

Enrichment Mini Course

Course Description 2020

Hosted at Memorial University of Newfoundland (MUN), College of the North Atlantic (CNA), Marine Institute (MI) and District Conference Centre (DCC). **Updated: 24/02/2020**

MINI COURSE PROGRAM					
#	Course Title	Instructor	Date	Site	Description
1.	Planets, stars, and stuff in the sky	Dr. Michael Morrow and Rick Goulding	April 28 & 29, 2020	MUN	This course will talk about some of the things that astronomers can learn about planets, stars, and galaxies using equipment like telescopes and spectroscopes. Maximum 12 students
2.	Sky Stories	Dr. Svetlana Barkavova and Mr. Mahumm Ghaffar	April 28 & 29, 2020	MUN	Every culture on Earth has its own stories about the sky. The mini-course will explore physics behind some of the most fascinating, such a story of Andromeda saved by Perseus, Orion chased by Scorpio, and Mi'kmaw "Muin and the Seven Bird Hunters" story (MuinaqqL'uiknekTe'sijikNtuksuinu'k) following the motion of Muin, a bear followed by birds (Ursa Major) around Tatapn (Polaris). As a part of this interactive, hands-on mini-course, the students will construct their own Sky Wheels and learn how to use them to trace constellations across the sky. We will also outline the formation, composition and scale of our solar system, explore extrasolar planets, and explain the observed movement of planets and stars. Grade 8 & 9 Only Maximum 30 Students
3.	Improving Brain Health Through Research	Caitlin Newell	May 19 & 20, 2020	MUN at the Miller Centre	This course will provide students with an overview of how research is used to improve the lives of individuals living

					<p>with neurological diseases. The first objective will be to introduce students to basic concepts surrounding functions of the brain. The second objective will be to familiarize students with neurological tools used in our laboratory to assess brain function. In a laboratory setting, students will watch demonstrations, and perform basic tests to assess brain function. The third objective will be to provide students with knowledge of current research projects performed in the Recovery and Performance Lab. We will discuss aerobic exercise as an intervention to improve the health of individuals living with stroke and MS. Students will watch an exercise test and discuss the importance of cardiovascular health on brain function. The fourth objective will be for students to create and develop their own research question to improve brain health.</p> <p>Maximum 15 students</p>
4.	Introduction to Brain Science and Structure	Lisa Fang & Stephanie Blandford	<p>Dates Course Offered:</p> <p>April 30 & May 1, 2020</p> <p>Or</p> <p>May 6 & 7, 2020</p>	MUN	<p>This two-day course is intended to give students a look into brain structure and function. It will involve a combination of interactive lectures and hands-on labs, including looking at plastinated brain specimens and recording your own brain activity using EEG. Please bring your own lunch, pens or pencils, and a binder or duotang folder. Students should also wear clothing that fully covers their legs, and closed shoes</p> <p>Maximum 28 Students</p>
5.	Don't Skip a Beat: Studying the Heart	Brenda Wells & Gaylene Russell McEvoy	May 14 & 15, 2020	MUN	<p>Are you interested in medicine and healthcare? Join us in Biomedical Sciences where we will study the most important system of the body, the cardiovascular system. Gain an understanding of how your heart works and delivers blood throughout your whole body, from head to toe and everywhere in between.</p> <p>Join us in this exciting and interactive 2-day course, where you will experience and use an ECG machine, learn to measure blood pressure like a doctor or nurse, and see how the heart works.</p>

					Maximum 28 Students
6.	A Taste for Chemistry	Dr. Karen Hattenhauer	April 28 & 29, 2020	MUN	<p>The first day students will make 3 or 4 highly colored chemical compounds and collect their crystals. The second day will be an introduction to some organic chemistry techniques including chromatography and distillation concluding with a special chemistry magic show! For safety lab coats and goggles will be provided however students need to have their legs and feet fully covered, we suggest jeans and sneakers.</p> <p>Maximum 15 students</p>
7.	Chemical and Biological Analysis	Evan Langille; Roshni Kollipara	<p>Dates Slots are Offered</p> <p>May 4 & 5, 2020</p> <p>Or</p> <p>May 7 & 8, 2020</p>	MUN	<p>This course will introduce students to the basic principles and techniques used in chemical and biological analysis. Specifically, students will be able to analyze compounds found in everyday items and learn the associated techniques for both chemical and biological analysis. We will use several cutting-edge pieces of equipment to identify DNA, measure heavy metals like lead and mercury, and analyze foods and pharmaceuticals for their contents. Experiments will be completed in partners and chemistry demonstrations will be performed both days. Please come wearing closed-toed shoes and pants. Grade 8 & 9 Students only</p> <p>Maximum 26 Students</p>
8.	PSI: Forensic Physics	Dr. G. Todd Andrews	TBA - To Be Announced	MUN	<p>An introduction to methods of forensic physics. Possible topics include (i) application of microscopy, materials physics, and optical techniques for examination of physical evidence, (ii) use of kinematics and dynamics in traffic accident investigation and ballistics, and (iii) audio analysis for speaker identification. Emphasis will be on hands-on activities, including case studies.</p> <p>Maximum 12 Students</p>
9.	The Study of the Botanical World	Andrea Nieto & Nicolas Penafiel	May 25 & 26, 2020	MUN	<p>The idea of the course is for students to approach the study of plants. The course will present techniques used in the study of plants such as the preparation of an herbarium specimen, pollen collection and microscopy. A special focus will be given to flowers and pollination. The students will learn</p>

					<p>how to prepare a botanical specimen for an herbarium, they will collect pollen and see it under the microscope. Students will have access to microscopes showing interesting features of flowers and plants. The contents are going to be introduced through simple terms, interactive material, and lab activities. The goal of the course is to explain and show when and why to use to the techniques presented here, and also to awaken their curiosity in observing the natural around them through small details.</p> <p>Maximum 15 students</p>
10.	Aquaculture - Sustainable Food Production	Cyr Couturier & Tracy Granter	May 7 & 8, 2020	Marine Institute	<p>Aquaculture is the fastest growing sustainable food production sector in the world. Students will be exposed to the exciting world of sustainable aquaculture through a mixture of practical seminars, labs and tours of the Fisheries and Marine Institute & the Ocean Sciences Centre in Logy Bay. Students will handle a variety of fish and shellfish species in our aquaculture facilities and become familiar with the various research, development and production activities taking place in the province, Canada and across the globe!</p> <p>Maximum 15 students</p>
11.	Math Wizard	Dipen P. Modi	<p>Dates Slots are Offered:</p> <p>Grade 7 Only April 27 & 28, 2020</p> <p>Grade 8 & 9 Only April 30 & May 1, 2020</p>	MUN	<p>Do you like math but are afraid of those big terrifying calculations? Would you like to solve the problem in seconds without any calculator? How about challenging your friends in multiplication (e.g., 35 x 85) and winning in under 10 seconds? No matter how you are with numbers, if you answered yes to these questions then this course is for you. Discover numerous ways of simplifying those frightening calculations and solving complex math problems all in your head. Vedic math is a set of techniques that not only increase your speed and accuracy but also help remove that feeling of anxiety and fear when faced with an arithmetic problem. Maximum 16 Students</p>
12.	Astonishing world of Economics	Dipen P. Modi	May 11 & 12, 2020	MUN	<p>Ever wondered why the prices of your favorite things rise or fall at certain times of the year? Or why some products are priced so high while</p>

					<p>others are priced low? How does your tastes and preferences affect jobs and employment? Would you like to learn how the government tries to control global warming without hurting businesses? What about how you can use the idea of compound interest to make you richer? In this course, you will learn how economics shapes our lives. Come play a game on the last day of this program to find out how you are an Economist in every decision you make.</p> <p>Maximum 16 Students</p>
13.	Do You Want to Be A Millionaire, Or Just Want to Owe a Million?	Zareen Asim	April 22 & 23	MUN	<p>Do you have the things you need in life? How about the things you want? Have you developed long & short-term financial goals? Are you keeping a tracking of your spending? Are you budgeting effectively? Are you limiting overspending? Do you have any idea of the financial risks? Are you using credit wisely? Do you have the liberty to make the choices that bring you happiness? Financial Wellness means being aware of your financial situation and managing it wisely. In this course you will learn how to do budgeting which gives you security, flexibility, and confidence while building mindful spending and other financial health skills that would be useful for the rest of your life.</p> <p>Grade 8 & 9 Only 16 Students</p>
14.	Community Change Maker	Dr. Gillian Sheppard	April 22 & 23, 2020	MUN	<p>Come explore the world of social enterprise and social change making! During this interactive course, students will learn what social enterprise is (business for good), what kinds of social enterprises exist in Newfoundland and Labrador, and learn new skills that can help them become a leader in their community and even develop their own business! Topics that will be explored include: social justice, rights and responsibilities, diversity awareness, self-awareness, equity, environmental consciousness, social change, social enterprise, and systems thinking. Students will leave the course with knowledge and tools to promote social</p>

					justice and change in their communities. Please note: students are asked to wear comfortable footwear/clothing appropriate for walking and interactive activities. Maximum 15 Students Grade 9 Students Only
15.	Teenpreneurs	Dr. Arifusalam Shaikh	April 30 & May 1, 2020	MUN	This course is ideal for junior high students as they have great ideas. The purpose of this course is to introduce entrepreneurship at a basic level. Appropriate real-life success stories and some approaches will be presented and discussed. This course will involve active participation from students through group work and will not be content intensive. A major component of this short course is to consider a potential business idea and simulate the journey of entrepreneurship in a fun filled learning environment. While it is not a requirement, participating students are encouraged to come with their ideas that may be considered for this basic entrepreneurship training. Ideas will be discussed, short listed, and assigned to students who will work in groups as co-founders to evaluate the potential of these ideas for establishing a business. This course can highly benefit students who aspire to consider entrepreneurship as a career option Maximum 30 Students
16.	Evolution, Extinction and Earth: A brief history of over 3 billion years of life	Christopher McKean	May 5 & 6, 2020	MUN	Life on Earth began over 3 billion years ago as simple celled organisms. In the time since life has evolved into the beautiful, the complex and the bizarre. Over this two-day course students will have the opportunity to discover how life has evolved and how it has been shaped by the many events that have occurred over the long history of this planet. Students will engage in a number of talks and activities, including getting to interact with a number of rock and fossil specimens (including a meteorite and dinosaur footprints) which are housed in the Earth Science department at MUN. Maximum 15 students
17.	The Stories of Gravity, and	Jianbo Long	Dates slots are offered:	MUN	Gravity is a basic force in the universe. What is gravity, and how it works in our daily life? Why a feather and an

	Funny Things without It!		May 19 & 20, 2020 Or May 21 & 22, 2020		iron ball can fall at the same speed? Why our bodies' weights become much less if we stand on our Moon? Why a satellite flying around our Earth does not need power to do so? Through hands-on experiments (indoor), discussion, film watching, etc., students will learn the science behind a series of real-life phenomena that are linked to the gravity. A mind with curiosity is all the student needs. Students will also be encouraged to explore and explain other 'mysterious' things caused by the gravity force, and those amazing things when the gravity disappears! Maximum 15 Students
18.	Change Your World! Leadership Career Development and You	Jennifer Browne and others	April 22 & 23, 2020	MUN	How do you get what you want out of life? From changing the world, to landing your dream job; it all starts with leadership! In this two-day course, you will learn how to tap into your leadership potential while unlocking your unique strengths to step into formal and informal leadership roles. You will learn about your values, interests and skillsets, and how to apply that knowledge to develop yourself and change your world. By participating in self-assessments such StrengthsFinder and 16 Personalities, you will uncover more about yourself and your skillsets. You will leverage these findings and engage in fun team activities to meet shared goals, make decisions, and learn from each other. Learning from Memorial students and staff, you will discover how to set goals, build a team, and take on leadership roles. Finally, you will have an opportunity to explore how you can apply your strengths and skillsets to consider career paths and how to begin preparing for your future career now! Grade 9 Students Only Maximum 30 students
19.	Animal and Human Psychology	Taylor Tone Shane Cassell, Marie Wasef & Shannon Waye	May 14 & 15, 2020	MUN	Psychology is the scientific study of behaviour and mental processes. Students will learn about cognitive psychology, behavioural neuroscience, and animal behaviour. For example, students may do demonstrations to better understand how their memory works, learn how to identify brain areas

					and their functions, and observe animal behaviour in both the lab and the natural environment. Maximum 15 students
20.	Psychology: How do we study behavior?	Dr. Pierre-Paul Bitton	May 4 & 5, 2020	MUN	This mini-course will explore what, why, and how we study animal (one day) and human (second day) behavior. Students will be presented with some fundamental aspects of scientific enquiry (how to formulate a hypothesis, how to collect data), ethics associated with animal and human research, and a quick survey of the diversity of research that is currently conducted (1/4 of the course). The majority of the course will involve students developing their own mini-experiments. The first day using behavioural observations of insects, the second day using observations of people Maximum 15 students
21.	Linguistic Myth Busting	Dr. Paul De Decker	May 4 & 5, 2020	MUN	Where do dialects come from? Are some of them better than others? This course will address the facts and fiction around “proper” language. Using a hands-on, multimedia, collaborative, approach students will learn about how and why varieties of English in Newfoundland and Labrador develop variation, undergo generational changes, get stigmatized, and why people have strong feelings about this. Students will also learn how to create and edit short cellphone films to mobilize the knowledge they gained in this course. A mini film festival will be held to showcase their work. Popcorn included. Maximum 15 students
22.	Wie geht’s? Introduction to Germany and German speaking-lands.	Dr. Isabell Woelfel	Dates Slots are Offered: April 28 & 29, 2020 Or May 5 & 6, 2020	MUN	The course will give an Overview on Germany and German speaking lands. Students will learn some basic German words and common German phrases. The course will also introduce students to German cities, politics and nature, and will focus particularly on German teen life and youth culture, such as popular music, films, books and the school system in Germany. Maximum 12 students

23.	An Introduction to Spanish	Yohei Saki	May 5 & 6, 2020	MUN	This course will introduce you and highlight Spanish Language and Culture. You will cover basic conversation skills and is mainly oral in nature. You will also cover the “Spanish World Geography”, foods, holidays, celebrations, dance and music. The music component will be both traditional and modern (contemporary). This is a hands on interactive and exciting course. Maximum 12 Students
24.	Two Days in Russia	Dr. Marina Grineva	Dates Slots are Offered: April 22 & 23 Or April 27 & 28, 2020	MUN	Discover another world in two days- learn to read Russian, acquire the basics about a “different” but very easy and logical foreign language, gain insights into a fascinating culture and intriguing but baffling history. This structured mini-course includes MUN students’ own videos, Russian movies, souvenirs, music, food, pen pal addresses, internet links. Consider the benefits of knowing Russian if you want to be a diplomat, journalist, scientist, or work in international business. Because of the changes since “perestroika”, Russia, the largest country in the world is more open to you than ever! Maximum 12 students
25.	Japanese Language and Culture	Nami Ohara	Dates Slot are Offered: April 30 & May 1, 2020 Or May 14 & 15 Or May 28 & 29, 2020	MUN	This course is intended to give beginners a basic foundation in Japanese language comprehension and communication, as well as exposure to the culture of Japan through a variety of fun activities. Course Objectives: (1) Learn basic Japanese using culturally oriented activities and games. (2) Develop an ear for Japanese sounds and learn pronunciation basics. (3) Understand and use common Japanese expressions. (4) Learn to read both Japanese syllabic letters (Hiragana and Katakana) (5) Learn some basic Kanji (Chinese characters) Topics learned in this course are reinforced in the Japanese Calligraphy and Origami course. Maximum 16 students
26.	Japanese Calligraphy & Origami	Nami Ohara	Dates Slot are Offered: May 7 & 8, 2020	MUN	This exciting hands on course is intended to facilitate an appreciation of Japanese culture through the practice of Japanese calligraphy (書道 - Shodo) and Origami (折り紙 – Origami).

			Or May 21 & 22, 2020		<p>Course Objectives: (1) Japanese calligraphy Learn the ancient brush technique of Japanese artistic writing. Students will learn how to use the techniques and tools of this beautiful writing system to write personal names as well as some common Japanese words (e.g., 愛 love, 楓 Maple, 春 spring, 海 sea, 空 sky). Absolutely no previous drawing experience or skill required. (2) Origami Students learn the history of the Japanese paper folding art known as origami. Participants are instructed step by step to create unique and original origami figures</p> <p>Maximum 16 students</p>
27.	Different Eggshells, Similar Content: Awakening our understanding of cultural diversity in Newfoundland	Chinwe Ogolo	April 23 & 24, 2020	MUN	<p>This course is intended to highlight the danger of a single story. Eggs have different shells, but the contents are similar. As more immigrants arrive and make Newfoundland their home, it is important for us as a community to begin to question our assumptions about our cultures and other cultures as well and to have open conversations about the benefits of multiculturalism. As the saying goes “children are the future”, it is therefore paramount that students begin to grasp cultural diversity to become productive members as the world is quickly becoming a global village. Instead of focusing on what divides us, we need to concentrate on what unites us. This course will start a conversation with the students about cultural diversity and what it might look like. In addition, the course will offer suggestions and recommendations on how to address some of the associated challenges of cultural diversity.</p> <p>Maximum 16 students</p>
28.	Much Ado about Shakespeare Acting Course	Dr. Carolyn Colbert	Dates Slots are Offered: May 4 & 5, 2020 Or May 7 & 8, 2020	MUN	<p>"All the world's a stage." Fight duels, perform magic, or plan revenge. Learn about the Shakespearean theatre, "the wooden O," and find out if Shakespeare wore tights! Become an actor or a director for two days. Perform scenes from your choice of Shakespeare's plays and produce appropriate costumes and sets.</p> <p>Maximum 24 students</p>

29.	What is Human Nature?	Dr. Peter Trnka	April 21 & 22, 2020	MUN	<p>This course will introduce you to the methods and subjects of philosophy. What is a human being? What is a good life for a human being? What is freedom? What is happiness? We shall examine questions like this through readings, videos, and discussion. The aim of the course is to show you how to express and criticize your own and others beliefs about nature, society, and technology.</p> <p>Maximum 16 students</p>
30.	Probability and Casino Games	Dr. Stephen Ambrose Gardner	May 5 & 6, 2020	MUN	<p>This course will introduce the students to the concept of probability that is the mathematics of chance. After establishing some basic principles, we will apply this knowledge to several popular games of chance involving dice, cards, and lotteries. We will emphasize various casino games, in particular games that involve dice. After completing the course, the student will acquire a basic knowledge of logic and probability, and will have a sound basis to judge the likelihood of winning such a bet. This knowledge could potentially save a lot of money over the course of the students life, particularly if they ever travel to Las Vegas</p> <p>!Maximum 16 students</p>
31.	Let's Go on a Quest!: Exploring the Middle Ages through Popular Culture	Sam Lehman	<p>Dates slots are offered:</p> <p>April 22 & 23; April 27 & 28; April 29 & 30 or May 20 & 21, 2020</p>	MUN	<p>This course will put you in the middle of the Middle Ages, by taking you on a journey through time. We will explore what life was really like for kings, knights, and queens during the medieval period. Students will get the chance to engage with popular movies, books, and comics that depict medieval life and learn to identify what those works get wrong about life in the Middle Ages, and what they get right!</p> <p>Maximum 15 students</p>
32.	The Holocaust	Dr. Edita Bosák	<p>Dates Slots are Offered:</p> <p>April 23 & 24, 2020 Or</p>	MUN	<p>Why were the Jews, Gypsies and homosexuals singled out for “special treatment” (annihilation) in the German Reich during World War Two? This course is intended to give students an understanding of who the victims were, where they came from and why they were considered the enemy. The</p>

			April 28 & 29, 2020 Or April 30 & May 1, 2020		subject matter is treated with sensitivity and reverence through the media of lectures, discussions, films and demonstrations. Maximum 12 students
33.	The History and Tragedy of Roma (a.k.a. Gypsies)	Dr. Edita Bosák	May 6 & 7, 2020	MUN	Who are these people, where do they come from and why does society boycott them whenever possible? The aim of the two day course is to introduce students to the history and culture of the Roma, and to explore the prejudice and mistreatment that is so much a part of the Roma's tragic history. Films will be seen, music heard, conversations and pictures presented. Maximum 12 Students
34.	Old and New Myths: The true stories behind Thor, Loki, Zeus and other ancient Gods	Dr. Daniel Peretti	May 5 & 6, 2020	MUN	This class will explore the changes in myths over time. Day 1 will focus on the old stories: Greek, Norse, Egyptian, and other indigenous myths. We will talk about where they came from and why they were told. Day 2 will cover myths today, using the same areas of the world, but adding popular culture. Using many images and video clips, this class will show students how myth exists in places we wouldn't normally think to look for it, and how myths evolve over time. We will also explore why myths resemble each other despite being told by people who have never met and live in distant parts of the world. Maximum 16 students
35.	Why is the World Run So Badly? An Introduction to International Relations	Dr. Lucien M. Ashworth	May 28 & 29, 2020	MUN	2020 began with the threat of war between the United States and Iran, Britain leaving the European Union, and unprecedented bushfires in Australia. The world is a volatile place, and many of its problems are the result of how we choose to manage (or mismanage) global politics. Through discussions, exercises, and 'QI'-style* quizzes this course will explore the world of war, diplomacy, climate negotiations, trade policy, and international political economy. The aim is to give the students a basic understanding of how the world is managed, and will provide vital

					<p>background information for social studies, history, and geography courses in high school. The course will also give a taster for what students can expect from first year social science courses at MUN.</p> <p>*QI is a humorous quiz show format made famous by the BBC program of the same name</p> <p>Maximum 16 students</p>
36.	Drinking, Love and Your Health	Dr. Adrienne Peters (Chair of the FASDNL) & Laura Squires	<p>Dates to be offered</p> <p>April 27 & 28, 2020 <u>Grade 7 Students Only</u></p> <p>Or</p> <p>May 25 & 26, 2020 <u>Grade 8 & 9 Students Only</u></p>	MUN	<p>This course will be offered by members of the Department of Sociology (Criminology/Police Studies) at Memorial University. The course will begin with a real-life story and group discussion, followed by a presentation reviewing the significant potential impacts of alcohol use and sex in our everyday lives and the possibility of significant and long term health impacts on yourself and others. This course will use real case studies, guided discussions and fun hands on activities and develop potential responses to the scenarios. Activities will include small group work in which students review and discuss various case studies. By the end of the course, students will understand: (1) the basic patterns in child/adolescent development and the role of healthy environments in this; (2) how social and cultural factors affect the development and experiences of young people; (3) the link between alcohol use, teen pregnancy, and long-term health; and (4) what fetal alcohol spectrum disorder (FASD) is and how to support individuals who have FASD.</p> <p>Maximum 28 Students</p>
37.	Living an Ancient Life	Tana Allen & Brad Levitt	May 7 & 8, 2020	MUN	<p>This course provides an interactive, hands-on experience of life in ancient Greece and Rome. We will offer students the opportunity to try being an actual Greek or Roman person. Each of the two days of the course provides a window into major aspects of ancient life, including topics such as food and dining (try some ancient recipes), education, hygiene and health, entertainment, and sports. Our goal is both to bring to life the challenges that</p>

					<p>an ancient person might face and to think about ways that we are able to figure out the past.</p> <p>Maximum 20 Students</p>
38.	Mummers, Mayhem and Murder: A True Newfoundland Story	Joy Fraser	May 4 & 5, 2020	MUN	<p>Nowadays, mummers in Newfoundland are typically festive, fun-loving figures such as those you might encounter at the annual St. John's mummers' parade or as brightly coloured ornaments on your Christmas tree. But what was mummering like in Newfoundland in years gone by, and what sources of evidence can we use to find out more? Collect mummering memories, perform a mummers' play, investigate a crime scene where all the suspects were in disguise, and discover why mummering was illegal in Newfoundland for over a century.</p> <p>Maximum 16 students</p>
39.	Fear fascination and Folklore: Ghosts, Fairies and Urban Legends	Kathleen Fleming	<p>Dates Slots are Available:</p> <p>April 23 & 24, 2020 Or April 28 & 29, 2020 Or May 4 & 5, 2020</p>		<p>Have you ever wondered about the meaning behind the scary stories told around campfires? Or about the draw that the supernatural has for people? Focusing on urban legends and the supernatural, this course will help give you an introduction to the tools that folklorists use to find the answers to these questions, such as interviewing and observation. We will also take a tour of the Memorial University Folklore and Language Archives so that students can get an introduction to archival research.</p> <p>Maximum 16 students</p>
40.	Scottish Step Dancing	Joy Fraser	May 7 & 8, 2020	MUN	<p>Make music with your feet! This course is an introduction to Scottish step dance, a traditional percussive dance form that involves beating out rhythms with your feet. We'll learn some basic steps designed to be danced to two main types of tune: strathspeys and reels. We'll then practice combining the steps into routines in preparation for an end-of-course performance to showcase your new skills. You will need hard-soled shoes that don't stick when you scuff your feet on the floor (indoor shoes only, please). Wear cool, comfortable clothes and bring a bottle of water.</p> <p>Maximum 16 students</p>

41.	Male and Female Basketball Camp	Coach Peter Benoit	Dates Slots are Offered: April 27 & 28, 2020 Or May 19 & 20, 2020	MUN	Come develop your basketball skills. Develop the proper jump shot, layup and foul shot. Hone your defensive skills. Enjoy scrimmages at the MUN gym and the new Field House gym. Instructors to include members of the Sea Hawk Men's and Women's Basketball Teams. Maximum 60 students only
42.	Male and Female Volleyball Camp	John Slauenwhite	Dates Slots are Offered: April 30 & May 1, 2020 Or May 21 & 22, 2020	MUN	Come develop your volleyball skills. Develop the proper basics for digging, setting blocking and spiking. Hone your defensive skills. Enjoy scrimmage games at the MUN gym. Instructors to include members of the Sea Hawk Women's Volleyball Teams. Maximum 60 students.
43.	Male and Female Soccer	Mike Power	Dates Slots are Offered: May 25 & 26, 2020 Or May 28 & 29, 2020	MUN	Come develop your soccer skills. Develop the proper footwork, dribbling, passing, and shooting. Hone your defensive skills. Enjoy scrimmages at the MUN gym and outside pitch. Instructors to include members of the Sea Hawk Men's and Women's Soccer Teams. Maximum 60 students.
44.	How does exercise affect the body	Emma Ramsay	April 23 & 24, 2020	MUN	In this course students will learn basic human anatomy and physiology by interacting with anatomy models and devices such as blood pressure and electromyography systems. Students will have an opportunity to learn about how exercise affects the human body and what tools we use in Kinesiology to measure those changes. Note: Students should be comfortable doing light exercise and should wear comfortable, loose fitting clothing. Grade 8 & 9 Students Only Maximum 16 Students
45.	Physical activity and data science	Daniel Fuller, Bo Simango & Javad Rahimipour	May 11 & 12, 2020	MUN	The course will introduce students to the measurement of physical activity using a metabolic cart, and accelerometers and global positioning systems in smartphones and wearable devices. With the data students collect we will introduce basic concepts of data science including reading in data, data visualization, and basic math functions using the R statistical programming language. Grade 8 & 9 Students Only Maximum 14 Students

46.	Engineering Design	Mr. Raj Jani	April 30 & May 1, 2020	CNA - Prince Philip Dr.	<p><u>Safety glasses are mandatory.</u> How are machines made??? Experience the engineering design process. First you will identify a need, define the problem and set your design objectives. Then you will brainstorm for solutions and choose your 'best' option. Next you will develop sketches for your design, generate a 3-D computer model, and get ready to plan your production! What materials will you need? What equipment? What skills? Finally you will fabricate your components using a variety of advanced technology systems; computer controlled machining centers, robotics and laser cutting systems. And there you have it, just what you needed!</p> <p>Maximum 12 students</p>
47.	Expanding Dimensions- An Introduction to 3D Modeling & 3D Printing	Andrew Fisher And Kathryn J Hong	April 23 & 24, 2020 Tentatively	MUN	<p>Students will learn about a variety of software tools that engineers use to create and manipulate 3D models as well as see their own design come to life through 3 D printing! 3D printing and computer aided drafting are changing how new ideas come to life. Come learn how you can become part of this change.</p> <p>Maximum 15 students</p>
48.	Robot Design	Jordan Smith	May 21 & 22, 2020	MUN	<p>Interested in mechanisms or electronics? Ever wonder how robots see and plan? This course will challenge students in the field of robotics as they create and program their own real robot from basic components. Students will develop practical skills in Engineering, Computer Science and Art which will help them continue on to start their own creative projects. Experience with Lego Mindstorms or similar is recommended but not required. Try code.org if you're new!</p> <p>Maximum 20 students</p>
49.	Robot control using Microcontrollers	Howard Guy	April 29 & 30, 2020	CNA - Ridge Road Campus	<p>Are you into robots and building electronic projects? The first part of the course will have you manufacturing and soldering a sound activated mini car. The second part will have you become familiar with microcontrollers to control a robot arm.</p> <p>Maximum 12 Students</p>

					Grade 8 & 9 Students Only
50.	Computer programming from 0 to infinity	Dr. Theodore Norvell	April 30 & May 1, 2020	MUN	<p>Computer programming is the art and science of turning ideas into plans. This course introduces the fundamental concepts of modern computer programming. By the end of the course, students will be able to create interactive computer programs, such as simple computer games, animations, and automated art generators.</p> <p>Maximum 24 students.</p> <p>Grade 8 & 9 Students Only</p>
51.	Creating Virtual Worlds with Alice	Sharene Bungay	May 7 & 8, 2020	MUN	<p>Alice is a simple 3D interactive animation environment. In this course the students will write simple stories, create animated virtual worlds, and populate their virtual worlds with characters and objects they desire and then see their stories come to life and played out.</p> <p>This course should be of great interest to students, who are creative and have no prior programming experience as well as to those students who are looking for a deeper understanding of the basic programming concepts.</p> <p>Grade 7 & 8 Students only</p> <p>Maximum 16 Students</p>
52.	Fun with Python (the Programming Language, not the Snake)	Lori Hogan	May 6 & 7, 2020	MUN	<p>Are you interested in learning how to program? Are you interested in learning how to make a computer play a song using light levels or manipulate a string of LEDs using the temperature? In this two-day course we will try to do this and more! By the end, students will learn basic programming concepts and be able to create simple programs in Python that control an Arduino microcontroller and the various input and output devices attached to it.</p> <p>Grade 8 & 9 only</p> <p>Maximum 15 Students</p>
53.	Fabric Printing	Gina King	<p>Slot dates Offered:</p> <p>May 14 & 15, 2020 Or</p> <p>May 25 & 26, 2020 Or</p>	CNA	<p>This year we will be using a new technique to print onto fabric. We will each design an image and transfer that by hand to a screen, creating a stencil. This technique can be recreated at home with very little supplies, and we will learn this set up process. We will print our images onto cloth to create a wall hanging, and students can additionally bring their own T-shirts for</p>

			May 28 & 29, 2020		printing onto (not required). Each student will go home with their own unique piece of art. Maximum 14 students
54.	Sewing Basics	Gina King	Slot dates Offered: April 27 & 28, 2020 Or April 30 & May 1, 2020 Or May 11 & 12, 2020	CNA Anna Templeton Building	SEWING BASICS - a fun packed two days is planned for our future sewists. This year we will offer a sewing session, in which the students will see their own pencil case and tote bag. They will learn all the basic parts of a sewing machine, how to thread, change stitch type, length and width, and how to complete their project with an overlock at itch. Each student will chose their own colour scheme for their bag and make something as individual as they are. Maximum 10 students
55.	Fundamentals of drawing	Laura Hutchings	Slot dates offered: May 21 & 22, 2020 Or May 28 & 29, 2020	DCC	Exploring the principles of design to produce works of art with pen, pencil and coloured medium. Focusing on line, shading and creating different textures using basic drawing techniques to achieve a collection of artwork you're sure to be proud of. Maximum 14 Students
56.	Playful Book Structures	Anne Major	Slot dates offered: May 19 & 20, 2020 Or May 25 & 26, 2020	DCC	Are you interested in publishing your writing, your artwork, or both? This two day course offers you hands-on practice creating a variety of small books, each from one sheet of paper. The text and images for these books can be printed using hand or computer generated text and images. Get your stories out there! Send quirky invitations that reflect your personality! Bestow best friends with slices of your take on life. Make your mark with these unique folded structures. Maximum 14 Students