ED 4161 The Teaching of Mathematics in the Intermediate and Secondary School. Instructor: Margo Kondratieva

Teaching Portfolio: Organized file of teaching materials.

Due Date: **Dec 2** in class.

1. Organizing a resource file.

Read section in D.J. Brahier "Teaching secondary and middle school mathematics" on page 112-113 to get an idea of an organization. (The book is placed on reserve in CMC). Obtain necessary files, folders, labels etc. Organize your material the way you feel to be helpful for your future use. As a nuclear part of your portfolio you are required to have **four folders** each for each of the **Strands** (see Foundations for the Atlantic Canada Math Curriculum, page 10): *Numbers Concepts & Relationship Operations, Patterns and Relations, Shape and Space, Data Management and Probability).* In each folder collect examples of classroom activities which you believe to be good learning and motivational tools. The activities can be taken from various sources: books, Internet, other teachers, etc. For each activity comment on its relevance to the four **Unifying Ideas** (Foundations, pages 7-9): *Problem Solving, Reasoning and Proof, Communication, and Connections.* Each activity should have a teacher guideline regarding possible approaches, hints, or solutions. (See Sample Portfolio placed on reserve in CMC. Note that the sample was organized according to the NCTM standards, and thus contains five folders).
You are encouraged to collect as many items as you wish. However, I would like each group to submit for my evaluation only **4 activities** – one for each folder. You can split the job so that each of you prepares one activity, but make sure to review each others' contributions.

2. Teaching philosophy and goals.

Write up to two pages stating your aims, intends, beliefs, and possible strategies in teaching mathematics. Compare to your Position Statement, written in September. When writing your teaching philosophy, the following guiding questions may be used. Note that some answers to the questions will change as you accumulate more teaching experience, but it is important for you to be explicit about those answers at all time.

- What excites you about mathematics?
- Why did you decide to become a teacher?
- How do you motivate students? How do you give them feedback?
- Do you have a role model?
- What kind of activities take place in your classroom and why?
- What roles do students play in your classroom: listeners or co-discoverers?
- Which courses/topics do you enjoy teaching?
- How do you measure learning outcomes and effectiveness of your actions?
- What have you learn from teaching? About teaching?
- Is there teaching or learning incident that has been pivoting in your career?
- What are your teaching goals? (Some examples of teaching goals are: teaching students facts and principles; provide a role model; helping the students to develop higher thinking skills; preparing students for jobs and careers; fostering students development and personal growth; helping students develop basic learning skills.)