



Foundations of Teaching Adult Numeracy Course Overview and Schedule

Format: Scheduled, facilitated

Estimated Completion Time: 2-3 hours per week (12 hours total)

Contact: literacy@worlded.org

Course Objectives

By the end of course, you will be able to:

- Describe the three components of numeracy—context, content, and cognitive and affective—and why it is important to address each component;
- Understand and address the needs of students with learning gaps in math;
- Recognize how different styles of learning math and different levels of math knowledge effect students' math skills;
- Use the College and Career Readiness Mathematics Standards as a tool for supporting course content and classroom practices; and
- Explain ways to build students' skills in the components of numeracy for success in learning math.

Course Completion

To determine your successful completion of this course, the course instructor will assess your work based on whether and to what extent you have done the following:

- ✓ Participated in asynchronous discussions: 30%
- ✓ Completed the required assignments: total of 60%
 - Lesson 2: Post to *My Math Autobiography* (10%)
 - Lesson 3: Quiz: *Not Just a Number* (10%)
 - Lesson 4: Post to *Lesson Review* (10%)
 - Lesson 5: Post to *Constructivism* (10%)
 - Lesson 5: Post to *Levels of Math Knowledge* (10%)
 - Lesson 6: Post to *Classroom Application* (10%)
- ✓ Completed the course exam: 10%

If you score an 80% or above, you will successfully complete the course and earn a Certificate of Completion.

COURSE SCHEDULE

Module 1: Getting Started

- Required Software and Course Features
- Course Objectives
- Course Requirements
- Planning for Learning
- Personal Learning Goals
- Forum: Course Goals
- Forum: Questions and Observations
- Lesson Summary

Part I: Numeracy and the Adult Student

Module 2: What is Numeracy?

- What is Numeracy?
- Adult Education Teachers
- Math Autobiography
- Components of Numeracy
- Context
- Forum: Reflecting on the Context
- Content
- Forum: Reflecting on the Content
- Forum: My Math Autobiography
- Forum: Questions and Observations
- Lesson Summary

Module 3: Adult Students and Numeracy

- Adult Students and Numeracy
- A Teacher Perspective
- Reasons for the Learning Gaps
- Math Anxiety
- Math Learning Difficulties
- Cultural and Language Barriers
- Lack of Mastery of Particular Math Content
- Forum: My Student
- Not Just a Number
- Quiz: Not Just a Number
- Numeracy Matters
- Forum: Questions and Observations
- Lesson Summary

Part 2: Good Teaching in the Numeracy Class

Module 4: Classroom Atmosphere

- Classroom Atmosphere
- Forum: Easing Math Anxiety
- Learning Disabilities
- Cultural or Language Barriers
- Forum: Ask Your Students
- Addressing Student Needs
- Math Learning Styles
- Identifying Your Preferred Style
- Inchworm Style
- Grasshopper Style
- Inchworm Approach to the Area Problem
- Grasshopper Approach to the Area Problem
- Inchworm Approach to the Average Score Problem
- Grasshopper Approach to the Average Score Problem
- A Teaching Comment
- Validating Learning Styles
- Developing the Mathematical Practices
- Forum: Lesson Review
- Forum: Questions and Observations
- Lesson Summary

Module 5: Levels of Knowing Math

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| <input type="checkbox"/> Levels of Knowing Math | <input type="checkbox"/> Application |
| <input type="checkbox"/> The Case Against the Status Quo | <input type="checkbox"/> Communication |
| <input type="checkbox"/> Constructivism | <input type="checkbox"/> Mastery of Concepts |
| <input type="checkbox"/> Forum: Constructivism | <input type="checkbox"/> Helping Students Learn Well |
| <input type="checkbox"/> Levels of Knowing Math | <input type="checkbox"/> Multiple Intelligences |
| <input type="checkbox"/> Intuitive | <input type="checkbox"/> Forum: Suggestions |
| <input type="checkbox"/> Concrete | <input type="checkbox"/> Forum: Levels of Math Knowledge |
| <input type="checkbox"/> Pictorial | <input type="checkbox"/> Forum: Questions and Observations |
| <input type="checkbox"/> Abstract | <input type="checkbox"/> Lesson Summary |

Module 6: Teacher as Facilitator

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| <input type="checkbox"/> Teacher as Facilitator | <input type="checkbox"/> Problems in Context |
| <input type="checkbox"/> Closed Problems | <input type="checkbox"/> Forum: Math Projects |
| <input type="checkbox"/> Forum: Closed Problems | <input type="checkbox"/> Assessing Students' Mathematical Thinking |
| <input type="checkbox"/> Open Problems | <input type="checkbox"/> Analyzing Students' Mistakes |
| <input type="checkbox"/> Number of the Day | <input type="checkbox"/> Knowing Mathematics for Teaching |
| <input type="checkbox"/> Advantages of Open Problems | <input type="checkbox"/> Facilitation Questions |
| <input type="checkbox"/> Open Problems: Method 1 | <input type="checkbox"/> Forum: Facilitation Questions |
| <input type="checkbox"/> Open Problems: Methods 2 & 3 | <input type="checkbox"/> Forum: Classroom Application |
| <input type="checkbox"/> Open Problems: Methods 4-7 | <input type="checkbox"/> Forum: Questions and Observations |
| <input type="checkbox"/> Forum: Creating Open Problems | |

Module 7: Course Summary

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| <input type="checkbox"/> Course Summary | <input type="checkbox"/> Evaluation |
| <input type="checkbox"/> Forum: Reflections | <input type="checkbox"/> Certificate |
| <input type="checkbox"/> Exam | |

Course materials are available for one month from the course end date.

This course was produced through a partnership between ProLiteracy and World Education/U.S.