

# 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 1<sup>2</sup>

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

Activity Sheet 2<sup>4</sup>

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

**Tue** Catchup

**Thu** Degree of a Vertex (2.1)<sup>5</sup>

Activity Sheet 3<sup>6</sup>

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

**Tue** Regular Graphs (2.2)<sup>7</sup>

Degree Sequences (2.3)<sup>8</sup>

Activity Sheet 4<sup>9</sup>

**Thu** Graph Isomorphism (3.1), Isomorphism as a Relation (3.2)<sup>10</sup>

Activity Sheet 5<sup>11</sup>

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

**Tue** Bridges (4.1)<sup>12</sup>

Trees (4.2)<sup>13</sup>

Assignment 1<sup>14</sup>

**Thu** Minimum Spanning Trees (4.3)

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<sup>1</sup>[notes/intro.html](#)

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

<sup>3</sup>[notes/graph\\_classes.html](#)

<sup>4</sup>[activities/activities2-graph\\_classes.html](#)

<sup>5</sup>[notes/degrees.html](#)

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

<sup>7</sup>[notes/degrees.html](#)

<sup>8</sup>[notes/degree\\_sequences.html](#)

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

<sup>10</sup>[notes/graph\\_isomorphism.html](#)

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

<sup>12</sup>[notes/bridges.html](#)

<sup>13</sup>[notes/trees.html](#)

<sup>14</sup>[assignments/assignment1.html](#)

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

**Tue** Cut-vertices (5.1)

**Thu** Blocks (5.2)

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

**Tue** Vertex-Connectivity (5.3)

**Thu** Eulerian Graphs (6.1)

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

**Tue** Hamiltonian Graphs (6.2)

**Thu** Midterm Chapters 1-5)

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

**Tue** BREAK

**Thu** BREAK

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

**Tue** Strong Digraphs (7.1)

**Thu** Tournaments (7.2)

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

**Tue** Matchings (8.1)

**Thu** Factorization (8.2)

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

**Tue** Decompositions (8.3)

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

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

**Tue** Planar Graphs (9.1)

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

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

**Tue** Vertex Coloring (10.2)

**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)