

CO 749: Topics in Graph Theory – Induced subgraphs – Winter 2022

Instructor: Sophie Spirkl

This course is intended to give an overview of the branch of structural graph theory concerned with induced subgraphs, with a focus towards current research.

Topics include:

- Graph classes described by forbidden induced subgraphs
- Chordal graphs and treewidth
- Perfect graphs
- (Polynomial) χ -boundedness
- The Erdős-Hajnal conjecture

Reading: There is no suggested reading.

Prerequisites: This course will be mostly self-contained, and only very basic notions of graph theory are required.

Feel free to email sspirkl@uwaterloo.ca in case of any questions!