



Mr. Matthew Ngo, Room 212

(Email): mngo@hrce.ca

(Web Site): www.mrngolearning.com

“Let’s envision what learning is supposed to be”

Mission Statement:

Every year, students entering a new class have much anxiety; maybe students don’t know what to expect. I want students to know that they do not have to be anxious. My students’ achievements are my achievements. I truly believe that education is collaborative—it takes the teacher, student(s), and family for all facets of learning to succeed. A student should not work harder than the teacher. The teacher should not work harder than the student. Therefore, equal responsibility must be shared to ensure continued success.

Students fully immersed in my classroom should have an enjoyable and enriching learning experience. Success begins with hard work, dedication, commitment, and most importantly, responsibility. Sure, there will be times students may falter, but please never hesitate to ask for help or clarification.

Philosophy of Education:

The purpose of education is to develop proper 'habits of minds'. As learners are formally educated, learners are purposely developing habits that exist within scientific or liberal arts paradigms which includes reasoning, insight, energy, skill, creativity, intellectual honesty, skepticism, responsibility, independence, and openness to new ideas. Therefore, education (in a broad sense) is to initiate, enlighten, reinforce, and clarify clear learning goals that are directly connected to student's habit of mind based on student's individual contexts. My ultimate goal is to develop and prepare learners for the future utilizing these 'habits of minds'.

Educational Background:

- Doctor of Philosophy (Ph.D.) in Educational Studies, St. Francis Xavier University (Starting July 2023)
- Non-Degree Thesis Student for Ph.D. application, St. Francis Xavier University (2023)
- Master of Education, Educational Leadership & Administration, St. Francis Xavier University (2017)
- Master of Education, Curriculum & Instruction, St. Francis Xavier University (2014)
- Bachelor of Education, Secondary Science & Mathematics, St. Francis Xavier University (2009)
- Bachelor of Science, Adv. Majors in Physics & Mathematics, Dalhousie University (2007)

Course and Grade Breakdown for All My Classes:

IB Physics 12 20% Internal Assessment 80% Examination Scores	Topic 5, 10, and 11 – Electromagnetism Topic 4 and 9 – Wave Mechanics Topic 7 and 12 – Modern & Nuclear Physics Topic 8 – Energy and Environmental Physics Option Topic A – Relativity
Physics 11 Course Grade = 80% Exam Grade = 20%	Unit 1 – Kinematics (20%) Unit 2 – Dynamics (30%) Unit 3 – Momentum & Energy (25%) Unit 4 – Wave Mechanics (25%)
Physics 12 Course Grade = 80% Exam Grade = 20%	Unit 1 – Mechanics Extension (25%) Unit 2 – Circular Motion & Universal Gravitation (25%) Unit 3 – Electromagnetism (30%) Unit 4 – Nuclear & Modern Physics (20%)
Science 10 (Co-Taught with Ms. Laura MacDougall) Course Grade = 80% Exam Grade = 20%	Unit 1 – Weather (25%; Ngo) Unit 2 – Physics (25%; Ngo) Unit 3 – Chemistry (25%; MacDougall) Unit 4 – Ecosystems (25%; MacDougall)

For specific grade information such as HW Probes, ICAs, Labs, and Tests, see full course outline

Students are highly encouraged to use all available school resources (including mine) to increase their opportunity and ability to succeed in all my classes. There are things put into place to do so!

IB Score Conversions for IB Physics 12:

IB Physics 12 grades are predicted at the end of the school year with guidance from IBO. Please see IBO documents for details. Predictions will be made from sources including all major assessments, mock-exams, internal assessment, and formative measures (e.g., class contributions, discussions, practice checks, etc).

NS Conversion Scale for IBO: 7 (99-100%), 6 (92-98%), 5 (84-91%), 4 (77-83%), 3 (70-76%), 2 (50-69%), 1 (Failing)
IB Learner Profiles found on Page 5 of this document

The Structures I Have In Place To Support Students, Parents, and Guardians!

Students should be involved in their own learning as this develops responsibility. I also believe that when other adults who have invested roles into their child's learning, it can create an enriching and fulfilling experience.

The Typical Day of a Non-IB Physics 11/12 Student:

Review	Knowledge & Learn	Application
5 minutes; starter questions; going over HW; agenda for the class	45-60 minutes; learning of material, example problems, and course materials to be taught; this is done in two or three broken segments so students can maintain their attention span	10-20 minutes; HW or practice time; students can seek help / clarification during class time; this is broken down into two segments

The Typical Day of a Science 10 Student:

Review	Knowledge & Learn	Application
10 minutes; starter questions; going over HW; agenda for the class	25-35 minutes; learning of material, example problems, and course materials to be taught; this is done in two or three broken segments so students can maintain their attention span	30-35 minutes; Assignments or follow-through; students can seek help / clarification during class time

IB students are required to do additional work outside of class time to experience maximum chances of success

Help and Support:

- Most lessons have pre-recorded video podcasts for Physics 11/12 and Science 10; IB Physics 12 have none
- Additional support materials including solution keys to all practice problems available online
- Additional extra help and support is offered during class time during the 'application phase' of class

PowerSchool Updates and Grade Updates:

General Updates	High Priority Updates	Lower Priority Updates
Quick grade fixes, and attendance logs; updated within a 2-3 day basis	Assignments, HW Probes, Labs, and ICAs; within a week's time span; to inform students (and I) of their areas of strengths / weaknesses for future support; depends on the length	Late Submitted Work and Unit Tests. This will be attempted to be dealt with ASAP

Course Web Site, Google Classroom, and Online Calendar:

- Practice problems, handouts, solution keys, and video podcasts can be found on **Google Classroom**.
- **PowerSchool is actively updated** to relay communication for students, parents, and guardians.
- Course calendar can be found on my web site at www.mrngolearning.com
- Class notes loaded online for all students; it is important to print them and bring prior to the class lesson
It is IMPERATIVE that students utilize this resource to help enhance their learning.

There is a noticeable grade difference for those who fully utilize my resources and those who do not.

The screenshot shows a Google Classroom interface for a course named 'SEM 2 Physics 11 (Ngo)'. At the top, there are navigation tabs for 'Stream', 'Classwork', 'People', and 'Grades'. The 'Classwork' tab is selected, displaying a unit titled 'Unit 1: Kinematics'. Below the unit title, there is a list of four resources, each with a document icon and an edit date: 'Lesson Class Notes' (Edited Jan 28), 'Lab Documents' (Edited Feb 5), 'Solution Keys to Practice Problems' (Edited Feb 27), and 'Video Podcasts' (Edited Jan 28).

On-Going Feedback and Grade Slips (All Non-IB Classes):

On the first day of classes during each new week, a new grade slip is given to subject specific classes. It includes a record of their current achievement, dates in which assignments or major testing is due, class specific information (including additional feedback). Grade slips are logged into PowerSchool

Grade Slip Report for Mr. Ngo's Physics 11 Class – C- & D- Blocks
 Success in this class comes from active engagement and completion of all assessments in class

Name _____ **Date** *As of Monday, September 13*
 HW Probe #1 – Intro to Physics – Lesson #1 Only **Scheduled for Wednesday, September 15**

This is a Grade Slip Report; you'll get it once a week. It will tell you what your current grades are, if there is any missing work, and upcoming due dates. A 'late' assessment can be done as long as the solution key has not been passed out. Once it has been passed out, it is a 0%. There is a 2-day grace period after the due date! These reports are scanned if your parents request this information. **If you think you are away past 2 days, you need to contact me ASAP**

Current Grade: _____ Grade includes all units **My work email is** mngo@hrce.ca

Each class has roughly between 15-25 minutes of in-class support for students to ask for help. No extra help available this year. Please ensure that you are accessing Google Classroom to watch the podcast of the materials you do not understand.

Please bring a proper scientific calculator for class

Physics 11 (C & D-Block)

- Starter Question / 2 Day Grace**
- **D-Block:** All About You Feedback!
- Basic Conversion Problems
- Speed Conversion Problems
- Quick Practice (20 min)
- Start **L2** Intro to Sig. Figs
- Please start printing **L3** notes and onwards. I won't be printing anymore after Lesson #2

Mr. Ngo

Tuesday, September 14, 2021 | BADC

March 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	March 1	2 <small>IB Physics 11 - D-Block - HW Probe #2 (Topic 2 Lesson #2)</small>	3 <small>Physics 12 - B-Block - HW Probe #2 - Systems of Mass</small>	4 <small>IB Physics 11 - D-Block - Lab #2 Pass-in and Quiz Physics 12 - C-Block - HW Probe #2 - Systems of Mass</small>	5 <small>AB Day</small>	6
7	8	9	10 <small>Physics 12 - B-Block - HW Probe #3 - Torque and Equilibrium</small>	11	12 <small>CD Day Physics 12 - C-Block - HW Probe #3 - Torque and Equilibrium</small>	13
14	15 <small>March Break - No School</small>	16 <small>March Break - No School</small>	17 <small>March Break - No School</small>	18 <small>March Break - No School</small>	19 <small>March Break - No School</small>	20
21	22	23	24	25 <small>IB Physics 11 - D-Block - HW Probe #3 - Elevator / Tension Problems & Net Forces</small>	26 <small>AB Day</small>	27
28	29 <small>Physics 12 - B-Block - Mid-Unit ICA - Lessons #1 to #6 (including #6)</small>	30 <small>Physics 12 - C-Block - Mid-Unit ICA - Lessons #1 to #6 (including #6)</small>	31	1 <small>IB Physics 11 - D-Block - ICA/Quiz #1 - Topics 1, 2, and Portions of 2,2 (see class for details)</small>	2 <small>Good Friday - Holiday - No School</small>	3

Show All
 Due Dates
 Holidays & Closures
 IB Specific Event
 ICAs and Tests
 Scheduled Lab
 School Events

This is done for best practice – to give students a weekly checklist and info from me

Parent(s), Guardian(s), and Students are able to access the calendar via Google Classroom and on

www.mrngolearning.com

General Discussion around Assessment Practices (Non-IB; Physics Focused)

In putting in systems that enhance student learning and success, I utilize a “seen-once”, “seen-twice”, and “final observation” approach. Typically, homework probes, labs, and check-in assignments act as a “first kick to the can.” Then, after several assessments, I follow with a mid-unit ICA/Quiz. This way, students have a second chance to demonstrate their understanding after several rounds of feedback, or opportunities to improve. Finally, at the end of the unit, students write the “unit test.” The final test acts as their final opportunity to demonstrate their outcomes for the unit. In each case, an open-book strategy is taken for most assessments on their “seen-once” phase. An 8.5x11” double sided organizer is used for their “seen-twice” phase. This organizer is student-made. Finally, at their test, an approved cue card is allowed to be brought in.

Assessment Style (For All Classes Including IB):

I tend to provide students with a list of ‘focus questions’. That way, students can understand my interpretation of their learning objectives / outcomes. Additionally, it shows students the linkages as their instruction is scaffolded into other types of assessments.

CHANGED – Mid-Unit ICA – Monday, Apr. 11

- **4Q** – Multiple Choice Theory Problems
- **1Q** – Kinematics with Dynamics Problem
- **1Q** – Elevator and Tension Problem
- **2Q** – Net Forces Problem (**L3**)
- **1Q** – Systems of Mass (No Newton’s 3rd Law Type)

Variations:

- 3 Connected Mass (**with or without friction**) OR
- 2 connected mass (**with friction for sure**) OR
- Atwood or Over the Table Problem

Mr. Ngo

Monday, April 11, 2022 | ABCD

Time Allotted for Assessments:

I tend to avoid lengthy assessments. Therefore, all assessments are time-trialed to ensure that it not only is acceptable for timing, but it equitably does not significantly impact those who may need additional time. All assessments follow this minimal time equation: (Average time through trial x 5) + 50% extra time for all.

Learner Profile Categories Elaboration

This table is used to provide an interpretation of the “Learner Profile”. 4 labels are used to describe each category: “CONSIST”, “USUALLY”, “SOMETIMES”, and “RARELY.” Each category is based on my observation and experience with each student in my class.

	Class-work & Assignments	Interactions with Others	Organizational Skills	Responsibilities and Independence
Department of Education and Early Childhood Development Wording	Student completes class-work, completes homework, and strives to produce quality work	Student interacts positively, resolves conflicts appropriately, and works collaboratively with others	Student comes prepared for class, manages own materials and belongings, and uses class time efficiency	Student accepts responsibility for own actions, arrives on time for class, follows instructions / directions / rules and routines, respect school property and works independently
Mr. Ngo’s Interpretation	<ul style="list-style-type: none"> • Consistent quality work provided • Strives for perfection (not doing it for simply a grade or an above-average grade) • Sought out or utilized feedback for further improvement and growth (growth-mindset) 	<ul style="list-style-type: none"> • Is able to work collaboratively and productively with others (e.g. class work, lab settings, and other class related activities) without support or interventions • Has shown excellent leadership abilities and/or capacities 	<ul style="list-style-type: none"> • Work is rarely late and is passed in early or on-time • Always arriving to class prepared and ready to learn • Comes to class with all materials necessary for success • When missing class time for external activities (e.g. ACT absences), the student always developed a plan to mitigate time missed in class 	<ul style="list-style-type: none"> • Consistently punctual for class time • Can follow directions and instructions without additional feedback (ex. verbal discussion in private) • Is able to work productively and on-task without teacher intervention • Never required any interventions regarding class routines, rules, directions and instructions • Has shown responsibility by displaying independent work • Has never been warned about cell phone usage and/or other distractions • Has sought out or utilized feedback for further growth • Has asked for materials when missing class time and/or contacted me whenever missing materials

IB Grade Descriptor As Provided By IBO

Sciences

Grade 7

Displays comprehensive subject knowledge and a thorough command of concepts and principles. Selects and applies relevant information, concepts and principles in a wide variety of contexts. Analyses and evaluates quantitative and qualitative data thoroughly. Constructs detailed explanations of complex phenomena and makes appropriate predictions. Evidences great proficiency in solving problems, including those that are challenging or unfamiliar. Communicates logically and concisely using appropriate terminology and conventions. Shows insight or originality.

Approaches investigations in an ethical manner, paying full attention to environmental impact and safety where applicable. Investigations demonstrate insight and independence to design and complete innovative practical work with highly competent investigative and analytical techniques, and with innovative and effective conclusions to resolve authentic problems.

Grade 6

Displays very broad subject knowledge and a thorough understanding of concepts and principles. Selects and applies relevant information, concepts and principles in most contexts. Analyses and evaluates quantitative and qualitative data with a high level of competence. Constructs explanations of complex phenomena and makes appropriate predictions. Solves basic or routine problems and evidences competency in solving those that are challenging or unfamiliar. Communicates effectively using appropriate terminology and conventions. Shows occasional insight or originality.

Approaches to investigations in an ethical manner, paying significant attention to environmental impact and safety where applicable. Investigations demonstrate some innovative thinking and independence to design and complete practical work with competent investigative and analytical techniques, and with highly competent and reasonable conclusions to resolve authentic problems.

Grade 5

Displays broad subject knowledge and shows sound understanding of most concepts and principles, and applies them in some contexts. Analyses and evaluates quantitative and qualitative data competently. Constructs explanations of simple phenomena. Solves most basic or familiar problems and some new or difficult quantitative and/or qualitative problems. Communicates clearly with little or no irrelevant material.

Approaches investigations in an ethical manner, paying attention to environmental impact and safety where applicable. Investigations demonstrate appropriate investigative and analytical techniques with relevant and pertinent conclusions to resolving authentic problems.

Grade 4

Displays reasonable subject knowledge (though possibly with some gaps) and shows adequate understanding of most basic concepts and principles, but with limited ability to apply them. Demonstrates some analysis or evaluation of quantitative or qualitative data. Solves some basic or routine problems but shows limited ability to solve challenging or unfamiliar problems. Communicates adequately, although responses may lack clarity and include some repetitive or irrelevant material.

Generally approaches investigations in an ethical manner, with some attention to environmental impact and safety where applicable. Investigations demonstrate an ability to complete fairly routine practical work with some appropriate investigative and analytical techniques, and with some conclusions relevant to the problem under study.

Grade 3

Displays limited subject knowledge and shows a partial understanding of basic concepts and principles, and weak ability to apply them. Shows some ability to manipulate data and solve basic or routine problems. Communicates with a lack of clarity and some repetitive or irrelevant material.

Sometimes approaches investigations in an ethical manner, with some attention to environmental impact and safety where applicable. Investigations demonstrate an ability to complete a basic investigation with simple analytical techniques, and with some partial conclusions of some relevance to study.

Grade 2

Displays little subject knowledge and shows weak understanding of basic concepts and principles, and little evidence of application. Exhibits minimal ability to manipulate data and little or no ability to solve problems. Offers responses which are often incomplete or irrelevant.

Occasionally approaches investigations in an ethical manner, but shows very limited awareness of environmental impact and safety. Investigations demonstrate an ability to undertake basic investigative work requiring considerable guidance and instruction, and attempts at conclusions that are largely incorrect/irrelevant.

Grade 1

Fragmentary subject knowledge and shows very little understanding of any concepts or principles. Rarely demonstrates personal skills, perseverance or responsibility in investigative activities.

Rarely approaches investigations in an ethical manner, or shows an awareness of environmental impact and safety. Investigations demonstrate an ability to undertake very basic practical work with complete dependence on supervised instruction, with attempts at conclusions are either absent or completely incorrect/irrelevant.