MATH 1312: Introduction to Math Reasoning
Course Syllabus – Spring 2019

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CASA Hours: Wednesday, 05:00 PM - 07:00 PM
Office Hours: By Appointment Only
Course Homepage: www.casa.uh.edu

Course number: Math1312
Delivery format: Face-to-face
Prerequisites: Credit for MATH 1300 or TSI complete in Math or a score of 65 or higher on ANY of the Math Placement tests is required for enrollment in this course.

IMPORTANT: *The instructor reserves the right to make changes on these policies. Any changes will be announced on the instructor's website in a timely manner.*

Course Description: Upon successful completion of this course, students will be able to use the basics of proving theorems and argue a point of view effectively. The topics lend themselves to learning the methods of proving an assertion. The course is designed for pre-service elementary and middle school teachers.

Textbook: *Elementary Geometry for College Students* by Alexander and Koeberlein, **6th edition**.

The information contained in this class outline is an abbreviated description of the course. Additional important information is contained in the departmental policies statement at http://www.mathematics.uh.edu/undergraduate/courses/math13xx/ and at your instructor's personal webpage. You are responsible for knowing all of this information.

A student in this class is expected to complete the following assignments:

1. **Course Policy Quiz** – online on your CASA account – you must make 100% on the course policy quiz in order to have access to the other online assignments in the course. The answers to the quiz may be found in the "Math 13xx Course Policies" document on your instructor's website.
2. **3 Regular Exams**
3. **Final Exam**
4. **Online Quizzes**
5. **Homework**
6. **Poppers** – short multiple-choice quizzes given daily starting the 3rd week of classes

- Homework   10%
- Poppers   10%
- Quizzes   10%
- Tests   51%   (17% each)
- Final Exam   19%
- Total: 100%

Note: The percentage grade on the final exam (without extra credit) can be used to replace your lowest test score if it is better than your lowest test grade.

Grading Scale: If you call your average "x":

A $93 \le x \le 100$	**B-** $80 \le x < 83$	**D+** $67 \le x < 70$
A- $90 \le x < 93$	**C+** $77 \le x < 80$	**D** $63 \le x < 67$
B+ $87 \le x < 90$	**C** $73 \le x < 77$	**D-** $60 \le x < 63$
B $83 \le x < 87$	**C-** $70 \le x < 73$	**F** $0 \le x < 60$

Tests: There will be 3 tests along with a final exam. The complete schedule is on your instructor's web page and/or your CASA accounts. All tests are taken at CASA testing center, with reservation. Use "proctored exams" tab at your CASA account to reserve a seat for it. **You must make a reservation to take a test prior to the first testing day.** You should print out the web page showing your reservation time for your records and proof of your reservation. Reservation generally begins 2 weeks prior to an exam; reserve a seat as soon as the scheduler opens up.

Tentative Exam dates and topics: *(Any change on the exam topics or dates will be announced on the instructor's website)*

Test 1	Chapters 1 and 2	February 21, 22, 23
Test 2	Chapters 3 and 4	March 28, 29, 30
Test 3	Chapters 5 and 6	April 25, 26, 27
Final	Comprehensive	May 2-7

Tests are 50 minutes long. Push the "submit" button when you are completely ready to leave the Testing Center, AFTER you have finished ALL the questions and checked your work.

If you miss a test, you receive a zero for it. When you take the final, the grade on the final will replace that zero. If you miss more than one test, only the first one will be replaced. There are no retakes or makeups in this class.

You can use the CASA online calculator during any of the exams; practice to use it ahead of time.

Final Exam: Final is comprehensive and compulsory unless you are eligible for the opt-out. **NO EARLY FINALS.** Check your instructor's website for final exam schedule. Final is given at CASA testing center. Reserve a seat for it when reservation begins. Your **raw score** on the final will be used to replace the lowest test score if it is better.

Extra Credit: There are practice tests and a practice final on Courseware. If you take the practice test, then 10% of the highest score you earn will be applied to the relevant test as extra credit on the corresponding exam. You can take the practice tests several times (up to 20 times) and we only take your best score. Pay attention to the "end" dates on these. None of the practice tests will ever be re-opened.

Online Quizzes: Online quizzes will be given regularly in this course. The quizzes will be made available by logging into CourseWare at http://www.casa.uh.edu . You may take each up to 20 times during the time that it is available. There is a 60-minute time limit for most quizzes. Your highest score is retained as the score for that quiz. There may be two or more quizzes due every week; check the due dates carefully.

Quizzes must be submitted before 11:59pm on the due date. There will be **no makeup quizzes** for any reason. Neither the instructor, nor Math Department, is responsible for any difficulty that you have in accessing the quizzes. Please do not delay taking quizzes – there are times during the week when CourseWare is slow or overloaded. There is **no amnesty period** for the quizzes; the quizzes will NOT be reopened at the end of the semester.
If you miss a quiz, you will NOT have a chance to make up for it. One lowest quiz score will be dropped at the end of the semester.
Please contact CourseWare tech support directly if you are having technical problems for your account.

Poppers: Beginning the 3rd week of school, you will have daily poppers (short questions on the material from that day's lecture or from the lectures prior to that day) which will be given during the class.
The bubbling forms (poppers) are for sale at the BOOK STORE. Please buy the package for Math 1312 with **your section number printed on it.** You must use the right popper forms for credit; you cannot turn in your answers on any other kind of paper.
You are required to fill in your id number, popper number and blacken the correct circles. Make sure that your id number and popper number are correct before turning in the popper at the end of the lecture. If these are not filled out correctly or if the darken circles are too light you will not get credit for that day's lecture even if you attended.
Do not turn in poppers for classmates. If you turn in a popper for a classmate who was not in class that day, poppers for both students will not be accepted. Repeated offenses might be reported to the Departmental Hearing Officer (see UH Academic Honesty Policy).

We will drop 15% of the total number of the questions asked in poppers during all the semester.

Popper grades will be posted in your CourseWare gradebook. There will be **no make-up** Poppers.

If your popper is not graded even though you turned it in, that means you have made a bubbling mistake and there is nothing we can do about it, you will not receive credit for such poppers.

Homework: Homework is going to be assigned weekly covering all the material seen during the prior week of lectures. You need to submit your homework using "EMCF" tab in your CASA account before the due date. Please see the link for Homework on your instructor's website for due dates and more detailed information. **NO late homework** is accepted. Your score on the homework is the number of correct answers out of the total number of questions. We will drop two (2) lowest grades at the end of the semester.

Late Assignments and Make-up Policy: This course is a cumulative course. You as a student need to keep up with the reading, quizzes, homework assignments and exams. Thus, late work or make-ups will not be accepted for any reason.
In case of late enrollment or re-registration after being dropped no make ups will be provided for assignments missed during the "no access to the course" period due to late enrollment or being dropped.

Communication via email: Your instructor will be sending class emails using PeopleSoft. You are responsible for checking your UH email. Per UH Policy, notices properly addressed and so sent (for example, via PeopleSoft) shall be presumed to have been received by the student. Thus, you are responsible for the content in emails sent to your UH account, regardless if your external (non-UH) email provider filters or blocks them.
When emailing your instructor, it is recommended that you use a professional email address and include the course name on the subject line so that your instructor can address your questions accordingly.
Please read this link for more on communication via email: EMAIL ETIQUETTE (**https://www.math.uh.edu/~tomforde/Email-Etiquette.html**).

Honor Principle: University of Houston students are expected to adhere to the Academic Honesty Policy as described in the UH Undergraduate Catalog. "Academic dishonesty" means employing a method or technique or engaging in conduct in an academic endeavor that contravenes the standards of ethical integrity expected at the University of Houston or by a course instructor to fulfill any and all academic requirements.
Academic dishonesty includes, but is not limited to, the following: *Plagiarism; Cheating and Unauthorized Group Work; Fabrication, Falsification, and Misrepresentation*; *Stealing and Abuse of Academic Materials; Complicity in Academic Dishonesty; Academic Misconduct.* Refer to UH Academic Honesty website and the UH Student Catalog for the definition of these terms and university's policy on Academic Dishonesty. Anyone caught cheating will be reported to the department for further disciplinary actions, receive sanctions as explained on these documents, and will have an academic dishonesty record at the Provosts office. The sanctions for confirmed

violations of this policy shall be commensurate with the nature of the offense and with the record of the student regarding any previous infractions. Sanctions may include, but are not limited to: a lowered grade, failure on the examination or assignment in question, failure in the course, probation, suspension, or expulsion from the University of Houston, or a combination of these. Students may not receive a W for courses in which they have been found in violation of the Academic Honesty Policy. If a W is received prior to a finding of policy violation, the student will become liable for the Academic Honesty penalty, including F grades.

UH CAPS: Counseling and Psychological Services (CAPS) can help students who are having difficulties managing stress, adjusting to college, or feeling sad and hopeless. You can reach CAPS (www.uh.edu/caps) by calling 713-743-5454 during and after business hours for routine appointments or if you or someone you know is in crisis.
No appointment is necessary for the "Let's Talk" program, a drop-in consultation service at convenient locations and hours around campus.
http://www.uh.edu/caps/outreach/lets_talk.html

CSD Accommodations: Academic Adjustments/Auxiliary Aids: The University of Houston System complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, pertaining to the provision of reasonable academic adjustments/auxiliary aids for students who have a disability. In accordance with Section 504 and ADA guidelines, University of Houston strives to provide reasonable academic adjustments/auxiliary aids to students who request and require them. If you believe that you have a disability requiring an academic adjustments/auxiliary aid, please visit The Center for Students with DisABILITIES (CSD) website at http://www.uh.edu/csd/ for more information.

Accommodation Forms: Students seeking academic adjustments/auxiliary aids must, in a timely manner (usually at the beginning of the semester), provide their instructor with a current Student Accommodation Form (SAF) from the CSD office before an approved accommodation can be implemented.

Details of this policy, and the corresponding responsibilities of the student are outlined in The Student Academic Adjustments/Auxiliary Aids Policy (01.D.09) document under [STEP 4: Student Submission (5.4.1 & 5.4.2), Page 6]. For more information please visit the Center for Students with Disabilities FAQs page.

Additionally, if a student is requesting a (CSD approved) testing accommodation, then the student will also complete a Request for Individualized Testing Accommodations (RITA) paper form to arrange for tests to be administered at the CSD office. CSD suggests that the student meet with their instructor during office hours and/or make an appointment to complete the RITA form to ensure confidentiality.

*Note: RITA forms must be completed at least 48 hours in advance of the original test date. Please consult your counselor ahead of time to ensure that your tests are scheduled in a timely manner. Please keep in mind that if you run over the agreed upon time limit for your exam, you will be penalized in proportion to the amount of extra time taken.

Introduction to Mathematical Reasoning Topic List

Chapter 1 —Line and Angle Relationships

1.1 Sets, Statements and Reasoning
1.2 Informal Geometry and Measurement
1.3 Early Definitions and Postulates
1.4 Angles and Their Relationships
1.5 Introduction to Geometric Proof
1.6 Relationships: Perpendicular Lines
1.7 The Formal Proof of a Theorem

Chapter 2 — Parallel Lines

2.1 The Parallel Postulate and Special Angles
2.2 Indirect Proof
2.3 Proving Lines Parallel
2.4 The Angles of a Triangle
2.5 Convex Polygons
2.6 Symmetry and Transformations

Chapter 3 —Triangles

3.1 Congruent Triangles
3.2 Corresponding Parts of Congruent Triangles
3.3 Isosceles Triangles
3.4 Basic Constructions Justified
3.5 Inequalities in a Triangle

Chapter 4 — Quadrilaterals

4.1 Properties of a Parallelogram
4.2 The Parallelogram and Kite
4.3 The Rectangle, Square and Rhombus
4.4 The Trapezoid

Chapter 5 — Similar Triangles

5.1 Ratios, Rates and Proportions
5.2 Similar Polygons
5.3 Proving Triangles Similar