

Instructor:
E-Mail Address:

Office Phone:
Office Location:

Office Hours:

MAC Tutoring

CANVAS Web Site: <https://canvas.iu.edu/lms-prd/app>

“Students must learn mathematics with understanding, actively building new knowledge from experience and prior knowledge...Learning with understanding is essential to enable students to solve new kinds of problems they will inevitably face in the future.” (Principles and Standards for School Mathematics, National Council of Teachers of Mathematics (NCTM), pages 20 – 21)

Course Description

Math 13600 is a combination of two of the three course sequence which might be titled “Mathematics Appreciation for Elementary Education Majors.” The first portion of the course provides an informal approach to problem solving, mathematical reasoning, numeration systems, properties and operations of whole numbers, integers, rational numbers, and fractional notations. The last portion of the course includes the study of real and irrational numbers, geometric relationships, properties of geometric figures, one-, two-, and three-dimensional measurement, and problem solving. Multiple ways of teaching concepts will be explored. It is up to the student to break away from the old traditional way you have learned mathematics and to think about the topics in a different **conceptual** way.

Course Objectives and Policies

Adults need mathematical **proficiency** every day to process and make decisions about the vast amount of quantitative data with which they are bombarded. Therefore, competence with basic mathematics and problem solving is an important component of the Common Core State Standards which are taught in the elementary classroom. Math 13600 provides the opportunity for you to develop an understanding and appreciation of the beauty and utility of mathematics and geometry so that you can implement the required curriculum for your students.

The prerequisite for Math 13600 is a **C or better** in Math 11000 or equivalent, so you already know how to solve problems for most topics. This course focuses on why techniques for finding solutions work and on the thinking that one does in approaching a mathematics problem. We will consider the history and development of mathematics. We will use technology appropriately to allow us to work on more interesting and complex problems. Assignments will emphasize investigation, critical thinking, and analysis rather than rote computation. *As a teacher, you should not only be able to solve mathematics problems, but also to explain why your solution method makes sense. Hence, this course emphasizes giving explanations, not just getting final answers.*

You will be expected to come to class each day having prepared the homework and done the reading listed in the course calendar. You should participate actively in classroom discussion by both asking and answering questions and turn in all assignments when they are due.

There are a number of campus-wide policies related to Academic Integrity, Student Misconduct, Religious Holidays, Special Services, etc. for courses at IUPUI. You are expected to know and follow all of these policies. A

link to these policies can be found on the left of the CANVAS page, entitled "Campus Course Policies." See me if you have questions.

Prerequisite

You should have earned a grade of **C or better** in Math 11000 or equivalent. If you do not have solid abilities with arithmetic and basic algebra, you will find this course very difficult.

Textbooks

<https://connect.mheducation.com>

- Students should order the above textbook on-line. This will provide the student with CONNECT Access Full Digit Code good for **18 months** and will also include the 10th edition eBook, *Mathematics for Elementary Teachers: A Conceptual Approach, TENTH* Edition, by Bennett/Burton/Nelson/Ediger ISBN Number: **9781259299742**

Specific details will be given in class to assist the student in purchasing the required textbook.

- Once the student has purchased the above materials, for an additional \$15.00, the student may purchase the three-hole punch edition of *Mathematics for Elementary Teachers: A Conceptual Approach, TENTH* Edition, by Bennett/Burton/Nelson/Ediger. This book will be shipped directly to the student's home address. It is **not a requirement** that the student purchase the three-hole punch edition, as he will have total access to the text through the eBook.

➤ NOTE: Students will use this textbook for Math 13000, Math 13100, and Math 13200. If you take all three of these classes within 18 months, your CONNECT Access Code will remain valid.

- *One Hundred Hungry Ants*, by Elinor J Pinczes
- *Bigger, Better, Best*, by Stuart Murphy
- Colored Pencils or Crayons, Index Cards

Calculators

The IUPUI math department recommends the use of the TI-30XA calculator for this class. You may use any four function or scientific calculator. You may not use a graphing calculator or your **CELL PHONE** as a calculator.

Attendance

Attendance is EXTREMELY important for the Elementary Education Mathematics content courses. Much discussion is held during class pertaining to teaching ideas. Much group work, as well as forming conceptual understandings of mathematics is done in class. Realize that if you are absent on the day of a quiz, you cannot earn those points. If you are absent when an assignment is due you cannot earn full credit for that assignment. If your grade is border line at the end of the semester, good attendance will be a valid reason to round up to the higher grade. You are in competition with others in the class as well as the School of Education. This is the beginning of your professional career preparation. **Attendance is a GOOD indication of what type teacher you will be. Enrolling in college classes is a financial commitment on the part of SOMEONE. Each day of class you miss during the semester is equivalent to throwing away a minimum of \$42.08 THINK ABOUT IT.**

In order for an absence to be excused, I must have some type of official document (doctor's note, obituary, etc.). If you do not submit this to me, it will be counted as an unexcused absence.

The instructor will take the final semester percent and either add or subtract from that percent based on the number of days a student was absent. SEE BRIGHT COLORED SHEET ATTACHED TO SYLLABUS FOR COMPLETE ATTENDANCE INFORMATION AND RATIONALE.

Days Absent	0	1	2	3	4	5	6	7	8	9	10	11	12	13
	+2%	+1%	0	-1%	-3%	-6%	-10%	-12%	-14%	-16%	-18%	-19%	-20%	-25%

Administrative Withdrawal

A basic requirement of this course is that you will participate in all class meetings and conscientiously complete all required course activities and/or assignments. Keep in touch with me if you are unable to attend, participate, or complete an assignment on time. If you miss more than half of the required activities within the first 25% of the course [i.e. first four weeks] without contacting me, you may be **administratively withdrawn** from this course. Our course meets two times per week; thus if you miss more than four classes in the first four weeks, you may be withdrawn. Administrative withdrawal may have academic, financial, and financial aid implications. Administrative withdrawal will take place after the full refund period, and if you are administratively withdrawn from the course you will not be eligible for a tuition refund. If you have questions about the administrative withdrawal policy at any point during the semester, please contact me.

Incomplete

Grades of Incomplete will only be given in accordance with the university policy available at <http://www.registrar.iupui.edu/incomp.html>. Specifically, students must be passing at the $\frac{3}{4}$ mark of the semester to qualify for assigning an incomplete. The instructor must agree that an incomplete is appropriate and it must be approved by the Associate Chair of the Department of Mathematical Sciences.

Grade of FN

The grade of FN is given to students who have attended class but their lack of attendance is the basis for a failing grade. The grade of FN will be treated on the transcript in the same way as a grade of F. The student will not see the FN. Use of the grade of FN, along with the last date of attendance in class will provide documentation required by the University auditors to comply with **federal financial aid regulations**.

Withdraw Dates

_____ - Last day to withdraw with automatic grade of W via the Late drop/add classes (eDrop/eAdd) link on the *self service* page. **Advisor signature is required.** UCOL students must see advisor by 5:00 p.m. on prior Friday. If submitting in person, pick up the form from your advisor or school and submit signed form by 5:00 p.m. on prior Friday, to the Office of the Registrar Campus Center 250.

_____ - Last day to withdraw with grade of W or F. **Advisor and instructor signatures required.** Submitted **in person only** at the Office of the Registrar by 6:00 p.m., Campus Center 250. Pick up the form from your advisor or school.

Grading Policies:

Grades will be determined using scores from the following activities:

4 Tests	100 pts. each	400 points
Final Exam		
12 Quizzes	10 pts. each	120 points
6 Writings	10 pts. each	60 points
Fraction Packet		10 points
Integer Worksheet		5 points
Computer On-Line Homework	200 points	200 points
Participation/Attendance		????? points
		795 + POINTS TOTAL

These are tentative points....the actual number of points in class may be more or less than indicated. However the grading scale of 90% of the actual points for an A-, 80% for a B-, 73% of a C, 70% for a C-, 60% for a D- still apply.

GRADING SCALE

100 – 90% = A+, A, and A-

89 – 80% = B+, B, and B-

79 – 73% = C+, C

72 – 70% = C-

69 – 60% = D+, D, D-

59 – 0% = F

Note: Per the policy of the Education Department, you must have a minimum grade of C to pass the course.

That means you need at least 73% of the total points to pass. SOE will NOT accept a grade of C-.

Tests

There will be four tests during the semester. Each test will be worth 100 points. You must take the test on the day that it is given. If you must miss an exam due to a circumstance beyond your control (such as a death in the family, illness, religious holiday, etc.), a make-up exam will be permitted **with proper documentation**. You must notify me before the missed exam to arrange a make-up exam. *A student should not expect more than one make-up exam during the semester.* **If you miss a test and do not contact me, you will NOT be allowed to make up the test.** This is COLLEGE, and the beginning of your PROFESSIONAL CAREER.

TEST DATES

Test #1 – Chapter 3, Sections 2.1, 1.1

Test #2 – Chapters 4, 5

Test #3 – Chapter 10, Section 11.1

Test #4 – Sections 6.4, 11.2, 11.3, Chapter 12

Quizzes

There will be twelve quizzes during the semester. Each quiz will be worth 10 points.

MATH ASSISTANCE CENTER (MAC) Quizzes

Some of our quizzes may be given out in the MAC. You will be told in class when the quiz is ready in the MAC. You must go to the MAC to obtain the quiz. You are **strongly encouraged** to work with the mentors/tutors/other students on these quizzes. You are encouraged to use your book, class notes and discussions with other students. The actual writing of the quiz **must be done independently**. If I suspect that copying or cheating has occurred, all parties involved will receive a zero. These quizzes will be submitted to me in class on the indicated date. You will **ONLY** be able to obtain these quizzes through the MAC.

Writings

There will be six writings during the semester. Check **CANVAS** for specific instructions for each assignment. Each will require a one or more page typed essay about the assigned topic. All writings are due on the date listed on the calendar. *Late assignments cannot receive full credit.* Formal writing standards are expected on all writings. Writings are worth 10 points each.

No Writing will be accepted after the test for each unit.

Final Exam

The Final Exam is comprehensive and will cover material from all sections covered throughout the semester. It will be held in LD 229. Be sure that you do not have any conflicts (work or personal) with the time and date of the final exam. If you find that you have a conflict with this final exam and that of another class, contact your instructor immediately so that the conflict may be resolved.

<u>Final Exam Date</u>	Date	Time	Location
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Homework

Homework will be assigned for each section of the text. You should work on the homework as it is assigned. You should try the homework problems from the textbook first, and then work on the Computer On-Line Homework problems. We will address questions from each section of homework on the indicated "Due Date" on the calendar. The following day, Computer On-Line Homework for that section will be due. I will **not** collect homework, but test questions can easily come directly from homework problems.

IUPUI Principles of Undergraduate Learning (PUL's):

Core Communication and Quantitative Skills – addressed in oral communication, both one-on-one and in groups, and through writing assignments.

Critical Thinking – addressed in exploring problem solving strategies.

Integration and Application of Knowledge – addresses as students look at elementary applications and the State Standards.

Intellectual Depth, Breadth, and Adaptiveness – addressed in problem solving strategies and readings.

Understanding Society and Culture – addressed in readings about math in different cultures and settings.

Values and Ethics – addressed in group activities and classroom dynamics of the college classroom and an elementary classroom.

Course Coordinator

Any inquiries about this course or student/instructor issues should be directed to the course coordinator, Nancy Kitt, UC B002C, 317-278-4132, nkitt@math.iupui.edu.

Special Services

Students needing accommodations because of a disability will need to register with Adaptive Education Services and complete the appropriate forms issued by AES before accommodations will be given. The AES office is located in Joseph T. Taylor Hall (UC), Room 100, and may be reached by calling 274-3241.

Student Misconduct

Cheating will result in a minimum penalty of receiving a grade of F in the course. The IUPUI Department of Mathematical Sciences expects all students to adhere to the regulations put forth in the "IUPUI Code of Student Rights, Responsibilities, and Conduct" concerning academic misconduct or personal misconduct. Procedures for imposing academic and disciplinary sanctions are outlined in the Code. The Code can be found at <http://www.iupui.edu/code>.

Campus-Wide Policies Governing the Conduct of Courses at IUPUI

These can be found at http://registrar.iupui.edu/course_policies.html with links to specific policies in the general areas of attendance, academic policy, conduct and related policies.

Academic Integrity

Cheating on assignments and tests or other academic works is a violation of university policy. Any behavior that is construed as cheating or academic dishonesty will not be tolerated in this course. This includes, but is not limited to, plagiarism, cheating during exams, acquisition of tests or other academic materials, as well as aiding and abetting others in committing the violation. The classroom protocol will be guided by the Student Code of Conduct which, among other things, asserts IUPUI's commitment "to maintain[ing] a spirit of civility in a community in which diversity is welcomed. Every student, staff, and faculty member plays a significant role in promoting an environment that is conducive to academic excellence by fostering a climate of civility and mutual respect."

Weather: There is a link on to the IUPUI Registrar's Home Page under the MODULE titled "Weather" on the CANVAS page. This site states the current status of the university. You may need to go to the **VERY TOP** of the page for the status information. If the university is officially open, we will hold class.

Course Expectations

Because learning is a goal of this class and learning is impacted by the classroom environment, it is expected that all students will help create a positive classroom environment. This includes but is not limited to the following policies:

1. Take responsibility for your own learning through attendance, participation, and effort.
2. Attend class regularly, since much of the course work is tied to learning in group and class activities.
Please discuss with me, ahead of time, if you must miss a class for any reason.
3. Conduct yourself using basic classroom etiquette:
 - Do not arrive late or leave early, as this can be distracting for the class.
 - Do not have private conversations during class; even whispering can be distracting. Unnecessary or disrespectful talking is not acceptable.
 - Do not work on assignments for other classes, read other textbooks, or other books.
 - Turn your cell phones **OFF** or to silent mode. Any and all other electrical devices will be turned off during the class. If you have an emergency to take care of, please leave the room.
 - **DO NOT TEXT MESSAGE or HAVE YOUR PHONE VISIBLE. I have the right, and will either confiscate the device for the remainder of the class or remove the student from the class.**
 - **I will have small boxes on the front desk. If I notice someone with their cell phone out during class, I will ask you to put your phone in the box and put your name on it. You may retrieve it at the end of class.**
 - Laptops are not allowed in class.

4. Read all sections in the textbook prior to the class in which the material will be discussed. Come to class prepared for active learning of the relevant topics covered in those readings.
5. Submit assignments on the due date indicated on the class calendar.
6. Participate fully by staying on task and contributing significantly to the discussion topics. Show respect for the instructor and classmates, and their points of view.
7. Demonstrate your best effort in completing assignments, presenting ideas orally, or in written work.
8. Make an appointment with me if you wish to discuss a problem or an issue associated with the class or if you wish to discuss the grading of an assignment.

At the discretion of the instructor, students may have their final grade lowered by any percent for not adhering to these policies.

CELL PHONES DURING TESTS: I have noticed that students are beginning to use cell phones for more than just making calls and texting. With the clear quality of some of the cameras, I have noticed students sitting in the hallway taking pictures of quizzes, homework, or pages from textbooks, obviously with the intent of putting the phone in their lap during the test and looking up information.

To make testing fair for everyone and so there is no question in my mind of whether a student has their cell phone out during a test, I will give each of you a number based on our class seating chart. Please remember this number. When you come to class on test days, I will have index cards with the student numbers written on them. I will have these lined up along the chalk board ledge. I will ask that you place your cell phone in front of the correct numbered index card and it will remain untouched the entire test by anyone. When you turn in your test you will then retrieve your cell phone.

I only feel this is fair to everyone. Again, you are future teachers....you need to be setting the standard for your future students. Cheating on a test in any way, shape or form is **NOT** acceptable during college. You would NOT want your students doing this either. So I won't have any doubt in my mind, or won't falsely make any accusations, we'll put cell phones on the chalkboard ledge during all testing.

Counseling and Psychological Services (CAPS)

During the semester, if you find that life stressors are interfering with your academic or personal success, consider contacting Counseling and Psychological Services (CAPS). All IUPUI students are eligible for individual counseling services at minimal fees. Group counseling services are free of charge. CAPS also performs evaluations for learning disorders and ADHD; fees are charged for testing. CAPS is located in Walker Plaza, Room 220 (719 Indiana Avenue) and can be contacted by phone (317-274-2548). For more information, see the CAPS web-site at: <http://life.iupui.edu/caps/>

FORMAL WRITING EXPECTATIONS FOR STUDENTS IN MATH 13600

The assignments you turn in are a representation of yourself. This course is part of your preparation for a career as a teacher. The image you put forward should be one of competence and professionalism.

For all written assignments, I will expect you to type your paper (unless I indicate otherwise), use formal written English including, but not limited to, proper word usage and correct spelling, punctuation, and grammar. Be sure to proof read your work before submitting it for a grade and pay particular attention to the following:

1. Use paragraphs correctly.
2. Use correct spelling
3. Do not write run on sentences. Use periods, capital letters, and commas appropriately.
4. Do not use he/she or his/her.
5. Do NOT use “text-messaging” within any paper. “CU l8r” is not acceptable.
6. Be sure to use the correct form of a word. For example, the sentence “John should bye to number too pensils two use for the test sense it will be a Scan-Tron test” contains six errors (Can you find them all?) and is not acceptable.

For *every* error, I may deduct a point from your grade. That means if you have several run-on sentences, one point will be deducted for *each* sentence. If a word is used incorrectly or misspelled, one point will be deducted *each time* the error occurs. If I cannot understand what you are trying to say and have to struggle to grade the paper, points will be deducted. It is possible to earn *negative* points for a paper that is poorly written, no matter how good the content is. You are in college on the track to a professional career. This is the time to develop good habits and begin to prepare for your future as an excellent teacher.

Welcome to Math 13600. I look forward to getting to know you and helping you with a beginning step to become an awesome elementary school teacher!