

# 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>  
Assignment 1<sup>13</sup>

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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>[assignments/assignment1.html](#)

**Thu** Trees (4.2)<sup>14</sup>

Activity Sheet 6<sup>15</sup>

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

**Tue** Minimum Spanning Trees (4.3)<sup>16</sup>

**Thu** Minimum Spanning Trees cont. (4.3)<sup>17</sup>

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

**Tue** Cut-vertices (5.1)<sup>18</sup>

**Thu** Blocks (5.2)<sup>19</sup>

Assignment 2<sup>20</sup>

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

**Tue** Review

Assignment 3<sup>21</sup>

**Thu** Midterm Chapters 1-4<sup>22</sup>

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

**Tue** BREAK

**Thu** BREAK

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

**Tue** Connectivity (5.3)<sup>23</sup>

**Thu** Connectivity continued (5.3)<sup>24</sup>

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<sup>14</sup>[notes/trees.html](#)

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

<sup>16</sup>[notes/minimum\\_spanning\\_trees.html](#)

<sup>17</sup>[notes/minimum\\_spanning\\_trees.html](#)

<sup>18</sup>[notes/cut\\_vertices.html](#)

<sup>19</sup>[notes/blocks.html](#)

<sup>20</sup>[assignments/assignment2.html](#)

<sup>21</sup>[assignments/assignment3.html](#)

<sup>22</sup>[notes/midterm1studyGuide.html](#)

<sup>23</sup>[notes/connectivity.html](#)

<sup>24</sup>[notes/connectivity.html](#)

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

**Tue** Eulerian Graphs (6.1)<sup>25</sup>

Activity Sheet 7<sup>26</sup>

**Thu** Hamiltonian Graphs (6.2)<sup>27</sup>

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

**Tue** Strong Digraphs (7.1)

Tournaments (7.2)

**Thu** Matchings (8.1)

Factorization (8.2)

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

**Tue** 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)

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<sup>25</sup>[notes/eulerian\\_graphs.html](https://www.math.uwaterloo.ca/~dregina/notes/eulerian_graphs.html)

<sup>26</sup>[activities/activities7-eulerian.html](https://www.math.uwaterloo.ca/~dregina/activities/activities7-eulerian.html)

<sup>27</sup>[notes/hamiltonian\\_graphs.html](https://www.math.uwaterloo.ca/~dregina/notes/hamiltonian_graphs.html)