Mathematical Structures Math 3603 /CID 62600

Fall, 2017 Class location: HSCI 331, T/Th 3:30-4:45 pm

Instructor: Karen Strande
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Syllabus Attachment: OSU has compiled useful information that applies to all classes at https://academicaffairs.okstate.edu

This website includes add/drop/withdrawal dates, university holidays, accommodations for students with disabilities, academic resources, and much more. You are responsible for reading this information and having any questions answered.

E-Mails. All e-mails MUST include, **on the subject line**, **your first and last name and when the class meets (i.e., Jane Doe, MWF 8:30).** Grades will not be discussed in emails. You must come to my office to discuss your grades or visit with me before or after class, if time and circumstances permit. In addition, emails asking questions that are answered in the syllabus will not get a response.

OSU Catalog Description. Prerequisite(s): 1583, 1493, or 1513. Foundations of mathematics and number concepts for prospective early childhood and elementary educators. Problem solving, logic, set theory, functions and relations, number systems, number theory, rational numbers, decimals and fractions, exponentiation, probability, and applications. Class format may include some individual and/or group work and lecture. Together with Math 3403, it prepares students for CIED 3153 and 4153 and/or HDFA 3223.

Some Initial Comments. The content and instructional delivery of this course models the current professional thinking and standards endorsed by the National Council of Teachers of Mathematics (NCTM). Please be aware that:

1. Math 3603 is specifically designed for prospective elementary/early childhood/middle level teachers; if you are pursuing a major different from one of these, your advisor will work with you to select a course more appropriate and valuable to your studies.
2. Math 3603 is a content mathematics class much like other MATH-prefixed courses you have taken; the pedagogical issues related to teaching this content in the school setting is addressed in detail in one of the methods courses that you will be taking as part of your program.

Cell Phones/Electronic Devices. Turn cell phones off during class. Cell phones and other electronic devices are **not allowed out at any time** during class except under unusual circumstances and only when cleared in advance by the instructor. Use of cell phones may result in an absence for the class period.

Critical Dates, Resources, Services. It is important that each student be familiar with all critical dates for dropping, adding, withdrawing from the university, etc. Friday, Nov. 10th is

the final withdraw/drop date. Friday, Dec. 1st is the final withdraw/fail deadline. This information can be obtained from the OSU website. In addition, each student is encouraged to take full advantage of the resources and services available through the university.

Course Prerequisites and Objectives. Math 1513, College Algebra, (or Math 1483, Functions) is the official prerequisite for the course. The course covers foundations of numbers (set theory, numeration, and real number system), number theory, algebraic systems, and data analysis.

Textbook and Supplies: *A Problem Solving Approach to Mathematics for Elementary School Teachers* by Billstein Supplies: Calculator (without fraction capability), colored pencils, tape, small scissors, centimeter graph paper, a pair of dice, 3 by 5 index cards, dry erase marker, base 10 demonstration set (SB39051T) and fraction bars (TB09497T) *at eNasco.com*

Course Format. Each class period may consist of a combination of lectures, individual and/or group activities, and discussion. In addition, there will be assignments and homework, which must be completed outside of class. Note: ALL WORK MUST BE SHOWN on all problems unless impossible. If you "think it," you should show it.

Examinations: There will be three (3) fifty-minute exams and a Final Exam

MAKE-UP EXAMS: **Only if** you request and obtain approval (when possible) in **advance** of the exam and only for very **serious and unavoidable** conflicts that are documented (see Math Department Policy at the end of this syllabus). If this condition is not satisfied, a grade of zero will be recorded for the missed exam.

The exams are scheduled as follows: **Exam 1**, Week of Sept 24th
Exam 2, Week of Oct. 29
Exam 3, Week of Nov. 26th
Final Exam is Thursday, Dec. 14 2-3:50 pm

Class assignments (Homework): All assignments will be collected and checked for completion. A quiz will accompany the homework as a check of comprehension. Assignments will be posted with their due dates online.

Group Work: You will be assigned two projects to be completed with a group of no more than 4 members. Details will be given in class and online.

Class Attendance: Attendance will be taken during each class session. As a future teacher, professionalism is expected; therefore, attendance in this course is important. Entering the classroom more than five minutes late will result in an absence. You must be awake (not dozing), not using a cell phone, not reading a paper (etc.) and not disruptive to the instructor or the students around you in order to be counted as present.

Attendance will be taken each day and may be reported along with your grade. You must pay attention and participate in class activities to be counted as present. Students will begin the course with 100 attendance points; **after the first two missed classes**, five points will be deducted for each absence. If it helps your grade, your final attendance score will be averaged with your lowest

100-point exam score. Your lowest 100 point exam will be replaced by this average.

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

Letter grades will be assigned as follows:

Exam 1	15%	90-100%	A
Exam 2	15%	80-89%	B
Exam 3	15%	70-79%	C
Assignments	25%	60-69%	D
Group Projects	10%		
Final	20%	Below 60%	F

Grades will not be curved.

Grades will be posted on OSU online (D2L) at regular intervals. Check D2L often for updates and for homework assignments.

Drop and Withdrawal Policy (General University Policy). "Dropping" means withdrawing from a specific course while "withdrawal" means withdrawing from all courses and leaving the University for the balance of the term. It is your responsibility to know and comply with all deadlines. Reasons similar to those listed below will not result in approval for dropping a course after the university deadline (OSU policy).

a. Student's lack of knowledge or misunderstanding of the deadline.
b. Student waited to get the results of an exam or other assignment.
c. Student's grades have declined since the deadline.
d. Student doesn't need the course for graduation.
e. Different deadlines existed at a previous school.

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. The conditions including appropriate time limits for the removal of the "I" are indicated on the official class roll by the instructor. A condition that the students must repeat the course in order to remove the "I" is not permitted. The maximum time allowed for a student to remove an "I" is one calendar year.

Academic Dishonesty/Misconduct. The university has explicit rules governing academic dishonest and academic misconduct. The policies are detailed in the document "Student Rights and Responsibilities Governing Student Behavior." It is available from the Deans' Office, 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.

Special Accommodations for Students. If any member of this class feels that he has a disability and needs special accommodations of any nature whatsoever, the instructor will work with you and the Office of Disabled Student Services, 326 Student Union, to provide reasonable accommodations to ensure that you have a fair opportunity to perform in the class. Please advise the instructor of such a disability and the desired accommodations at some point before, during, or immediately after the first scheduled class period.

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

MATHEMATICS DEPARTMENT POLICY ON MISSED WORK

(A)) A student shall be offered reasonable accommodation in the event that he or she misses a major assessment activity for a valid and documented reason.

(B) Appropriate documentation shall be provided by the student in a timely fashion to support his or her request for accommodation.

(C) Major assessment activities are those such that a zero on that activity could reasonably be foreseen to impact the student's grade substantially (i.e. an exam).

(D) Valid reasons include official University activities, activities associated with military service, documented illness, documented family emergencies, mandatory court appearances, and any other documented events of comparable gravity.

(E)) Reasonable accommodation means that the student will be given the opportunity to earn a grade on the assessment activity that is based on criteria as similar as possible to those used to grade his or her classmates. This opportunity should normally be made available in a timely fashion.