

**Math 1312: Introduction to Math Reasoning
Course Syllabus – Summer 2018**

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Course number: Math 1312

Section number: 16763

Lecture Time/Place: Monday – Friday 8:00AM – 10:00AM

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. 3 Regular Exams
2. Final Exam
3. Online Quizzes
4. Homework

Components and Weights of Semester Assignments:

- Attendance and in-class work 10%
 - Homework 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 $93 \leq x \leq 100$	B- $80 \leq x < 83$	D+ $67 \leq x < 70$
A- $90 \leq x < 93$	C+ $77 \leq x < 80$	D $63 \leq x < 67$
B+ $87 \leq x < 90$	C $73 \leq x < 77$	D- $60 \leq x < 63$
B $83 \leq x < 87$	C- $70 \leq x < 73$	F $0 \leq x < 60$

Online Quizzes: Online quizzes will be given regularly in this course. You may take each up to 20 times during the time that it is available. There is a 60-minute time limit for each quiz. Your highest score is retained as the score for that quiz. There may be two or more quizzes due on some weeks; 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. **One** (1) lowest quiz score will be dropped at the end of the semester.

If you miss a quiz, you will NOT have a chance to make up for it. Please contact CourseWare tech support directly if you are having technical problems for your account.

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.

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.

Exam topics: *(Any change on the exam topics will be announced on the instructor’s website)*

Test 1	Chapters 1 and 2
Test 2	Chapters 3 and 4
Test 3	Chapters 5 and 6
Final	Comprehensive

Tests are 50 minutes long. Push the “submit” button when you’re completely ready to leave the Testing Center, AFTER you’ve 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.

Attendance:

- Attending every lecture is strongly recommended.
- Your instructor will take attendance in every lecture and post your total attendance grade on CASA 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.

Similarly, if students lose access to CASA for not entering access code by the deadline, there will be no make ups for the assignments they missed during that period.

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 \(https://www.math.uh.edu/~tomforde/Email-Etiquette.html\)](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
- 5.4 Pythagorean Theorem
- 5.5 Special Right Triangles
- 5.6 Segments Divided Proportionally

Chapter 6 — Circles

- 6.1 Circles and Related Segments and Angles
- 6.2 More Angle measures in a Circle
- 6.3 Line and Segment Relationships in the Circle
- 6.4 Some Constructions and Inequalities for the Circle

Chapter 8 — Areas of Polygons and Circles

- 8.1 Area and Initial Postulates
- 8.2 Perimeter and Area of Polygons
- 8.3 Regular Polygons and Area
- 8.4 Circumference and Area of a Circle
- 8.5 More Area Relationships in the Circle