EDUC 415 COURSE REQUIREMENTS…AN ELABORATION

GRADING SCHEME:

1. Attendance, punctuality, and participation: Mandatory
2. Discussion points: 20%
3. Weekly homework questions: 20%
4. Topic analysis: 20%
5. Math play 1: 5%
6. Math play 2: 20%
7. Presentations: 5%
8. Choose one:
    a) NCTM article summary 10%
    b) Problem journal 10%

1. Attendance, punctuality, and participation:

Please make every effort to get to class on time.

2. Discussion points:

Discussion points are completed on a regular basis (6 in total) and are based on the readings or in-class discussion. For description and elaboration on what a discussion point is, see the sheet entitled: *What Sean is looking for in a discussion point assignment.* (The dates the DPs are due are May 13th, 27th, June 10th, 24th, July 8th, 22nd.)

3. Weekly homework questions:

Homework questions are completed on a weekly basis (10 in total) and are based on the more difficult mathematics found in the high school curriculum. It is understood that you will (and can) work collaboratively to solve some of these problems, but it is expected that you hand in original work.

4. Topic Analysis:

Choose a topic from the BC curriculum and follow its evolution from grade 8 to grade 12. You can choose from one of the following: Number and operations (Integers, rational, and real), Measurement (Imperial/Metric, Operations, Perimeter, Area, Volume), Geometry (Properties of shapes and proofs), Probability (Games, Combinatorics), Data Analysis (Data collection, Presentation and Analysis), Algebraic concepts (Equations, inequalities, and functions), or Trigonometry. The goal is to convey the "development" of your strand in the current curriculum providing both macro and micro examples. Ask (and then answer) questions regarding the curriculum such as: what are any underlying assumptions or expectations in the evolution of the topic, are there any "holes" in the reasoning or flow of the topic, how does the affective domain "fit" into this content? Ascertain any "issues" the student may come into contact and also summarize what mathematical functionality the student is supposed to learn.
This assignment will be done in groups of 3 or 4 students, and, in addition to handing a report to me, will be presented to the class during the last part of the course (last day to hand in written report is July 29th).

5. Math Play:

As opposed to the traditional lesson plan which structures the format of a class with little room for variation, the math play provides an opportunity to present what one might anticipate occurring in a classroom during a lesson. A lesson rarely goes according to plan and so the math play is a thoughtful process to anticipate a conversation with a student or a pair of students taking place in the classroom surrounding a particular issue. This assignment will be done in pairs. There will be two math plays that you will be handing in. The first is due May 20th and the second later in the term (the latest submission date is July 29th). These plays will be presented to the class during the second half of the course.

6. Presentation: I am hoping that both the topic analysis and math play mentioned above can be presented during the last 6 classes. The purpose of the presentation is to provide greater exposure for your classmates.

7. Choose one: (Due July 29th or earlier)
   A. Find an article from Mathematics Teacher put out by the NCTM. Summarize the article, comment on what interested you in the article, describe its main focus in the context of a classroom. For example, if it is a technology piece, describe its implementation or its utility or why you'd use such technology to support the associated content. Ask yourself how you could use this in a class and if you did, what considerations, learning goals or problems you anticipate.
   B. Throughout the course you will be given several mathematics-based problems to work on. Your efforts are to be recorded in a journal format detailing your progress, successes, failures, frustrations, thoughts, and reflections regarding the problem. You will work in groups of 2-4 but will submit an individual journal detailing the group's progress, successes, failures, frustrations, as well as your thoughts and reflections. It is understood that you will work collaboratively to solve some of these problems but it is expected that you hand in original work. Submitted work should begin with a polished answer to the question followed by your journal entries.

FINAL MARK	**GRADE**
96-100	**A+**
91-95	**A**
86-90	**A-**
81-85	**B+**
76-80	**B**
71-75	**B-**
66-79	**C+**
61-65	**C**
56-60	**C-**
46-55	**D**
0-45	**F**