Course title: Algorithmic Graph Theory
Instructor: Martin Milanič, University of Primorska, martin.milanic@upr.si

Syllabus:
We will give an overview of a selection of topics in structural and algorithmic graph theory. The following is the list of topics that we expect to cover:

- **Approximation algorithms for graph problems.** Approximation algorithm for vertex cover problem. Approximation algorithms for the metric traveling salesman problem.
- **Perfect graphs and their subclasses.** Basic theory and examples of hereditary graph classes. Perfect graphs and their properties. Cographs. Split graphs and threshold graphs. Chordal graphs. Interval graphs. Efficient algorithms for various problems based on structural properties of graphs in these classes.

References:
The course is based on several sources (books and research articles). The following is a list of some relevant literature:


Grading:
Based on a take home final exam.