciting world of business and how you can become a part of it. Students will learn fundamental skills needed to start and run their own business. Students will develop your own business idea and put it into action by creating a formal business plan. This is a required course for the Business & Computer Technology diploma but many students take this course as one of their options.

Grade 11
Accounting Principles (ACPR3S) (1 Credit)
This course provides students with principles and procedures needed for personal/business bookkeeping. Students will complete financial statements using both manual and computerized accounting systems. This is a required course for the Business & Computer Technology diploma but many students take this course as one of their options. The course can be used as a Math credit and is the prerequisite for the S4 core Math course—Accounting Systems. There is no prerequisite to take this course.

Software Applications (ISTV37) (1 Credit) FIT SOFTWARE
Students explore how applications are used in business. The use of spreadsheets, databases, communication packages, computer assisted design, geographic information systems, accounting, and presentation programs will be explored. This is a required course for the Business & Computer Technology diploma but many students take this course as one of their options.

Entrepreneurship (ENTR3S) (1 Credit)
Learn how to turn your ideas into profits! This course introduces students to the principles of business ownership and management. Students will complete a business plan and actually operate a business of their choosing within the school. There is no prerequisite to take this course.

Promotions (PROR3S) (1 Credit)
This course deals with the wonderful world of advertising. Students explore various advertising techniques including television, radio and print media. Students will use technology to analyze, plan and prepare advertising and promotion activities. Students will prepare such things as displays, advertisements, and posters as they relate to the school store and other school activities. There is no prerequisite to take this course.

Relations in Business (REBR3S) (1 Credit)
Students gain practical experience by working in the school store. Students receive training on the day-to-day operations and procedures of Stingers. Interpersonal communication in business with an emphasis on the relationship of coworkers and supervisors is stressed. There is no prerequisite to take this course.

What is FIT?

FIT is a Canada wide program for high school students. It was designed to prepare students for a world that runs on computers. It provides high school graduates with technology and business/entrepreneurial skills and with essential workplace skills and experiences.

For more information on FIT look at the Information Technology section of this handbook or visit us online at www.tecvoc.ca and focusit.ca

Business and Computer Technology

Grade 12

Accounting Systems (ACSR4S) (1 Credit)
Students are taught industry standard accounting systems. Students learn computerized accounting packages, accounting methods, tax preparation and problem-solving techniques. This course can be used as a core credit for Math at S4 level. The prerequisite is Accounting Principles.

Economics (ECOR4S) (1 Credit)
Students gain an understanding of how society attempts to balance social and economic needs and wants using natural, human and capital resources. This course is a popular choice for students who requiring an 'S' level credit for their post secondary admission. There is no prerequisite for this course other than an interest in learning about the factors that effect the economy.

Marketing Practicum (MAPR4S) (1 Credit)
Students gain practical experience in working in the school store. Advanced store activities will be examined including training procedures, advertising, sales promotion, ordering, inventory control and accounting procedures involved in the operation of the school store. There is no prerequisite for this course.

Management (MANR4S) (1 Credit) **FIT CORE**
Students explore the functions of Management—planning, directing, organizing and controlling. Students will then applying this knowledge to managing the school store from scheduling shifts to accounting and inventory control. There is no prerequisite for this course.

Law (LAWR4S) (1 Credit)
Students examine Canadian Law fundamentals including civil, criminal, and family law. Students will participate in a "mock trial" and attend various field trips including the Manitoba Law Courts and Legislature. There is no prerequisite for this course.

Business and Computer Studies Post-Secondary Program

Administrative Assistant (ADAR4S)

Target Audience: 18 to 21 year olds who are looking to transition to employment in the world of Business.

Course Details:

This ten month program will provide the adult student with a broad base of Business knowledge in communications, computer applications, law and finance. Student will have the opportunity to write Microsoft MOUS certification examinations and demonstrate their proficiency in a work experience setting. Students will have several opportunities to interview for positions with our Business partners.

Program Requirements:

Students must be interested in computers and be a high school graduate. Applications will be available in February and successful applicants will be contacted for a June orientation prior to the September start date. There is no cost for this program for WSD residents but students may wish to purchase certification test vouchers in the new year (approximately $150 each).

STINGERS
TEC VOC BUSINESS

Mathematics

Students need at least one math credit at each grade level for graduation. Students that have a high interest in Mathematics are encouraged to either take more than one math course at a particular level or take enriched math or take Grade 12 Calculus or Advanced Math.

Grade 10

Intro to Applied & Pre-Calculus Math 20S (IAPR2S) (1 Credit)

This course is intended for students considering post-secondary studies that require math. This course blends contextual and algebraic mathematics by engaging students in activities that include the use of technology, problem solving, mental mathematics, and theoretical mathematics. Topics include: Measurement, Trigonometry, Factors and Products, Roots and Powers, Relations and Functions, Linear Functions, and Systems of Equations. After completing this course students are encouraged to continue with Pre-Calculus 30S and/or Applied Math 30S.

Essential Mathematics 20S (ESMR2S) (1 Credit)

This course is intended for students whose post-secondary planning does not include a focus on mathematics and science related fields. This course emphasizes consumer applications, problem solving, decision making and spatial sense. Students are expected to work both individually and in small groups on mathematical concepts and skills encountered in everyday life in a technological society. Unit topics include analysis of games and numbers, personal finance, measurement, 2-D geometry, trigonometry, consumer decisions, transformations and angle construction.

Grade 11

Applied Math 30S (APMR3S) (1 Credit)

This course is intended for students considering post-secondary studies that do not require a study of theoretical calculus but does require a strong background in math, eg. General Science, Business. This course promotes the learning of numerical and geometrical problem-solving techniques as they relate to the world around us. Technology like graphing calculators, spreadsheets, or other computer software will be used by students as an integral part of both learning and assessment in this course. Topics include quadratic functions, proofs, statistics, systems of inequalities, trigonometry, and scale representations.

Essential Math 30S (ESMR3S) (1 Credit)

This course is intended for students whose post-secondary planning does not include a focus on mathematics and science-related fields. This course builds on the concepts taught in Essential Math 20S. Unit topics include financial math, 3-D geometry, trigonometry, rate of change, and scale representations.

Pre-Calculus Math 30S (PCMR3S) (1 Credit)

This course is intended for students considering post-secondary studies in math or calculus. The course comprises a high-level study of theoretical mathematics with an emphasis on problem solving and mental mathematics. The topics include study of algebra, quadratic functions, reciprocal functions, and trigonometry.

Enriched Pre-Calculus Math 20S, 30S, and 40S (PCME2S, PCME3S, & PCME4S) (1 Credit)

These courses are directed at students that have a strong standing and interest in Mathematics. In addition to the regular course outcomes, students will be challenged with higher level questions and a focus on advanced algebra skills.

Grade 12

Grade 12 Pre-Calculus Math 40S (PCMR4S) (1 Credit)

This course is designed for students who intend to study calculus and related mathematics as part of their postsecondary education. The topics include the study of transformations of functions, trigonometric functions and identities, permutations and combinations, binomial theorem, polynomial functions, exponents and logarithms, and radical/rational equations and functions.

Grade 12 Applied Math 40S (APMR4S) (1 Credit)

This course is intended for students considering post-secondary studies that do not require a study calculus eg. General Science, Business. A graphing approach to problem solving highlights this course, as such, a graphing calculator is required. Calculators are available for loan from the teacher if needed. This course includes the topics: Financial Mathematics, Logical Reasoning, Probability, Relations and Functions, and Design and Measurement.

Grade 12 Essential Math 40S (ESMR4S) (1 Credit)

This course is intended for students whose post-secondary planning does not include a focus on mathematics and science-related fields. Unit topics include analysis of games and numbers, vehicle finance, home finance, statistics, geometry and trigonometry, precision measurement, business finance, career life project, and probability.

Grade 12 Optional Course - Calculus Math 45S (CALR4S) (1/2 Credit)

This course introduces students to the study of Calculus. This course focuses on the basic concepts of limits, derivatives, and integration. Students planning to pursue post secondary education in business, technology, science, or engineering will find this course of particular interest. This course is accepted at most universities and colleges as a grade 12 option credit for entrance requirements.

Grade 12 Optional Course - Advanced Math 45S (ADMR4S) (1/2 Credit)

This course broadens students' understanding of math as it relates to managing information. Students will learn methods for organizing information including counting techniques, probability, statistics in modelling and solving problems. Students planning to pursue post secondary education in business, the social sciences, or the humanities will find this course of particular interest. This course is accepted at most universities and colleges as a Gr 12 option credit for entrance requirement.

Science

Grade 10
Science 20F (SCIR2F) (1 Credit)
A course to develop scientifically literate students using the essential aspects of science. The course has four major clusters: Dynamics of Ecosystems, Chemistry in Action, In Motion and Weather Dynamics.

Grade 11
Current Topics in the Sciences 30S (CTSR3S) (1 Credit)
The Current Topics in Science is a project and skills based course that incorporates and compliments chemistry, biology, physics and many other branches of science. Students will explore current topics in sciences such as forensics, biotechnology, space exploration and many others. The topics covered will be driven by student interest and will change from year to year. Students cannot have credit in both CTSE and CTSR.

Current Environmental Topics in Sciences 30S (CTSE3S) (1 Credit)
The Current Environmental Topics in Science is a project and skills based course that expands on grade 10 science and geography content. Students will explore current local and global concerns through the lens of sustainability (environment, economy and society). Students will be expected to participate in an action based project and will examine their own role within the issues. Students cannot have credit in both CTSE and CTSR.

Biology 30S (BIOR3S) (1 Credit)
The Biology 30S course is intended to provide students with an understanding of the major human body systems and how they relate to one another. Students will be expected to participate in various lab activities. This course is recommended for all students who wish to pursue careers in the health sciences.

Chemistry 30S (CHER3S) (1 Credit)
This course covers the basic concepts of chemistry. Topics include: Physical Properties of Matter, Gases and the Atmosphere, Chemical Reactions, Solutions and Organic Chemistry. Students will develop essential laboratory skills.

Physics 30S (PHYR3S) (1 Credit)
Grade 11 Physics is an introductory course in high school physics. The emphasis of the course is placed on concrete demonstrations of physical phenomena, conceptual understanding, and application of learned material in measurement, graphical analysis of relationships, and problem solving. Throughout the course balance between conceptual and mathematical aspects of physics is maintained. History and philosophy of science examples are introduced to enrich students' understanding of physics and develop different patterns of thinking. The content of this course includes four different areas of physics: Waves, Nature of Science, Mechanics, and Fields.

Grade 12
Biology 40S (BIOR4S) (1 Credit)
The Biology 40S course is intended for those students who are interested in genetics and biodiversity. Practical labs are a major component of this course. This course is strongly recommended for all students pursuing studies in any of the sciences, as Grade 12 Biology is a required course for admission to many faculties of science at the Universities.

Chemistry 40S (CHER4S) (1 Credit)
A course for those pursuing a career in science. Topics include: Atomic Structure, Kinetics, Chemical Equilibrium, Acids and Bases, Solubility and Electrochemistry. There will be a focus on investigative chemistry throughout the course. Strong math skills are recommended.

Physics 40S (PHYR4S) (1 Credit)
Grade 12 Physics is a continuation of the grade 11 Physics course. It focuses on four different areas: Mechanics, Fields, Electricity, and Medical Physics. Students apply their learning in measurement, graphical analysis, problem solving, and developing science research skills.

English Language Arts

Grade 10

English 20F (ENGR2F) (1 Credit)
Students develop skills in reading, writing, speaking, and representing. The course offers a wide variety of literature including Literary (novels, short stories, plays, movies, speech making, etc.) and Transactional (learning to read, write, speak and view different forms of communication in language appropriate to the form such as journalism and technical materials).

Grade 11

English 30S Comprehensive (ENGC3S) (1 Credit)
Aims at developing evaluation skills and a more mature point of view. Students are asked to consider style and place a greater emphasis on critical thinking. Students are involved in group and individual work. Course content: 50% aesthetic and 50% pragmatic.

English 30S Transactional (ENGT3S) (1 Credit)
Focuses on pragmatic forms of reading and writing, such as: letter writing, non-fiction texts and media literacy. It is designed for students who would prefer to read a true story rather than fiction, as well as the viewing and representing aspects of English Language Arts. Course content: 30% aesthetic and 70% pragmatic.

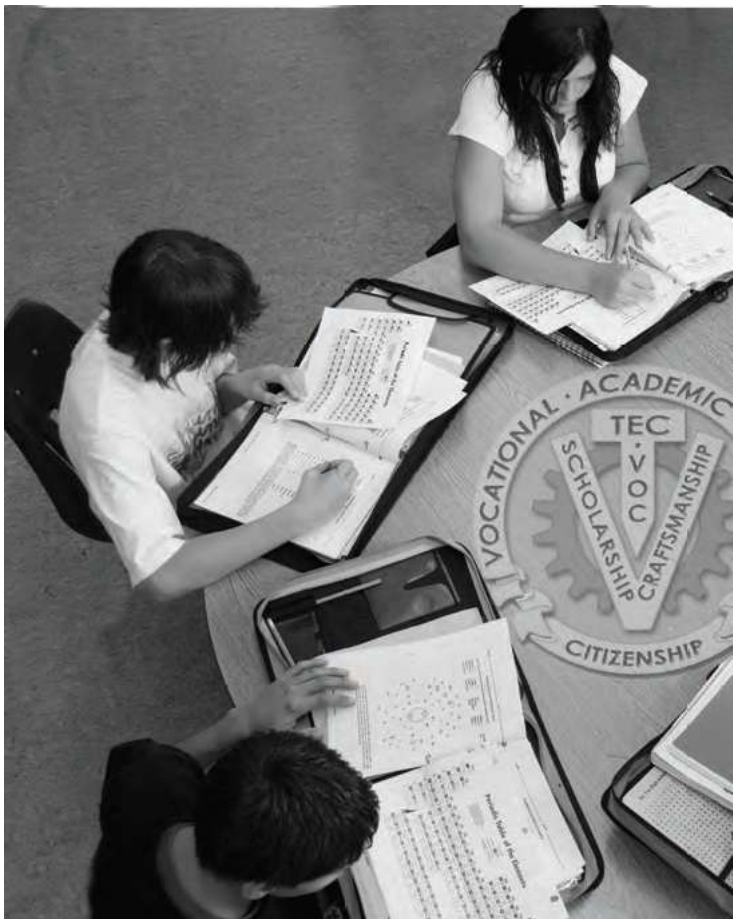
Grade 12
Although new Manitoba Education and Training regulations require only a single credit at the grade 12 level for graduation (ie ENGC4S), students wishing to enter university are strongly advised to consult university requirement brochures and talk to a counsellor. In keeping with English Language Arts curriculum, the materials that students encounter in class are referred to as *text*. A "text" could be a novel, a poster, a short story or a photograph. The texts that students encounter in class and the texts that students create in/for English Language Arts courses fall into two broad groups: *aesthetic* and *pragmatic*. Generally speaking, **aesthetic texts** are those texts that have been created for the purpose of evoking emotion and recreating experiences (novel and poetry). Whereas, **pragmatic texts** are those that have been created with a more practical purpose in mind (advertisements, letters of complaint).

English 40S Comprehensive (ENGC4S) (1 Credit)
Students study literature and language. The focus is skill development and is intended for students who want a broad range of language experience. Course content: 50% aesthetic and 50% pragmatic.

English 40S Literary (ENLS4S) (1 Credit)
Students analyze modern and traditional literature, poetry, plays and short movies. Emphasis will be on the in depth and extensive study of literature. Course content: 30% aesthetic and 70% pragmatic.

English 40S Transactional (ENTS4S) (1 Credit)
This course focuses on the study of non-fiction and contemporary materials i.e. research, reports, biographies and journalism forms. Literature will be novels, plays and essays that have practical applications. The course content is 30% aesthetic and 70% pragmatic.

English 40S Language and Technical Communication (ENCS4S): 1 Credit
This course is focussed on exposing students to pragmatic texts and technical communication. Students will encounter and practice written instructions, a variety of letter forms, and a variety of informational texts. This course is appropriate for students who plan to pursue apprenticeship programs after high school. This course is only available as a primary English credit to students working towards their Vocational Certificate or as a second English credit for students completing their Academic certificate. **NOTE: This course cannot be used as an English credit for dual diploma**



Social Studies

Grade 10
Geography 20F (GEOR2F) (1 Credit)
Students will focus on a variety of issues and challenges of the contemporary world, with a particular focus on Canada. Students will learn skills related to geographic thinking, study concepts related to the ownership and development of natural resources, production and distribution of food, development of industry and trade, and increasing urbanization. Throughout the course students will become aware of the importance of the environment, stewardship, and sustainable development, as well as the social, political and economic implications of their personal choices.

Grade 11
History 30S (HISR3F) (1 Credit)
The curriculum support citizenship as a core concept and engages students in historical inquiry. Students will guided by essential questions to focus on the history of Canada from pre-contact times to the present. Through this process students will learn to think historically and acquire enduring understandings related to the major themes in Canadian history, including; First Nations, Metis and Inuit Peoples; French- English Duality; Identity, Diversity and Citizenship; Governance and Economics and Canada and the World.

Grade 12
GLOBAL ISSUES: CITIZENSHIP ANDSUSTAINABILITY 40S (GLIR4S) (1 Credit)
Students conduct inquiry into the social, political, environmental and economic impact of contemporary and emerging global issues. Through their inquiry, students focus on questions of quality of life locally, nationally and globally. This course is based on the principles of active democratic citizenship, ecological literacy, critical media literacy, and ethical decision-making, and consolidates learning across the disciplines to empower students as agents of change for a sustainable and equitable future.

Psychology 40S (PSYR4S) (1 Credit)
A survey course focusing on a brief history of the science of psychology, human development, theories of personality development and motivation. The course also examines the role that stress plays in our lives, various psychological disorders, and social attitudes regarding gender role.

Performing Arts

The Performing Arts Department at Tec-Voc High School is recognized as one of the preeminent programs in the province. Courses include: Concert Band, Concert, Choir, Dance, Drama, Guitar, History of Rock, Jazz Band, Piano, Recording Technology/ Composition, and Vocal Jazz. The layout of the Performing Arts Department includes multiple rehearsal areas for all instrumental and vocal ensembles, studios for dance and recording, as well as a 475-seat theatre. Activities include participation in music and dance festivals/concerts, rock shows, musical and dramatic productions.

Audio Recording Technology (RETV2S, 3S, 4S) (1 Credit)
An introduction/exploration of music technology using state of the art equipment including Apple Computers equipped with software such as GarageBand, Logic Pro, and Finale. Students also study the fascinating world of music composition/song writing.

Concert Band (BANR1G, 2G, 3S, 4S) (1 Credit)
This group explores various styles of music as a band while learning and implementing musical tools through performance. This course focuses on ear-training, sight-reading, composition, and individual skill development. Performances include events in and outside Tec-Voc including the possibility of travel for festivals and concerts. **Prerequisite**: A minimum of one year playing experience at the Middle Years level/Junior High level.

Jazz Band (JABR2G, 3S, 4S) (1 Credit)
This auditioned group explores elements of jazz music with a focus on soloing, rhythm proficiency and accompaniment techniques. This group performs at various school performances including festivals and concerts with the possibility of travel throughout the year. **Co-requisite**: Students must already be enrolled in Concert Band 2G, 3S, or 4S.

Concert Choir (CHOR1G, 2G, 3S, 4S) (1 Credit)
An un-auditioned group which offers all students enrolled, the opportunity to learn various styles of music while exploring the elements of choral singing. This group participates in school performances in addition to choral festivals and workshops with the possibility of travel during the year. No previous singing experience required.

Jazz Choir (JACR2G, 3S, 4S) (1 Credit)
This auditioned group of singers, Jazzthetics, focuses on elements of vocal jazz such as solo singing, scatting, rhythm proficiency, and microphone technique. Stylistic explorations include Swing, Blues, Latin, Funk, R&B and Pop. This ensemble also does some group arranging. This group participates in school performances, vocal jazz festivals and workshops, and special performances throughout the city. **Co-requisite:** Students must already be enrolled in Concert Choir 2G, 3S, or 4S.

Piano/Keyboard (PIIY2G, 3G, 4G) (1 Credit)
An introduction to piano skills through group and individualized instruction. Students progress at their own speed, with exposure to different playing styles and repertoire. Emphasis is on music theory, sight-reading, performance and accompaniment skills. No previous piano experience required.

Drama 20G, 30S, 40S (DMAR2G, 3S, 4S) (1 Credit)
This course offers an exploration of Drama skills and genres. Beginning with basics such as Voice and Diction, Movement and Improvisation, we then move forward into Scene Analysis and Script Writing. Each year will also look at several different theatrical styles, ranging from Ancient Greek and Roman Theatre to Musical Theatre to Screen Acting. Students will develop confidence and poise while gaining invaluable skills.

Dance (DNCY, 2G, 3G, 4G) (1 Credit)
A course which introduces a variety of disciplines including jazz, hip-hop, ballet, tap, ballroom and musical theatre. The course is offered from beginning through advanced levels. Performance is an essential element of the program.

Dance Tec Company–DTC (JADY1G, 2G, 3G, 4G) (1 Credit)
A performance based course providing numerous opportunities for the group to represent the school in festivals, competitions and other community programs. A variety of dance disciplines will be studied. Auditions are required and will be held at the beginning and end of the school year.

Guitar (GUIR2G, 3S, 4S) (1 Credit)
Students are given group instruction in a variety of genres including rock, blues, classical and metal. They participate in music festivals and also form bands, which perform in rock shows throughout the year.

Human Ecology

Foods and Nutrition (FONR2G, FONR3G, FONR 40S) (1 Credit)
Students will study various aspects of nutritional science and how this affects the health and well being of the human body. Genetically modified and organic food, world food issues and the environmental impact of the food industry will also be studied. Students will learn both basic and advanced cooking techniques and sample a variety of meals.

Clothing, Housing & Design (CHDR2G, CHDR3G & CHDR4S) (1 Credit)
This course will teach students how to sew. As well as a few larger and wearable projects, students will also create fun mini projects. Students will also learn how to crochet and complete a unit on fashion design and illustration.

Family Studies (FASR2F) (1 Credit)
This course will cover themes having to do with both prenatal development and the growth and development of infants and children. Issues concerning families and children at all stages of life will be studied.

Family Studies (FASR3S) (1 Credit)
This course will cover themes having to do with family relationships, human development and care giving of young children. The course will also cover individual relationships and communication, personal decisions and community connections and diversity in society. The majority of this course will be spent learning about various aspects of young children's lives including their social, emotional, physical and cognitive development. We will be discussing different aspects of families and parenting as it pertains to children.

Family Studies (FASR4S) (1 Credit)
Students will study both positive and negative relationships between people so that they can develop an understanding of the relationship skills that are essential for individual and family well being. Students will complete units on prejudice, personal safety, domestic violence and protecting children. Other topics of study to be covered are maternal and fetal health, and issues concerning Canada's aging population.

Native Studies (NASY2G, NASY3G, NASY4G) (1 Credit)
Native Studies is a course that provides an overview of the historical, political, social and economic issues that aboriginal peoples in North America face today. Contemporary issues regarding justice, family values, art and foods will also be studied. Students will have an opportunity to create several art projects as well.

Infant development Practicum (PAPR2S) (1 Credit)
This is an option course that provides students with the opportunity to observe and interact with infants (two months to two years). Students will provide basic care for these babies in a safe, healthy and stimulating environment.

Child Development Practicum (CCTVS3S) (1 Credit)
Students will be involved with toddlers (two to four years of age). They will supervise and interact with the children in their daily routines. They also help carry out activities that promote physical, social, emotional and cognitive development.

Physical Education and Health Education

The intent of physical education is to ensure that all students acquire the knowledge, skills and attitudes to become physically active and make health enhancing decisions designed to improve their personal quality of life. The health component covers areas such as fitness training principles, safety procedures/ practices, personal and social management and healthy lifestyle practices.

Note: Due to the nature of Physical Education, it is of the utmost importance that students attend and participate in all class activities.

To graduate a student must have one Physical Education credit in each of the grades 9 through 12.

Grade 9
Physical Education / Health Education 10F (PHER1G) (1 Credit)
The grade 9 credit is a full credit course that runs through both semesters. Our students will be introduced to a wide variety of traditional and non-team athletics and games. Participation is key, students will demonstrate outcomes and begin to develop skills and knowledge that will be expanded on in grade 10 Phys. Ed. This credit is required for graduation.

Grade 10
Physical Education / Health Education 20F (PHER2G) (1 Credit)
Grade 10 Phys. Ed. is a full credit course completed over the course of a semester. The main emphasis is to promote exposure to new activities and the enjoyment of participation in physical wellness as a life long pursuit. In each unit block students are given three activities from which to choose. This gives students the opportunity to take ownership over their physical activity.

Female Fitness (PEFR2F)(FF) (1 Credit)
This course is offered as an option to female students who wish to attain their grade 10 Phys.Ed credit in a non-traditional atmosphere. The emphasis will be on life long physical activities as opposed to competitive sports. Along with lifelong physical activity this course will take a female perspective in nutrition, healthy relationships and current fitness trends.

Grade 11 and 12 (PHER3F) and (PHER4F) (1 Credit each)
Grade 11 and 12 Physical Education are full credit courses. Emphasis is placed on activity outside of the gymnasium. The credit is divided into three components, classroom work, in class activity and out of class activity. The course is designed to promote continued physical activity and healthy lifestyle practices after graduation. Students will be expected to take ownership of their credit through fitness planning and time management.

Grade 10 (PEAR2F) (AA) Athlete Academy (2 Credits)
The Grade 10 Athlete Academy provides students who have an interest in athletics or athletic development the opportunity to develop sport specific skills and an understanding of sport specific nutrition. Students will spend class time completing the provincial grade 10 physical education credit and volunteering in the school while at the same time getting faster, stronger, and smarter in sport. This is a full year 2 credit course.

Grade 11 (PHER3F) (AA) Athlete Academy (2 Credits)
The Grade 11 Athlete Academy builds upon the grade 10 athlete academy by providing students who have an interest in athletics or athletic development the opportunity to develop sport specific skills and an in-depth understanding of sport specific nutrition. Students will also spend class time completing the provincial grade 11 physical education credit and volunteering outside the school while at the same time getting faster, stronger, and smarter in sport. This is a full year 2 credit course.

Grade 12 (PHER4F) (AA) Athlete Academy (2 Credits)
The Grade 12 Athlete Academy takes the prior knowledge and understanding developed in the Grade 10 & 11 programs and applies it to concepts in leadership and sport science. Students will continue developing sport specific fitness, skills and understanding to excel in their chosen sport. This is a full year 2 credit course.

Fine Art

OVERVIEW

Art is offered at Grades 9, 10, 11 and 12. The Art program follows the new Manitoba Framework for the Visual Arts and recognizes each student as a young, developing artist. Art includes creative and original art making activities in drawing, painting, sculpture, printmaking, textiles, design, and crafts. Technical knowledge in the visual arts, including the elements and principles of design, facility with visual arts media, tools and processes; and skills in observation and depiction are emphasized. Opportunities for creative problem solving allow for personalized and meaningful art learning which integrates ideas, techniques and self-reflection. Cross-curricular connections and thematic studies deepen student learning. Awareness and appreciation of the diverse cultural and historical contexts of art, helps student learn about the purposes and roles of art in society. Students will build knowledge in art history and appreciation and acquire an arts vocabulary. Collaborative projects; field trips to galleries and museums; and guest artists and speakers will help students understand the role of arts from an economic, and community perspective. Art provides a foundation for future, post-secondary studies in the Fine Arts, Communications, Graphic Design, Digital Arts, Fashion Design, Architecture, Education, Arts Administration and Urban Planning.

Grade 9 Art (ARHR1G) (1/2 Credit)

No prior experience is required for Grade 9 Art. Students will learn fundamentals of many art media, such as drawing, painting, sculpture, textiles and crafts. They will develop their understanding of the elements and principles of design and the purposes and meanings of the visual arts in the lives of individuals. They will develop fluency in interpreting and viewing various art forms.

Grade 10 Art (ARTR2G) (1 Credit)

No prior experience is required for Grade 10 Art. Students learn to express ideas through the production of art in various media. Many projects focus on self identity and developing students' understanding of their place in the wider community. Ecologically sound art strategies are explored. Effective design, art appreciation and sketching and drawing are on-going activities.

Grade 11 Art (ARTR3S) (1 Credit)

Prior art experience is recommended. Students will develop increasing fluency in the elements and principles of design and develop higher level skills in painting, drawing, sculpture, and other media. Visual arts research, and meaningful art engagement through viewing, interpreting and representing are emphasized as are cross-curricular connections in graphic design, photography, English Language Arts, Aboriginal and multicultural perspectives. Sketch book and studio projects include opportunities for student choice.

Grade 12 Art (ARTR4S) (1 Credit)

Prior art experience is a pre-requisite. It is recommended that students take Grade 11 Art. Students will continue to explore all media and will develop greater technical facility, creativity, originality and skill in the learning outcomes of the Manitoba Framework. The course includes increasingly challenging and technical projects with time for the development of an arts portfolio for applying to post secondary studies in the visual arts.

Option Courses

(All courses listed are dependent upon sufficient enrollment)

Career Development (LWBR3S) (1 Credit)
Students participate in several career related experiences designed to create a smooth transition from high school to post-secondary training and employment. The career counsellor and student develop a series of opportunities for the motivated student to mentor, volunteer and job shadow in their chosen career area. The majority of this course is completed in the community and is therefore not scheduled into the regular timetable. The pace at which students complete this course is determined by their after school availability.

High School Apprenticeship Program (SYAR41) (1 Credit)
HSAP is another means for a student to earn credits by starting apprenticeship training while still in high school. It allows the motivated student an opportunity to combine their regular high school instruction with paid, part-time, on-the-job training in one of forty apprenticed trades. The course is completed in the community and is therefore not scheduled into the regular timetable. Participation in the program is dependent on a student's ability to secure a job with an apprenticed employer. Please visit: http://www.edu.gov.mb.ca/k12/cur/teched/sy_app_option.html or the Career Education Centre for complete program details.

Theatre Technology & Production (THTV 2S, 3S, 4S) (1 Credit each)
Be part of the crew! This course will train students in the various skills necessary for careers in the theatre production industry. Students may earn a full credit at each grade level. The classes for this course are scheduled outside of the regular timetable; mornings, lunch hours and after school. Students are also expected to participate in enrichment opportunities outside of scheduled classes, working on various events held in the theatre. Included will be studies in lighting, audio, stage management, lighting design, mobile theatre production, application of theatre technology and more. Upon completion, students will be prepared to further their studies at the post secondary level or gain entry level employment in the theatre industry. Many other industries also value this important "crew training".

Robotics
Robotics is a multifaceted inquiry based course for students that are excited about their learning and have strong skills in mathematics and science. This course deals with mechanical design, computer programming, electronics, machining and automation. Many former students have gone on to take Engineering at University. We have also become well known for our success winning Provincial and National Competitions in the field of Robotics.

Grade 10
Beginning Robotics 21G (ROBV2G) (1 Credit)
This course is open to all students that want to learn about robotics. Students will design, build, test and modify robotic projects. This is a project based course where students will have a choice as to the projects they select. They will have the chance to compete at the Manitoba Robot Games and/or the Skills Canada Manitoba Robot Competition.

Grade 11
Intermediate Robotics 31G (ROBV3G) (1 Credit)
This is the second level of robotics and students will design, build, program, evaluate and modify larger robots in a team project. The students will have a choice of what type of project they select. They will be expected to compete at one or both the Manitoba Robot Games and Skills Canada Manitoba Robot Competition.

Grade 12
Advanced Robotics and Mechanical Design 41G (1 Credit)
(ROBV4G): This is an extremely challenging course and is only for students considering careers in Engineering or Engineering Technology. The prerequisite are Grade 11 Pre-Calculus or Grade 11 Applied Mathematics, and Grade 11 Physics. The students will have a choice of what type of project they select. They will be expected to compete at both the Manitoba Robot Games and Skills Canada Manitoba Robot Competition.

Design Drafting Essentials (TEDV23) (1 Credit)
Students will be introduced to architectural and engineering design drafting practices. Students will use a design process to design and computer model a cottage, gain an understanding of interior design and small house construction processes. Students will produce printed floor plans, exterior and interior views of their design, photo quality rendered images. They will also use engineering CADD. No prerequisites are required.

Journalism and COMPOSITION (GRAV45) (1 Credit)
This course is an introductory course in which students study the media and its purpose n society. Students learn how to be informed and think critically about the information contained in news stories. Through viewing, listening, speaking, reading and writing news, students develop an understanding of mass communication while developing personal communication skills. Students will also learn how to compose a publication from writing to final production. Projects include writing for television news, radio news and a school magazine.

Film Production (RTBV24) (1 Credit)
Whether you are a future movie director, crew member, or movie buff you have come to the right place. Tec –Voc's Film Production course allows students to produce the next big picture. What sets us apart from other schools is that our students make movies, edit films constantly and prepare for work both in front of and behind the camera. In our high-energy environment, we are harnessing the creativity and passion of students and guiding them in their pursuit of an education that will help students fulfill their dream of entering the film industry. Students will learn film directing, fundamentals in screenwriting, camera techniques, video and audio editing, location sound, acting, set etiquette and post production. Assignments will include producing a silent film, a documentary and a short movie. You bring the passion and we will create the artist within you.

Option Courses

(All courses listed are dependent upon sufficient enrollment)

Advanced Film Production (RTBV23) (1 Credit)
After completing the prerequisite, RTBV24 students will produce a feature film of their own. Applying the techniques previously developed students will now use these skills in the various roles involved in producing a movie from conception to completion, or in the "can". Students will use their skills and creativity in the feature film to give it a look with a personal touch. They will be an important part of what happens on set during the filming of a movie. The course provides the insight into this exciting industry in the province.
LIGHTS……. CAMERA…….. ACTION!

Cinema as a Witness to Modern History (CMHR4S) (1 Credit)
This course will engage students in an exploration of the connections between cinema as an art form, cinema as a product of history, and cinema as an interpreter of history. Students will critically analyze a variety of films including feature-length fiction films, documentaries, animation, black and white films, and independent shorts. This course uses cinema as a teaching tool to help students go beyond the experience of film as entertainment or as a mere consumer commodity.

On-Line Courses
(All Courses listed are dependent upon sufficient enrollment)

Geography 20G (GEOR2G) (1 Credit)
This Geography course focuses on the study of North America. Different regions will be studied according to similar physical and human characteristics. As an independent study course, it is challenging and requires time, organization and commitment. This course consists of online assignments, tests and research project.

History 30S (HISR3G)1 Credit
This history course focuses on the study of Canada. The course modules consist of topics such as: Aboriginal People in Canada, Canadian Expansion, Canadian Industrialization, and Canadian Foreign Relations. This course consists of online assignments, tests and research projects.

Volunteer Service 1 Credit
Volunteer Service 31G, 41G (CSV24G)
This opportunity allows students to expand their resume qualifications and gain high school credits by volunteering in the community. Students will be expected to keep a journal of their activities, responsibilities and observations. See your Guidance Counsellor for details about the application process.

Challenge For Credit Option 1 Credit
Winnipeg School Division recognizes that students may, in exceptional circumstances, have already acquired the knowledge skills and attitudes of a particular course. The Challenge for Credit Option provides a process for students to demonstrate that they have achieved the learning outcomes as defined in the Manitoba curriculum for a specific course. This option is available for students challenging Grade 12 courses only. See your Guidance Counsellor for details about the application process.

Think Green • Act Gold • Be A Hornet

Winnipeg Invitational Tournament

Tec Voc plays host to one of the largest high school basketball tournaments in Western Canada each year. This year WIT will be the 39th edition of the tournament. WIT features some of the best basketball talent in the province of Manitoba as well as teams from Western Canada, Ontario, North Dakota and Minnesota. The tournament is not just about basketball. It is also an opportunity to showcase some of the great programs Tec Voc has to offer. The tournament is live streamed through the school website and broadcast live on local television. From the tickets to the people who check them at the door the Winnipeg Invitational Tournament is a great event at Tec Voc, one that current students and alumni are proud to have been a part of. Only one team participates every year in this prestigious event and that is the Tec Voc Hornets.

WINNIPEG INVITATIONAL TOURNAMENT

Tec-Voc Productions

Tec Voc's Performing Arts Department has a long history of producing quality musicals and dramatic productions for over 50 years. Our 475-seat theatre provides students with the opportunity for an authentic experience, working with formally trained and well-known artistic and music directors and choreographers. Students interested in the technical side of production receive immediate and hands on training with dedicated instructors and are an integral part of producing our shows. With so many opportunities for Tec Voc students to perform onstage, or to be involved in backstage management, there is no doubt that every student-performer will achieve success!

Get involved at Tec. Look at all we have to offer!

Athletics

- Football
- Badminton
- Soccer
- Basketball
- Curling
- Volleyball
- Intramurals
- Get Fit Fridays
- Tec Martial Arts Club
- Golf
- Ski Club
- Track & Field
- Cross Country
- Cheerleading
- Weight Room Training

Cultural Groups

- Multicultural Club
- Spanish Club
- Pulse
- Aboriginal Student Association
- Aboriginal Drum Group

Special Interest Groups

- Chess Club
- Youth In Philanthropy
- Art at Lunch
- E-Spirit Business Team
- Anime Club
- Travel Club
- Skills Canada
- Holocaust Museum Travel Club
- Deca
- Geocaching Club
- Cyber Defence Club
- Grad Committee
- Fishing Club
- Card Board Boat Race
- Leadership Group
- Young Women 's Conference

SKILLS COMPÉTENCES CANADA MANITOBA

CARDBOARD Boat Race

DTC DANCE TEC COMPANY

YOUTH in PHILANTHROPY

Your Future Begins at Tec-Voc

Tec-Voc High School 1555 Wall Street Winnipeg Mb R3E 2S2 PH 204-786-1401