Education 823

Teaching and Learning Mathematics

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**Location:** SFU Burnaby – SECB 1012

**Dates:** January 13-15

January 27-29

March 3-5

March 31-April 2

**Times:** Fridays 5:00 pm – 9:00 pm

Saturdays 8:30 am – 3:00 pm

Sundays 9:00 am – 1:00 pm

**Text:** *Experiencing School Mathematics: Traditional and Reform Approaches to Teaching and Their Impact on Student Learning* – Jo Boaler ISBN 978-0805840056

**Website:** [www.peterliljedahl.com/courses/educ-823](http://www.peterliljedahl.com/courses/educ-823)

**Blog:** [https://canvas.sfu.ca/courses/](https://canvas.sfu.ca/courses/18602)31365

**Site Assistant:** Annette Rouleau ([annette\_rouleau@sfu.ca](mailto:annette_rouleau@sfu.ca))

**Readings:** Supplementary material will be posted on a regular basis.

# Course Requirements

1. Problem Solving Portfolio (25%)

Throughout the course you will be given several mathematics-based problems to work on – both in class and as homework. Each of these will be kept in a portfolio. It is expected that you will work collaboratively on these problems. The evaluation of this portfolio will be discussed as the course evolves. The portfolio is due on the Friday of weekend #4.

1. Written Journal (25%)

Throughout the course you will be asked to record your thoughts and ideas about concepts discussed in this class, as well as experiences within your own classroom. Sometimes you will be asked to make 'quick write' entries, sometimes you will be asked to make more thoughtful and detailed responses as homework. Each entry should be preceded by the date of the entry as well as a title restating the writing prompt. Some prompts will be used more than once. Your entries are meant to reflect YOUR thoughts. There are no correct answers. In fact, sometimes you will not have any answers – only questions. All I ask is that you engage with these entries in a sincere and authentic fashion. The entire journal is due on Sunday of weekend #4 (extension possible).

1. Paper (25%)

Read *Experiencing School Mathematics: Traditional and Reform Approaches to Teaching and Their Impact on Student Learning* and respond to the following question:

It can be said that when we read a book we read ourselves into the text. In what ways did you read yourself into Boaler's book? Speak about your own teaching practice (past, present, and future) in relation to the book.

A 10 page (double spaced) response is due on the Friday of weekend #3.

1. EDUC 823 Blog (25%)

For the entire length of the course you will be required to enact the things we are learning in your own classroom. You will discuss your efforts, successes, failures, questions, and musings in your own discussion room in the ***EDUC 823 Blog***. At the same time, you will also be required to participate in the discussions hosted by your classmates.