

<b>Aug 31</b> Introduction: Binary operations	<b>Sep 2</b> <i>1.1–1.3</i> Matrices, Determinants	<b>Sep 4</b> <i>1.4–1.5</i> Permutation matrices, Cramer's Rule <i>H1 Due</i>
<b>Sep 7</b> <b>LABOR DAY</b>	<b>Sep 9</b> <i>2.1</i> Groups <i>H2 Due</i>	<b>Sep 11</b> <i>2.2</i> Subgroups
<b>Sep 14</b> <i>2.3</i> Isomorphisms	<b>Sep 16</b> <i>2.4</i> Homomorphisms <i>H3 Due</i>	<b>Sep 18</b> — <b>REVIEW</b>
<b>Sep 21</b> <i>2.5</i> Equivalence relations, partitions	<b>Sep 23</b> <i>2.6</i> Cosets <i>H4 Due</i>	<b>Sep 25</b> <i>2.7</i> Restrictions of homomorphisms
<b>Sep 28</b> <i>2.8</i> Products of groups	<b>Sep 30</b> <b>REVIEW</b> <i>H5 Due</i>	<b>Oct 2</b> <b>TEST #1</b>
<b>Oct 5</b> <i>2.9</i> Modular arithmetic	<b>Oct 7</b> <i>2.10</i> Quotient groups	<b>Oct 9</b> <i>3.1–3.2</i> Vector spaces over fields <i>H6 Due</i>
<b>Oct 12</b> <b>FALL BREAK</b>	<b>Oct 14</b> <b>FALL BREAK</b>	<b>Oct 16</b> <b>FALL BREAK</b>
<b>Oct 19</b> <i>3.3–3.4</i> Review: Bases	<b>Oct 21</b> <i>4.1–4.2</i> Review: Linear transformations <i>H7 Due</i>	<b>Oct 23</b> <i>4.3–4.4</i> Review: Eigenvectors, invariant subspaces
<b>Oct 26</b> <i>4.5</i> Orthogonal matrices, rigid motions	<b>Oct 28</b> <i>5.1</i> Symmetry <i>H8 Due</i>	<b>Oct 31</b> <i>5.2</i> Rigid motions of the plane
<b>Nov 2</b> <i>5.3</i> Finite groups of motions	<b>Nov 4</b> <i>5.4</i> Discrete symmetry groups <i>H9 Due</i>	<b>Nov 6</b> <b>REVIEW</b>
<b>Nov 9</b> <i>5.5</i> Abstract symmetry groups	<b>Nov 11</b> <i>5.6</i> Cosets, orbits <i>H10 Due</i>	<b>Nov 13</b> <i>5.7</i> The orbit-counting formula
<b>Nov 16</b> <i>5.8</i> Permutation representations	<b>Nov 18</b> — <b>REVIEW</b> <i>H11 Due</i>	<b>Nov 20</b> <b>TEST #2</b>
<b>Nov 23</b> <i>5.9</i> Finite subgroups of $SO(3)$	<b>Nov 25</b> <i>6.1</i> Conjugacy and the class equation	<b>Nov 27</b> <b>THANKSGIVING</b>
<b>Nov 30</b> <i>6.2</i> The icosahedron	<b>Dec 2</b> <i>6.3–6.4</i> The Sylow Theorems <i>H12 Due</i>	<b>Dec 4</b> <i>6.3–6.4</i> The Sylow Theorems
<b>Dec 7</b> <i>6.5</i> Examples: Groups of small order	<b>Dec 9</b> <b>REVIEW</b> <i>H13 Due</i>	<b>Dec 11</b> <b>REVIEW</b>