EA 206-E: Developing Numeracy in the Elementary Classroom

Children’s developing math concepts and abilities at the pre-math and early math levels will be studied and observed. The emphasis will be the educational assistant’s role in observing children’s responses to math lessons, and supporting and adapting learning experiences to meet individual learning goals. Awareness of approaches and strategies to remediate math learning will be examined. **Access to groups of children is necessary to fulfill the requirements of the course.** A portion of each class will be devoted to the reinforcement of math skills up to beginning algebra.

2 credits, 15 weeks, 30 hours of instruction

Instructor:

Joanne Williams-Hancock
Office 202A
Joanne.Williams@keyano.ca

Office hours:

Mondays, 5:30 PM – 6:30 PM in CC202A

Hours of Instruction:

Mondays, 6:30 PM – 8:30 PM

Required Resources:


Course Outcomes:

1. Review and become familiar with the areas of study covered in the Alberta provincial Program of Studies in mathematics.

2. Demonstrate an awareness of the role math anxiety plays in the lives of children and adults.

3. Recognize and document the math learning of individual children in response to a teacher-led math lesson.
4. Reflect on concepts in math by identifying, developing and implementing rich math tasks (under the direct supervision of a teacher) to encourage children’s learning of those concepts based on the current curriculum being taught.

5. Use tools for documenting children’s learning such as scribing, graphs, and documentation panels.


**NOTE!!** If class is cancelled, for whatever reason, any assignments will be due and submitted at the **BEGINNING** of the following class.

**METHOD OF EVALUATION:**

**Evaluation:**

<table>
<thead>
<tr>
<th>Math Autobiography</th>
<th>20%</th>
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<tbody>
<tr>
<td>Your first assignment involves the writing of your own autobiography. An autobiography is the story of a person’s life, told by that person. What makes this autobiography special is that it is the story of you mathematical life. You will answer the following questions within the autobiography. Think about the first time you remember using or thinking about math in your early years. What did you like to do? What kind of math things did you play with? Who helped you realize the importance of math and numbers in your early life? Are there any amusing or cute math stories that you can share? Are there certain topics or skills in, math that you particularly like or dislike? Describe them. How would you rank math among your other subjects in enjoyment or interest? Think about your math teachers. What is your family’s attitude toward math? A reflection of content from lectures is also necessary. A further assignment sheet and rubric will be provided.</td>
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<tr>
<th>Multimedia Math Journal</th>
<th>40%</th>
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<tr>
<td>Using an online platform, you will solve a different rich task each week using concrete, semi-concrete and abstract representation to journal your understanding of mathematical concepts covered in the course. We will use an online platform to familiarize yourself with programs, digital tools and strategies that are currently being used in schools in Alberta. Some blogging and reflection will be required.</td>
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</table>
### Development of Practical Math Strategies (Rich tasks) and documentation 30%

You will create 2 rich tasks (15% each) for use with children. These tasks that you create must be able to be used with a variety of students, of different ages, and levels. All of the tasks will meet the requirements of rich tasks. Your rich tasks must be implemented with a group of students. A summary and write up will be required for each task which must include photos of the task being delivered and samples in the classroom. A further assignment sheet and rubric will be provided. These will be presented to your classmates.

### Moodle Coursework

You will be participating 3 on line classes including a scavenger hunt. In order to receive marks you must complete the activity. Each activity will be worth 5%.

### A grade of C- is required for progression or transfer.

### Grading System

<table>
<thead>
<tr>
<th>Percentage Scale</th>
<th>Alpha Grade</th>
<th>4.0 Scale</th>
<th>Descriptor</th>
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<tbody>
<tr>
<td>94-100</td>
<td>A+</td>
<td>4.0</td>
<td>Excellent</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A-</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>90-89</td>
<td>B+</td>
<td>3.3</td>
<td>Good</td>
</tr>
<tr>
<td>80-85</td>
<td>B</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B-</td>
<td>2.7</td>
<td></td>
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<tr>
<td>75-74</td>
<td>C+</td>
<td>2.3</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>65-69</td>
<td>C</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C-</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>56-59</td>
<td>D+</td>
<td>1.3</td>
<td>Poor</td>
</tr>
<tr>
<td>50-55</td>
<td>D</td>
<td>1.0</td>
<td>Minimum Pass</td>
</tr>
<tr>
<td>0-49</td>
<td>F</td>
<td>0.0</td>
<td>Failure</td>
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### Please Note:
You will be provided a schedule of topics the first day of class. Date and time allotted to each topic is subject to change. It is your responsibility as a student to contact the Office of the Registrar to complete the forms for Withdrawal or Change of Registration, and any
other forms. Please refer to the list of important dates as noted in the Academic Schedule in the Keyano College Credit Calendar.

Performance Requirements

Course assignments have set due dates to manage both instructor and student workloads. Changes to due dates may occur to adjust overall student workload based on class consensus.

The department performance requirements (revised 2014) regarding student evaluation states that:

- Assignments are to be submitted in class on their respective due dates. If a student is absent from class, the assignment will considered late.

- Individual extensions require students to contact and ask permission from the instructor prior to the assignment due date. In addition, a signed request for extension, including the extenuating circumstances must be submitted at that time or as soon as possible.

- For assignments that are late without written permission:
  - a grade will be deducted for assignments up to 3 days late. e.g. a B assignment will become a B-
  - an additional grade will be deducted for assignments that are 4 – 7 days late; ie: An assignment with a grade of B now becomes a C+
  - no assignments will be accepted after 1 week past the due date.

- **No assignments will be accepted after the beginning of the class on final date of the course. The final due date for this course is Friday, April 22nd, 2015.**

- Since final exams are not a component of ELCC or EA courses and because learning is participatory, attendance and participation are part of the course grade. **80% attendance and word-processed assignments when required by the instructor, are necessary to achieve a final grade of B or higher in ELCC and EA courses.**

- A grade of B on an assignment recognizes that the student has met the basic requirements and knows the applicable content thoroughly enough to be able to apply it. A grade of less than B brings attention to the student that there are gaps in understanding the content and skills required for that assignment. Students should use the criteria for assignments to guide assignment work.

- A grade of B+ or higher acknowledges excellence in quality and quantity of work. The student’s assignment is above the basic requirements.

Students who do not complete all the required work should not expect to pass the course.
Students should consult: http://keyano.ca/current-students/students/exams

Student Attendance

Class attendance is useful for two reasons. First, class attendance maximizes a student’s learning experience. Second, attending class is a good way to keep informed of matters relating to the administration of the course (e.g., the timing of assignments and exams). Ultimately, you are responsible for your own learning and performance in this course.

It is the responsibility of each student to be prepared for all classes. Students who miss classes are responsible for the material covered in those classes and for ensuring that they are prepared for the next class, including the completion of any assignments and/or notes that may be due.

Academic Misconduct

Students are considered to be responsible adults and should adhere to principles of intellectual integrity. Intellectual dishonesty may take many forms, such as:

- Plagiarism or the submission of another person’s work as one’s own
- The use of unauthorized aids in assignments or examinations (cheating)
- Collusion or the unauthorized collaboration with others in preparing work
- The deliberate misrepresentation of qualifications
- The willful distortion of results or data
- Substitution in an examination by another person
- Handing in the same unchanged work as submitted for another assignment
- Breach of confidentiality

The consequences for academic misconduct range from a verbal reprimand to expulsion from the College. More specific descriptions and details are found in the Student Rights and Student Code of Conduct section of the Keyano College 2015-2016 credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Student Code of Conduct Policies.

Specialized Supports

Counselling and Disability Services

Counselling Services provides a wide range of specialized counselling services to prospective and registered students, including personal, career and academic counselling.

SKILL Centre
The SKILL Centre is a learning space in the Clearwater Campus at Keyano College where students can gather to share ideas, collaborate on projects and get new perspectives on learning from our tutorial staff.

The SKILL Centre, through a variety of delivery methods, provides assistance in skill development to Keyano students. Assistance is provided by instructors, staff and student tutors. Individuals wishing to improve their mathematics, writing, grammar, study, or other skills, can take advantage of this unique service.
Authorization
This course outline has been reviewed and approved by the Program Chair.

Joanne Williams-Hancock, Instructor    Date Authorized

Vincella Thompson, Dean    Date Authorized

Signed copies to be delivered to:
Instructor
Registrar’s Office