MATH 3190
Algebra and Geometry for Teachers
3.0 Semester Hours (3-0-3)
Department of Mathematics and Computer Science
College of Arts and Sciences
Valdosta State University

PREREQUISITE:
MATH 2261 or MATH 3180 with a minimum grade of C.

Instructor   : Dr. XYZ
Office   : Nevins Hall 2XXX
Phone   : 229-333-XXXX
Email   : XYZ@valdosta.edu
Office Hours   : xx:00 – xx:00 TR; others by appointment (example)
Options   : Call, e-mail, stop by during office hours, or make an appointment

REQUIRED MATERIALS:
Textbook: Billstein, Libeskind, and Lott. (2010).
                    (11th Ed.), New York, NY: Addison-Wesley.
Other: Three-ring notebook or folder, colored pencils or markers, graphing calculator, ruler (12 inches and 30 cm),
          scissors, compass, protractor.

COURSE DESCRIPTION
Prerequisite: Grade of "C" or higher in either MATH 2261 or MATH 3180. An in-depth study of concepts and processes underlying the middle and secondary school mathematics curriculum with special emphasis placed upon the integrated algebra, geometry and analytical geometry. Problem solving and historical context serve as unifying strands.

GENERAL STUDENT LEARNING OUTCOMES
By the time a student finishes this course, they should be able to do the following:
1. solve problems and build new mathematical knowledge through problem solving;

2. model and explain basic measurement concepts and how they are connected;

3. understand and apply the properties of parallel and perpendicular lines;

4. further develop their understanding of plane and solid figures;

5. model and explain basic measurement concepts related to plane and solid figures;

6. demonstrate an understanding of transformations and apply the concepts involved with transformations to solve real world problems;

7. determine the area and the perimeter plane figures and apply the concepts involved with area and perimeter to solve real world problems;

8. determine the surface area and the volume of solid figures and apply the concepts involved with surface area and volume to solve real-world problems;

9. use ideas pertaining to coordinate geometry to solve problems;

10. use geometric patterns (e.g., tessellations) and solve problems involving geometric patterns;

11. use algebraic reasoning to solve routine and non-routine problems.

Course Overview: Content and processes of mathematics will be treated in an environment that encourages pre-service teachers to view mathematics as a fascinating and stimulating intellectual endeavor which provides skills, insights, and modes of thinking that are essential in the twenty-first century. Students will see the connections between the various aspects of mathematics and between mathematics and other fields.

ASSESSMENT

There will be examinations, Web assignments, homework assignments, in-class participation, and a *mandatory comprehensive final examination* (worth 20% of the available points).

number and e-mail address of two or three classmates during the first week of class will be very helpful. It is completely your responsibility to get class materials for a session that you missed.

<mark>All cell phones/MP3 players/laptops will be turned off and stowed during class.</mark>

Students will receive points for class attendance and participation. Students will lose points for lack of participation (off task, sleeping, and so on), tardiness, and absences. These points CANNOT be made up – if you are not present you did not participate and thus cannot receive participation points.

New Limited Withdrawal Policy:
- o Please remember that starting fall 2010 undergraduate students are limited to 5 course withdrawals for the lifetime of their undergraduate record.
- o <mark>DO NOT OVER-REGISTER!</mark> Please make sure you are enrolled in courses you intend to complete.
- o Please go to http://www.valdosta.edu/academic/WithdrawalPolicy.shtml and

academic ethics." Full information on Academic Honesty at VSU is available at
http://www.valdosta.edu/academics/academic-affairs/vp-office/academic

Example Schedule

MATH 3190 Spring 2014 Tentative Calendar

Day	Assignment