Course Outline: Foundations 20 Enriched
Spring 2020 Semester

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Foundations of Mathematics 20 is a continuation of Foundation and Pre- Calculus 10. This course is considered a Pre-Advanced (AP) course and will therefore have a focus on critical and creative thinking as it applies to Mathematics. Students will be challenged in this course to extend understandings of concepts beyond application and into analysis, synthesis and evaluation. The pace of this course will be rigorous and using class time provided imperative to success.

Students are encouraged to visit http://carignanmath.weebly.com/ for extra help. On this site you will find my online google calendar, Math teaching videos from other Saskatchewan teachers as well as some documents.

Outcome for Chapter 6:
- **FP20.8:** Demonstrate understanding of systems of linear inequalities in two variables.

Outcome for Chapter 7:
- **FP20.9:** Demonstrate an understanding of the characteristics of quadratic functions of the form $y = a(x - p)^2 + q$, including: vertex, intercepts, domain and range, axis of symmetry.

Outcome for Chapter 1:
- **FP20.2:** Demonstrate understanding of inductive and deductive reasoning including: analyzing conjectures, analyzing spatial puzzles and games, providing conjectures, solving problems.

Outcome for Chapter 2:
- **FP20.4:** Demonstrate understanding of properties of angles and triangles including: deriving proofs based on theorems and postulates about congruent triangles, solving problems.

Outcome for Chapter 3 & 4:
- **FP20.5:** Demonstrate understanding of the cosine law and sine law (including the ambiguous case)

Outcome for Chapter 5:
- **FP20.6:** Demonstrate an understanding of normal distribution, including standard deviation and z-scores.
- **FP20.7:** Demonstrate understanding of the interpretation of statistical data, including: confidence intervals, confidence levels, margin of error.

Outcome for Chapter 8:
- **FP20.3**: Expand and demonstrate understanding of proportional reasoning related to: rates, scale diagrams, scale factor, area, surface area, volume.

Project Outcome:
- **FP20.1**: Demonstrate understanding of the mathematics involved in an historical event or an area of interest

EVALUATION:

Hand in Assignments, Delta Math Assignments, Assessment Corrections	15%
Project	5%
Concept Checklists	45%
Comprehensive Test #1 (Ch 6, 7 & 1)	10%
Comprehensive Test #2 (Ch 2, 3 & 4)	10%
Final Exam	15%
TOTAL	100%

CLASSROOM EXPECTATIONS:

- If you don't understand the way something has been taught I can usually teach it in a couple several different ways – just ask!
- My classroom is a place where people feel comfortable and accepted. Please behave in ways that help make that true.
- Phone use: During teaching time, phones must either be left in your locker or placed in your slot in the phone holder at the front of the classroom. On most days you will be allowed to retrieve your phone after I am done teaching. This privilege will be removed if you choose to use your phone inappropriately in class.
    - Phones will NEVER be allowed during tests so be sure to always have your graphing calculator with you! I do not usually have extra calculators so you must come prepared.
- Extra help: Please always ask if you have any questions. Campbell Collegiate Math Teachers also provide a scheduled math help session every day – please check the posted sign in my classroom for times and locations
- There is no such thing as a stupid question! Ask if you don't understand!!!!!!!
- You must come prepared for class – bring all supplies and your textbook every day.
- If you know in advance that you will be missing class, I expect you to inform me prior to that day (especially if it is a test day). When you miss a class, it is EXPECTED that you will watch the video lesson and catch up on missed homework prior to returning to class.

SUPPLIES NEEDED:

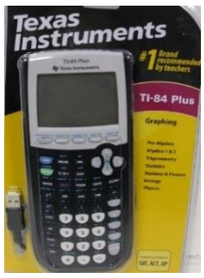
- GRAPH PAPER (MUST HAVE!!)
- loose leaf
- Binder
- Textbook
- Ruler
- Pencils
- Eraser
- Coloured Pens (Erasable Coloured pens are a helpful tool)
- Highlighters
- Sticky Notes
- Scientific Calculator (APPROVED STYLES ONLY-

CALCULATORS WITH THE FOLLOWING FEATURES WILL NOT BE ALLOWED: (More complete document available on my webpage and google classroom page)
WriteView,
Mathprint,
Multiview,
Natural Display
Textbook Display

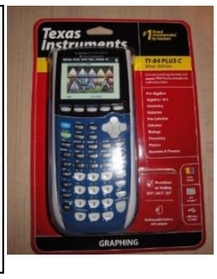
- Graphing Calculator **(See below)**

You need to have a **Texas Instrument Graphing Calculator** in order to complete various Pre-AP portions of this course (and for each subsequent Pre-AP and AP Math course). The AP final exam in grade 12 is written using the graphing calculator for half the test and no access to any calculator for the other half.

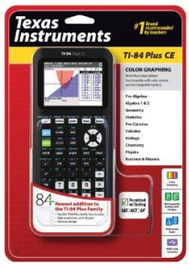
- Below are photos of some of the types and varieties that will meet the needs of the students.



TI-84 Plus
Regular black or Silver Case
This calculator has a black and white screen and uses replaceable batteries



TI-84 Plus C
The case comes in various colours
This Calculator has a coloured screen and a rechargeable battery



TI-84 Plus CE
The case comes in various colours
This Calculator has a coloured screen and a rechargeable battery
It is thinner and lighter than the previous two models

Everyone MUST sign up for remind (either on their phone or other device/computer).
The code is: @p5f20

If you are on a Rogers cell plan, you need to download the app, turn on email notifications and connect via the app

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Everyone MUST sign up for both of my google classrooms.

- **One is for documents that I will share with you:** g37vnos
- **The other is where I will download the daily video lessons:** sum3ske. **If you miss a lesson you are <u>expected</u> to watch the recording of the lesson you missed. You may also rewatch a video lesson or parts of the lesson to aid in your learning.**
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Everyone MUST sign up for Delta Math (Instructions on a separate sheet). You will have a few Delta Math Assignments each unit. Delta Math Assignments are summative and have due dates! They are also very helpful to your learning!
