

**Mathematics 3260H – Geometry II: Projective and non-Euclidean geometry**  
TRENT UNIVERSITY, Fall 2017

**Additional Sources**

This list is not at all comprehensive, so feel free to look for more sources.

1. *The Thirteen Books of the Elements*, Euclid. Translated with introduction and commentary by Sir Thomas L. Heath.  
Reprinted by Dover Publications, Inc., New York. Vol 1, ISBN 0-486-60088-2; Vol. 2, ISBN 0-486-60089-0; Vol. 3, ISBN 0-486-60090-4.
2. *Euclid's Elements*, David E. Joyce  
[aleph0.clarku.edu/~djoyce/java/elements/toc.htm](http://aleph0.clarku.edu/~djoyce/java/elements/toc.htm)  
A very nice online edition of Euclid.
3. *Euclid's Elements in Greek*, Richard Fitzpatrick  
[farside.ph.utexas.edu/euclid.html](http://farside.ph.utexas.edu/euclid.html)  
The *Elements* in the original Greek with a facing English translation, freely available for download in pdf format.
4. *Foundations of Geometry*, David Hilbert. (Translated by E.J. Townsend.)  
Reprint Edition, The Open Court Publishing Company, La Salle, Illinois.  
Freely available for download in pdf format from Project Gutenberg at:  
[www.gutenberg.org/etext/17384](http://www.gutenberg.org/etext/17384) .
5. *Geometry from Euclid to Knots*, Saul Stahl.  
Dover Publications, Inc., New York, 2010, ISBN-10: 0-486-47459-3, ISBN-13: 978-0-486-47459-5.  
This book was the text for MATH 2260H – *Geometry I: Euclidean Geometry* for the last few years. Chapters I and 2, as well as Appendices C–E, are particularly relevant to MATH 3260H.
6. *Non-Euclidean Geometry*, Roberto Bonola. (Translated by H.S. Carslaw.)  
Reprinted by Dover Publications, Inc., New York. ISBN 0-486-60027-0  
This book gives a historical development of non-Euclidean geometry and includes translations of Bolyai's *The Science of Absolute Space* and Lobachevski's *The Theory of Parallels* as appendices. It may be downloaded for free in various formats at:  
[archive.org/details/Non-euclideanGeometry](http://archive.org/details/Non-euclideanGeometry)
7. *Non-Euclidean Geometry*, Henry Parker Manning, 1901.  
It may be downloaded for free from *Project Gutenberg* at:  
[www.gutenberg.org/ebooks/13702](http://www.gutenberg.org/ebooks/13702)
8. *Noneuclidean Geometry*, Herbert Meschkowski. (Translated by A. Shenitzer.)  
Academic Press, New York and London, 1964.  
Your instructor likes to crib from this one . . .
9. *The Elements of Non-Euclidean Geometry*, D.M.Y. Sommerville  
Reprinted by Dover Publications, Inc., New York, ISBN 0-486-44222-5.  
It may be downloaded for free in various formats at:  
[archive.org/details/ElementsOfNonEuclideanGeometry](http://archive.org/details/ElementsOfNonEuclideanGeometry)

10. *Projective Planes*, D.R. Hughes and F.C. Piper.  
*Graduate Texts in Mathematics 6*, Springer-Verlag, New York, 1973, ISBN 0-387-90044-6.

*Note:* This is a very good book, but is intended for readers that are pretty mathematically sophisticated. In particular, you will really need to know a fair bit of abstract algebra to get the most out of it.

11. *Wikipedia*, [wikipedia.org/](http://wikipedia.org/)

This is a pretty good place to start if you're looking online for information about mathematics. A few articles of interest for this course are:

*Euclidean geometry*, [en.wikipedia.org/wiki/Euclidean\\_geometry](http://en.wikipedia.org/wiki/Euclidean_geometry)

*Non-Euclidean geometry*, [en.wikipedia.org/wiki/Non-Euclidean\\_geometry](http://en.wikipedia.org/wiki/Non-Euclidean_geometry)

*Projective geometry*, [en.wikipedia.org/wiki/Projective\\_geometry](http://en.wikipedia.org/wiki/Projective_geometry)

There are many specialized articles in *Wikipedia* that may be of interest: follow links, search, and browse!

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