



School of Education

Educators Serving Together

**“For the body is not one member, but many.”
(I Corinthians 12:14)**

**GRADUATE SUMMER WORKSHOP
COURSE SYLLABUS**

**EDUC 575 OL (#) Workshop: Technology and Mathematics for Teachers
(3) Semester Hours Graduate Credit
Summer Semester 2011**

Workshop Instructor: Thomas Love

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Center for Professional Development Office – Regula Hall, Room 301 **MU Email:** tlove@malone.edu

Course Description: This workshop is an investigation of Elementary Mathematics used in K-8 classrooms. An emphasis will be how it is integrated Mathematics and Technology into K-8 classes. It is a blend of traditional and authentic activities since it requires reading of a traditional textbook, viewing online lectures, appropriate activities along with Internet & WWW investigations. Some of the mathematics topics to be examined are: Numbers, Algebra, Geometry, Measurement, and Data Analysis & Probability. A blend of traditional and authentic assessment will be implemented since lecture, reading activities, investigations will be required and evaluated for knowledge, skills, and attitude gained.

Course Learning Objectives:

Upon successful completion of Technology and Mathematics for Teachers workshop participant will:

1. Using Email introduction along with a class roster become part of an online community. (11,12)
2. Investigating various religious web sites gain a sense WWW Faith & Learning environment. (1)
3. Develop knowledge of the NCTM Mathematics for use in a K-8 environment. (9,12)
4. Become aware of the various aspects and characteristics of an online (course) workshop. (2,4)
5. Acquiring techniques of online interaction using Email, Online Drop Box and Threaded Discussions. (2)
6. Develop an understanding of the techniques and strategies used by integrating online resources. (2)
7. Acquire a respect for the use of the Internet & WWW by Students, Teachers, and Parents. (5)
8. Appreciate and value the organization and implementation of online (courses) workshops. (6,9)
9. Collaborate with other teachers using Email, Distribution List and online chat room. (9,10)
10. Interacting by way of various assessments to gain an awareness of authentic evaluation. (7)

Participants are required to review and comply with at all times the [Academic Integrity Policy](#) located in the Malone University Student Handbook, which is published and distributed by Malone University.

<http://www3.malone.edu/student-life/student-development/student-handbook>

* (CP = Candidate Proficiencies identified by Malone University School of Education. See below)

Malone University Teacher Education Candidate Proficiencies

We prepare candidates who:

1. Demonstrate ways in which a Christian worldview informs educational practice.
2. Apply sound principles of teaching, learning, and advocacy.
3. Master the content for which they have educational responsibility.
4. Demonstrate competence in the process of planning developmentally appropriate practices.
5. Exhibit effective techniques which promote learning for all students regardless of race, culture, gender, creed, or ability.
6. Identify organizational and behavioral management strategies that create an educational environment conducive to effective learning and growth.
7. Evaluate and support student learning and growth by utilizing varied assessments to inform instruction and interventions.
8. Display professionalism and ownership of professional growth.
9. Use technology as a tool for instruction, communication, collaboration, and creativity.
10. Collaborate with family, teachers, community, and other stakeholders in student learning and growth.
11. Initiate and sustain conversation in an organized, clear, and confident manner, using standard English, in written and oral form.
12. Exhibit dispositions for educators committed to serving together by:
 - a. Providing service
 - b. Practicing fairness
 - c. Promoting stewardship
 - d. Believing all students can learn and grow

Academic Integrity Policy

Graduate students are expected to be honest in their academic work. Plagiarism, collusion, cheating, giving or receiving or offering or soliciting information during examinations, or the use of previously prepared material during examinations or quizzes are violations of academic integrity. Students are obligated to abide by the Malone University Academic Integrity Policy and its procedures as described in the Malone University Catalog. Students are required to understand their responsibilities under this policy and to demonstrate integrity in all areas of their academic study. Failure to do so will result in serious consequence.

Suggested texts and/or references:

The resources in this workshop will be Basic College Mathematics textbook, Online lectures, Internet and WWW resources.

Suggested teaching strategies:

This class will be a combination of lecture using Camtasia PowerPoint, traditional textbook readings, technology investigations, Internet and WWW investigations and final project.

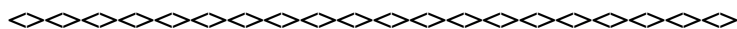
Evaluation and grading:

A course grade will be determined by participation and timely completion of online assignments. All Email & Drop Box assignments via MS Word documents will be evaluated and returned to teachers. Assessment Distribution: 100% = A 95% - 85% = B 85% - 75% = C Less than 75% is unacceptable! All assignments are due at End Date of the workshop! Extensions can be granted for valid reason!

@ Malone University * School of Education * Center for Professional Development @

@ Online Technology and Mathematics for K-8 Classroom Teachers * 2009 / 2010 @

(1) **Introduction to Instructor** is due end of First Week. **Sunday Midnight!**
Introduction to Course Instructor **directions** are posted at eCollege - Course Home!
(**Required Title** for each assignment: Brief Description – First & Last Name)



(2) **Faith & Learning** assignment is due end of First Week. **Sunday Midnight!**
Faith & Learning assignment **directions** are posted at eCollege - Course Home!
(**Required Title** for each assignment: Brief Description – First & Last Name)



(3) **Optional: Create a Profile** (Register) for investigation **and** completion of **Chat Room Tutorial!**

This Chat Room activity is **only done once** at the beginning of the workshop!

A few comments for the Workshop Instructor which include **Colors & Smileys!**

Message to Instructor at CR **must include comments** on First Week Workshop activities!

This Chat Room experience might be a beneficial activity for your students later or next year!

At CR opening page, Click on **Register** and create a **Profile** to use the Chat Room.

<http://itws.org/CR/phpMyChat.php3>

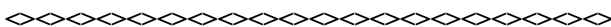


Required text can be acquired from MU Bookstore: 330-471-8310 or bookstore@malone.edu

Required text can be acquired at **GetTextBooks:** Copy & Paste (ISBN) into <http://www.gettextbooks.com/>

Basic College Mathematics 3rd Edition * **K. Elayn Martin-Gay**

(ISBN) = 0130676993 * **Used Condition estimated cost:** \$5 plus S&H charges



Three (3) Semester Hours of Graduate Credit requirements:

It is anticipated, assignments should take about (30) hours of involvement.

Start with First of provided unit/weekly topics and complete each numbered assignment:

Select only (1) of the provided Lecture, Reading, Activities, Investigations for each unit!

@ (3) Graduate Credit Semester Hours requires **(5)** of provided **(8)** unit activities! @
Units 1, 2, 3, cover Numbers & only (1) of 1,2,3, will be counted in required (5) Units! @
@ Final unit is a PBL Lesson or Investigation of Virtual Math Manipulatives! VMM @



Unit Assignments are explained in 1, 2, 3, 4, below and 5 is a summary of PBL or VMM.

(1) **Select (1) Lecture from Unit1(A/B/C) and** submit via **eCollege** Drop Box attachment of of (1) MS Word page: (1) paragraph **for each of (2) summarized topics** within lecture. Paragraphs include title of topic **and** at least 6 - 8 sentences on selected topic. Using the **Study Guide PP** is suggested (**optional**) to take notes while viewing lecture. Required Title for each assignment: **Chapter # Lecture * First & Last Name**

(2) **Read related topical materials** & submit via **eCollege** Drop Box attachment of one MS Word page with (1) paragraph **for each of (2) summarized topics** within reading. Paragraphs include title of topic **and** at least 6 - 8 sentences on selected topic. Using the **Study Guide PP** is suggested (**optional**) to take notes while viewing lecture. Required Title for each assignment: **Chapter # Reading * First & Last Name**

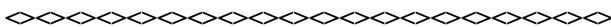
(3) **Complete (2) related activities** & submit via **eCollege** Drop Box attachment of one MS Word page with (1) paragraph **for each of (2) summarized topics or activities**. Paragraphs include title of topic **and** at least 6 - 8 sentences on selected topic. Submit **ONLY** paragraphs summarizing (2) activities completed! **NOT** activities! Required Title for each assignment: **Chapter # Activities * First & Last Name**

(4) **Investigate WWW (related) sites** & submit via **eCollege** Drop Box attachment of one MS Word page with (1) paragraph **for each of (2) summarized sites or activities**. It is expected, all web sites will be previewed **and** **select (2) Good Sites** for submission. Submit a MS Word with (1) paragraph **for each** of (2) summarized sites in WWW Links. Paragraphs include title of topic **and** at least 6 - 8 sentences on selected web sites (URL). Required Title for each assignment: **Chapter # WWW Sites * First & Last Name**

(5A) Complete (1) Project Based Lesson (PBL) at **END of workshop on any topic in **Mathematics**.**
Read all of the provided information on PBL Lessons and survey the components parts.
@ Finally preview the sample PBL Lesson provided to ease you into your creation! @

Complete: 5A or 5B

(5B) Optional VMM investigation is a (2) pages of summaries for (2) VMMs: (1) page per VMM!



@@@ Review provided sample assignments to complete with required assignments! Ask Questions too! @@@