

Youth Train in Trades/Work in Trades Programs

MAPLE RIDGE - PITT MEADOWS SCHOOL DISTRICT NO. 42



School District No. 42 is committed to providing the most current curriculum and experience in our Train in Trades (Level 1 Apprenticeship) programs through small class sizes and post-secondary training.



YOUTH TRAIN IN TRADES/WORK IN TRADES PROGRAMS AT SD42

The Maple Ridge - Pitt Meadows School District has teamed up with various post-secondary institutions and trades training organizations to offer apprenticeship training programs for Grade 10, 11 and 12 students and adult learners.

Students going into Grade 12 and graduated students who meet the age requirements now have the option to graduate as well as earn first year post-secondary certification and apprenticeship training in one year with no tuition fees.

WHY JOIN A YOUTH TRAIN IN TRADES/WORK IN TRADES PROGRAM?

Why not enjoy the advantages of a comprehensive high school experience with the added benefit of both post-secondary credit and marketable job skills? *Youth Train in Trades/Work in Trades* students begin transitioning to the workplace while still in high school. In addition, students in the program enjoy:

- Free tuition for college and/or technical training
- Early admission to post-secondary studies
- Earning dual credits - *Youth Train in Trades/Work in Trades* courses are reported to the Ministry of Education for high school credits as well as to the college
- A “hands-on” learning environment
- Focusing on a particular career path where they have a strong interest or passion, which usually translates to better grades and improved self-confidence
- Supervised work experience in related career program
- Employment opportunities upon completion
- Secondary apprenticeship opportunities - earn hours towards trade certifications (e.g. *Certificate of Qualification, Red Seal, or Journeyman*)
- A *Work in Trades Award* - \$1,000.00
- Graduate from a post-secondary/college certificate program and high school concurrently



HOW YOU ARE ADMITTED

Application packages can be picked up at your high school's Counselling and/or Career Centres, the District Career Program Office, or online at <http://apprenticeship.sd42.ca>.

WHEN YOU SHOULD APPLY

District Youth Train in Trade Programs applications are taken on an ongoing basis. Students can apply any time after September 1 of the current school year for the next admission cycle. Youth Work in Trades applications will be accepted as students find appropriate employment.

Early offers of acceptance will be granted in cases where there is a strong application. Priority admission is given to those who apply before the application deadline on **March 31**. Applications submitted after this date will be considered where seats are available.

Please note: Incomplete applications will not be accepted.

HOW MUCH DOES IT COST?

Students enrolled in *District Youth Train in Trades Programs* are not required to pay tuition. However, some fees may be assigned for equipment, tools, and/or other consumable materials. Information regarding these fees are available upon request.

Please note: Graduated students can still apply but will need to meet age and career objective requirements. Please contact your career centre or Train in Trades co-ordinator for more information. Preference will be given to Grade 12 students.



PROGRAM OPTIONS

I. YOUTH TRAIN IN TRADES PROGRAMS:

All students must apply to gain admission to a *Youth Train in Trades program*. Qualified students will be accepted based on the following criteria: academic achievement, work habits, attitude, attendance, and date of application. Students are advised to apply early as there are limited seats available. Find more detailed program information on pages 6-23.

The following Youth Train in Trades programs are available:

- Automotive Service Technician
- Carpentry Level 1
- Culinary Arts Level 1
- Electrician Level 1
- Hairstylist
- Horticulture
- Masonry (Bricklaying)
- Metal Fabrication
- Plumbing/Pipe Fitting
- Refrigeration Mechanic

II. DISTRICT WORK EXPERIENCE PROGRAMS:

The Maple Ridge - Pitt Meadows School District offers the following work experience programs:

1. **Work Experience 12** - Students must complete 100 hours of paid or volunteer work and workbook assignments (20 hours). To qualify for Career Prep designation, students must meet all graduation requirements, which include completing a minimum of three (3) Grade 11 or 12 courses in one of the following focus areas: *Business & Applied Business; Liberal Arts & Humanities; Fine Arts, Design & Media; Science & Applied Science; Fitness & Recreation; Tourism, Hospitality & Foods; Health & Human Service; Trades & Technology.*
2. **Community Service 12** - Students must complete 100 hours of unpaid volunteer service and workbook assignments (20 hours) that must be logged through the Career Centre. Work hours may accumulate between Grades 10-12. Students receive valuable training and gain awareness of local organizations and social issues, while making a difference in their community. Student volunteers often have advantages over their peers when heading off to college and university, and many scholarship/bursary applications require students to prove their leadership in the community.

III. DISTRICT AND COMMUNITY WORK EXPERIENCE

The following district and community work experience opportunities are available: *Maple Ridge and Pitt Meadows Youth Fire Academies, Volun-teen at Ridge Meadows Hospital, Science World, Vancouver Aquarium, The ACT Arts Centre Arts Ambassador Program, I CAN Play Sports - Canucks Autism Network*, and many more.

IV. YOUTH WORK IN TRADES PROGRAM

The *Youth Work in Trades Program* (formerly *Secondary School Apprenticeship Program*) helps focused students aged 15-18 get a head start on accumulating workplace training hours by starting an apprenticeship while still in school. *Youth Work in Trades* is a partnership between the School District, Employer and Industry Training Authority. A complete list of apprentice trades is available on the ITA website (<http://www.itabc.ca>)

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BUILD A CAREER HERE

#YourPathSD42

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Did you know SD42 has partnered with several post-secondary institutions and trades training organizations to offer specialized apprenticeship training programs for grades 10-12 students and graduated students who meet the requirements?

That means students going into Grade 12 and graduated students who meet the requirements now have the option to graduate, as well as receive first-year post-secondary certification and apprenticeship training in one year – with no tuition fees!



Automotive Service Technician

Level 1 Certificate Program for secondary school students

COSTS

- ✓ Books: \$800 (subject to change)

PREREQUISITES

- ✓ BCIT pretest is acceptable for English and Math
- ✓ Physics 11 recommended

The Automotive Service Technician (AST) program is a partnership between the British Columbia Institute of Technology (BCIT) and Maple Ridge - Pitt Meadows School District.

This 30-week program provides a unique opportunity for secondary school students to complete Grade 12 graduation requirements while earning post-secondary credits and certification in BCIT's Automotive Service Foundations Program. At the end of the program, students will complete a two-week practicum.

As a graduate, you may pursue a career as a general repair technician or choose to specialize in one of the varied career paths that have emerged within the industry.



36 credits - Dual credit for high school and completion of Level 1 apprenticeship (Certificate of Qualification, plus BCIT certificate). A minimum grade of 70% is required to receive Level 1 trade certification. All courses must be passed in order to successfully complete the program.

PROGRAM CONTENT

The standard program consists of the following course content:

- Workplace safety
- Employability skills
- Tools and equipment
- Electrical/electronic systems
- Wheels, hubs and tires
- Welding
- Brake systems
- Suspension systems
- Steering systems
- Principles of internal combustion engines
- General automotive maintenance

PROGRAM BENEFITS

- ✓ Complete Level 1 of the Automotive Service Technician program with no tuition fees – a student savings of over \$4,400.
- ✓ You will also receive credit for your first level of apprentice technical training from the Industry Training Authority (ITA) and 450 hours credit towards your time in trade. Upon successful completion of this program, you will be scheduled to write the Provincial Level 1 apprenticeship exam.

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Shane is already on the road towards an exciting new career.

The Automotive Service Technician student at Westview Secondary is learning about engines, cooling systems, transmissions and clutches, drive lines, braking and suspension systems – and more.

“I’ve always had a love for automobiles,” he said.

The 30-week AST program consists of technical training and hands-on experience to prepare students for employment in the automotive industry.

“I absolutely plan to continue this (career path). I’ve learned that vehicles are fairly complex and are getting more complex (because of computer systems). Vehicles are interesting machines – a lot more so than I ever thought. If you have a love for cars then this is definitely the place for you to be,” he added.





Carpentry Level 1 Apprenticeship

Level 1 Certificate Program for secondary school students

COSTS

- ✓ Books/Supplies: \$750
- ✓ Application: \$75

PREREQUISITES

- ✓ Grade 11 (consideration may be given to mature students who have completed Grade 10)
- ✓ A graduation plan in place

This partnership between Kwantlen Polytechnic University (KPU) and the Maple Ridge - Pitt Meadows School District provides students with the necessary skills and knowledge to pursue a career in the building construction industry.

In this program, skills are developed through hands-on shop experience.

The program is developed around the individual needs of students and is offered Monday through Friday for the full school year (10 months). Students will also be bused to the Cloverdale Kwantlen campus for four weeks to complete the program.

Students should have a high degree of commitment and be in good physical condition. All students will need to have personal safety equipment, including steel toe boots, hard hat, and safety glasses.



28 credits - Dual credit for high school and completion of Level 1 apprenticeship. Students also receive the KPU certificate/citation. A minimum grade of 70% is required to receive Level 1 trade certification. All courses must be passed in order to successfully complete the program.

PROGRAM CONTENT

The standard program consists of the following course content:

- Air nailers and staplers
- Asphalt shingles
- Concrete forms
- Safe work practices
- Roof framing
- Basic power tools
- Floor framing
- Stair calculating and building
- Concrete quantity calculating
- Blueprint reading and basic estimating
- Powder actuated tools, Hilti and Ramset
- Door and window installation
- Basic hand tools
- Cedar shakes, wood and vinyl siding
- Introduction to concrete
- Work experience (100 hours)
- Wall framing

PROGRAM BENEFITS

- ✓ Secondary school students* have a unique opportunity to complete Grade 12 graduation requirements while earning post-secondary credits and certification in carpentry, tuition free.
- ✓ Students will acquire skills to enter the job market or pursue other post-secondary education.

** Adult students who have not graduated and graduated students (under 19 as of July 1) may be eligible to take this program tuition free.*

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Did you know that Red Seal carpenters can earn up to \$35 per hour or more?

The Maple Ridge – Pitt Meadows School District (SD42) Carpentry Level 1 Apprenticeship Program provides students with the foundational skills and knowledge to start building a career as a carpenter right after they graduate from high school.

A partnership program with Kwantlen Polytechnic University (KPU), Carpentry Level 1 focuses on hands-on shop experience to hone skills of the trade.

Along with learning safe work practices, students will also get a lot of practical training, from working with air nailers, staplers and basic power tools to framing, blueprint reading and basic estimating – just to name a few.

“Carpentry Level 1 delivers a great balance between theory and practical learning for the students,” said instructor Andrew Third.





Culinary Arts

Level 1 Certificate Program for secondary school students

COSTS

- ☒ Books/ Supplies: \$775 (subject to change)
- ☒ Application: \$75

PREREQUISITES

- ☒ Grade 11

The Culinary Arts program provides a unique opportunity for secondary school students* to complete Grade 12 graduation requirements while earning post-secondary credits and certification in the culinary arts industry. Additionally, students will acquire work-ready skills to enter the job market.

Led by a professional chef, students develop skills in cooking and baking desserts, and learn basic kitchen management, including food costing. The program will also cover theory and related information along with hands-on cooking practice.

Students who complete the program will receive a *Certificate in Professional Cooking*.

**Adult students who have not graduated may be eligible to take this program tuition free.*



32 Credits - Dual credit for high school and completion of Level 1 apprenticeship. Students also receive a VCC certificate, plus apprenticeship credit. A minimum grade of 70% is required to receive Level 1 trade certification. All courses must be passed in order to successfully complete the program.

PROGRAM CONTENT

The standard program consists of the following course content:

- Vegetable and starch cooking
- Meat and poultry cooking
- Seafood preparation and techniques
- Stocks, sauces and soups
- Meat, poultry and seafood cutting
- Baking and desserts

PROGRAM BENEFITS

- ✓ Students will complete Level 1 of the culinary arts apprenticeship training with no tuition fees, which amounts to a savings of over \$2,500.
- ✓ This program will provide students with direct entry to work in the food and hospitality industry.

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Did you know students who graduate from the Culinary Arts program are ready to start jobs as Level 1 cooks in restaurants and hotels?

“It gives them an integral skill set,” explained chef Mike Steele, the program’s instructor. “It’s designed to prepare students for a career as an entry level cook in the culinary industry.”

Along with learning foundational skills and theoretical knowledge – everything from kitchen safety and knife skills to meal preparation like making soups and sauces – students also get practical, hands-on experience preparing dinners three times a week at Samuel’s Bistro at the school.

“This provides them with real-life situations and kitchen pressures. It’s closer to the reality you’re going to see working in the industry,” Steele said. “They get real customers, and so they also learn about the hospitality side.”

Students who complete the SD42 Culinary Arts program earn Professional Cook 1 certification.





Electrician Level 1 Apprenticeship

Level 1 Certificate Program for secondary school students

COSTS

- ✓ Books: \$800 (subject to change)
- ✓ Application: \$75

PREREQUISITES

- ✓ Math 11 (60%)*
- ✓ English 11 (Grade 12 English can be taken concurrently)*
- ✓ Physics 11

** BCIT Pre-entry Math and Reading Assessment may be taken in lieu of Math 11 or English 11.*

This partnership between the Maple Ridge - Pitt Meadows School District and British Columbia Institute of Technology (BCIT) provides a unique opportunity for students to complete Grade 12 graduation requirements while earning post secondary credits and certification in the electrical field.

This 24-week program runs at Garibaldi Secondary School. The program provides graduates with the theory and practical skills necessary to enter the electrical trade.

The electrical worker plans, assembles, installs, tests, repairs and maintains electrical equipment and systems in a variety of settings.

Priority Application Date is March 31: Applications may be accepted after this date, space permitting. Priority will be given to students who have applied on or before the deadline.



24 credits - Dual credit for high school and completion of Level 1 apprenticeship. The minimum grade for individual courses is 70%. An overall GPA of 70% or better is required. All courses must be passed in order to successfully complete the program.

PROGRAM CONTENT

The standard program consists of the following course content:

- Applied mechanics (4 credits)
- Fundamentals of electricity (8 credits)
- Principles of magnetism (4 credits)
- Wiring methods (12 credits)
- Electrical codes, plans and specs (8 credits)
- AC circuit analysis (2 credits)
- Electronic devices (2 credits)
- Basic motor control (4 credits)
- Computer skills and job preparation (4 credits)

PROGRAM BENEFITS

- ✓ Graduates may qualify for advanced standing as indentured candidates within the apprenticeship system.
- ✓ Students will acquire skills that will enable them to directly enter the job market.

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Did you know Red Seal electricians can earn \$60,000 or more a year?

You can start down this career path by taking the Maple Ridge - Pitt Meadows School District No. 42 Electrician Level 1 Apprenticeship program.

The popular program of choice, which is a partnership between the school district and BCIT, gives students the opportunity to complete Grade 12 graduation requirements while preparing for a career in the electrical field.

“The opportunity in the electrical workforce is just so vast,” explained instructor Ruthanne Grone. “There are so many areas students can go in the industry – everything from house wiring to fiber-optics, cell towers, industrial and commercial – it’s so diverse. Right now the skill is in high demand.”

Working in a variety of work environments, electrical workers plan, assemble, install, test repair and maintain electrical equipment and systems.





Hairstylist (Salon 42)

Certificate Program for secondary school students

COSTS

- ✓ Supplies: \$1,705 (subject to change)
- ✓ Reduced Academy fee: \$1,885
- ✓ Application: \$75

PREREQUISITES

- ✓ Successful completion of Grade 11 (consideration may be given to mature students who have completed Grade 10)

Hosted at Samuel Robertson Technical Secondary, this partnership between Vancouver Community College (VCC) and the Maple Ridge - Pitt Meadows School District gives secondary school students* the opportunity to complete Grade 12 graduation requirements while earning post-secondary credits and certification in the hairstyling field.

Students will need writing and numerical skills. Interpersonal skills, creative ability, and good hand-eye coordination are also recommended.

The program covers theory and related information, and also provides hands-on experience.

**Adult students who have not graduated may be eligible to take this program tuition free.*



32 credits - Dual credit for high school and apprenticeship training, VCC certificate and writing of the apprenticeship exam. A minimum grade of 70% is required to receive Level 1 trade certification. All courses must be passed in order to successfully complete the program.

PROGRAM CONTENT

The standard program consists of the following course content:

- Full 10-month VCC program
- Introduction to women's/men's hairstyling
- Hygiene, bacteriology and sanitation
- Client relations
- Communications and salon functions
- Hair cutting/styling
- Hair structure and chemistry
- Hair colouring
- Practicum

PROGRAM BENEFITS

- ✓ This program can lead to a hairstylist career.
- ✓ Students will acquire job-ready skills to enter the job market or pursue other post-secondary education.

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Maple Ridge - Pitt Meadows School District hairstylist students have been a cut above when it comes to provincial competitions.

In 2016, Samuel Robertson Technical students Jayda Long and Teanne Clements won silver and gold respectively in hairdressing at the *Provincial Skills Canada BC Competition* held in Abbotsford. In 2017, Courtney Edwards (at right) won gold.

Most importantly, the hands-on program gives students valuable, in-demand career skills.

"Students love this program as it allows them to be creative yet they acquire all the foundational skills required for the trade," said instructor Gary Franceschini. "This program is excellent because you apply the skills and principles you're learning right away in real world salon environment on clients."

After graduation, students will have completed Level 1 of the ITA certification.

"Most students get jobs right away as junior stylists or apprentices to start," Franceschini added.





Horticulture

Level 1 Apprenticeship Training Program for secondary students

COSTS

- ✓ Books: \$400 approximately
- ✓ Equipment: \$250 approximately (rain gear/safety equipment as required)
- ✓ Application: \$75

PREREQUISITES

- ✓ Grade 11
- ✓ Biology 11 recommended

Students attend this program at Kwantlen Polytechnic University (KPU)'s Langley Campus in February and March for 6 weeks during their Grade 12 year.

Students will attend Thomas Haney Secondary and then be bused to Kwantlen Polytechnic University in Langley for the six weeks. During the program, students also have the option of working with a horticulture employer from mid-April to June.

This is a Level 1 Apprenticeship Technical Training program that provides the core technical knowledge needed to move into the next levels of landscaping and/or production. Paid work placements will be arranged by school district staff based upon recommendations from the Kwantlen faculty.



8 credits - Students receive elective graduation secondary school credits: Horticulture PSIJ 12A Horticulture PSIJ 12B. Optional Course Credits are WEX 12A or SSA 11A WEX 12B or SSA 11B. Students will receive ITA credit for the Level 1 Apprenticeship Program. A minimum grade of 70% is required to receive Level 1 trade certification. All courses must be passed in order to successfully complete the program.

PROGRAM CONTENT

The standard program consists of the following course content:

- Horticulture practices
- Plant health and plant materials
- Soils
- Pest management
- Plant identification and plant science
- Equipment maintenance
- Supervisory skills

PROGRAM BENEFITS

- ✓ Students may receive either Work Experience or Youth Work in Trades credit. Grade 12 students will have an opportunity to fully participate in graduation ceremonies at their home school.
- ✓ After completing Level 2 of the horticulture technical training program, students can choose to advance their studies by selecting a more specialized apprenticeship stream at KPU including the Red Seal Landscape Horticulturist or Production Horticulturist Apprenticeship program.

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Are you interested in landscape design or sustainable food production?

Now you can start preparing for a career in horticulture while you are still in high school.

The Maple Ridge – Pitt Meadows School District (SD42) has partnered with Kwantlen Polytechnic University (KPU) to launch a new Horticulture Level 1 Apprenticeship program.

“With some of the largest horticulture operations and renowned golf courses in the Lower Mainland – comprising in excess of 1,000 acres in the Maple Ridge and Pitt Meadows region – offering a first-year apprenticeship program in horticulture seemed like a natural fit,” said Brad Dingle, SD42 Secondary School Apprenticeship and Trades Co-ordinator. “There has been no shortage of applicants.”





Masonry (Bricklaying)

Certificate Program: Apprenticeship Foundations

COSTS

- ✓ Books: \$300 (approximately)
- ✓ Application: \$75

PREREQUISITES

- ✓ Math 10 Essentials, Applications, or Principles, English 10

This 21-week program will give students the practical theory and skills to enter the masonry industry. The program is taught by a Kwantlen Polytechnic University (KPU) instructor and follows the provincial apprenticeship curriculum.

Students will develop the necessary habits concerning safety and the proper use of time, tools, materials, and the work skills required to be a competent trades person in today's workforce. The program is designed to be 75% hands-on and 25% theory.

Students should have a high degree of commitment and be in good physical condition. All students will need to have personal safety equipment – including steel toe boots and a hard hat.



20 credits - Dual credit for high school and college credits for completion of the program, plus Level 1 apprenticeship credit. A minimum grade of 70% is required to receive Level 1 trade certification. All courses must be passed in order to successfully complete the program.

PROGRAM CONTENT

The standard program consists of the following course content:

- Cutting bricks to size using hammers, chisels or power tools
- Laying the bricks in horizontal layers (courses)
- Measuring out the work area and laying the first courses according to the architect's plans
- Mixing mortar, either by hand or with a mixing machine
- Spreading mortar evenly to fix bricks into place
- Ensuring that the line of the wall is totally straight and level (a spirit level or plumb line may be used)
- Making access holes in the walls to allow electricians, plumbers and other workers to bring water, electricity and commodities into the building

PROGRAM BENEFITS

- ✓ Students who successfully complete the Masonry (Bricklayer) program will receive Level 1 in-school technical training credit and 400 work-based hours towards completion of the Masonry (Bricklayer) Apprenticeship program.
- ✓ Training in this program prepares students for entry-level employment as a mason (bricklayer) after high school graduation.

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Did you know that you can start to build a solid career in the trades while still attending high school?

The Masonry program offered by the Maple Ridge – Pitt Meadows School District (SD42), in partnership with Kwantlen Polytechnic University, provides an opportunity for students to complete Grade 12 graduation requirements while earning post-secondary credits and certification in the masonry field.

Graduates of the five-month program earn Level 1 Masonry Apprenticeship certification without paying any tuition fees, which amounts to a savings of approximately \$2,700.

"It gives students an opportunity to see if they like working in the trade," said instructor Tim Brotherston. "It's a pretty real-life working situation."





Metal Fabricator

Certificate Program: Apprenticeship Foundations

COSTS

- ✓ Books/Supplies: \$750
- ✓ Application: \$75

PREREQUISITES

- ✓ Grade 11

This partnership between the Maple Ridge - Pitt Meadows School District and British Columbia Institute of Technology (BCIT) provides a unique opportunity for secondary school students* to complete Grade 12 graduation requirements while earning post-secondary credits and certification in the metal fabricator field tuition free. Additionally, students will acquire skills to enter the job market or pursue other post-secondary education.

Metal fabricators deal with the selection, layout, shearing, cutting (with a torch), punching, drilling, forming, fitting and welding of metal plates and structural metal shapes into products for the forest, mining, construction, transportation and agricultural industries.

**Qualified adult students who have not graduated and graduated students (under 19 as of July 1) may be eligible for the program.*

Priority Application Date is March 31: Applications may be accepted after this date, space permitting. Priority will be given to students who have applied on or before the deadline.



28 credits - Dual credit for high school and BCIT associate certificate in trades training. An overall GPA of 70% or better is required. All courses must be passed in order to successfully complete the program.

PROGRAM CONTENT

A portion of the program (7 weeks) includes instruction at BCIT's trades campus in Burnaby. The standard program consists of the following course content:

- Applied mechanics
- Mathematics
- Sketch and read drawings
- Metal fabrication power equipment
- Measurement layout hand and power tools
- Patterns/templates-shop applications
- Oxyacetylene welding
- Arc and MIG welding
- Blueprint reading
- Plate development
- Material handling
- Cleaning and painting
- Fabrication and metallurgy theory

PROGRAM BENEFITS

- ✓ The Metal Fabricator program prepares students for a career as a metal fabricator, and also serves as the starting point for many other related career paths.
- ✓ This program can also lead to apprenticeship training and other BCIT programs.

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Ever dream of building a roller-coaster? Then you may want to consider a career as a metal fabricator. That's just one example of the interesting types of projects metal fabricators get to work on.

Maple Ridge - Pitt Meadows School District (No. 42) students have the opportunity to earn post-secondary credits and certification in the metal fabricator field while still completing Grade 12 graduation requirements.

"The Metal Fabricator/Fitter program combines two of the most desirable industrial trade skills: the ability to build/assemble and manipulate steel with the opportunity to weld it all together," said Brad Dingler, Secondary School Apprenticeship and Trades Co-ordinator. "Metal fabricators build everything from roller-coasters to telescopes, working with both structural and plate steel."

Dingler said a number of program graduates are now certified metal fabricators who are earning up to \$40-plus per hour. And, yes, one of those grads is actually working on roller-coasters.

"I can think of one student in particular who has been sent to Hong Kong and Dubai in order to assemble roller-coasters for Walt Disney."





Plumbing/Pipefitting Apprenticeship

Certificate Program: Apprenticeship Foundations

COSTS

- ☒ Books: \$800
- ☒ Application: \$75

PREREQUISITES

- ☒ Grade 11

This 21-week program will give students the knowledge and skills to enter the piping/plumbing industry. The program is taught by Kwantlen Polytechnic University (KPU) instructors and follows the provincial apprenticeship curriculum.

Students* will develop the necessary habits concerning safety and the proper use of time, tools, materials, and the work skills required to be a competent trades person in today's workforce. Upon successful completion of the program, students will receive Level 1 in-school technical training credit and 375 work-based hours towards completion of the Plumbing/Pipefitting Apprenticeship program.

Students are able to follow one of the four certification streams: plumbing, pipe fitting, gas fitting and sprinkler fitting.

**Qualified adult students who have not graduated and graduated students (under 19 as of July 1) may be eligible for the program.*



20 credits - Dual credit for high school and college credits for completion of the program, plus Level 1 apprenticeship credit. A minimum grade of 70% is required to receive Level 1 trade certification. All courses must be passed in order to successfully complete the program.

PROGRAM CONTENT

The standard program consists of the following course content:

- Mathematics
- Tools
- Science
- Safety
- Pipes, valves, fittings
- Rigging
- Cutting, soldering, brazing
- Drafting and blueprint reading

PROGRAM BENEFITS

- ✓ Taking a foundation program can build the skills that employers seek.
- ✓ This program can lead to a plumber/pipe fitter career, or can also prepare students for one of the many other related career options.
- ✓ Plumbing apprenticeship training can also lead to other Kwantlen programs.

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Did you know that you can start preparing for a high-paying job as a plumber or pipe fitter while you're still in high school?

Maple Ridge - Pitt Meadows School District No. 42's Plumbing/ Pipe Fitting Apprenticeship program, in partnership with Kwantlen Polytechnic University, gives students an opportunity to complete Grade 12 graduation requirements while earning post-secondary credits and certification in the plumbing/pipe fitting field.

The first-year foundations course provides students the skills needed for entry-level jobs in the steamfitting, sprinkler fitting, gas fitting and plumbing fields – including proper safety habits, time and materials management and experience using hand tools and power tools.

"Students who graduate from the plumbing/pipe fitting apprenticeship program leave high school with job-ready skills," said instructor Thomas Leuvekamp.





Refrigeration Mechanic

Certificate Program: Apprenticeship Foundations

COSTS

- ✓ Books/Tools: \$800
- ✓ Application: \$75

PREREQUISITES

- ✓ A Math 11 (Physics recommended), EN or Com 11
- ✓ Gr. 12 Eng/Com can be taken concurrently
- ✓ Valid BC Class 7N or Class 5 driver's licence

During this 19-week program, students have the opportunity to earn their first year of technical training towards a Level 1 Trades Certificate and gain up to 520 work-based training hours.

Refrigeration mechanics make, install, repair and service residential, commercial and industrial cooling and heating systems. Some work in building maintenance – for example, servicing the air conditioning systems in high-rise office buildings. Others specialize in repairing small, portable refrigeration and freezing units.

**Qualified adult students who have not graduated and graduated students (under 19 as of July 1) may be eligible for the program.*



20 credits - Dual credit for high school and college credits for completion of the program, plus Level 1 apprenticeship credit. A minimum grade of 70% is required to receive Level 1 trade certification. All courses must be passed in order to successfully complete the program.

PROGRAM CONTENT

The standard program consists of the following course content:

- Safety, hand and power tools
- Trade math
- Refrigerant Handling Certification (CFC Certificate)
- Maintenance procedure
- Heat pumps and roof top units
- Electrical theory and application
- Level 1 Industrial First Aid
- Transport of Dangerous Goods Certificate
- Cutting, brazing and bending pipe
- Refrigeration cycles and components
- Troubleshooting
- Commercial and industrial refrigeration
- Single and 3-phase motors
- Customer skills
- Aerial Lift Certification
- Boom, scissor and fall protection

PROGRAM BENEFITS

- ✓ Taking a foundation program can build the skills that employers seek.
- ✓ This program can lead to a refrigeration mechanic career, or can also prepare students for one of the many other related career options.
- ✓ Apprenticeship training can also lead to other post-secondary programs.

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A refrigeration mechanic is designated under the Inter-provincial Red Seal Program as a refrigeration and air Conditioning mechanic. As part of their job, they measure, cut and connect piping using welding and brazing equipment.

Refrigeration mechanics also recharge systems with refrigerant gases as required and connect rooftop units to gas, test and balance systems and connect electrical systems.

They must also be able to use and adjust computerized controls, use computer software to calculate loads, and work on large machines. In some cases, they need to prepare work estimates for clients.

Learn more at: <http://www.sd42.ca/programs/trades-programs/>



