

## CO749 Algorithms for Graph Minors

Instructor: Jim Geelen ([jim.geelen@uwaterloo.ca](mailto:jim.geelen@uwaterloo.ca))

Overview: This course is an introduction to the graph minors project, with an algorithmic bias. We will focus on the main algorithmic consequences of the graph minors project, specifically, minor-testing and the  $k$ -linkage problem.

Format: The course will be delivered via regular live on-line classes. The assessment will be based on participation and on four assignments. All assignments will be based on group work, with randomly assigned groups (different groups for each assignment).

Prerequisites: This is not intended as a first course in graph theory. Students should already know the definition of a minor and be familiar with Menger's Theorem (for vertex-disjoint paths).

Text: There is no text-book or notes for the course. Some of the material covered is in Diestel's book on Graph Theory (5<sup>th</sup> edition), which is available free on-line (<http://diestel-graph-theory.com>).