



Syllabus for

## Topics in Geometry (MTH 402) – Q2 of Spring 2015

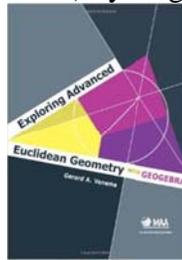
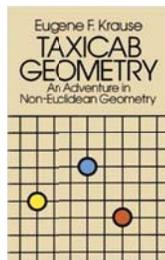
Rohr Science 220 – MWF 10:55-12:05

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Instructor:  
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Office Hours:  
Rohr Science 220  
619.849.2604 RS220

Taxicab Geometry: An Adventure in Non-Euclidean Geometry (Dover Books on Mathematics) by Eugene F. Krause



Exploring Advanced Euclidean Geometry with GeoGebra (Classroom Resource Materials) by Gerard A. Venema

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### Catalog Course Description

A study of the foundations of geometry, Affine, non-Euclidean and projective geometries. A synthetic development of advanced Euclidean geometry including geometric transformations, convexity, and constructions.

### Class Learning Outcomes

- Students will be able to demonstrate facility with analytical concepts.
- Students will be able to write proofs.
- Students will be able to apply their mathematical knowledge to solve problems.

### Required Materials

A Compass and Straight Edge

### Homework

The homework is designed to allow you to grasp the concepts of Geometry; it is not an end in itself. Assignments will be announced on Monday, Wednesday and Friday. The work will be submitted on or before Wednesday 29-April-2015 as a portfolio.

**Examination and the Final Examination.** The Mid-Term Examination and the Final Examination will include problems and questions over material assigned in the texts, readings and handouts, as well as material presented in class. No examination shall be missed without prior consent or a well-documented emergency beyond your control. A score of zero will be assigned for an examination that is missed without prior consent or a well-documented emergency beyond your control.

## Grading Policies

Grading Distribution	Percent
Mid-Term Examinations	30
Final Exam	45
Homework	25
Total	100

### Grading scale

Grades are based on the percentage of points accumulated in each category throughout the course. Approximate minimal percentages required to obtain a given grade are:

Grading Scale in percentages	A	B	C	D
+		(87.5, 90)	(77.5, 80)	(67.5, 70)
	[92.5, 100]	[82.5, 87.5]	[72.5, 77.5]	[62.5, 67.5]
-	[90, 92.5)	[80, 82.5)	[70, 72.5)	[60, 62.5)

Other factors that affect grades are

- Late work. A written assignment or computer assignment is late if it is not received at the beginning of class on the due date. Late work need not be accepted. Work accepted late may be assessed a penalty. Make-up tests (or the exam) will be given only by arrangement with the instructor for reasons of documented emergency.
- Questions on written assignments and exams: Written assignments and test/exam questions and problems must be formulated carefully in terms of words and symbols used in the course. Credit is determined by the degree to which answers and solutions respond to the specific question or problem stated. Maximize your credit by learning the language and symbols of the course.
- Format for Written Assignments. Assignments collected must be prepared in a style suitable for grading. Please use the format demonstrated at the Harvey Mudd website (<https://www.math.hmc.edu/homework/>) LaTeX typesetting is not required. The following guidelines are used to determine credit
  - the organization must be easy to follow the work must be legible
  - complete solutions must be written for problems (not just answers); solutions must be clearly marked use complete sentences to answer questions

### Attendance Policy

Attendance is expected at each class session. In the event of an absence you are responsible for the material covered in class and the assignments given that day. Here is the university's stated policy on attendance:

Regular and punctual attendance at all classes in which a student is registered is considered essential to optimum academic achievement. Therefore, regular attendance and participation in each course are minimal requirements to be met. There are no allowed or excused absences except as approved in writing by the Provost for specific students participating in certain university-sanctioned activities. Excused absences still count toward the 10%-20% limits, but allow students to make up work, quizzes, or tests missed as a result of a university-sanctioned activity. Activities of a unique nature, such as labs or other activities identified clearly on the syllabus, cannot be made up except in rare instances when instructors have given advanced, written approval for doing so. Whenever the number of accumulated absences in a class, for any cause, exceeds ten (10) percent of the total number of class meetings, the faculty member should

send an e-mail to the student and the Vice Provost for Academic Administration (VPAA) warning of attendance jeopardy. If more than twenty (20) percent of the total number of class meetings is reported as missed, the faculty member or VPAA may initiate the student's de-enrollment from the course without further advanced notice to the student. If the date of de-enrollment is past the last date to withdraw from a class, the student will be assigned a grade of W or WF consistent with university policy in the Grading section of the catalog. There are no refunds for courses where a de-enrollment was processed.

For more details see the PLNU catalog:

[http://catalog.pointloma.edu/content.php?catoid=14&navoid=1089#Class\\_Attendance](http://catalog.pointloma.edu/content.php?catoid=14&navoid=1089#Class_Attendance)

If you miss 10% of the class, you will receive a warning. If you miss 20% of the class, you will be automatically de-enrolled.

### **Class Enrollment**

It is the student's responsibility to maintain his/her class schedule. Should the need arise to drop this course (personal emergencies, poor performance, etc.), the student has the responsibility to follow through (provided the drop date meets the stated calendar deadline established by the university), not the instructor. Simply ceasing to attend this course or failing to follow through to arrange for a change of registration (drop/add) may easily result in a grade of F on the official transcript.

### **Classroom Attire**

All students are expected to dress in ways that make the classroom a place where all students are comfortable and can work efficiently. Distracting attire is not permitted in the classroom. For example, attire associated with the "rush" activities of fraternities and sororities simply causes too many distractions in the classroom. If you choose to "rush" one of the fraternities or sororities, please make sure the "rush" officials know that "rush" attire will not be allowed in this classroom.

### **Academic Accommodations**

While all students are expected to meet the minimum academic standards for completion of their courses as established by the instructor, students with special needs may require academic accommodations. At Point Loma Nazarene University, students requesting academic accommodations must file documentation with the Disability Resource Center (DRC), located in the Bond Academic Center. Once the student files documentation, the Disability Resource Center contacts the student's instructors and provides written recommendations for reasonable and appropriate accommodations to meet the individual needs of the student. This policy assists the university in its commitment to full compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities (ADA) Act of 1990, and ADA Amendments Act of 2008, all of which prohibit discrimination against students with special needs and guarantees all qualified students equal access to the benefits of PLNU programs and activities. For more details see the PLNU catalog:

[http://catalog.pointloma.edu/content.php?catoid=14&navoid=1089#Academic\\_Accommodations](http://catalog.pointloma.edu/content.php?catoid=14&navoid=1089#Academic_Accommodations)

Students in need of academic accommodations as defined by the laws listed above, must discuss options with the professor within the first two weeks of class, and must complete the documentation process with the DRC within the first four weeks of class.

### **Academic Honesty**

The Point Loma Nazarene University community holds the highest standards of honesty and integrity in all aspects of university life. Any violation of the university's commitment is a serious affront to the very nature of Point Loma's mission and purpose. Violations of academic honesty include cheating, plagiarism, falsification, aiding academic dishonesty, and malicious interference. The details of PLNU's meaning of each of these words can be found in the PLNU catalog at:

[http://catalog.pointloma.edu/content.php?catoid=14&navoid=1089#Academic\\_Honesty](http://catalog.pointloma.edu/content.php?catoid=14&navoid=1089#Academic_Honesty)

A student remains responsible for the academic honesty of work submitted in PLNU courses and the consequences of academic dishonesty beyond receipt of the final grade in the class and beyond the awarding of the diploma. Ignorance of these catalog policies will not be considered a valid excuse or defense. Students may not withdraw from a course as a response to a consequence.

A student who is caught cheating on any item of work will receive a zero on that item and may receive an “F” for the semester. See the PLNU Catalog for a further explanation of the PLNU procedures for academic dishonesty ([http://catalog.pointloma.edu/content.php?catoid=14&navoid=1089#Academic\\_Honesty](http://catalog.pointloma.edu/content.php?catoid=14&navoid=1089#Academic_Honesty)).

### **Copyright Protected Materials**

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

### **Final Exam: Date and Time**

The final exam date and time is set by the university at the beginning of the semester and may not be changed by the instructor. Only in the case that a student is required to take three exams during the same day of finals week is an instructor authorized to change the exam date and time for that particular student. The in-class portion of the Final Exam will be given on Friday 8-May-2015 from 10:30-1:00.

**The Final Exam is a Comprehensive Examination.**