Queens College
Foundations of GEOMETRY
MATH 618
Spring 2015
Instructor: Alex Ryba

Required text:
Saul Stahl:
*A Gateway to Modern Geometry: The Poincare Half-Plane,*
2nd Edition, 2008,
Jones and Barlett
ISBN: 9780763753818

Classes: Wednesday, 05.00pm – 07.50pm, Kissena 120

Instructor:
Alex Ryba
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office: NSB A116
office hours: Tuesday, Thursday 10.00am – 11.00am
or by appointment.

Course Website:
http://venus.cs.qc.edu/~ryba/math618/

Reminder:
The class will not meet on:
Wednesday, February 18 (no class)
Wednesday, April 8 (no class)

Requirements:
There are two midterms and a final exam (all cumulative).
Homework problems for each class are posted on the course website. These problems are intended to help prepare you for exams, the homework will not be graded and does not count for credit. Preliminary reading assignments are also posted on the website. Each reading assignment should be completed before the corresponding class. Grades will be based on the two best exam scores.

Exam Dates:
The first midterm will be in class on Wednesday March 25th, 2015.
The second midterm will be in class on Wednesday May 13th, 2015.
At present the college has scheduled the final exam for
Wednesday May 20st, 2015 from 04.00pm to 06.00pm.
This date and time might be changed by the college during the semester.
Course Topics:
Week 1: Euclidean Geometry (Chapter 1)
Week 2, 3, 4: Spherical geometry and trigonometry (Chapter 11)
Week 5, 6: Inversions (Chapter 3)
Weeks 7, 8, 9: The Hyperbolic Plane (Chapter 4)
Week 10, 11: Comparison of Euclidean and Hyperbolic Geometry (Chapters 2, 5)
Week 12: Hyperbolic angles, areas (Chapters 6, 7)
Week 13, 14: Hyperbolic trigonometry (Chapter 8)

Learning Goals. A solid understanding of the rigorous development of Euclidean geometry, Spherical geometry and the non-Euclidean geometry of Bolynai and Lobachevski. Successful students will be able to solve exam problems that test this material.

Policy: Academic dishonesty such as plagiarism or cheating will be dealt with seriously in accord with the University’s policy on academic integrity.