GEOMETRIC STRUCTURES
MATH 3403 – 002
Spring 2013

Instructor: Emily Quinn
Office: 517 MSCS
Office Hours: Tuesdays and Thursdays, 9:00 a.m. to 10:00 a.m.
Extra hours will usually be added each week. These times will be posted on D2L.
If you have a conflict with these times, please make an appointment (after class, by telephone or email) to see me at another time.
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Syllabus Attachment: The URL for the OSU Syllabus Attachment for 2013 Spring semester is: http://academicaffairs.okstate.edu/images/syl-spring13.pdf

Course Description:

From OSU catalog:
Prerequisite(s): 1483, 1493 or 1513. Foundations of geometry for prospective early childhood and elementary educators. Linear and angular measure, polygons and polyhedra, similarity and congruence, geometric constructions, motion and transformations. Class format emphasizes student investigation and discovery, discussion and presentation, and working with mathematical tools. This course, together with MATH 3603, prepares students for CIED 3153 and 4153 and/or HDFS 3223.

From the instructor:
This course uses a nontraditional approach to learning, which may cause some discomfort on the student's part – at least initially. However, like a lot of things in life, the little extra effort in the beginning can be very rewarding and enlightening. In a traditionally taught course, a geometric concept or formula would be presented by the teacher, the student writes it down and is expected to learn it. The student usually forgets it promptly after the test, and often has no personal connection to the material. It is a wonderful feeling to "discover" a geometric concept for yourself, and in doing so, you will not likely forget it easily. This can actually be "fun", even for the reluctant math student. **It is my hope that through this course you will gain confidence in your mathematical abilities, and gain a passion and desire to impart this to your prospective elementary students in the future.** I also hope that you will consider using some of these same strategies for teaching geometric concepts with your own students, so that they may make their own discoveries as well.
While working in groups, you will be asked to discuss problems and their solutions with each other to understand the concepts. Questions related to the subject matter should first be brought up to your study team, and then to other study teams or the class as a whole. A word of warning however: this format will not work for you without your participation and willingness to try. The value of the content, but more importantly, the value of the way you learn the content, depends on your effort, having an open mind, and working well with others.

Required Book and Materials.

•*Geometric Structures – An Inquiry-based Textbook for Prospective Elementary Teachers* by Douglas B. Aichele and John Wolfe. Note: You may not buy a used textbook.
•Scissors, compass, protractor, ruler, and calculator. A mira and geoboard are helpful but optional.
You may need other materials for special projects, and those will be announced in class as needed.
You should bring paper, pencil, textbook, and materials to every class.

MLRC: Mathematics Learning Resource Center. The Mathematics Learning Resource Center provides free tutoring and help and can be a valuable resource for you. It is located on the 4th floor of the Classroom building, until they finish construction, then it will be on the 5th floor of the library.

Course Evaluation. Course grades will be determined according to the following distribution.

Daily Work		200 points
(Assignments, Quizzes, Journals, and Presentations)		
Project Grade (3 projects at 25 points each)		75 points
Attendance		25 points
		+25 BONUS
Examination 1		100 points
Examination 2		100 points
Examination 3		100 points
Final Examination		200 points

	TOTAL	800 points

Minimum total points needed for a semester grade of:

A (90%) – 720
B (80%) – 640
C (70%) – 560
D (60%) – 480

Daily Work: Daily Work consists of Assignments, Journals, Group Participation, Quizzes and Presentations. Your Daily Work will be done with a Study Team.

Study Team Information: Learning from your classmates is a proven ingredient for success. We believe in this and have arranged the course delivery accordingly. Each of you will have an opportunity during the first week or so to identify others with whom you wish to work this semester; a group will ideally be composed of four students.
Your first assignment: Identify classmates for your group who you can help learn and who can help you learn. Each group member has a responsibility to the group's success and the group collectively has a responsibility to each member's success! Establishing and nurturing group spirit is vital to your success. Once formed, the group should consider such issues as: (1) its goals and objectives (what each of you want from the group); (2) the strengths each member brings to the group and how they will be utilized (what role members will play - identify who does what); (3) how the group will function (when do you meet outside of class, what you will do at group meetings, and how you will help each other). As you contemplate these issues, others will arise; they are supposed to!

Assignments: Generally 3 to 6 activity sets will be given each class. This assignment is due at the beginning of the following class period. Students must be present to receive credit for any daily grade. You will be working in groups during class, and activities not done in class are homework. Groups will need to get together often outside of class to work on homework. Come to class with homework completed. Selected pages will be collected for a grade.

Quizzes: Sometimes I will give a quiz over an assignment rather than collecting the paper. Quizzes may be announced or unannounced. You must be present for the entire class period to receive credit for any daily work.

Journals: Each group will keep a **Group Journal** that will be reviewed by the instructor periodically; definitely at exam time. Previous students have found that a standard 3-ring binder works very well for this purpose. Each member is expected to contribute to the journal and identify his/her contributions. Your group journal is an evolving document over the course of the semester. Bring your Group Journal to each class meeting.

Presentations: I will select a group to present each activity to the class at the next class period. The team will decide which individual will present that section.

Daily work may not be made up. You must be present to turn it in. However, I will drop your 2 lowest assignment grades, and 1 quiz grade. So, if you miss an assignment, homework, or quiz, it will be recorded as a 0 and, hopefully, will be a grade that is dropped. Each student is also required to do several presentations (the number to be determined later according to number of assignments and students). If a student does not do the required number of presentations, a 0 will be recorded for each one not done, and these 0's cannot be dropped.

Projects: There will be 3 projects due during the semester. They will be discussed when they are assigned. Projects will not be accepted late.

Attendance: For this course in particular, attendance is very important since much of the learning takes place in group activities during class. As a future teacher, you are expected to conduct yourself professionally. You are expected to attend all classes and participate fully. Sleeping, reading, texting, not participating in group work, coming to class without homework or required materials, or not being present for the entire class period can result in being counted as absent. Cell phones are not allowed out at any time during class and may not be used as calculators.

You can earn up to 50 points for attendance. Only 25 points are required (see grading scale above) so 25 more points are available as bonus points. Since half the attendance grade is bonus points, there are no "excused" absences. You will not need to bring any notes or letters to excuse your absence, including university sponsored activities or illness, unless you will be absent for more than half of the semester. It is YOUR responsibility to sign the roll sheet. Failure to sign the roll sheet will be counted as an absence and cannot be disputed at a later date. Please note that signing someone else's name to the roll is an academic integrity violation, and will be dealt with accordingly.

Exams: There will be three (3) fifty-minute in-class examinations with a maximum possible score of 100 points each and a 200 point comprehensive Final Examination during Final's Week. The **Final Examination** is scheduled for Thursday, May 2, 2013 at 10:00 – 11:50 a.m. The time for the Final is not negotiable (except when the OSU Final Exam Overload Policy applies). *You should note this on your calendar now. Plan ahead!*

The dates for the exams are as follows and will not change. Put them on your calendar now and plan ahead.

Exam 1: February 5
Exam 2: March 12
Exam 3: April 16

No make-up exams will be given for any reason. In the event that a student must miss a test, the student must request and obtain approval from the instructor in advance. I will only grant approval if there is a very serious and unavoidable conflict. If the student does get my approval in advance, then the final exam percentage grade will be recorded for the missed exam. If the student does not obtain my approval in advance, and misses an exam, then a 0 will be recorded for that exam.

Note: Using a false excuse is a violation of academic integrity, and will be dealt with accordingly. As a future teacher, your academic integrity standards should be very high.

Drop and Withdrawal Policy."Dropping" means you are withdrawing from a specific course but you are still enrolled in at least one other OSU course; the last day to drop a course with an automatic grade of "W" is April 5, 2013. "Withdrawal" means you are dropping *all courses* and you are no longer enrolled for the current semester; the last day to withdraw completely from OSU classes with an assigned grade of "W" or "F" is April 19, 2013. Additional information about "dropping" and "withdrawing" is available on the Spring 2013 Syllabus Attachment. IT IS YOUR RESPONSIBILITY TO KNOW AND COMPLY WITH ALL DEADLINES.

Incomplete Grade. The grade of "I" is given to students who satisfactorily completed the majority of the course work and whose work averages "D" or better, but who have been **unavoidably** prevented from completing the remaining work of the course.

Academic Dishonesty/Misconduct. The university has explicit rules governing academic dishonesty and academic misconduct. The policies are detailed in the document "Student Rights and Responsibilities Governing Student Behavior." It is available from the Deans' Offices, the Provost's Office, and various other places around campus. The university policies will be followed in this class. The minimum penalty for an act of academic dishonesty will be the assignment of a grade of 0 on the examination or homework assignment Working with another person or in study groups on problems can be helpful in learning the material. I encourage you to work together in your groups. However, **all written work submitted must be your own**. *Copying someone else's problem solution or showing your written solution to someone else is prohibited*. In order to be successful in learning the material and doing well on the examinations you must think very hard about the problems themselves **before** discussing them with anyone else.

Special Accommodations for Students. If any member of this class feels that he/she has a disability and needs special accommodations of any nature whatsoever, he/she should notify the instructor and request verification of eligibility for accommodations from the Office of Student Disability Services, North Hall 103. Please advise the instructor of such disability as soon as possible, and contact Student Disability Services, to insure timely implementation of appropriate accommodations. Faculty have an obligation to respond when they receive official notice of a disability but are under no obligation to provide retroactive accommodations.

A final note. I am genuinely committed to your success this semester and care about your general welfare as a student. I hope you will take advantage of my open invitation to see me whenever I can be of help to you. You can do well!

Any changes in this syllabus will be communicated to you in class by the instructor.

My Goals for MATH 3403

Write a brief statement (a paragraph or two) stating your goals; include the course grade your are aiming for.

List the day-to-day actions you plan to take to achieve your goals. You should check this list periodically during the semester to see if you are on course.