ECA Spring Math – 2009

What is the main goal for learning mathematics?

I. Class Information:

Instructor:	Laura Weakland
Office:	220A King Hall
Telephone/Email:	(248) 761-0451 (cell); Lweaklan@emich.edu
Office Hours:	Monday (12:00 p.m. – 2:00 p.m.) by appt.
Gradebook/Calendar:	http://www.engrade.com/students/ (access codes provided)
Website:	http://poster.4teachers.org/ (Click on "Search for Posters and Worksheets" change dropdown menu to "worksheet ID" and key in 134767. Click on 134767 again) or access direct URL at: http://poster.4teachers.org/worksheet/view.php?id=134767

II. Course Rationale:

This intent of this course is to strengthen fundamental math skills using whole numbers, integers, fractions, decimals and percents, ratios and proportions, and algebraic concepts. In addition, students will strengthen problem-solving and critical thinking skills, as well the soft skills necessary for future academic and job successes. Soft skills incorporated in this course include *attendance*, *preparation*, *follow-through*, *communication* and *responsibility*.

III. Course Goals:

Content

This course focuses on the **Number and Operations** and **Patterns, Functions, and Algebra** NCTM content standards. Accordingly, in this course students will:

- Utilize a five-step problem-solving process and employ a variety of problem-solving tools
- Compute fluently and make reasonable estimates using rounding.
- Solve word problems that arise in authentic contexts.
- Use order of operations to simplify expressions.
- Use properties of exponents.
- Solve problems involving addition, subtraction, multiplication and division of positive and negative integers.
- Add, subtract, multiply and divide fractions, decimals and percents.
- Change fractions to percents to decimals.
- Solve ratio and proportion problems.
- Solve word problems involving fractions, decimals, ratios and percents.
- Solve linear equations.

Process

This course focuses on the **Problem-Solving, Communication, Connection** and **Representation** NCTM process standards. According, in this course, students will:

- Monitor and reflect on the process of mathematical problem-solving.
- Organize and consolidate mathematical thinking through oral and written communication with peers, with the instructor, and through self-reflection.
- Use the vocabulary of mathematics to express mathematical ideas.

- Recognize and make connections between mathematical concepts (e.g. fractions, decimals and percents).
- Recognize and connect mathematics to real-world examples.
- Use various models to represent mathematical ideas (concrete, semi-concrete, abstract).

IV. Course Content
This is a 6-week math course focusing on strengthening arithmetic content and soft study skills. Learning sets (LS), tentative weeks, and corresponding chapters in the text are as follows:

- *LS 1 – Week One - Problem-Solving*
- *LS 2 – Week Two - Whole Numbers, Integers & More - Chapters 1 & 2*
- *LS 3 – Weeks Three & Four - Fractions, Decimals and Percents – Chapters 3, 4, 5, 7*
- *LS 4 – Week Five - Ratio & Proportions and Class Project – Chapter 6*
- *LS 5 – Week Six – Algebra – Chapter 11*

V. Course Materials: (*Please have these items by Thursday, May 7th or sooner.)*

Organization is a critical aspect of being a successful math student! You need to have the following items for this spring math class:
- ECA-issued textbook: *Basic Mathematics with Early Integers* by Bittinger and Penna
- ECA-issued book: *When Are We Ever Going to Use This?* By Hal Saunders
- A 3-ring binder – 1" or 1 ½" hard cover with side pockets – *THIS BINDER IS CRITICAL TO YOUR SUCCESS IN THIS CLASS*!
- Ten (10) divider tabs for your binder
- A good supply of sharpened pencils with erasers OR mechanical pencils with a supply of lead and erasers
- Lined paper (not spiral bound)
- Colored pencils or several colored pens
- Pencil case for binder
- Calculator (used only in LS 4 and LS 5)
- Flash drive (optional) for team project

VI. Format and Procedures:
The format of the course is as follows: Mondays are "Education Ease" days. On this day we will ease into our week of learning by participating in team vocabulary activities and games or puzzles that support our content area that week followed by an introduction to topic of the week. We will also work on our class team project on Mondays. Most every day you will receive some homework assignments corresponding to topics discussed in class. At the beginning of each class period on Tuesdays, Wednesdays, Thursdays and Fridays you are expected to meet with your team and discuss what you learned from the homework, what you still don't understand, and what you need to do to attain mastery of the subject matter. Fridays are "assessment" days. There will be three tests during this term and three binder quizzes. The last test of the semester will be on a Thursday, June 11th. *Please see attached calendar for more details or access it online on Engrade.*

Homework will be assigned almost daily and it is *absolutely essential* that you keep up with the assignments. Vocabulary will be assigned at the beginning of a new Learning Set. Homework and

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vocabulary will not be graded daily; however, you will have a binder quiz every other Friday. During a binder quiz, you will be able to use your math binder, but not your math book. You are to show your work from problems assigned as homework or definitions and examples of vocabulary assigned. The binder quiz may also ask questions on work done in class. As long as you keep up with these assignments and participate in class, there is no reason why you cannot attain an "A" on this aspect of your grade.

There will also be a team project that will involve a simulated real life situation that involves math topics we are discussing. There also is a technology component included in this project. More details will be forthcoming.

VII. Classroom Policies:

1. <u>Class attendance and participation policy</u> – class attendance will be taken daily and class participation will be observed; however there is no specific grade assigned for attendance and participation. Nonetheless, your ability to do well on tests, binder quizzes, classwork, team projects, and reflections is *directly* correlated to your class attendance and participation. *Please come to class and come to class on time (mentally and physically)!*

2. <u>Classroom absences/make-up assignments/late work</u> – it is your responsibility to get the homework/class notes/handouts, etc from your team members due to any absences. Quizzes or tests will be given on the 2nd day following your return. A 20% reduction will be made on each assignment not turned in on the day it is due. You will receive an additional 10% reduction for each subsequent day the assignment is late.

2. <u>Technology policy</u> – please turn off all cell phones when you come to class. Texting or surfing the Internet is not permitted during class time. *No exceptions permitted.* Students who break this policy will receive a warning the first time. Breaking the policy a second time will result a 50% reduction in your teamwork grade. A third violation will result in a grade of "zero" for teamwork for the semester.

3. <u>Student preparedness</u> – students should come prepared to class every day, bringing their math book, binder with pencils, and homework completed.

VIII. Evaluation:

You will be evaluated in this class based upon the following breakdown of assignments and associated points. Course grades and the calendar will be posted online at: http://www.engrade.com/students/. Access codes will be provided at the beginning of the term.

300	**Tests**	(3 @ 100 pts each with 4 extra bonus pts per test for corrections)
300	**Binder Quizzes**	(3 @ 100 pts each – classwork, vocabulary and homework)
200	**Classwork**	(10 items collected @ 20 pts each)
100	**Team project**	(assessed individually - teamwork assessed under teamwork)
50	**Reflections**	(daily - min. of 20 reflections at 2 pts each and final reflection 10 pts)
50	**Teamwork**	(self evaluation 25 pts and team evaluation 25 pts)
1,000	**Total points**	

See **Grading Scale** for grade equivalents.

IX. Grading Scale

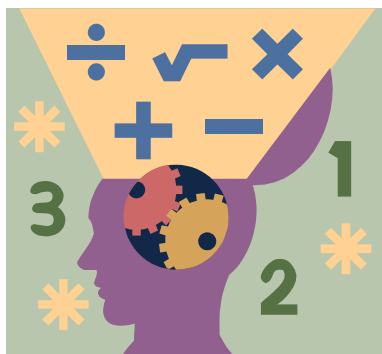| Grade	Percentages	Points
A	94%-100%	935-1000
A-	90%-93%	895-934
B+	87%-89%	865-894
B	84%-86%	835-864
B-	80%-83%	795-834
C+	77%-79%	765-794
C	74%-76%	735-764
C-	70%-73%	695-734
D+	67%-69%	665-694
D	64%-66%	635-664
D-	60%-63%	595-634
E	<59%	<594

X. Academic Integrity

You are encouraged to study together and to discuss homework, classwork and any information and concepts covered in class with other students. You can give "consulting" help to or receive "consulting" help from such students. This is expected and encouraged! However, you should not complete work or obtain completed work from someone else.

During tests and quizzes, you must do your own work. Talking or discussion is not permitted during these assessments, nor may you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam, and may lead to failure of the course and disciplinary action.

XI. Course Calendar – *see attached.* You can also access the calendar online at http://www.engrade.com/students/ (access codes provided at beginning of term).

The essence of mathematics is not to make simple things complicated,

but to make complicated things simple. ~S. Gudder

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Please tear off this page of the syllabus and return to class no later than Tuesday, May 5th. Complete "The Power of Zero" exercise, read the syllabus, sign and return. A parent signature is also required. Thank-you very much!

"The Power of Zero"

Students, let's talk about homework, classwork and your grades.

You say…"*I'm a busy person…..homework doesn't matter. I've still got all the other grades. I don't need to do my homework. I'm an A student.*"

WRONG! It's as simple as the ABCs (*Actions Bring Consequences*). Do the math.

Assume you are an A student with a 95% or better average and you decide not to do the homework. What will your final grade be?

285 pts   **Tests (3 @ 95% average)**
0 pts   **Binder Quizzes (Oops…I didn't do my vocabulary or homework)**
200 pts   **Classwork (I came to class and did all my work)**
100 pts   **Class project (I did great here!)**
50 pts   **Reflections (I can handle this)**
50 pts   **Teamwork (I'm a great team player)**

??_____What's my final grade? Compute your total points and look on the grading scale and write your grade here.

_____ Can you afford to not do the work? Yes or No

I have read this syllabus and understand that it is my responsibility to ask questions or to clarify anything I don't understand about what is expected of me.

Printed Name: _____

Student Signature: _____

Parent Signature: _____

Parent Email: _____

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