# MATH 4810/5810 Topological Data Analysis
## Course Projects

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1. Discrete Morse Theory
2. The Nerve Theorem (Kenneth)
3. Multiparameter Persistent Homology
4. Application of TDA to the study of Energy Landscapes of Chemical Systems
5. Visualiation tools in applied topology (Sam)
6. Application of TDA to the study of phases in material science (Patrick)
7. Topological Data Analysis in Julia
8. TTK, the Topology Toolkit for TDA and Visualization
9. MAPPER: A Topological Data Visualization Tool
10. The GUDHI C++ library (with a Python interface) for Topological Data Analysis (TDA)
11. Local Persistent Homology
12. Ripser, a Persistent Homology Library for Python