## **Schedule**

A week-by-week breakdown of the material.

## Week 1 (01/08-01/12)

**Tue** Graph Models (1.1), Connected Graphs (1.2)<sup>1</sup>
Activity Sheet<sup>2</sup>

**Thu** Common Classes of Graphs (1.3), Multigraphs and Digraphs (1.4)<sup>3</sup> Activity Sheet<sup>4</sup>

#### Week 2 (01/15-01/19)

**Tue** Degree of a Vertex (2.1), Regular Graphs (2.2)<sup>5</sup>

**Thu** Degree Sequences (2.3)

Graph Isomorphism (3.1)

## Week 3 (01/22-01/26)

**Tue** Isomorphism as a Relation (3.2) Bridges (4.1)

**Thu** Trees (4.2)

## Week 4 (01/29-02/02)

**Tue** Minimum Spanning Trees (4.3)

**Thu** Cut-vertices (5.1)

## Week 5 (02/05-02/09)

Tue Blocks (5.2)

**Thu** Vertex-Connectivity (5.3)

<sup>&</sup>lt;sup>1</sup>notes/intro.html

<sup>&</sup>lt;sup>2</sup>activities/activities1-intro.html

<sup>&</sup>lt;sup>3</sup>notes/graph\_classes.html

<sup>&</sup>lt;sup>4</sup>activities/activities2-graph\_classes.html

<sup>&</sup>lt;sup>5</sup>notes/degrees.html

#### Week 6 (02/12-02/16)

**Tue** Midterm Chapters 1-5)

**Thu** Eulerian Graphs (6.1)

#### Week 7 (02/19-02/23)

**Tue** Hamiltonian Graphs (6.2)

**Thu** Strong Digraphs (7.1)

#### Week 8 (02/26-03/02)

Tue BREAK

Thu BREAK

#### Week 9 (03/05-03/09)

**Tue** Tournaments (7.2)

**Thu** Matchings (8.1)

## Week 10 (03/12-03/16)

**Tue** Factorization (8.2)

**Thu** Decompositions (8.3)

## Week 11 (03/19-03/23)

**Tue** Midterm 2 (Chapters 6-8)

**Thu** Planar Graphs (9.1)

## Week 12 (03/26-03/30)

**Tue** Discussion of the Four Color Theorem (10.1)

**Thu** Vertex Coloring (10.2)

## Week 13 (04/01-04/06)

**Tue** Edge Coloring (10.3)

**Thu** Ramsey Numbers (11.1)

# Week 14 (04/09-04/13)

**Tue** Center of a Graph (12.1)

**Thu** Distant Vertices (12.2)