

NC RESSLER
Professor of Mathematics
Office Room: 3602

meeting choice of office or computer lab

Monday, Wednesday: 9:00 a.m. – 10:00 a.m.; 2:00 p.m. – 3:00 p.m.

Email: NRESSLER@OAKTON.EDU

OAKTON COMMUNITY COLLEGE 2011
FALL SEMETER COURSE SYLLABUS

I.	<u>Course Prefix</u>	<u>Course Number</u>	<u>Course Name</u>	<u>Credit</u>	<u>Lecture</u>	<u>Lab</u>
	MAT	129	Foundations of Mathematics Elementary Teachers II	3	on line	0

II. Prerequisite

MAT 128 with a grade of C or better.

III. Course Description:

This course is a continuation of the contemporary and heuristic approach of MAT 128. Principal topics include: recognizing and analyzing two- and three-dimensional geometrical shapes, measurement, triangle congruence and similarity, Euclidean constructions, coordinate and transformational geometry, elementary logic, dynamic geometry or computer algebra software, equivalence relations and clock arithmetic as an exemplar of a finite mathematical system. This course will incorporate the use of technology.

IV. Course Objectives:

- A. Become confident in one's ability to do mathematics through reinforcement of the basic elementary mathematics curriculum.
- B. Gain an understanding and appreciation of the National Council of Teachers of Mathematics (NCTM) curriculum standards.
- C. Gain an understanding into how students learn through student/teacher collaboration, on line communication which can include discussion for clarification and diverse examples.
- D. Appreciate and understand both the historical developments and the current application and trends of the elementary mathematics curriculum.
- E. Become proficient in the use of technologies, i.e., computers and calculators.

V. Academic Integrity:

Students, Faculty and administration at Oakton Community College are required to demonstrate academic integrity and follow Oakton's Code of Academic Conduct. This code prohibits:

- cheating,
- plagiarism (turning in work not written by you or lacking proper citation),
- falsification and fabrication (lying or distorting the truth),
- helping others to cheat,
- making unauthorized changes in official documents,
- pretending to be someone else or having someone else to pretend to be you,
- making or accepting bribes, special favors, or threats, and any other behavior that violates academic integrity.

There are serious consequences to violations of the academic integrity policy. Oakton's policies and procedures provide students with a fair hearing if a complaint is made. If you are found to have violated the policy, the minimum penalty is failure on the assignment and a disciplinary record will be established and kept on file in the office of the Vice President for Student Affairs for a period of 3 years.

Details of the Code of Academic Conduct can be found in the Student Handbook.

VI. **Outline of Topics:**

A. **Measurement:**

Include units of: length, area, volume, mass, temperature and conversion.

B. **Geometry:**

1. Recognition, analysis, and properties of two/ three dimensional geometric shapes
2. Triangle congruence and similarity.
3. Euclidean constructions.
4. Coordinate and transformational geometry.

C. **Logic:**

Introduction to logic; including conditionals, bi-conditionals, arguments.

D. **Computer Technology**

E. **Equivalence Relations**

F. **Clock Arithmetic**

VII. **Methods of Instruction:**

Methods of presentation include that you: read the e-book or hard copy text book, view on line streaming video lectures, utilize on line sample (practice) and on line (at your favorite computer), real tests, practice on line sample homework, experience interactive solutions by experimentation, intuition and guided practice,

complete assigned Pencil/Paper Homework and complete a proctored Mid Term and a proctored Final Exam. Students within the Oakton Community College Campus driving area will take these two exams On Campus. Students at a distance will contact the Alternative Education Department and make arrangements for an off campus proctoring site.

Please contact Robin Nash: RNASH@OAKTON.EDU

VIII. **Course Practices Required:**

Course practices include completion of assignments, chapter test assessments and a proctored Mid Term and proctored Final Exam (**Photo ID required for both exams**). My courses are all structured with closing deadline dates helping participants to realize course success and to achieve 'real' learning.

IX. **Instructional Materials:**

*After college registering, at the Oakton Community College Web Page (www.oakton.edu) at MyOakton you will find an e-book contained within our course computer program. IF you like you may additionally purchase the hard copy text book: **Mathematics for Elementary School Teachers** by Billstein/Libeskind/Lott; Addison-Wesley, PEARSON PUBLISHING 10th Edition*

X. **Methods of Evaluating Student Progress:**

Evaluation methods within this STRUCTURED Course include Pencil/Paper Homework assignments, Real Chapter Tests "A" and "B" (Practice/Sample Tests are provided to help participants prepare for the Real Tests) , a Mid Term and a Final Exam.

There is no Extra Credit – the course offers state mandated content that must be learned and understood satisfying requirements for a teacher secure and comfortable with mathematics. As registered students of Oakton Community College participants are entitled to FREE on Campus Tutoring at either campus with our fine tutoring staff. Please call the Tutoring Center for more information.

Evaluation methods include: **submitted and graded Pencil/Paper Homework** (found within the on line e-book or the hard copy text book), **Chapter Tests** and **Exams:**

Chapter Tests

(50% of the *average* of the Real Chapter Tests "A" and "B" contributes to the Transcript Grade)

Mid Term Exam - On Campus (**Photo ID**), calculator, large note card
(20% of the Mid Term Exam score contributes to the Transcript Grade)

Final Exam – On Campus (**Photo ID**), calculator, large note card
(20% of the Final Exam score contributes to the Transcript Grade)

Pencil/Paper Homework Assignments

(10 Full Points for completed Pencil/Paper Homework with critical steps included)

contribute to the Transcript Grade.

On Line practice is *valuable*; it *does not* contribute points to a transcript grade.

Grading:

100 - 93 A

92 - 85 B

84 - 76 C

75 - 67 D

66 - below F

NO GRADE OF "INCOMPLETE" WILL BE GIVEN, UNLESS A "C" AVERAGE OR ABOVE is maintained; not more than one test is missed.

Any MAKE-UP (*missed*) Tests and Exams are scored one grade lower.

No grade of "incomplete" will be given, unless a "c" average or above is maintained; not more than one test is missed.

Any MAKE-UP (*missed*) Tests and Exams are scored one grade lower;

an "A" will become a "B";

a "B" will become a "C"

a "C" will become a "D"

XI. Other Course Information:

If you have a documented learning, psychological, or physical disability you may be entitled to reasonable academic accommodations or services.

To request accommodations or services, contact:

ASSIST Office in Instructional Support Services.

All students are expected to fulfill essential course requirements. The College will not waive any essential skill or requirement of a course or degree program.

**Pencil/Paper Homework List within the Course Compass Computer program
AND webpage: WWW.OAKTON.EDU/~NRESSLER**

DROP Deadline for SPRING Semester 2012:

February 12th 2012 NOON (course *dropped* from record)

March 11th 2012 NOON ('w' *showing on transcript*)