

Schedule

A week-by-week breakdown of the material.

Week 1 (01/08-01/12)

Tue Graph Models (1.1), Connected Graphs (1.2)¹
Activity Sheet 1²

Thu Common Classes of Graphs (1.3), Multigraphs and Digraphs (1.4)³
Activity Sheet 2⁴

Week 2 (01/15-01/19)

Tue Catchup

Thu Degree of a Vertex (2.1)⁵
Activity Sheet 3⁶

Week 3 (01/22-01/26)

Tue Regular Graphs (2.2)⁷
Degree Sequences (2.3)⁸
Activity Sheet 4⁹

Thu Graph Isomorphism (3.1), Isomorphism as a Relation (3.2)¹⁰
Activity Sheet 5¹¹

Week 4 (01/29-02/02)

Tue Bridges (4.1)¹²
Assignment 1¹³

¹[notes/intro.html](#)

²[activities/activities1-intro.html](#)

³[notes/graph_classes.html](#)

⁴[activities/activities2-graph_classes.html](#)

⁵[notes/degrees.html](#)

⁶[activities/activities3-degrees.html](#)

⁷[notes/degrees.html](#)

⁸[notes/degree_sequences.html](#)

⁹[activities/activities4-sequences.html](#)

¹⁰[notes/graph_isomorphism.html](#)

¹¹[activities/activities5-isomorphism.html](#)

¹²[notes/bridges.html](#)

¹³[assignments/assignment1.html](#)

Thu Trees (4.2)¹⁴

Activity Sheet 6¹⁵

Week 5 (02/05-02/09)

Tue Minimum Spanning Trees (4.3)¹⁶

Thu Minimum Spanning Trees cont. (4.3)¹⁷

Week 6 (02/12-02/16)

Tue Cut-vertices (5.1)¹⁸

Thu Blocks (5.2)¹⁹

Assignment 2²⁰

Week 7 (02/19-02/23)

Tue Review

Assignment 3²¹

Thu Midterm Chapters 1-4²²

Week 8 (02/26-03/02)

Tue BREAK

Thu BREAK

Week 9 (03/05-03/09)

Tue Connectivity (5.3)²³

Thu Connectivity continued (5.3)²⁴

¹⁴[notes/trees.html](#)

¹⁵[activities/activities6-trees.html](#)

¹⁶[notes/minimum_spanning_trees.html](#)

¹⁷[notes/minimum_spanning_trees.html](#)

¹⁸[notes/cut_vertices.html](#)

¹⁹[notes/blocks.html](#)

²⁰[assignments/assignment2.html](#)

²¹[assignments/assignment3.html](#)

²²[notes/midterm1studyGuide.html](#)

²³[notes/connectivity.html](#)

²⁴[notes/connectivity.html](#)

Week 10 (03/12-03/16)

Tue Eulerian Graphs (6.1)²⁵

Activity Sheet 7²⁶

Thu Hamiltonian Graphs (6.2)²⁷

Week 11 (03/19-03/23)

Tue Strong Digraphs (7.1)²⁸

Thu Tournaments (7.2)

Week 12 (03/26-03/30)

Tue Matchings (8.1)

Factorization (8.2)

Decompositions (8.3)

Planar Graphs (9.1)

Thu Discussion of the Four Color Theorem (10.1)

Vertex Coloring (10.2)

Week 13 (04/02-04/06)

Tue Midterm 2 (Chapters 5-7)

Thu Edge Coloring (10.3)

Week 14 (04/09-04/13)

Tue Ramsey Numbers (11.1)

Thu Center of a Graph (12.1), Distant Vertices (12.2)

²⁵[notes/eulerian_graphs.html](https://www.cmu.edu/math/notes/eulerian_graphs.html)

²⁶[activities/activities7-eulerian.html](https://www.cmu.edu/math/activities/activities7-eulerian.html)

²⁷[notes/hamiltonian_graphs.html](https://www.cmu.edu/math/notes/hamiltonian_graphs.html)

²⁸[notes/strong_digraphs.html](https://www.cmu.edu/math/notes/strong_digraphs.html)