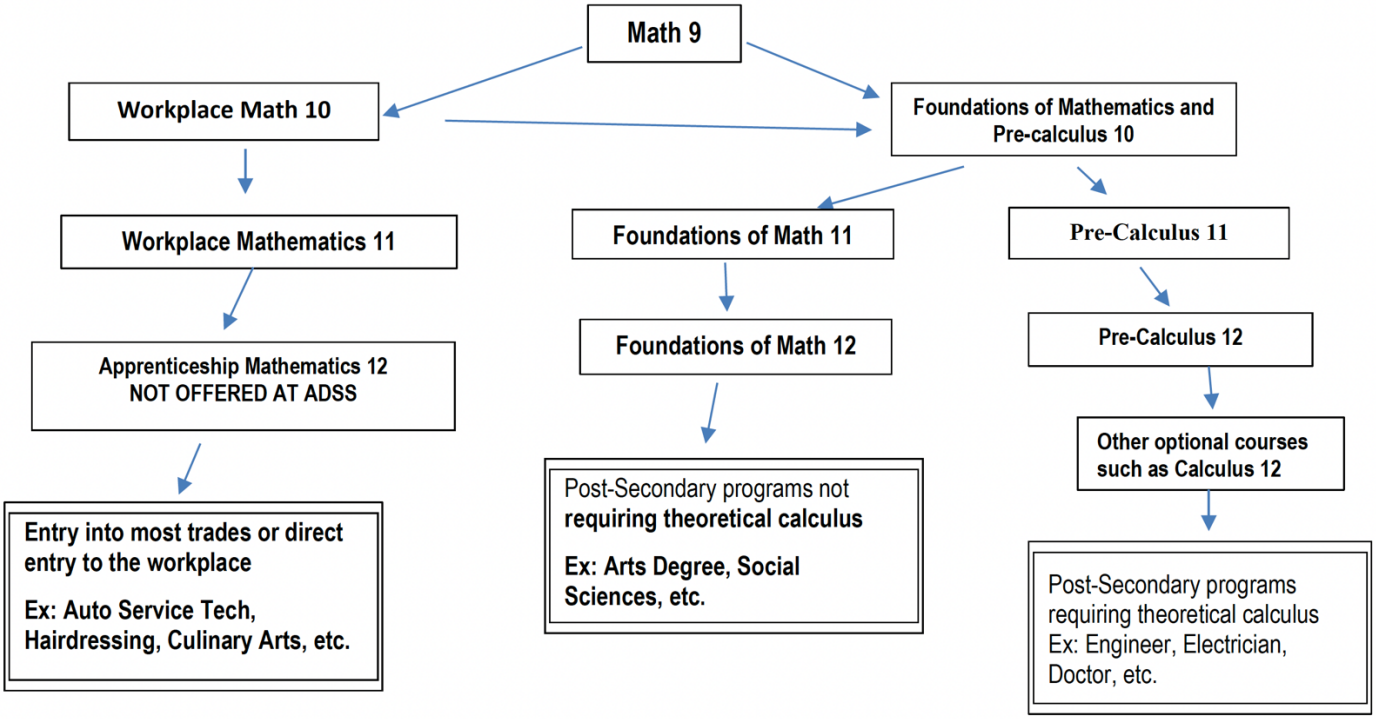
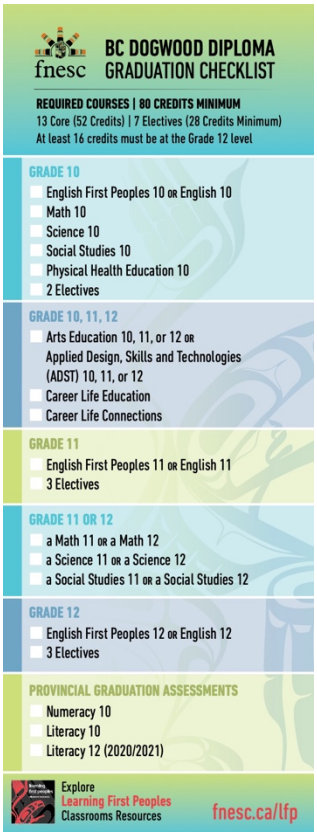
USS' Math Pathways & Academic Course Overviews



Mandatory Grade 10 Courses:

English 10, Math 10, PHE 10, Science 10 Social Studies 10, Career Life Education 10

Each grade 10 student can choose 1 elective per semester which equals 4 courses per semester.



fnesc **BC DOGWOOD DIPLOMA GRADUATION CHECKLIST**

REQUIRED COURSES | 80 CREDITS MINIMUM
13 Core (52 Credits) | 7 Electives (28 Credits Minimum)
At least 16 credits must be at the Grade 12 level

GRADE 10
- English First Peoples 10 OR English 10
- Math 10
- Science 10
- Social Studies 10
- Physical Health Education 10
- 2 Electives

GRADE 10, 11, 12
- Arts Education 10, 11, or 12 OR Applied Design, Skills and Technologies (ADST) 10, 11, or 12
- Career Life Education
- Career Life Connections

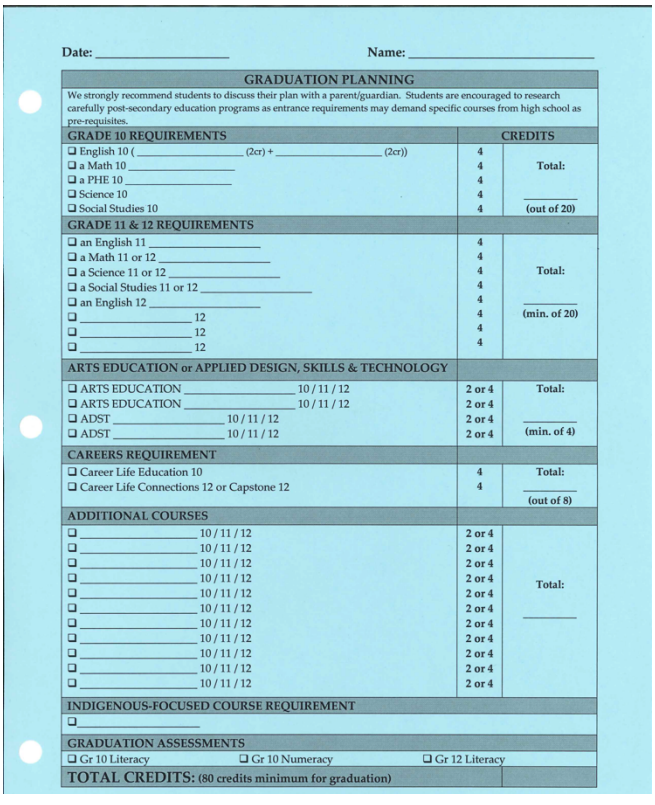
GRADE 11
- English First Peoples 11 OR English 11
- 3 Electives

GRADE 11 OR 12
- a Math 11 OR a Math 12
- a Science 11 OR a Science 12
- a Social Studies 11 OR a Social Studies 12

GRADE 12
- English First Peoples 12 OR English 12
- 3 Electives

PROVINCIAL GRADUATION ASSESSMENTS
- Numeracy 10
- Literacy 10
- Literacy 12 (2020/2021)

Explore Learning First Peoples Classrooms Resources fnesc.ca/lfp



Date: _____ Name: _____

GRADUATION PLANNING

We strongly recommend students to discuss their plan with a parent/guardian. Students are encouraged to research carefully post-secondary education programs as entrance requirements may demand specific courses from high school as pre-requisites.

GRADE 10 REQUIREMENTS	CREDITS	
❑ English 10 (_____ (2cr) + _____ (2cr))	4	
❑ a Math 10 _____	4	Total:
❑ a PHE 10 _____	4	
❑ Science 10	4	_____
❑ Social Studies 10	4	(out of 20)
GRADE 11 & 12 REQUIREMENTS		
❑ an English 11 _____	4	
❑ a Math 11 or 12 _____	4	
❑ a Science 11 or 12 _____	4	Total:
❑ a Social Studies 11 or 12 _____	4	
❑ an English 12 _____	4	_____
❑ _____ 12	4	(min. of 20)
❑ _____ 12	4	
❑ _____ 12	4	
ARTS EDUCATION or APPLIED DESIGN, SKILLS & TECHNOLOGY		
❑ ARTS EDUCATION _____ 10 / 11 / 12	2 or 4	Total:
❑ ARTS EDUCATION _____ 10 / 11 / 12	2 or 4	
❑ ADST _____ 10 / 11 / 12	2 or 4	_____
❑ ADST _____ 10 / 11 / 12	2 or 4	(min. of 4)
CAREERS REQUIREMENT		
❑ Career Life Education 10	4	Total:
❑ Career Life Connections 12 or Capstone 12	4	_____
		(out of 8)
ADDITIONAL COURSES		
❑ _____ 10 / 11 / 12	2 or 4	
❑ _____ 10 / 11 / 12	2 or 4	
❑ _____ 10 / 11 / 12	2 or 4	
❑ _____ 10 / 11 / 12	2 or 4	Total:
❑ _____ 10 / 11 / 12	2 or 4	
❑ _____ 10 / 11 / 12	2 or 4	_____
❑ _____ 10 / 11 / 12	2 or 4	
❑ _____ 10 / 11 / 12	2 or 4	
❑ _____ 10 / 11 / 12	2 or 4	
❑ _____ 10 / 11 / 12	2 or 4	
INDIGENOUS-FOCUSED COURSE REQUIREMENT		
❑ _____		
GRADUATION ASSESSMENTS		
❑ Gr 10 Literacy ❑ Gr 10 Numeracy ❑ Gr 12 Literacy		
TOTAL CREDITS: (80 credits minimum for graduation)		

Language Arts	**Creative Writing 11**	Creative Writing 11 is designed for students who have an interest in creative expression through language. Possible areas of study include narrative, creative non-fiction, drama, screenplays, graphic novels, poetry, etc. Students in Creative Writing will work individually and collaboratively to explore and create coherent, purposeful compositions.
	English First Peoples 11	An academic, interactive, and engaging course which incorporates First Peoples principles of learning and is available for students of all backgrounds. Students will explore a wide range of authentic First Peoples texts including oral story, speech, poetry, dramatic works, song, film, and prose. This course aims to support students in developing their critical thinking and communication skills, through a focus on themes, issues, and topics important to First Peoples. Different story, different narrative, different history. There is a strong emphasis on the development of writing skills, both creative and expository.
	Literature Studies 11	Literary studies 11 allows students to explore specific themes, periods, authors, or areas of the world through literary works in a variety of media. Possible areas of study include poetry, drama, and fiction. Classic and contemporary literature will be studied. Students will work individually and collaboratively to explore and create coherent, purposeful compositions.
	New Media 11	New media 11 aims to teach students how to be effective digital citizens and to help students develop media literacy skills that will aid them in being successful in the 12st century. New Media 11 may include studies focused on journalism, digital communications, as well as media and film. Students will work to communicate effectively and purposefully in both traditional and digital forms.
	Spoken Language 11	Spoken Language 11 allows students to explore a variety of literary works while focusing on improving communication and speaking skills. Possible areas of study include stand-up comedy, debate, performance, storytelling, and radio/podcast/video posts. Students will work individually and collaboratively to explore and create coherent, purposeful compositions.
	Creative Writing 12	Creative Writing 12 offers students the chance to experiment with a variety of creative writing styles, including fiction, creative nonfiction, satire, and screenplays. Students will work towards developing their writers' voice and refine their mechanics. The course also includes a focus on critique, analyzing, and evaluating the work of published professionals and students.
	English First Peoples 12	This course is designed to help students improve their communication and critical thinking skills. This course uses texts that represent indigenous voices and focuses on themes, issues, and topics important to First Peoples, recognizing the value of first Peoples' world views and the importance of language and communication.
	English 12	English 12 is about using the English language to its best effect in both fiction and non-fiction writing. This course will help you explore how various authors have created stories that carry readers to another place and time, and how others make arguments clear and compelling. Reading and writing exercises will also challenge you to become more critical in how you make the English language your own.

Maths	**Workplace Math 10**	This course is intended to give you an understanding of a variety of practical math skills. Topics include: -Measurement (working with Surface Areas, Volumes, Measurement Conversions, Trigonometry, etc.) -Financial Literacy (working with income, taxes, deductions)
	Foundations of Math Pre-Calculus 10	This course will give you a strong foundation of algebraic and graphing skills required for Foundations Math 11, Pre-Calculus 11/12, and Physics 11/12. Topics include: - Measurement (Right Triangle Trigonometry) - Algebra & Number (Prime Factorization & Exponents, Polynomial Operations, Factoring Polynomials, Arithmetic Sequences) - Relations & Functions (Linear Relations, Linear Functions & Equations, Systems of Linear Equations) - Financial Literacy (Income & Deductions)
	Pre-Calculus 11	This course is heavy on your algebraic and graphing skills! It demands staying on top of your work (including practice, assignments before a test, talking about concepts with your teacher and your classmates, being able to work with the language of math in a greater capacity). This course also prepares you for Pre-Calculus 12, Physics 11&12, and Chem 11&12. The goal of this course is to ready you for Calculus in university. Many post-secondary programs require this course for entrance. Topics include: -Sequences and Series -Trigonometry -Quadratic Functions & Equations -Radical Expressions & Equations -Rational Expressions & Equations -Reciprocal Functions & Equations -Quadratic Inequalities -Financial Literacy
	Foundations of Math 11	*** This course only gives you access to some university programs. Topics include: -Geometry -Trigonometry -Statistics -Linear programming -Measurement -Financial literacy
	Workplace Math 11	This course gives you practical skills and knowledge for trades programs, and workplace/personal use of numeracy concepts. Topics include: -various units related to measurement & financial literacy.

	Pre-Calculus 12	This is a rigorous Academic Grade 12 course meant to further prepare students for Calculus, Physics, and Engineering. Topics include: -Transformations -Radical Functions & Equations -Polynomial Functions & Equations -Trigonometry – The Unit Circle, Trigonometric Functions & Equations, Trigonometric Identities -Exponential and Logarithmic Functions & Equations -Reciprocal Functions & Equations -Conics
Sciences	**Anatomy & Physiology 12**	This course is designed for students that are thinking about studying science at a higher level. Topics include: ▪ Cell Biology (cell compounds, ultra structures, ultra processes, cancer) ▪ Human Biology (structure/function and disorder of digestion, circulation, blood and immunity, respiratory, excretory, endocrine, nervous, and reproductive systems)
	Chemistry 11	This course will explore numerous topics with an emphasis on applications and implications to society, health, and the environment. Core topics include: -Safety -Measurement -The Mole -Atoms & Molecules -Chemical Reactions -Solution Chemistry -Organic Chemistry
	Chemistry 12	This course is designed for students that are contemplating studying science after high school. Core topics include: -Reaction Kinetics (Collision Theory, factors affecting rate, mechanisms) -Equilibrium (characteristics of equilibrium, Le Chatelier's Principle, Application of Keq) -Solubility of Ionic Substances (solubility rules, Ksp, Qualitative Analysis) -Acids-bases (Bronstad-Lowry Definition, Ka, Kb, Buffers)
	Earth Science 11	Topics include: -Properties of earth materials (minerals, igneous rocks, sedimentary rocks, metamorphic rocks, geologic resources) -surface and internal processes of the rock cycle -economic and environmental implications of geologic resources within B.C. and globally -evidence that supports plate tectonic theory and factors that affect plate motion -First Peoples knowledge of local plate tectonic settings and geologic terrains -the hydrologic cycle -changes in the composition of the atmosphere due to natural and human causes -weather as the interaction of water, air, and energy transfer, and solar radiation interactions and impacts on the energy budget
	Environmental Science 12	Topics include: -Topics on Human actions affect the quality of water and its ability to sustain life. -Human activities cause changes in the global climate system.

		-Sustainable land use is essential to meet the needs of a growing population. -Living sustainably supports the well-being of self, community, and Earth.
	Life Science 11	This course give the student an overview of the living world around them. It begins with the fundamental unit of life, the cell, and goes through the process of how single celled organisms have developed into the diversity of life that surrounds us. Topics include: -Characteristics of Living Things -Process of Evolution, Taxonomy -Plant Biology -Animal Biology
	Physics 11	This course is intended as an introduction to the scope, nature, and relevance of physics. Planning and conduction experiments, graphing, global applications and skepticism will be common threads throughout each unit. The four main areas of study are: -Kinematics in 1D (position, velocity, acceleration, uniform motion, uniform acceleration, projectile motion) -Dynamics (Newton's Laws, gravity, friction, springs) -Momentum (momentum and impulse, conservation of momentum, collisions and explosions) -Energy (work, kinematic, potential and thermal energy, conservation of energy, power and efficiency) -Other topics may include: waves, optics, particle physics, and relativity
	Physics 12	This course concentrates on basic areas that are essential for studies in physics or applied science (ex. engineering, mechanics, and electromagnetism). Main topics are: -Vectors, Motion in Two Dimensions -Universal Gravitation -Charges and Currents -Electromagnetism
	Science for Citizens 11	If you have ever asked: Why do we need to know this? How does this affect my everyday life? Science For Citizens 11 could be for you. This is one of the five acceptable science 11 courses that will satisfy the high school graduation science requirements. Science For Citizens 11 takes a hands-on approach to science where we explore how science affects you in your everyday life. Science For Citizens 11 covers a variety of modules including bridge building, forensic science, space, and military technology – all taught with a combination of book work and hands-on assessment.
Social Sciences	**BC First Peoples 12**	Traditional territories of the BC First Nations and relationships with the land. -Role of oral tradition for BC First Peoples -Impact of historical exchanges of ideas, practices, and materials among local BC First Peoples and with non-Indigenous peoples -Provincial and federal government policies and practices that have affected, and continue to affect, the responses of BC First Peoples to colonialism -Resistance of BC First Peoples to colonialism -Role and significance of media in challenging and supporting the continuity of culture, language, and self-determination of BC First Peoples -Commonalities and differences between governance systems of traditional and contemporary BC First Peoples

		-Contemporary challenges facing BC First Peoples, including legacies of colonialism
	20th Century World History 12	Authoritarian Regimes -Civil Wars, independence movements, revolutions -Human Rights movements -Religious, ethnic, and/or cultural conflicts, including genocide -Global conflicts, including WWI, WWII, and the Cold War -Migrations, movements, and territorial boundaries -Interdependence and international co-operation -Social and cultural developments -Communication and transportation technologies
	Genocide Studies 12	This course will expose students to some of the darkest moments in human history. While the focus of this course will be genocide in the 20th and 21st centuries, we will also look at genocides from earlier time periods. Students will use historical and current events to analyze genocide and to identify their stages and components. While this course deals with some of the evilest parts of our history, it will also deal with ways in which individuals and humanity as a whole, have worked to confront, limit, and overcome genocide. Units of study may include: -The Holocaust -Genocides in Africa and Asia -Genocides in North America -International Law -Responses to Genocide
	Human Geography 12	-Demographic patterns of growth, decline, and movement -Relationships between cultural traits, use of physical space, and impacts on the environment -Relationship between First Peoples and the environment -Global agricultural practices -Industrialization, trade, and natural resource demands -Factors behind increased urbanization and its influence on societies and environments -Relationships between natural resources and patterns of population settlement and economic development -Political organization of geographic regions
	Political Studies 12	Big Ideas: -Understanding how political decisions are made is critical to being an informed and engaged citizen. -Political institutions and ideology shape both the exercise of power and the nature of political outcomes. -Decision making in a democratic system of government is influenced by the distribution of political and social power.
	Physical Geography 12	-Structure of, feedback within, and equilibrium of natural systems -distinguishing features of the atmosphere, hydrosphere, cryosphere, lithosphere, biosphere, and anthroposphere -connections and interactions between the spheres -features and processes of plate tectonics and their effects on human and natural systems -features and processes of gradation and their effects on human and natural systems -natural disasters and their effects on human and natural systems -features and processes of Sun-Earth interactions and resulting patterns of climate, landscapes, and ecosystems -climate, weather, and interactions between humans and the atmosphere characteristics of global biomes, including climate, soil, and vegetation -features and processes of the anthroposphere and their effects on natural systems -natural resources and sustainability

	Law 12	The constitution of Canada and the Canadian Charter of Rights and Freedoms -Structures and powers of the federal and provincial courts and administrative tribunals -Key areas of law such as criminal law, civil law, and family, children's, and youth law -Canadian legislation concerning First Peoples -Indigenous legal orders and traditional laws in Canada and other global jurisdictions -Canada's correctional system and principles of rehabilitation, punishment, and restoration -Structures and roles of global dispute resolution agencies and courts

To graduate in British Columbia, students also need to complete provincial math and literacy assessments in grade 10 and a literacy assessment in grade 12.

For more information please click on the following hyperlink: Provincial Assessments