

# **NECHAKO VALLEY SECONDARY SCHOOL**



**GRADE 11-12  
COURSE  
DESCRIPTIONS**

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## INTRODUCTION TO STUDENTS

This book has been written for all Grade 10 and 11 students who are planning their courses. In planning you should have the advice of your parents, and in order to receive full benefit, the following should be taken note of:

1. It is important that you understand the graduation requirements. If something is unclear, be sure to contact your counsellor.

### **Please note:**

**You are responsible for ensuring that both your graduation and post-secondary admission (if applicable) requirements are met. If you plan to pursue post-secondary training, please review the section on post-secondary planning in this booklet.**

2. It is important that you read the course descriptions thoroughly.

## INFORMATION FOR PARENTS

### TIMETABLE:

At NVSS, the school is on a semester timetable, which means that the school year is divided in half and, with a few exceptions, each student takes a total of four courses each semester. We try to balance student timetables with electives so that students are not overloaded in either semester with heavy academic courses. Students are able to meet with counsellors to have their timetables adjusted when necessary.

### SPECIAL NOTES:

<b>COURSE CONSTANTS</b>	courses that <b>MUST</b> be taken by all students.
<b>ELECTIVES</b>	courses that students may choose to take considering their qualifying options and goals for future years.
<b>QUALIFYING OPTION</b>	a course that will give the student the background skills or is a prerequisite to senior courses in Grades 11 and 12.
<b>COURSE LOAD</b>	students are required to take full course loads (8 courses) in Grades 8, 9, 10 and 11.

***Students are strongly encouraged to select their courses with consideration to their future plans and interests. Students will NOT be permitted to make changes to their course requests unless one of the following conditions applies:***

- **To meet grad requirements**
- **To meet Career Prep program requirements**
- **To complete core course requirements**
- **To balance academic course load**

# GRADUATION PROGRAM

Since you entered Grade 10, you have been working towards completing the 80-credit graduation program.

To make sure you don't miss graduation because of a technicality, meet with Ms. Vahi early in the school year to find out if you're taking the courses you need. If you are planning to continue your education beyond secondary school graduation, make sure you have all the course credits you require to enter the program of your choice.

## **Credit Requirements: Grades 10 – 12**

A **minimum** of eighty credits in Grades 10 – 12 (equivalent to 20 four-credit courses) are required for graduation.

<b>52 credits are required courses, including:</b>			<b>Course selected/completed</b>
Language Arts (English First Peoples*)	10	4 credits	
Language Arts (English)	11	4 credits	
Language Arts (English First Peoples*)	12	4 credits	
Social Studies	10	4 credits	
Social Studies 11 or 12 (BC First Peoples 12*)	11 or 12	4 credits	
Science	10	4 credits	
Science 11 or 12	11 or 12	4 credits	
Mathematics (Workplace Math OR Foundations of Math & Pre-calculus)	10	4 credits	
Mathematics (Workplace Math, Foundations of Math OR Pre-calculus)	11	4 credits	
Physical & Health Education	10	4 credits	
Arts Education or Applied Design, Skills & Technologies  ***Grade 10 - 12 BAA courses <u>DO NOT</u> meet the Arts Education/ADST requirement.	10 11 or 12	4 credits	
Career Life Education 10	10	4 credits	
Career Life Connections/ Capstone		4 credits	
Elective Courses (7 courses)		28 credits	
<b><i>*Meets NEW Indigenous-Focused Graduation Requirements</i></b>			
<b>Minimum of 16 credits at the Grade 12 level including Language Arts 12.</b>			
<b>All ministry-authorized and board/authority-approved courses count.</b>			

Check with counsellors before dropping a course – it could be the one you need to graduate.

Don't forget that post-secondary institutions often require you to complete specific courses to get into certain programs. Careful planning in Grades 10, 11 and 12 will ensure you have all the courses and credit you need. The majority of universities in British Columbia require at least five (5) approved grade 12 courses.

## **Provincial Graduation Assessments**

The Graduation Program requires all students to write THREE Provincial Assessments.

- Grade 10 Provincial Numeracy Assessment
- Grade 10 Provincial Literacy Assessment
- Grade 12 Provincial Literacy Assessment

These assessments are mandatory for graduation and will appear on transcript information.

## Indigenous-Focused Graduation Requirement

- As part of the Province of British Columbia's commitments to truth, reconciliation, and anti-racism, the Ministry of Education and Child Care (the Ministry) is implementing an Indigenous-focused graduation requirement for students working toward a BC Certificate of Graduation (Dogwood Diploma) in English or French.
- The new graduation requirement, came into effect in the 2023/24 school year.

### Rationale:

- Why is this requirement being an important step in the BC education system?
- Implementation of an Indigenous-focused graduation requirement is an important next step in the K-12 sector's ongoing journey towards truth and reconciliation which has included integrating Indigenous perspectives, histories, and cultures across the curriculum.

This is an important part of the K-12 sector's mandate:

- To develop the Educated Citizen, which can in turn help to promote diversity, equity, and inclusion in our schools and communities.
- The graduation requirement also provides an opportunity for schools and school districts to consult and collaborate with First Nation(s) on whose territory they are located.
- The new graduation requirement does not replace the learning standards that currently exist in the BC curriculum.
- The model for this change to the Graduation Programing allows students to meet the new requirement through existing and new course options. **Students are required to complete 4 credits of Indigenous- focused coursework to graduate.** Students can earn these credits by successfully completing:
  - English First Peoples 12 would meet both existing English Language Arts requirement for Grade 11 or 12, as well as this new graduation requirement
  - BC First Peoples 12 or Indigenous Studies 12 would meet both the existing Social Studies requirements for Grades 11 or 12, as well as this new graduation requirement.

NVSS will be offering the following courses to meet the Indigenous-Focus Graduation Requirement:

- English First Peoples 10
- English First Peoples 11
- English First Peoples 12
- BC First Peoples 12

## **COURSE CONSTANTS**

\*\* Elective choices will be based on future and career plans. Consult the Post-Secondary planning section below or visit with a counsellor.

### Grade 11

\*\*Successful completion of Grade10 constants plus:

English Language Arts 11

A Social Studies 11 or 12

A Science 11 or 12

A Math 11

Elective # 1 - If planning to attend University a second language 11 may be needed

Elective #2 – based on future and career plans

Elective #3 – based on future and career plans

Elective #4– based on future and career plans

### Grade 12

\*\*Successful completion of Grade 11 constants plus:

English Language Arts 12

Elective #1 – Grade 12 course

Elective #2 – Grade 12 course

Elective #3 – Grade 12 course

Elective #4 – based on future and career plans

Elective #5 – based on future and career plans

Elective #6 – based on future and career plans

Elective #7 – based on future and career plans

Career Life Connections Capstone Project

## POST-SECONDARY PLANNING

It is important to begin considering your “*after high school*” (post-secondary) plans in grade ten. Graduates have many post-secondary options, ranging from entering the work force, trades or technology programs or college or university courses. Having some ideas about your future plans, even though they might change, will help you select courses. It is important to take into consideration the wide variety of choices you will have, as well as the entrance requirements of programs you might apply for after high school. Do not plan for the minimum that is required. By taking a wide variety of courses during your years at NVSS, you will ensure that you are ready for whatever path you choose.

Helpful Websites for Post-Secondary Planning:

[www.workfutures.com](http://www.workfutures.com)  
[www.educationplanner.bc.ca](http://www.educationplanner.bc.ca)  
[www.schoolfinder.com](http://www.schoolfinder.com)  
[www.myblueprint.ca/sd91](http://www.myblueprint.ca/sd91)

Commonly attended BC Universities and Colleges

College of New Caledonia	<a href="http://www.cnc.bc.ca">www.cnc.bc.ca</a>
Thompson Rivers University	<a href="http://www.tru.ca">www.tru.ca</a>
University of British Columbia	<a href="http://www.ubc.ca">www.ubc.ca</a>
University of Northern British Columbia	<a href="http://www.unbc.ca">www.unbc.ca</a>
University of Victoria	<a href="http://www.uvic.ca">www.uvic.ca</a>

To find other colleges and universities

[www.collegeanduniversityguide.com](http://www.collegeanduniversityguide.com)

## COUNSELLING SERVICES AT NVSS

Currently at NVSS, there are two counsellors. The counselling duties can be divided into three different areas -- educational, career and personal with educational counselling receiving the majority of the counsellors' time.

The counsellors handle registrations, course selections, and course transfers, as well as arrange and conduct meetings with parents and students.

Counsellors organize liaison visits between students and post-secondary representatives and assist students with financial aid (loans, scholarships, bursaries), and post-secondary education. They counsel students regarding such things as academic progress, attendance and behaviour; they interpret educational needs of students to administration and staff.

The counsellors are always available for personal counselling and they are prepared to help students in resolving special problems (e.g. with teachers, family, peers, self) and in developing skills in making personal decisions, and in realizing potential. The counsellors will also help find special help for students, if this is needed.

As well, the counsellors and school secretaries are responsible for monitoring and maintaining adequate and accurate student information records such as: permanent record cards; graduation requirement credits; up-to-date student timetables; student medical problems; student performance surveys and interim reports; student course selection sheets; student course transfers; class size counts and limits.

Ms. Vahi works with students in Grades 11-12. Ms. MacKinlay works with students in Grades 7-10. Of course, the counsellors will be available to assist any student in emergency situations and for personal counselling.

## WORK EXPERIENCE PROGRAMS AT NVSS

### Work Experience 12

NVSS offers many Work Experience Programs designed specifically for Grade 11 and 12 students who would like to have the opportunity to combine and compliment regular secondary school graduation with career study. Students are encouraged to meet regularly with the Career Coordinator.

#### PROGRAM REQUIREMENTS:

In addition to satisfying graduation requirements, Work Experience students **MUST** complete the following requirements:

1. A minimum of 4 focus courses common for all students taking the program.
2. Ministry Work Experience 12A or 12B requirements, including 120 hours of work experience related to the focus area.
3. Career Life Connections Capstone Project 12

When the 3 requirements are completed, the student will receive a letter grade and 4 (Grade 12) credits toward graduation.

The following are the 8 Focus Areas from which a student may choose:

Business and Applied	Liberal Arts and Humanities
Fine Arts, Design and Media	Science and Applied Science
Fitness and Recreation	Tourism, Hospitality and Foods
Health and Human Services	Trades and Technology

Why take Work Experience?

- \* Many post-secondary institutions require some work experience in order to be admitted into their programs.
- \* Many employers want to see previous work experience before they hire.
- \* The graduation process stresses the importance of career development and work experience.
- \* Work Experience can lead to summer, part-time, or full-time employment.
- \* Work Experience provides the opportunity to develop maturity, independence & good work habits. You can also make some good contacts for later in life.

## WORK EXPERIENCE PROGRAMS CONTINUED

### Junior Initial Attack – (JIA) 12, 4 credit Board Authority Approved Course

This course operates in Vanderhoof and Burns Lake in partnership with the local Forest Service (Protection Division). In each centre, 12 senior students (Gr. 12) are selected through an application procedure to participate in an intensive Forest Fire Fighting Training Program. They meet about once per month and have classroom as well as outdoor sessions which cover topics such as, fire behavior, weather, safety, equipment operation, procedures, fitness, map reading and helicopters. Successful completion of the JIA Program allows them to apply for employment in fire centres anywhere in the province.

### Essentials of Fire Fighting – Firefighting 12, 4 Credit Board Authorized Course (Vanderhoof Fire Rescue Junior Program)

Students in Grade 11 or 12 are selected through an application procedure to participate in the Vanderhoof Fire Rescue Junior Program. They will undertake a course of study covering topics such as ladders, fire behaviours, hoses and extinguishers, search and recovery, vehicle extrication and urban interface fires. It is expected that they will achieve a degree of competency in these areas of study in addition to the following:

1. Maintain at least a passing grade in all courses
2. Attend practice on a regular basis
3. Attend school and all classes on a regular basis
4. Maintain an acceptable level of behaviour at school and in public that represents their positions as members of the Vanderhoof Volunteer Fire Department
5. Have the full approval of their parents for participation in all Fire Department training and activities
6. Complete at least 120 hours of combined Fire Department Training and activities in order to receive 4 credits for this BAA Course.
7. Complete the WCB Level One First Aid Course upon acceptance into the Junior Fire Fighter Program
8. Participate in Project Fire Fighter.

## YOUTH WORK IN TRADES

Youth Work in Trades (formerly Secondary School Apprenticeship) program allows students to earn up to 16 credits toward graduation and be credited for work-based training hours toward future ITA apprenticeship training requirements. This program includes up to 480 hours of work-based training, with some accompanying assignments and employer evaluations. The program is open to students aged 14 to 19, and the work must be paid and in an ITA-recognized trade.

The WRK Scholarship, a \$1000 cash award, is available to WRK students for sustained and exceptional work as an apprentice. The funds are intended to assist apprentices with the purchase of tools, equipment, materials, or post-secondary tuition.

# YOUTH EXPLORE TRADE SKILLS/ CTC Dual Credits PROGRAMS

Youth Train in Trades (formerly Skills Exploration) is a dual-credit program (4 credits each), offered through partnerships between school districts and post-secondary institutions with onsite training at either location. Participating students are registered as youth apprentices with the ITA. Students who successfully complete the TRN program can earn up to 12 credits toward graduation and additional post-secondary credentials.

These dual-credit programs are designed for students who wish to earn credits towards both graduation and Level 1 Apprenticeship Technical Training credentialed by the Industry Training Authority of British Columbia. They are open to Grade 11 and 12 students. Students enrolled in these programs will also be registered as trainees with the Industry Training Authority (ITA). Local programs offered may vary from year to year, as well as their locations within the district. **Transportation and accommodation are the responsibility of the student and parent.** Once the program is completed, the student will return to his/her home school to complete graduation course requirements.

Programs include:

Automotive Service Technician	Automotive Refinishing Prep Technician	Carpenter
Electrician	Heavy Mechanic Group Trades	Industrial Mechanic (Millwright/Machinist)
Metal Fabrication	Motor Vehicle Body Repair	Piping (Plumber/Sprinkler/Gas/Steamfitter)
Professional Cook	Welding	

Students are selected through an application procedure. Please visit the Career Centre for information and an application package.

## \*\* GRADUATION REQUIREMENT COURSES\*\*

### CAREER LIFE CONNECTIONS 12

4 credits

The aim of **Career Life Connections 12** is to enable students to develop the skills they need to become self-directed individuals, who set goals, make thoughtful decisions, and take responsibility for pursuing their goals throughout life.

The big ideas are:

- Well-being requires finding a balance of personal health, relations, work, learning, community engagement, and committed citizenship
- Being in the world and walking in the world are supported, broadened and deepened through community involvement and the social experience of building personal networks
- Careers, education, and life opportunities change over time
- Building skills of lifelong learning can help us adapt and thrive
- Global economies, culture, and sustainability impact personal choices, and the availability of personal opportunities
- Career and education paths require ongoing exploration, planning, evaluation and adaptation

Required Components:

- Students must submit proof of a minimum of 30 hours of work or volunteer experience
- Students must complete a CLC assignment package including a resume, cover letter, reference letter, budget and a transition plan
- Students must complete a Capstone Project including a presentation

### CAPSTONE PROJECT

(Replaces the Graduation Transitions Presentation)

The Capstone Project is known as the culminating project or experience, or senior exhibition that allows students to demonstrate their learning using an area(s) of interest as the basis for the project. Ideally, this would be in areas that they are passionate about and anticipate they will be pursuing after graduation. In Career Life Connections, students will design, assemble, and present a Capstone Project to an audience to demonstrate personal learning and achievement (in and out of school), growth in the core competencies, and a reflection on the post-graduation plan.

1. Increase academic rigor for student's final years
2. Increase student motivation and engagement in schools
3. Increase education and career aspirations
4. Improve student confidence and self-perceptions
5. Provides an opportunity for a student to demonstrate learning and proficiency

Capstone Projects are best supported in school where both the process for developing the project and the product guidelines and expectations are clearly set. Counsellors and the Career Programs Coordinator will guide you through this process.

## ENGLISH LANGUAGE ARTS COURSES

The aim of English Language Arts is to provide students with opportunities for personal and intellectual growth through speaking, listening, reading, viewing, writing, and representing to make meaning of the world and to prepare them to participate effectively in all aspects of society. – Ministry of Education

Students are required to take a 4-credit course in both grades 11 and 12. Students may choose an English First Peoples option in one of the grades or select an English Language Arts option for both grades.

### English: Language Arts 11 Literary Studies

In this second graduation program course, focused literary studies will use literature from a variety of voices and cultures to develop and demonstrate skills in the following areas:

- Composition
- Creative Writing
- Spoken Language
- Media Literacy

### English: Studies 12

In this final Graduation program course, focused literary studies will use literature from a variety of voices and cultures to demonstrate skills in the following areas:

- Composition
- Creative Writing
- Spoken Language
- Medial Literacy

### English First Peoples Literary Studies and Writing 11

English First Peoples 11 is a comprehensive language course offered as an academic equivalent to English Language Arts 11. The course focuses on the experiences, values, beliefs, and lived realities of First Peoples as evidenced in various forms of text including oral story, speech, poetry, dramatic work, art, song, film, and prose (fiction and non-fiction).

**This course will fulfil 4 credit Indigenous Studies requirement.**

### English First Peoples 12

English First Peoples 12 is a comprehensive language course offered as an academic equivalent to English Language Arts 12. The course focuses on the experiences, values, beliefs, and lived realities of First Peoples as evidenced in various forms of text including oral story, speech, poetry, dramatic work, art, song, film, and prose (fiction and non-fiction).

**This course will fulfil 4 credit Indigenous Studies requirement.**

## SOCIAL STUDIES COURSES

All students must take a Grade 11 or 12 Social Studies course in order to graduate. Students can take a Grade 12 Social Studies course while they are in Grade 11.

### Explorations in Social Studies 11

#### 4 credits Elective Courses

Explorations offers students the chance to learn about a variety of Social Studies topics, where students can delve into subject matter that they find interesting. If you are unsure about which Social Studies course to take, or if you want to learn about a wide range of topics, this is the course for you!

This course will consist of at least four modules, each one taking about four weeks. Each module will encompass one of a variety of Social Studies topics. For instance, modules on the History of American popular music, Geography, and Philosophy have been popular selections in the past. There are many options with this course!

Each module will contain a major project or other demonstration of learning as necessary. Students who show they are responsible and trustworthy may do guided independent modules on any Social Studies topic of their choice.

### Genocide Studies 12

#### 4 credits Elective Courses

Genocide Studies 12 focuses on genocides in the 20th and 21st centuries. Students will build an understanding of what defines genocide and genocidal acts, using historical events. All students will learn about the Holocaust, and it will serve as a starting point for the analysis of further genocides. This course will focus partially on history but will also look at contemporary issues. By the end of this course, students will have studied recent and current genocides, national and international responses, and prevention and aftermath.

**This class has sensitive subject matter, including violence and atrocities committed during genocides. The subject matter can be difficult for some to process emotionally, so please consider how this might affect your mental health and talk to an adult if you are concerned. Students will be responsible for extensive research and should be comfortable presenting in front of the classroom.**



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## Law Studies 12

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### 4 credits Required Courses or 4 credits Elective Courses

Interested in a career as a lawyer or with the RCMP? Want to know what your rights are? Law 12 introduces students to the Canadian legal system through interactive mock trials, in-depth discussions, presentations, debates, and guest speakers. It will explore your rights as young offenders, as well as criminal and civil law. Did you know that someone who is sleepwalking and commits a crime cannot be found guilty of that crime? Did you know that Canadian judges don't use gavels in court?

Law 12 is an interesting course and students must actively participate in class activities to be successful. Essential learning outcomes will be assessed through tests, essays and participation in mock trials.

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## Comparative Cultures 12

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### 4 credits Required Courses or 4 credits Elective Courses

If you are interested in learning about different cultures, both past and present, this is the course for you! In Comparative Cultures 12, you will learn about and explore the worldviews, beliefs, family and marriage practices, power and governance structures, systems of trade and economic exchange, and cultural expressions such as art, music, language, festivals, food, clothing, religion, and so-on. Six or more guests will visit our class to share their stories and answer your questions. Guests represent local people who have come to Canada from a variety of places in the world. We will also have the opportunity to view a film created by a person from the Mursi tribe in Ethiopia and possibly FaceTime with him!

You will be expected to research and investigate different cultures of your choosing and share your discoveries with the class through projects, charts, discussions, etc. Different concepts will be explored through simulations, videos, guest speakers, and group and independent inquiries. You will also have the opportunity to analyze primary sources and assess their importance to a culture and discuss the similarities and differences between cultures. If you want to do fun projects, that could often include building models, dioramas, interactive games, and tasty cultural food, this class is for you!

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## BC First Peoples 12

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### 4 credits Elective Courses

BC First Peoples 12 provided an opportunity to learn about history, diversity, and worldviews of British Columbia's indigenous population. We will achieve this by investigation the past, present, and future challenges and opportunities of BC First Peoples. Students will examine indigenous connections to the land, learn how geography has shaped BC's First Peoples and grapple with the legacy and impact of colonialism.

*BC First Peoples 12 meets both the Grade 11/12 Social Studies Graduation Requirement and the new Indigenous-Focused Graduation Requirement.*



# SCIENCE COURSES

## Life Sciences 11

### 4 credits Required Courses – Science 11 or 4 credits Elective Courses

Life Sciences 11 is a broad overview of the study of life where you will gain an appreciation for wide diversity of life on Earth in its myriad of forms. Areas of exploration will include:

- Taxonomy: Learning to identify and classify organisms you may encounter in everyday life.
- Virology and Immunity: How viruses operate and how your immune system works to protect you.
- Microbiology: How the most plentiful organisms on the planet work and why they are so successful.
- Mycology: An examination of one of the most interesting decomposers on our planet: Fungi.
- Botany: Exploring the diversity of plants and their survival strategies, from simple to complex.
- Zoology: A survey of all the different kinds of animals from simple to complex.

Laboratory activities make up a large part of this course and will consist of animal dissections, lab-based experiments, inquiry projects and explorations which will occur both inside the lab and outside in the local ecosystem.

*Life Science 11 will help prepare you for future courses in the biological sciences as well as further study of natural sciences and health sciences at the post-secondary level.*

## Anatomy & Physiology 12

### 4 credits Required Courses or 4 credits Elective Courses Recommend: Life Sciences 11, Chemistry 11

Anatomy and Physiology 12 is a rigorous course focused on building a deep understanding of the structure of the human body (anatomy) and the functions of those structures (physiology). A&P 12 is an excellent choice for students interested in pursuing a career in the biological or health sciences requiring post-secondary education in natural sciences, health sciences; or for those interested in a basic understanding of how the body works.

Where Life Sciences 11 is a broad overview of biology, A&P 12 is focused specifically on the biology of the human body. You will begin with exploration of life at the *cellular level*: the molecules (including lipids, carbohydrates, enzymes and proteins and the chemical process required to support life, including transport across the cell membrane and metabolism). You will develop an understanding of *gene expression*, learning how the process of protein synthesis translates your DNA into the molecules that make up your body. You will then “zoom out” to look at how cells are arranged into tissues, how tissues are assembled to form organs and how organs are part of organ systems whose complex interrelationships maintain *homeostasis* – the stable internal state that enables you to survive despite change in the external environment.



### *Anatomy & Physiology 12 cont.*

Hands-on laboratory activities, **including dissections and independent inquiry projects**, are essential parts of A&P 12. Through your investigations you will develop *questioning and predicting* skills by applying your scientific knowledge to formulate hypotheses. You will learn to *plan and carry out* investigations safely using appropriate equipment and techniques. You will *process and analyze* data to draw conclusions consistent with observations. You will *evaluate and reflect* on investigations to consider the social, ethical, and environmental implications. Throughout the course you will develop your *communication skills* so that you can effectively share scientific findings as well as become a scientifically literate citizen.

## Environmental Science 11

### 4 credits Required Courses: Science 11 or 4 credits Elective Courses

Environmental Science 11 is a hands-on, place-based introduction to ecosystem science in which you spend time in our local watershed to engage with broad themes in ecology. This is a course where having taken Life Science 11 would be an asset, but not a requirement. The focus of the program will be examining:

- The Biosphere: The living and non-living parts that make up a living system and how it is classified.
- Energy transfer: Where does energy come from in an ecosystem and how does it move around.
- Ecosystems: A survey of their diversity and characteristics and the living things in them.
- Population growth: What does it look like and what does it mean for ecosystems.
- Change over time: How ecosystems change over time in natural and man-made ways.
- Pollution and biomagnification: A look at how this alters ecosystems.
- Conservation: What does it mean and why does it matter?
- Where we live: An examination of our local watershed and the way we interact with it.
- Finding the balance: Why the grey areas matter.
- Learning to operate drones for aerial surveys.

Throughout Environmental Science 11 you will use critical thinking, creative insight, and your current scientific knowledge, to collaborate with peers, to investigate nature, to solve problems, to communicate effectively, to innovate, to discover, and to increase your understanding of science through hands-on experiences. **Hands-on learning, including outdoor fieldwork, inquiry-based projects that you design in our local watershed and engaging and working with our community partners** are essential parts of Environmental Science 11.

*Environmental Science 11 will help prepare you for future courses and/or post-secondary study in biological sciences leading to careers in fish and wildlife biology, community planning, and related fields.*

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## Chemistry 11

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### 4 credits Required Courses – Science 11 OR 4 credits Elective Courses

**Recommend Prerequisite:** Foundations of Math and Pre-Calculus 10

Chemistry 11 is a thorough introduction to the study of matter which builds upon what you learned in Science 10. You will expand your knowledge of atomic theory to include the quantum model of the atom and will be able to predict atomic properties using the periodic table and explain how this affects their reactivity. You will understand how electrons of atoms interact to form various types of chemical bonds and even determines the physical properties of matter. You will learn how to use mass to count the number of particles in matter and apply this knowledge to mathematically predict and analyze the results of actual chemical reactions. You will investigate the unique properties of water as a medium for chemical interactions. You will explore the relationship between pressure, volume, and temperature of gasses. Finally, you will understand how the unique atomic properties of carbon allow it to form a vast array of different types of organic compounds.

Throughout Chemistry 11 you will use critical thinking, creative insight, and your current scientific knowledge, to collaborate with peers, to investigate nature, to solve problems, to communicate effectively, to innovate, to discover, and to increase your understanding of science through hands-on experiences. Laboratory activities are an essential part of Chemistry 11.

*Chemistry 11 will help prepare you for Chemistry 12 which is useful preparation for most science and engineering programs at the post-secondary level.*

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## Chemistry 12

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### 4 credits Elective Courses

**Recommend:** Pre-Calculus 11/12

**Prerequisite:** Successful completion of Chemistry 11

Chemistry 12 is a rigorous course focused on building a deep understanding of the fundamentals of chemistry for students pursuing a career in the sciences requiring post-secondary education in physical sciences, health sciences, engineering, or related fields.

Where in Science 10 and Chemistry 11 you investigated reactions that always ran through to completion, in Chemistry 12 you will explore reactions which can proceed in either direction and settle in a state of balance (equilibrium) and you will learn which factors affect when balance is achieved. You will apply your newfound understanding of equilibrium to better explain solubility and gain a deeper understanding of why acids and bases act as they do. Finally, you will explore electrochemistry (oxidation and reduction); that is, the science behind how batteries work.

Hands-on laboratory activities are an essential part of Chemistry 12. Through your labs you will develop *questioning and predicting skills* by applying your scientific knowledge. You will learn to *plan and carry out* experiments safely using appropriate investigation methods and equipment. You will *process and analyze data* using qualitative and quantitative (mathematical) techniques. You will *evaluate and reflect* on investigations to identify ways to improve. Throughout the course you will develop your *communication skills* so that you can effectively communicate scientific finds as well as become a scientifically literate citizen.

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## Physics 11

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### 4 credits Required Courses – Science 11 or 4 credits Elective Courses

**Strongly Recommend:** Foundations of Math and Pre-Calculus 10

Physics 11 is a thorough introduction to the study of the nature and properties of matter and energy with an emphasis on classical mechanics which builds upon what you learned in Science 10. You will expand your knowledge of kinematics and come to understand how an object's motion can be predicted, analyzed, and described. You will apply Newton's laws of motion to explore how forces influence the motion of objects and even how the law of conservation of momentum explains collisions and jet propulsion. You will broaden your understanding of energy in its many forms (including mechanical and thermal energy) and apply this knowledge to solve problems. You will also learn about waves and you will investigate some of the connections between physics & music and the principles behind how eyeglasses work. You may even explore parts of the wonderfully weird world of modern physics.

Throughout Physics 11 you will use critical thinking, creative insight, and your current scientific knowledge, to collaborate with peers, to investigate nature, to solve problems, to communicate effectively, to innovate, to discover, and to increase your understanding of science through hands-on experiences. Laboratory activities are an essential part of Physics 11.

*Physics 11 will help prepare you for Physics 12 which is useful preparation for most science, computer science, mathematics, and engineering programs at the post-secondary level.*

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## Physics 12

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### 4 credits Elective Courses

**Prerequisite:** Successful completion of Physics 11

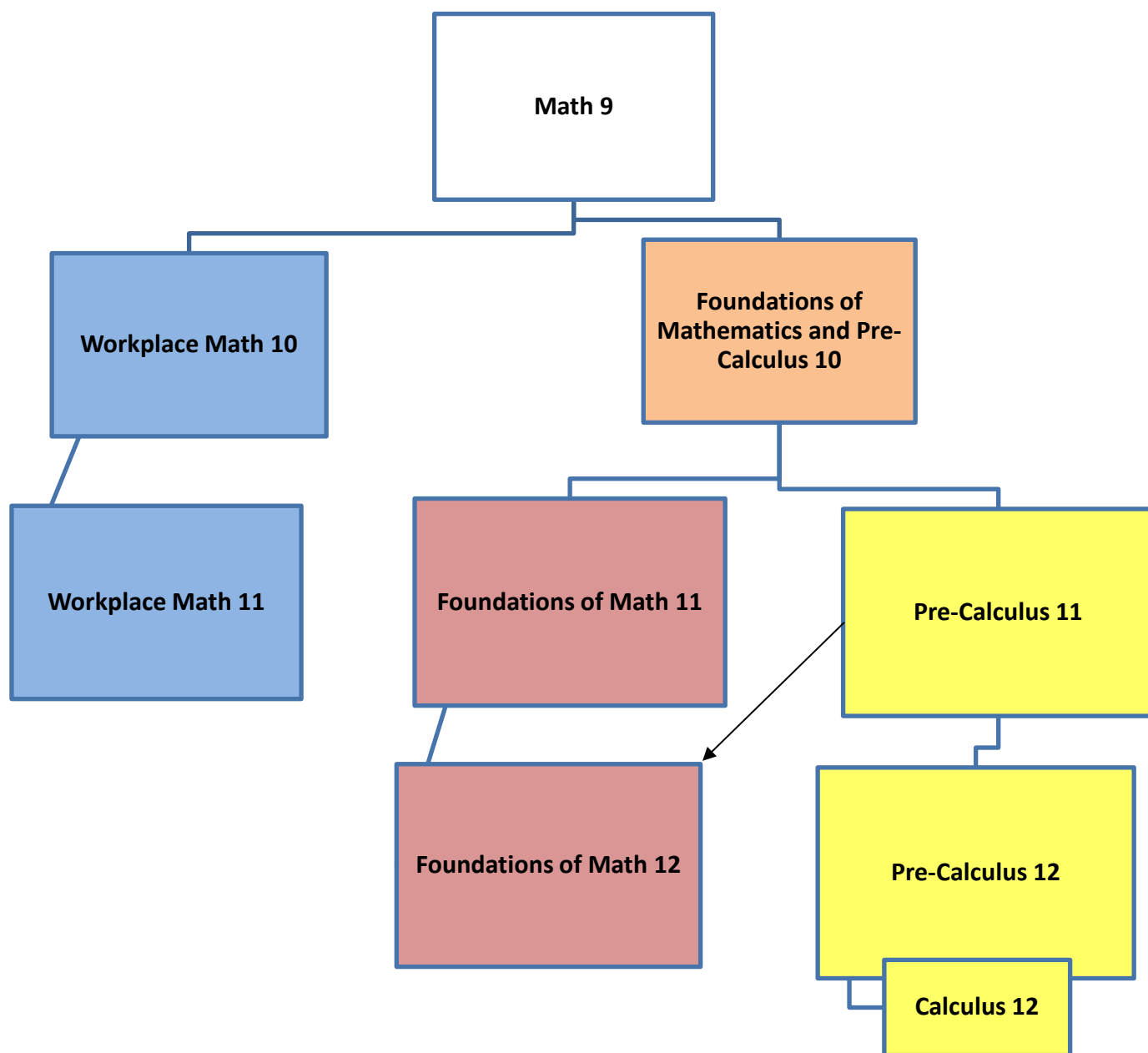
**Recommend:** Successful completion of Pre-Calculus 11

Physics 12 is a rigorous course focused on building a deep understanding of the fundamentals of physics for students pursuing a career in the sciences requiring post-secondary education in physical sciences, technology, engineering, mathematics, or related fields.

Where in Science 10 and Physics 11 you investigated forces and motion in one dimension, in Physics 12 you will explore classical mechanics in two dimensions including circular motion. You will extend your understanding of the fundamental forces of nature to include Newton's Law of universal gravitation and Coulomb's Law of electrostatics. By the end of Physics 12 you will be able to use Kirchoff's Laws to analyze complex circuits. Finally, you will come to understand the deep connection between electric and magnetic fields that are central to electricity generation and the workings of electric motors.

Hands-on laboratory activities and independent inquiry projects are essential parts of Physics 12. Through your investigations you will develop *questioning and predicting* skills by applying your scientific knowledge and estimation skills to new situations. You will learn to *plan and carry out* experiments safely using appropriate investigation methods and equipment. You will *process and analyze data* accurately and precisely using mathematics. You will *evaluate and reflect* on investigations to identify discrepancies between theoretical expectations and experimental results. Throughout the course you will develop your *communication skills* so that you can effectively share scientific findings as well as become a scientifically literate citizen.

# MATHEMATICS



## Workplace Mathematics 11

### 4 credits Required Courses – Mathematics 11

This pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for direct entry into the work force and some trades programs.

## Foundations of Mathematics 11

### 4 credits Required Courses – Mathematics 11

This pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in programs that do not require the study of calculus. Students must have credit for Foundations of Math and Pre-Calculus 10.

## Pre-Calculus 11

### 4 credits Required Courses – Mathematics 11

This pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for entry into post-secondary programs that require the study of calculus. Students must have credit for Foundations of Math and Pre-Calculus 10.



## Foundations of Mathematics 12

### 4 credits Elective Courses

**Pre-requisite:** Foundations of Mathematics 11  
**OR** Pre-Calculus 11

This course is designed to provide students with the mathematics understandings and critical-thinking skills identified for post-secondary studies in programs that do not require the study of calculus. Students will be required to have strong problem-solving skills. General topics include: financial reasoning, logical reasoning, probability, polynomials, logarithms and exponents, sinusoidal functions, and mathematics in the world.

## Pre-Calculus 12

### 4 credits Elective Courses

**Pre-requisite:** Pre-Calculus 11

Pre-Calculus 12 is a required course for many science and mathematical programs at the post-secondary level. This is an intense, high-level course intended for academic students who have successfully completed Pre-Calculus 11.

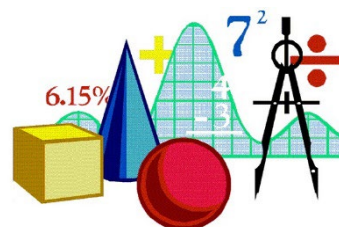
Topics covered in this course include trigonometry, relations and functions and logarithms and exponents.

## Calculus 12

### 4 credits Elective Courses

**Pre-requisite:** Pre-Calculus 12

The main focus of Calculus 12 is to provide exposure to this abstract form of mathematics. As a result, students will be prepared for success in a first year university calculus course. Students are expected to be committed to this course as it is intensive and fast-paced. The general topics covered include: pre-calculus, limits, derivatives, integrals and, time-permitting, introductory linear algebra (matrices).



# PHYSICAL & HEALTH EDUCATION COURSES

\*\*\* All students require PE strip daily, which includes running shoes, shorts or sweats and a t-shirt and appropriate outdoor clothing when required. \*\*\*

## Active Living 11

### 4 credits Elective Courses

This course is designed to promote learning, knowing, and understanding in the main areas of health and well-being, safety, fair play, and leadership. The following general concepts are the foundation of this course:

- How developing competencies in physical activities can increase confidence and encourage lifelong participation in those activities
- How safety and injury prevention facilitate lifelong participation and enjoyment of physical activities
- How finding recreational activities that are personally enjoyed and preferred can motivate an individual to participate more regularly in physical activity
- That physical activity is a vital and important part of overall health and well-being
- That volunteering and leading to advocate for others to participate in physical activities is an important way to connect with your community
- Potential consequences of personal health decisions
- Benefits of physical activities for health and mental well-being

## Fitness and Conditioning 11

### 4 credits Elective Courses

This course is designed to promote learning, understanding, and knowing in the main areas of healthy and active living, human anatomy and physiology, principles of training, and social responsibility. The foundation of this course can be summarized with the following concepts:

- Personal fitness can be maintained or enhanced by participating in various activities at different intensity levels
- Understanding of structural and functional anatomy of our bodies helps us plan to stay safe during exercise
- Understanding and following correct training guidelines is based on the physiology of our bodies and these techniques can help us reach our health and fitness goals
- Developing and applying skills through volunteering and leading within community and school physical activity groups is a great way to build connections with your community
- Understanding the relationship between making choices and how these choices help us to reach our health and fitness goals
- Understanding how to demonstrate various safe and appropriate leadership skills in a variety of fitness activities and environments



## Active Living 12

### 4 credits Elective Courses

This course is designed to facilitate learning, knowing, and understanding in these main areas: Health and well-being, Safety, Participation, and Leadership. The concepts that follow provide the framework for this course:

- Physical activities are an important part of overall health and well-being
- Finding enjoyable recreational activities can motivate an individual to participate more regularly in physical activities
- Observing safety and injury prevention practices allows for lifelong participation in physical activities
- Developing competencies and abilities in physical activities can increase confidence and encourage lifelong participation in those activities with healthy benefits
- Understanding and overcoming barriers to participation in various recreational and physical activities in a variety of environments
- Developing competencies and problem-solving strategies required for physical activity and recreational leadership
- Developing and applying skills while volunteering within physical activity programs in community and school organizations is an important way to build connections with your community

## Fitness and Conditioning 12

### 4 credits Elective Courses

This course is designed to promote and facilitate learning, knowing and understanding in the main ideas of healthy and active living, human anatomy and physiology, principles of training and social responsibility. The following concepts provide the foundation for this course:

- Personal fitness can be maintained or enhanced by participating in various activities at different intensity levels
- Applying our understanding of human structural and functional anatomy with designing safe fitness regimens
- Applying our understanding of correct training guidelines as related to how our bodies function is important when designing fitness activities for reaching our fitness goals
- Applying and enhancing our skills as volunteers and leaders while designing, coordination, and leading various fitness activities for others
- Strengthening, enhancing, and building connections with our community through volunteering and leading fitness and sport activity groups in our school or community
- Personal choices influence the health and fitness goals of ourselves, our peers, and those in group we mentor or are role models for
- Correct training or techniques can help us safely reach health and fitness goals

## Physical Education 11/12: Sport Studies

### 4 credits Elective Courses - BAA

Not your regular PE class!

For grade 11 or 12 student athletes that are motivated to strive for excellence in their chosen sport or sports. This is an advanced level study of sport performance. This course is designed for the student athlete or coach to pursue excellence in understanding and performance in their chosen sport. Topics of study will include human anatomy and physiology, exercise physiology, biomechanics and skill analysis, fitness components and training effects, seasonal planning, coaching theory, leadership, injury assessment, treatment, rehabilitation and prevention. Student athletes will be expected to strive for excellence in sport performance and leadership. The student will be required to coach or assist in their chosen sport within our community. A high level of fitness training will be involved.

This course is optimal for students who are interested in the following career options: physiotherapy, kinesiology, athletic therapy, sport and recreation coaching and teaching, to name a few.

## MODERN LANGUAGES

### French 11 French 12

#### 4 credits Elective Courses (per course)

**Prerequisite:** Successful completion of French 10 for French 11 & French 11 for French 12

In senior French classes students are encouraged to engage in oral and written communication, improving on the skills they already have. Communicating ideas rather than strict accuracy of the language is emphasized. We will explore French language and culture through: listening (movies and video clips), speaking (conversation, skits, presentations, etc.), writing (creative and opinions) and reading (magazines and literature).

### Langue et Culture de la Francophonie 11

#### 4 credits Elective Courses

**Prerequisite:** Français Langue 8, 9 & 10

The language of instruction is French and all conversations are in French. Students continue to improve their vocabulary and knowledge of French language and culture through various authentic material, mainly, from France and Québec, but also from Haiti and Africa. Assessment is done on listening (movies and video clips), speaking (conversation, skits, presentations, etc.), writing (creative and opinions) and reading (magazines and literature). This course meets grade 11 academic course requirements for certain universities. Students can also earn credits for Communication Orale 11 when choosing different modes of evaluation.

### Français Langue 12

#### 4 credits Elective Courses (per course)

**Prerequisite:** Français Langue 8, 9, 10 & 11

The language of instruction is French and all conversations are in French. Students continue to improve their vocabulary and knowledge of French language and culture through various authentic material, mainly, from France and Québec. Assessment is done on listening (movies and video clips), speaking (conversation, skits, presentations, etc.), writing (creative and opinions) and reading (magazines and literature). This course meets a grade 11 academic course requirements for certain universities.

### Introductory Japanese 11

#### 4 credits Elective Courses

Introductory Japanese is a provincially prescribed curriculum that serves as a pre-requisite for Japanese 11 for students who may not have taken Japanese 5 to 10. It will introduce students to the fascinating language and culture of Japan. The linguistic component of the course will focus on the five skills of language acquisition – speaking, listening, reading, writing, and interpreting. The cultural components will include some of the many unique customs, hobbies, foods, arts, etc. which has been at the root of the island people's background for countless generations. Students will find this course as a beginning point of a life-long love and pursuit which will instil great satisfaction, as well as providing to be an important tool of communication in the Pacific-Rim.

The successful completion of Introductory Japanese 11 should provide students with a level of competence that will allow them to participate successfully in Japanese 11 and 12 courses (credit courses that will give you the second language credits required by some universities).

### Japanese 11

#### 4 credits Elective Courses

**Prerequisite:** Introductory Japanese 11

This course is a senior level course for Japanese students. The successful completion of Japanese 11 will satisfy the second language entrance requirement for BC universities.

Students will continue to learn to read and write hiragana and katakana and some basic kanji. Students will also learn more complex grammatical structures than the beginner course. Students will also continue to study the various cultural components of Japan including holidays and the geography of Japan.



## Introductory Spanish 11

Open to students in grades 10 – 12.

### 4 credits Elective Courses

In Introductory Spanish 11, students will develop a desire to learn about Spanish speaking cultures and become more aware of the influence and contribution of Spanish language and culture in North America. This course can prepare students for travel to Spanish speaking countries by increasing their understanding of the language through participation in conversations, and the study of vocabulary, grammar, stories and other written material.

Successful completion of Introductory Spanish 11 will provide students with a level of competence that will allow them to participate successfully in a Spanish 11 course.

## Spanish 11

### 4 credits Elective Courses

This class is a continuation of Introduction to Spanish 11. It covers many aspects of Spanish language and culture through the use of formal lectures, working with dialogues and the use of the text. Past and future tenses are introduced. A bilingual dictionary is used extensively.

This credit course gives you the grade 11 second language credit required by some universities.

## Spanish 12

### 4 credits Elective Courses

This class is offered to students wanting to deepen their abilities. Emphasis will be on producing texts in writing and speaking, as well as reading authentic texts. Exploring different cultural items, and expressing feelings and opinions will allow for increased language proficiency and acquisition.



# APPLIED DESIGN, SKILLS & TECHNOLOGIES COURSES

## HOME ECONOMICS

### Food Studies 11

#### 4 credits Elective Courses or 4 credits ADST

Students will acquire knowledge of the principles of nutrition, food safety, sanitation, global food issues, and food preparation through practical labs and theory. This course guides students towards becoming self-sufficient in the area of home food preparation.

### Food Studies 12

#### 4 credits Elective Courses or 4 credits ADST

Accompanying the goals laid out in Food Studies 11, students will learn about food resources in relation to global supply, government policies, and local food production.

## ELECTRONICS AND ROBOTICS

### Electronics and Robotics 10

Open to students in grades 10 – 12.

#### 4 credits Elective Courses or 4 credits Applied Skills

Electronics & Robotics 10 is an introductory course into robotics focusing on programming and building robots. This course will be useful for students interested in pursuing studies in the fields of science, engineering and robotics. This is a hands-on course that will require you to design, build and test robots. Throughout the course you will learn basic programming techniques and apply those techniques to program the robots. You will learn how to integrate the robotic sensors and motors into both the program and the actual design of the robot.

Teamwork is essential in this course as you will be part of a team. As such you will learn to work effectively in a team environment and how to communicate with each other as well as your project supervisor.



## TECHNOLOGY EDUCATION

The objective or aim of the Tech Ed. Department is to develop interests and talents that you have, or will discover you have. All of the courses will challenge you and will provide you with a knowledge that will be useful in making a choice in your life regarding your occupation or hobbies. Tech Ed. is for everyone. No matter what your goals are in life, the courses you take will allow you to keep your options open in a changing world. Take a course or two. You'll enjoy them!

### Automotive Technology 11

#### 4 credits Elective Courses or 4 credits ADST

This course is open to anyone in Grade 11 or 12.

Automotive Technology 11 provides the student with a basic understanding of auto construction and operation. Subject areas include basic electrical, engine and transmission operation, and cooling and lubrication systems. Special emphasis is placed on preventative maintenance and servicing, plus use of the related servicing and testing equipment. Time spent will be approximately 75% practical and 25% theory.

Students are encouraged to do routine and seasonal maintenance on their own (or family) vehicles.

### Automotive Technology 12

#### 4 credits Elective Courses or 4 credits ADST

Advanced Auto Mechanics is a continuation of Automotive Technology 11 and will focus on a more in-depth look at specific car systems. Projects may include teardowns and rebuilds of major automotive components and will depend on availability of vehicles. Students are encouraged to use research manuals and technical documents as they work on their own and others' vehicles. Students are encouraged to find a major project to work on.

Time will be divided approximately 75% practical and 25% theory.

### Engine & Drive Train 12

#### 4 credits Elective Courses or 4 credits ADST

This course is an extension of Auto. Technology 11 & 12.

Advanced Automotive Mechanics continues to focus on advanced automotive engine and drive train repair.

Students are encouraged to find major projects to work on for the duration of the course. Time will be divided approximately 25% theory and 75% practical.

### Metalwork 11

#### 4 credits Elective Courses or 4 credits ADST

This course will provide a challenge for students with various levels of experience in metalwork.

##### Course Content:

- Systematic planning and procedures and, above all, safe work habits.
- Skills and knowledge in the use of the lathe, milling machines, drill press and band saw.
- Fundamental skills of the oxy-acetylene torch heat treatment and arc welding.
- Care and maintenance of equipment.

Metalwork 11 is a project and lab-oriented course. Some projects are assigned by the instructor; others are designed by the student. Satisfactory project completion is essential.

### Metalwork 12

#### 4 credits Elective Courses or 4 credits ADST

This is a continuation of Metalwork 11 and is offered for those who wish to pursue metals on an advanced basis.



### Woodwork 11

#### 4 credits Elective Courses or 4 credits ADST

##### **Pre-requisite - Woodwork 9**

This course will provide a challenge for students with various levels of woodwork experience. Students will be required to construct one or more projects of their choice and must cover the cost of the materials needed.

##### Course Content:

- The designing, planning and construction of wood products of a high standard of craftsmanship
- Performing in a safe and orderly way with a wide variety of specialty machine operations
- The use of other materials as used in industry such as laminates
- The use of various methods of wood surface protection and finishing
- The care and maintenance of equipment

**Project completion is essential to receive credit for this course.**

### Woodwork 12

#### 4 credits Elective Courses or 4 credits ADST

##### Course Content:

- Advanced uses of tools, specialty set-ups and procedures, and safety
- The course allows students to design, plan, and construct a project of his or her own. The project must be of sufficient complexity to be a reflection of the student's mastery of the skills required (for example: china cabinet, furniture, etc.)

**Students are responsible for material costs and project completion is essential to receive credit for this course.**

## Furniture & Cabinetry 12

**4 credits Elective Courses or 4 credits ADST**

**Pre-requisite – Woodwork 12**

### Course Content:

- Advanced furniture construction



## Youth Explore Trade Skills: Mini-home Construction 11 - 12

**4 credits Elective Courses or 4 credits ADST**

**Pre-requisite - Woodwork 9 or 10**

This course focuses on construction and building from framing to finishing. Students will learn about foundations, framing, roofing, siding, wiring, plumbing, staircasing, and more. As a class we will build a “mini-home”.

The course is available for students in Grades 11-12.

## YEARBOOK

### Applied Design, Skills & Technologies: Graphic Production: Yearbook 11

**4 credits Elective Courses or 4 credits ADST**

This course is linear and runs all year so includes a study block on the “off” days. Consequently, students must be in good standing before they are accepted into the course. Students interested in this course **MUST** have a strong work ethic.

This course is designed for mature, reliable students who have a strong work ethic and are dedicated to documenting the entire year. Students will learn the basics of photography, graphic design, layout, and composition. Deadlines must be met, and students enrolled **MUST** be able to work as a team. Students will be required to photograph events, games, team pictures, advertise for the yearbook and canvas for ads. Student **MUST** enjoy working on computers.

Students will use the following programs:

- \* Adobe Photoshop
- \* Adobe InDesign
- \* Online software



### Applied Design, Skills & Technologies: Graphic Production: Yearbook 12

**4 credits Elective Courses or 4 credits ADST**

This course is linear and runs all year so includes a study block on the “off” days. Consequently, students must be in good standing before they are accepted into the courses. Students interested in this course **MUST** have a strong work ethic.

This course is designed for mature, reliable students who have a strong work ethic and are dedicated to documenting the entire year. Students will learn the basics of photography, graphic design, layout, and composition. Deadlines must be met and students enrolled **MUST** be able to work as a team. Students will be required to photograph events, games, team pictures, advertise for the yearbook and canvas for ads. Students **MUST** enjoy working on computers. Yearbook 12 students are expected to have leadership and organizational skills and be able to work in a team environment.

Students will use the following programs:

- \* Adobe Photoshop
- \* Adobe InDesign
- \* Online software

## ARTS EDUCATION COURSES

### MUSIC

#### Concert Band 11 Concert Band 12

**4 Credits Elective Courses or 4 Credits Arts Education**

**Concerts and performances outside of class time are an integral part of this course, and band members are expected to be involved.**

Senior Concert Band will allow students the opportunity to explore and communicate their identity through music, while gaining insight into perspectives and experiences of people from a variety of times, places and cultures. We will utilize a collaborative musical experience to build community, teamwork, and nurture relationships with others. In this course, students will:

- Perform collaboratively in a large ensemble, while developing an understanding of personal, social,

cultural, historical, and environmental contexts through a variety of musical experiences.

- Develop, refine, document, and critically appraise ideas, processes, and technical skills to improve your quality of musicianship.
- Reflect on musical performance to make connections to personal learning and experiences.
- Build musical literacy skills such as metre, rhythm, pitch, intonation, dynamics, and blend as they pertain to your concert band instrument in a large ensemble setting.



**Jazz Band 11**  
**Jazz Band 12**

**4 Credits Elective Courses or 4 Credits Arts Education**

This course meets outside the timetable. A placement audition is required with Mr. Larden. You must have prior experience on either trumpet, trombone, saxophone, clarinet, drum-kit, guitar, bass, or piano. Guitarists will require elementary theory knowledge.

Jazz Band is a highly specialized instrumental organization that meets outside regular school hours. The skills and knowledge gained in the Concert Band course are imperative for success in Jazz band. Students learn the techniques of swing, funk, bebop, rock, soul, and other genres. The course will cover the principals of improvisation and entry level Jazz theory. Since this course meets outside the timetable, attendance at all rehearsals is a required part of the course.



**DRAMA**

**Drama 11**  
**Drama 12**

**4 credits Elective Courses or 4 credits Arts Education (each)**

This is a process-focused and heavily collaborative course in which students will actively develop their performance and technical theatre skills, as well as broaden their knowledge of the discipline of theatre. Students will be exposed to a variety of theatrical genres and techniques before choosing one particular aspect of theatre to explore more deeply. That said, the exact content of this course depends on the interests, experience levels, and needs of the students. Although this class is primarily for experienced performers and techies, it is open to anyone who wants to participate in making theatre on an advanced level. Students who have experience in construction, design, marketing, leadership, sound engineering, music, and/or playwriting are therefore encouraged to take this course alongside students focused on acting.

All students in Drama 11-12 will:

- Take on increased amounts of responsibility as performers, creators, designers, and collaborators
- Express their personal voices and interests through dramatic works
- Make careful and deliberate artistic choices
- Enhance their expertise in a chosen aspect of Drama
- Learn about post-secondary and career opportunities in theatre and film
- Rehearse, contribute to, and participate in a final project with the goal of a public performance for the larger NVSS community



## VISUAL ARTS

*"Art does not reproduce what we see. Rather, it makes us see." Paul Klee*

It may be drawing, painting, or sculpture that our Arts Program provides; or it may also be such things as film, animation, graphic design, or photography, that our Media Arts program offers. Media Arts is about understanding computer and information technologies and developing technical skills for use in visual communication. Visual Arts is about creating compelling visual images, conveying messages and telling stories through imagery. Through these productions students are honing such valuable life skills as problem solving, creativity, teamwork, time management, professionalism, vision, planning and organization.

### Art Studio 11

**4 credits Elective Courses or 4 credits Arts Education**

#### The exploration of the principles of design

In this course through a variety of mediums and techniques, the student will create personal meaningful artistic works that demonstrate an appreciation for, personal, social, and cultural, environmental, and historical context.

The grade 11 art curriculum focusses primarily on the four basic genres of art. They will create artwork using the principles of art through drawing, painting, printmaking, and sculpture. The students will produce and analyze finished works of art, which demonstrate a knowledge, and understanding of the techniques and mediums learned. All students will participate collaborate, critique and submit as well as participate in the year-end art show.

### Art Studio 12

**4 credits elected Studies or 4 credits Arts Education**

#### Image development strategies

In this course through a variety of mediums and techniques, the student will create personal meaningful artistic works that demonstrate an appreciation for, personal, social, and cultural, environmental, and historical context.

The grade 12 art curriculum focusses primarily on the four basic genres of art. Students will create artwork using the principles of art through drawing, painting, printmaking, and sculpture. Students will focus on specific advanced visual techniques, and will produce finished works of art, which demonstrate a knowledge, and understanding of those techniques and mediums. All students will collaborate, critique, submit and participate in the year-end art show.

### Art Studio 12-X

**4 credits elected Studies or 4 credits Arts Education**

#### Portfolio building (independent study)

In this course through a variety of mediums and techniques, the student will create personal meaningful artistic works that demonstrate an appreciation for, personal, social, and cultural, environmental, and historical context.

The student will create artistic works individually and collaboratively using imagination. They will demonstrate creative thinking and innovation by using ideas inspired by exploration.

In this course, the student will build and develop a digital portfolio of their journey in art. The portfolio will include drawings, paintings, sculpture and printmaking, as well as a variety of written self-critiques of ideas.

### 3D Studio Arts 11

### 3D Studio Arts 12

**4 credits elected Studies or 4 credits Arts Education**

3D Studio Arts provides students with a foundation in 3D media, techniques and methods to utilize a variety of materials, processes, and innovations to explore and expand on the element of form. In this course, students will add to the skills and knowledge required to be expressive, creative, thoughtful and authentic through their sculpture. Students will examine and make connections to the personal, social, cultural, and environmental influences in their sculptures for individual and public audiences and through exhibitions. Sculpture includes a variety of class activities, individualized projects, and group collaborative works that build on and expand personal and collective expression and creativity.

## MEDIA ARTS

### Media Arts 11

#### 4 credits Elective Courses or 4 credits Arts Education

It is strongly recommended that students have taken Media Arts 9 before taking this course.

Students can receive credit in this course multiple times by choosing different modules each time.

This course is a modular course where students will choose a module that they wish to study for the year based on their interests. Possible modules include:

- 3D Modelling
- 3D Fabrication
- Video Game Design
- Video Game Coding
- Video Production
- Visual Effects
- Stop-Motion Filmmaking
- Digital Painting
- Graphic Design
- Photography

Students will expand on the skills learnt in Fundamentals of Media Arts and will focus their learning into their chosen module. Students will also participate in small classwide learning days where the entire class learns about and practices various skills/styles of digital media production.

Students will use a variety of programs within their chosen modules, including Adobe Photoshop, Illustrator, Premiere Pro, and Blender.

Students MUST have a strong work ethic as modular work requires a lot of self-directed learning and troubleshooting. Students will need to keep themselves motivated and meet assignment/project deadlines as they work on their individually chosen modules. Students MUST enjoy working with computer and web-based applications.

### Media Arts 12

#### 4 credits Elective Courses or 4 credits Arts Education

It is strongly recommended that students have taken Media Arts 9 before taking this course.

Students can receive credit in this course multiple times by choosing different modules each time.

This course is a modular course where students will choose a module that they wish to study for the year based on their interests. Possible modules include:

- 3D Modelling
- 3D Fabrication
- Video Game Design
- Video Game Coding
- Video Production
- Visual Effects
- Stop-Motion Filmmaking
- Digital Painting
- Graphic Design
- Photography

Students will expand on the skills learnt in Fundamentals of Media Arts and will focus their learning into their chosen module. Students will also participate in small classwide learning days where the entire class learns about and practices various skills/styles of digital media production.

Students will use a variety of programs within their chosen modules, including Adobe Photoshop, Illustrator, Premiere Pro, and Blender.

Students MUST have a strong work ethic as modular work requires a lot of self-directed learning and troubleshooting. Students will need to keep themselves motivated and meet assignment/project deadlines as they work on their individually chosen modules. Students MUST enjoy working with computer and web-based applications.



## OTHER INTERESTS

### AVIATION

#### Introduction to Aviation 11

##### 4 credits Elective Courses - BAA

In partnership with the Vanderhoof Flying Club, this Introduction to Aviation course meets the required ground school portion of the private pilot license training and prepares the student for the Transport Canada written exam. The course is designed around the Transport Canada guidelines for ground school, is recognized internationally, and covers necessary flight theory, aircraft systems, and air law while teaching the important navigational, meteorological, and decision-making skills necessary to earn a private and then commercial pilot license.

This course includes flying the advanced Red Bird full motion flight simulator, an introduction to the general flight procedures and air exercises as well as an optional flight to nearby communities.

### COMPUTER SCIENCE & TECHNOLOGY

#### Computer Science 11

##### 4 credits Elective Courses or 4 credits Math

Computer Science 11 is an academic course focused on developing computer programming skills for a variety of purposes. C.S. 11 is an excellent course for students considering a career in information technology or post-secondary education in computer science, science, engineering, technology, or mathematics.

This is a hands-on course based on learning by doing. You will become comfortable with the *Python programming language*. You will learn basic data types, ways to control the flow of programs, and you will be introduced to a variety of useful data structures such as lists all of which you will use to implement *algorithms*. You will also learn some of the *mathematics* behind computer science. The focus will be on logic which you will need to control your programs. You will learn to make your logical statements as simple as possible so that your programs run efficiently. Finally, you will *apply* your skills to solve a variety of real-world problems. You will have the computer perform

financial analyses, perform statistics on data, and maybe even do some of your math homework for you. Convincing your math teacher that this is acceptable will be left to you!

While C.S. 11 is considered a mathematics credit by the Ministry of Education, students looking to pursue further studies in computing sciences, science, technology, engineering or mathematics are strongly encouraged to also take Pre-Calculus 11 & 12.



### ENTREPRENEURSHIP

#### Entrepreneurship 12 – The Young Entrepreneur Leadership Launchpad (YELL)

##### 4 credits Elective Courses or a Dual Credit course or 4 credits ADST

**SFU:** Students who complete this course with a B+ or higher receive a 1<sup>st</sup> year credit at SFU.

**UNBC:** B or higher receive a 100 level Commerce Course Credit

**Also, all students compete to win a \$2000 scholarship from UNBC during our regional event.**

**No Pre-Requisites. Open to Grade 10, 11 & 12 students. Semester 1 only.**

YELL Canada's Entrepreneurship 12 is a BC Ministry of Education approved high school entrepreneurship course. Students will focus on business concepts, learn from speakers,

develop their own ideas and learn how to put their ideas into action. Although the course is called Entrepreneurship 12, the students learn about more than just building a business – it is about developing a growth mindset.

In this fast-changing world, regardless of the career path a student chooses, you want to develop a mindset that can problem solve when you get stuck, develop your curiosity on how you can impact the world and teach you how to present your point of view or ideas in an engaging way. A growth mindset is an entrepreneurial mindset.

The top 3 things our past students have gained from taking this course are:

1. Improved self-confidence
2. Stronger problem-solving skills
3. The ability to work successfully & collaboratively in teams.

## PSYCHOLOGY

### Psychology 11

#### 4 credits Elective Courses - BAA

Psychology 11 is an introductory course which focuses on exploring self-identity, considers psychological factors in health, and introduces disorders and therapies. Methods of learning will include teacher-directed lessons and lectures, group work, and assignment work. Material will come primarily from the course text, with supplementary videos, case studies, and magazine articles.



### Psychology 12

#### 4 credits Elective Courses - BAA

Psychology 12 focuses on biological aspects of psychology such as brain structure, the endocrine system, and the role of genetics. Another focus is on developmental psychology which examines how people change over the course of the lifespan. We also look at sensation and perception and how these aspects of psychology can differ amongst individuals. Psychological Disorders and therapies are also taught (these units will be review for those who have taken Psychology 11). Methods of learning will include teacher-directed lessons and lectures, group work, and assignment work. Students will also be expected to conduct primary research as a project for this course. Material will come primarily from the course text, with supplementary videos, case studies, and magazine articles.

## TUTORING

### Tutoring 11

#### 4 credits Elective Courses - BAA

**You must apply to become a tutor at NVSS. Successful applicants must meet the following criteria:**

1. Good attendance record; infrequent lates
2. Successful completion of all courses in the previous semester
3. Willingness to work in and outside of class time
4. The confidence to demonstrate leadership skills
5. A basic understanding of the subject in which you wish to tutor
6. A track record of good behaviour.

**Note: This is a participatory course; therefore, attendance and promptness are mandatory. Tutors are required to be excellent role models.**

### Tutoring 12

#### 4 credits Elective Courses - BAA

Tutoring 12 is an advanced course in specialized tutoring. It is designed to augment tutorial skills especially in the areas of communicating, organizing, and establishing interpersonal relationships.

#### Objectives:

The specialized tutors will:

- Participate in training
- Complete assignments as requested by supervising teacher.
- Assist the teacher in developing materials.
- Work with the supervising teacher as requested.
- Show initiative and creativity when preparing materials to instruct students.
- Practice excellent communication skills, including the confidentiality aspect.

**Note: This is a participatory course; therefore, attendance and promptness are mandatory. Tutors are required to be excellent role models.**

## INDEPENDENT DIRECTED STUDIES

Independent Directed Studies (IDS) allow students (under the supervision of a teacher) to initiate, develop and create their own areas of learning. In an IDS program, students pursue learning outcomes, including or beyond those normally taught in the classroom, for 1, 2, 3 or 4 credits. One credit is earned for approximately 30 hours of study. IDS is intended to allow students to pursue curriculum in more detail OR focus on one or more of the learning outcomes in a course that has not been taken. IDS programs must be based on the learning outcomes of Ministry-developed or Board/Authority Authorized grade 10, 11 or 12 courses.

IDS courses can only count toward the 28 elective credits needed to meet graduation requirements. IDS courses at the Grade 12 level can be used to satisfy the minimum number of Grade 12 level credits needed to meet graduation requirements.

The possibilities are endless! Examples of IDS may include:

- IDS History 12 for an in-depth study of World War I
- IDS Visual Arts Media – Animation
- IDS Visual Arts Media – Video Production
- IDS Photography
- IDS Art Foundations – Portfolio Development

**IDS Process – to participate in IDS, students must see Ms. Vahi for more information.**



## Special Projects – SD # 91 (Nechako Lakes)

The following is a brief explanation of some of the “Special Projects” that run annually in SD91. NVSS students are eligible to apply to these projects. While these are not 4 credit courses, they do provide students with Work Experience hours. Students must complete Work Experience hours to graduate.

**Project Agriculture (PAG)—** Project Agriculture is a careers program designed to introduce students to the world of agriculture. There is opportunity for students to spend a day at the farm. This might include operating farm equipment, feeding animals, touring the auction mart etc. PAG is normally scheduled for the third week of September.

**Project Natural Resource Management—** Discovering careers in Natural Resource Management will give you an opportunity to step out to the classroom and spend two days in the field learning about many of the careers involved in managing British Columbia’s natural resources. Workshops may include Wilderness Safety, Bear Aware, Timber Cruising, Fire Suppression, Block Layout, Harvesting, Silviculture, Soils & Plants, Road & Bridge Layout, and Forest Health

**Project Health—** This program is in partnership with St. John’s Hospital and UNBC. The project is designed for students wanting to go into the Health Science sector. Students applying for this program must be enrolled in science courses (Grade 10 Science is the minimum requirement).

**Project Forest Management (PFM)—** This Work Experience Program is designed to introduce Grade 10-12 students to job opportunities related to the forestry sector. This may be done through seminars related to safety, bear aware, job opportunities etc. Students may be touring forests and mills, and there may be a hands on component where students learn to layout blocks, GPS layout, map blocks, measure trees, and silviculture work (planting, spacing, weeding, brush cutting etc.).

**Project Heavy Duty—** This program is designed to introduce students to heavy duty equipment operation. There will be seminars, tours, as well as hands on application. Seminar topics may include safety, WCB, trades training, and student expectations. Tours might be of local industries and businesses that operate these types of machinery. Students are then taught to operate machinery such as loaders, trucks, excavators, feller-bunchers, butt-n-tops, skid steer loaders, skidders, cats, etc.

**Project Fire Fighter—** This program is meant for students who have participated in FFT12. The students will be introduced to live fire scenarios at the regional fire training center.

**Canfor Connect—** This project is in partnership with CANFOR and COFI. This program is intended to introduce job opportunities to NVSS students, especially those wishing to attend post-secondary institutions. Canfor offers students the opportunity to work weekend clean up to save towards their future education. There will be a presentation, tour, and a question and answer period for students.



Name: \_\_\_\_\_

## Course Planning Sheet for Students Entering Grade 11 & 12

Fill out this table to ensure that you will meet minimum graduation requirements.  
See Ms. Vahi if you have any questions.

Required Courses	Passed	Take in Grade 11	Take in Grade 12
English Language Arts 10			
English Language Arts11			
English Language Arts12			
Social Studies 10			
A Social Studies 11 or 12			
Science 10			
A Science 11 or 12: Indicate Choice:			
Mathematics 10			
Mathematics 11 – Indicate choice:			
Physical & Health Education 10			
Arts Education or ADST 10, 11, or 12 - indicate choice:			
Career Life Education 10			
Grade 12 level course – indicate choice:			
Grade 12 level course – indicate choice			
Grade 12 level course – indicate choice			
Grade 10, 11 or 12 course – indicate choice			
Grade 10, 11 or 12 course – indicate choice			
Grade 10, 11 or 12 course – indicate choice			
Grade 10, 11 or 12 course – indicate choice			
Career Life Connections / Capstone Project			
Career Life Connections: 30 hours work experience or community service			
<b>**NEW**</b> Indigenous-Focused Graduation Requirement			

**Completion of the courses above will ensure that MINIMUM requirements  
are met for Graduation.**

**Ensure that you select alternates that will meet your needs.**

**Often students have to take an alternate course due to scheduling conflicts.**

**CAREFULLY consider alternate options. If you don't sign up for what you will need,  
there likely will not be space available for you.**

**Students should meet with counselors to ensure that additional courses needed  
for future plans are selected.**

# NVSS Grade 11-12 Course List

2024-25

\*Write your 2024-25 course choices on the back of this page & have your parent/guardian sign in agreement to your choices.\*

GRADE 10 REQUIRED COURSES (If you have any to be repeated)	
English First Peoples 10	Career Life Education 10
Science 10	Social Studies 10
Workplace Math 10	Physical & Health Ed. 10
OR	
Foundations of Math & Pre-calculus 10	

GRADE 11 CONSTANTS (Plus at least one Gr 11 or 12 Science AND at least one Gr 11 or 12 Humanities)	
English Language Arts 11	Workplace Math 11
	OR
	Foundations of Mathematics 11
	OR
	Pre-Calculus 11

GRADE 12 CONSTANTS Choose one of the following:
English First Peoples 12

GRADE 12 MATHEMATICS
Pre-Calculus 12
Calculus 12
Foundations of Mathematics 12

GRADE 11 & 12 SCIENCES (Minimum 1 grade 11 level)	
Life Sciences 11	Anatomy & Physiology 12
Chemistry 11	Chemistry 12
Physics 11	Physics 12
Environmental Science 11	

GRADE 11 & 12 HUMANITIES (Minimum 1 grade 11 level)	
BC First Peoples 12	
Comparative Cultures 12	Philosophy 12
Law Studies 12	Twentieth Century History 12

INTERNATIONAL LANGUAGES	
French 11	Langue et Culture de la Francophonie 11
French 12	Francais Langue 12
Intro. Japanese 11	Intro. Spanish 11
Japanese 11	Spanish 11
	Spanish 12

ARTS EDUCATION ELECTIVES	
Art Studio 11	Art Studio 12
3D Studio Arts 11	3D Studio Arts 12
Art Studio 12-X	Drama 12
Drama 11	Media Arts 12
Media Arts 11	Photography 12
Photography 11	Concert Band 12
Concert Band 11	
Jazz Band 11	Jazz Band 12

APPLIED DESIGN, SKILLS & TECHNOLOGIES ELECTIVES	
Food Studies 11	Food Studies 12
Automotive Technology 11	Automotive Technology 12
Engine & Drive Train 12	Electronics and Robotics 10
Metalwork 11	Metalwork 12
Woodwork 11	Woodwork 12
Furniture & Cabinetry 12	Intro to Aviation 11
<i>There is an approval process for certain courses. If you select any of the following courses, you MUST indicate an alternative choice as well.</i>	
Mini-home Construction 11	Mini-home Construction 12
Graphic Production: Yearbook 11	Graphic Production: Yearbook 12

PHYSICAL EDUCATION COURSES	
Active Living 11	Active Living 12
Fitness & Conditioning 11	Fitness & Conditioning 12
PE 11 – Sport Studies	PE 12 – Sport Studies

OTHER INTERESTS	
Psychology 11	Psychology 12
Computer Science 11	Entrepreneurship 12
<i>There is an approval process for certain courses. If you select any of the following courses, you MUST indicate an alternative choice as well.</i>	
Tutoring 11	Tutoring 12
Independent Directed Studies 12	

CAREERS PROGRAMS	
<i>If you wish to apply for any of the following Careers Programs, you MUST first discuss the program requirements and application with our Careers Coordinator.</i>	
Work Experience 12A & B	Junior Initial Attack
Youth Work in Trades	Essentials of Firefighting: Firefighting 12
Youth Explore Trade Skills/CTC Dual-Credit Programs	

All course descriptions may be viewed on the school website at:

[www.nvss.sd91.bc.ca](http://www.nvss.sd91.bc.ca)

If you do not have internet access, you can request a copy of the book at the office.

Student Name: \_\_\_\_\_

## **NVSS Grade 11 Course Selection**

**2024-25**

### 8 REQUIRED COURSES:

*Fill in the blank spaces with responses that best fit your needs. See important notes below.*

1. English: Language Arts: \_\_\_\_\_ (grade level) 2. Math Choice: \_\_\_\_\_

3. Social Studies Choice: \_\_\_\_\_ *Socials Studies Alternate:* \_\_\_\_\_

4. Science Choice: \_\_\_\_\_ *Science Alternate:* \_\_\_\_\_

5. Elective Choice #1: \_\_\_\_\_ 6. Elective Choice #2: \_\_\_\_\_

7. Elective Choice #3: \_\_\_\_\_ 8. Elective Choice #4: \_\_\_\_\_

### 2 ALTERNATIVE CHOICES:

Mandatory for ALL students.

1. If I can't get \_\_\_\_\_, I wish to take \_\_\_\_\_

2. If I can't get \_\_\_\_\_, I wish to take \_\_\_\_\_

**Will you be applying for any Careers Programs? Please circle your response:**

YES

NO

If yes, which one(s)? \_\_\_\_\_

**\*\*** Please remember that you must discuss Career Program requirements and application with our Careers Coordinator.

**Parent/Guardian Signature:** \_\_\_\_\_

### **IMPORTANT NOTES:**

French, Japanese or Spanish to the grade 11 level is required if students are considering going on to university.

ALL students must commit to their course selections.

Class size and elective offerings are determined by student's original selection of courses.

Students are strongly encouraged to select their courses with consideration to their future plans and interests. Students will NOT be permitted to make changes to their course requests unless one of the following conditions applies:

- ♦ To meet graduation requirements
- ♦ To meet Career Prep program requirements
- ♦ To complete core course requirements
- ♦ To balance academic course load

**ALL COURSE SELECTION SHEETS MUST BE COMPLETED, SIGNED BY YOUR PARENT/GUARDIAN, AND RETURNED TO THE OFFICE BEFORE**

**TUESDAY, MARCH 12, 2024**