

**Prof Dev: Math Standards and Practices for 21st Century
Teaching and Learning
Middle/High School Institute for Teachers
Wayne State College EDU 568-0081**

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 learning 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 in:

- Meeting the Nebraska State Mathematics Standards and improving performance on the NeSA-M assessment
- Using technology to gain a deeper understanding of mathematical concepts
- Making connections between algebra, geometry, probability and data analysis
- Building student ownership of learning through the utilization of technology such as Geogebra, spreadsheets, videos, and internet resources
- Developing mathematical concepts within the context of problem solving, representation, reasoning, communication and connections

- Providing effective strategies that integrate mathematics with STEM activities
- Meeting the high expectations of Common Core Standards and Mathematical Practices

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