OTTAWA ONLINE
Professional Education Program
EDU 58037
Assessment for the Math Classroom

Course Description
This course prepares teachers to enhance their knowledge, skills, beliefs and attitudes related to leadership instruction in mathematics, mathematics curriculum and how students learn mathematics in elementary level. The course examines purpose and types of assessment, methods of analysis and instructions including backward design, writing and analysis of assessment items, students' participation and self-assessment. The instruction and pedagogical experience will support educators to use assessment effectively to the subject of mathematics.

This 8-week course is completely online. We will not meet face-to-face at any time.

Course Prerequisites: None

Course Objectives
Upon successful completion of this course, students will be able to:

- To increase mathematics content knowledge and skills of grades K-8 teachers.
- To use instructional strategies and probing questions to assist students in higher-level thinking skills with an emphasis on a variety of ways for teaching and encouraging students to apply, analyzes, synthesize and evaluate oral, written, and visual text in the area of assessment for the mathematics classroom.
- To understand the purpose of assessment and compare and contrast different types of assessment methods in the mathematics classroom.
- To improve teacher’s analysis/writing of assessment item and examine parent communication.
- To build strong methods of assessment, analyze results, implement instructional change, and evaluate current practices.
- To develop and create lesson plans, anecdotal records, and rubrics while building teacher conceptual understanding of the Arizona Mathematics Standards (2010 Common Core State Standards).
- To promote collaboration among educators.

Course Materials

- Arizona Academic Content Standards by grade level: Mathematics

Course Websites

Overview of the Course

Participation
In fully online courses, student participation takes place in the text-based, asynchronous discussion forum. Participation is crucial in enhancing the learning environment within an online course. All students are expected to be active participants in-group discussions at least 3 times per week. In this course, part of your grade is based on your participation in our community conversations. More information is available in the Competency Assessment section below as well as in the Participation Policies and Expectations portion of the Info & Policies section of our cyberclassroom in Blackboard.
Attendance
Full attendance is expected and it can affect your grade and performance in this course. If a student misses more than 30% of the class, they will be advised to drop the course.

Competency Assessment
You will read the required text, which will act as a foundation for understanding mathematical practices. Each week's assignments are focused around a development factor that contributes to individual's growth and progress.

You will have many opportunities to demonstrate your knowledge and understanding of the principles taught in this course. The primary means of evaluating your work will be through practical application of the material. In the event that you have difficulty completing any of the assignments for this course, please contact me immediately. My email address and telephone number are listed on this syllabus. Please remember that instructors do not randomly assign grades. Students earn their grades and everyone has the same opportunity to earn a good grade.

Please refer to the Course Materials section of the cyberclassroom for complete details regarding the activities and assignments for this course. The following is merely a summary.

Discussion contributions --- 80 Points
(10 points possible each week for 8 weeks)

Each week you must submit/post a discussion comment to the weekly discussion topic/question. Your post will be worth 5 points each week and most weeks, you can choose 1 of the 2 or 3 questions provided. Then, after reading the postings made by other students, you must reply to a minimum of two of your peers’ posts (worth 5 total points each week). Your responses must be substantive. Simply stating that you “agree or disagree” is not substantive. You need to add your explanation as to “why” you feel as you do. Furthermore, only comments related to the weekly subject will be given credit.

All of your postings must be on different days—meaning that you must be online at least three times/days per week. Your first posting must be made by Wednesday of each week to ensure that others have time to respond to your comments. Online weeks run from Monday to Sunday. Please refer to the Participation Policies and Expectation in the Info & Policies section of this course for important information about how the Discussion Board (Course Discussions) works and what is expected of you.

Assignments - 330 points

Week One:
- Reflection = 10 points
  Complete Reflection 2-1: Focus on the Mathematics on pg. 42 – 45.
- Reflection = 10 points
  Complete Reflection 2-2: Assessment in a Grade 2 Classroom on pg. 46
- Reflection = 10 points
  Complete 1 “Reflection” of your choice from pgs. 47 – 51.
- Reflection = 10 points
  Complete 1 “Reflection” of your choice from pgs. 74 – 78.

Week Two:
- Reflection = 10 points
  Complete Reflection 4-1: Making the Most of Interviews: Inferences About a Student’s Thinking on pg. 107.
- Reflection = 10 points
  Complete Reflection 4-2: Tory's Misunderstanding on pg. 107.
- Reflection = 10 points
  Complete Reflection 4-3: INFORMing My Practice: Gathering Information About Students’ Thinking on pg. 109.
- Anecdotal Record = 10 points
  Create one of the suggested anecdotal records: observation checklists, calendar grids, mailing labels and sticky notes, index cards, photographs and videos, journals and other narratives.

Week Three:
- Reflection = 10 points
  Complete Reflection 5-1: Numbers with Two Fours on pgs. 128 - 129.
- Reflection = 10 points
  Complete Reflection 5-2: Rainbow Robots on pgs. 130 - 131.
- Reflection = 10 points
  Complete Reflection 5-3: Comparisons of Assessment Methods on pgs. 132 - 134.
  Reflection = 10 points
Complete Reflection 5-4: INFORMing My Practice Using a Variety of Assessments on pg. 135.

Week Four:
- Reflection = 10 points
  Complete Reflection 6-1: Evaluating Tasks on pgs. 157 - 159.
- Reflection = 10 points
  Complete Reflection 6-2: Plan for Addressing Marika’s Misconceptions on pg. 160.
- Reflection = 10 points
- Reflection = 10 points
  Complete Reflection 6-4: INFORMing My Practice: An Action Plan for Tasks on pg. 163.

Week Five:
- Reflection = 10 points
  Complete Reflection 7-1: Evaluating My Current Practice on pg. 194.
- Reflection = 10 points
  Complete Reflection 7-2: Establishing Characteristics of Quality Work with Students on pg. 195.
- Reflection = 10 points
  Complete 1 “Reflection” of your choice from pgs. 196 – 202.
- Reflection = 10 points
  Complete Reflection 7-7: INFORMing My Practice: Supporting Student Self-Assessment and Responsibility on pg. 203.

Week Six:
- Reflection = 10 points
  Complete Reflection 8-1: Writing Probing Questions for a Kindergarten Student on pg. 234.
- Reflection = 10 points
  Complete Reflection 8-2: Writing Probing Questions for Fourth-Grade Students on pgs. 235 - 237.
- Reflection = 10 points
  Complete Reflection 8-3: Writing Probing Questions for Sixth-Grade Students on pgs. 238 - 239.
- Reflection = 10 points
- Reflection = 10 points

Week Seven:
- Reflection = 10 points
- Reflection = 10 points
- Reflection = 10 points
  Complete Reflection 9-3: Creating a Specific Rubric: Template on pg. 275.
- Reflection = 10 points

Week Eight:
- Reflection = 10 points
  Complete Reflection 10-1: What ‘s in a Grade? The Case of Maia and Marissa on pg. 294.
- Reflection = 10 points
  Complete Reflection 10-2: Moving Toward INFORMative Assessment Practices on pg. 295.
- Reflection = 10 points
  Complete Reflection 10-3: Mentoring Ms. Hanley on pgs. 296 - 297.
- Reflection = 10 points
  Complete Reflection 10-4: INFORMing My Practice: Final Reflections and Goals on pg. 298.
<table>
<thead>
<tr>
<th>Week</th>
<th>Readings &amp; Discussion questions</th>
<th>Assignments Due</th>
<th>Date/Time Due**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chapters 1, 2, 3</td>
<td>• Discussion forum postings • Reflection • Reflection • Reflection • Reflection</td>
<td>• Weekly at midnight CT on Weds. • Friday • Friday • Friday • Friday</td>
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<tr>
<td></td>
<td>1. How do you know when your students understand the math concept(s) you are teaching?</td>
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<td>2. Are pre-tests/assessments helpful?</td>
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<td></td>
<td>3. What are learning targets?</td>
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<tr>
<td>2</td>
<td>Chapter 4</td>
<td>• Discussion forum postings • Reflection • Reflection • Reflection • Anecdotal Record</td>
<td>• Weekly at midnight CT on Weds. • Friday • Friday • Friday • Friday</td>
</tr>
<tr>
<td></td>
<td>1. How do you use anecdotal records in your classroom? If you have not used anecdotal records, how could you use them?</td>
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<tr>
<td></td>
<td>2. How would you use one of the suggested anecdotal records: observation checklists, calendar grids, mailing labels and sticky notes, index cards, photographs and videos, journals and other narratives?</td>
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<tr>
<td>3</td>
<td>Chapter 5</td>
<td>• Discussion forum postings • Reflection • Reflection • Reflection • Reflection</td>
<td>• Weekly at midnight CT on Weds. • Friday • Friday • Friday • Friday</td>
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<tr>
<td></td>
<td>1. Do journal responses help in math instruction?</td>
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<td></td>
<td>2. Are portfolios an effective assessment tool?</td>
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<tr>
<td>4</td>
<td>Chapter 6</td>
<td>• Discussion forum postings • Reflection • Reflection • Reflection • Reflection</td>
<td>• Weekly at midnight CT on Weds. • Friday • Friday • Friday • Friday</td>
</tr>
<tr>
<td></td>
<td>1. Why is it important to take time to identify rich tasks for students?</td>
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<tr>
<td></td>
<td>2. What defines a rich mathematical task?</td>
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<tr>
<td>5</td>
<td>Chapter 7</td>
<td>• Discussion forum postings • Reflection • Reflection • Reflection • Reflection</td>
<td>• Weekly at midnight CT on Weds. • Friday • Friday • Friday • Friday</td>
</tr>
<tr>
<td></td>
<td>1. How do you encourage your students to be responsible for their own learning in math?</td>
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<td></td>
<td>2. Do you have your students self-assess their learning and if so, how? If not, how would you</td>
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</table>
### Implement self-assessment into your classroom and why?

- Chapter 8
  - On pgs. 229 – 232 are different examples of good questions for different math purposes, how could you use this in your classroom?
    - Discussion forum postings
    - Reflection
    - Reflection
    - Reflection
    - Reflection
    - Reflection

- Chapter 9
  - How do you use rubrics in your classroom?
  - Why are rubrics an effective assessment tool?
    - Discussion forum postings
    - Reflection
    - Reflection
    - Reflection
    - Reflection

- Chapter 10
  - What techniques do you use to communicate with parents?
  - How would you move towards INFORMative assessment practices?
    - Discussion forum postings
    - Reflection
    - Reflection
    - Reflection

### Assignments At-A-Glance

<table>
<thead>
<tr>
<th>Assignment/Activity</th>
<th>Qty.</th>
<th>Points</th>
<th>Total Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion forum postings</td>
<td>8 weeks</td>
<td>10</td>
<td>80</td>
</tr>
<tr>
<td>Assignments</td>
<td>3</td>
<td>10</td>
<td>330</td>
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<tr>
<td><strong>TOTAL POINTS</strong></td>
<td></td>
<td></td>
<td><strong>410</strong></td>
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*Please refer to the Info & Policies menu for more information about our Course Discussions.

### Grading Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Points</th>
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<tbody>
<tr>
<td>A</td>
<td>90 to 100%</td>
<td>370 - 410</td>
</tr>
<tr>
<td>B</td>
<td>80 to 89%</td>
<td>330 - 369</td>
</tr>
<tr>
<td>C</td>
<td>70 to 79%</td>
<td>290 - 329</td>
</tr>
<tr>
<td>D</td>
<td>60 to 69%</td>
<td>250-289</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 60%</td>
<td>&lt;249</td>
</tr>
</tbody>
</table>

### Important Policies

All course-specific policies for this course are spelled out here in this syllabus. However, additional university policies are located in the Policies folder in the Info & Policies section of Blackboard. You are responsible for reading and understanding all of these policies. All of them are important. Failure to understand or abide by them could have negative consequences for your experience in this course.
Late Assignments
I accept late assignments for up to one week after the due date. You will lose 20% of the total value of the assignment for any assignment turned in after the due date.

Editorial Format for Written Papers
All written assignments are to follow the APA writing style guidelines for grammar, spelling, and punctuation. This online course includes information regarding the APA style under “Writing and Research Resources” in the Resource Room on the course menu in Blackboard.

Academic Integrity
Please refer to Academic Honesty in the Info & Policies section of the online course menu for important information about Ottawa University’s policies regarding plagiarism and cheating, including examples and explanations of these issues.

Student Handbook
Please refer to your student handbook for all university regulations. The Resource Room on the course menu in Blackboard contains information about where to find the student handbook online for your campus.

Blackboard Technical Support
The Resource Room in Blackboard contains links to student tutorials for learning to use Blackboard as well as information about whom to contact for technical support. Ottawa University offers technical support 24 hours/day for all students, staff, and faculty at no cost.

Best wishes for successful completion of your course with Ottawa University!