

**Prof Dev: Math Standards and Practices for 21st Century
Teaching and Learning
Elementary Math Academy for Teachers
Wayne State College EDU 568-0082**

Course Description: This 3 hour course will focus on addressing the statewide need to increase the mathematical problem solving skills of students and to help them make connections a) within mathematics b) between mathematics and the world in which the students live, and c) with other subject areas.

Tuition: \$685.50 for graduate credit, new students additional matriculation fee of \$15.00

Note: This course is being taught in conjunction with the Statewide MSP grant

Instructor Information:

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Meeting Times: The course will meet in January, February, March, April and June at four locations across the state from 8:30 – 3:30 pm with follow-up sessions during the semester that will utilize online leaning using Angel Software.

Pre–Session Work: Teacher Leaders of Math (TLM) and participants meet to overview the Statewide Mathematics Project and Angel Software. The participants will form Professional Learning Communities (PLC) and receive micro-experience with four upcoming sessions and an overview of the Angel Learning Management System.

Class Organization:

Participants will be organized into Professional Learning Communities (PLCs) of four to six members.

Participants will use MyeLearning Angel webware to communicate with other participants, allowing all to share their learnings and ideas digitally.

Course Content:

Provide activities, instructional strategies and resources for teachers to assist **ALL** students:

- Demonstrate the integration of mathematics in STEM activities
- Overview more than 100 new lessons, games, resources and instructional activities to provide motivating hands-on instruction for elementary students
- Provide activities mapped to Nebraska and Common Core Math standards
- Integrate data analysis, probability and algebra into elementary mathematics instruction
- Use geometry as a way to illustrate a wide variety of mathematical topics
- Provide differentiated activities and instruction for all grades 3-6

- Encourage student problem solving, representation, reasoning, communication and connections
- Provide lessons and activities integrating STEM technology to mathematics
- Provide effective classroom strategies blending mathematics and other STEM subject areas

Assessment: Each student in the course will prepare a portfolio consisting of the following:

1. (40 points) Attendance at each part of the workshop and participation in the follow-up sessions/activities on Angel.
2. (30 points) A session journal entry of approximately 1 page for each of the five dates of the course, which include your reflections on the content and pedagogy of the information presented. This journal is also to include your documentation of interaction with your TLM, posted Angel activities and any other activities you engage in which relate to the content of Math Standards and Practices for 1st Century Teaching and Learning. **Due within 1 week following your session!**
3. (30 points) Copies of four activities or lessons you conducted in class with examples of student work which exhibit student thinking/questioning. Include a summary of your response/class discussion in order to further link the mathematical understanding to your instruction (as we have modeled in class). Cover or white out the student's name; use Student A; Student B; etc. instead. **Due as soon as possible after implementation, but no later than July 11!**

This is the grading criterion for your College Credit Class. Please submit your assignments to the College Credit Drop Box by July 11, 2014. Below is the grading rubric that will be used to determine your Class Grade.

Please rate yourself on the rubric and submit to the College Credit Drop Box along with your session journal and instructional activities as described below.

Student Name _____

Attendance (40 pt.)	Journal (30 pt.)	Activities (30 pt.)
Session 1 January		Activity not required after Session 1
Session 2 February		
Session 3 March		
Session 4 April		
Session 5 June		

- A= 90-100
- B= 80-89
- C= 70-79
- D= 60-69
- F= 50-59