# Syllabus of Math 131 (051)

**Course #:** Math 131  
**Title:** Finite Mathematics  

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Section</th>
<th>Material</th>
<th>Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sept. 10-14</td>
<td>1.1</td>
<td>Applications of Equations</td>
<td>12,16,33,36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.3</td>
<td>Applications of Inequalities</td>
<td>4,9,10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.1</td>
<td>Lines (Review)</td>
<td>12,14,56,58,72</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.2</td>
<td>Applications and Linear Functions</td>
<td>16,17,18,20,24</td>
</tr>
<tr>
<td>2</td>
<td>Sept. 17-21</td>
<td>3.3</td>
<td>Quadratic Functions (Review)</td>
<td>25,28,30,33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.4</td>
<td>Systems of Linear Equations</td>
<td>10,16,25,34</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.5</td>
<td>Nonlinear Systems</td>
<td>6,10,12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Sept. 24: National Holiday</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sept. 25-28</td>
<td>3.6</td>
<td>Applications of Systems of Eqns.</td>
<td>5,15,18,20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.1</td>
<td>Linear Inequalities in Two Var.</td>
<td>2,4,10,20</td>
</tr>
<tr>
<td>4</td>
<td>Oct. 1-5</td>
<td>7.2</td>
<td>Linear Programming</td>
<td>3,6,16,18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.3</td>
<td>Multiple Optimum Solutions</td>
<td>2,4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6.4-6.5</td>
<td>Reduction in Matrix Algebra</td>
<td>6.5: 8,10,21,24</td>
</tr>
<tr>
<td>5</td>
<td>Oct. 8-12</td>
<td>7.4</td>
<td>The Simplex Method</td>
<td>4,8,16,17,19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.8^</td>
<td>The dual</td>
<td>4,10,12</td>
</tr>
<tr>
<td>6</td>
<td>Oct. 15-19</td>
<td>5.1</td>
<td>Compound Interest</td>
<td>2,10,12,20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10.3</td>
<td>Interest Compounded Continuously</td>
<td>2,6,10,12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.2</td>
<td>Present Value</td>
<td>2,4,6,11</td>
</tr>
<tr>
<td>7</td>
<td>Oct. 22-26</td>
<td>5.3</td>
<td>Annuities</td>
<td>16,18,22,24,26</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Oct 27 – Nov. 11: Eid Al-Fitr Vacation</strong></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Nov. 12-16</td>
<td>8.1</td>
<td>Basic Counting Principle and Perm Comb and Other Counting Prin.</td>
<td>5,14,21,36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8.2</td>
<td></td>
<td>2,5,11,33</td>
</tr>
<tr>
<td>9</td>
<td>Nov. 19-23</td>
<td>8.3</td>
<td>Sample Spaces and Events</td>
<td>2,8,22,29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8.4</td>
<td>Probability</td>
<td>4,10,18,24</td>
</tr>
<tr>
<td>10</td>
<td>Nov. 26-30</td>
<td>8.4</td>
<td>Probability (cont.)</td>
<td>2,9,12,38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8.5</td>
<td>Cond. Prob. and Stoc./ Proc.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Dec. 3-7</td>
<td>8.6</td>
<td>Independent Event</td>
<td>2,7,15,25</td>
</tr>
<tr>
<td></td>
<td>Supplem-Notes</td>
<td></td>
<td>Frequency Distributions; Measures of Central tendency</td>
<td>11.1: 1,20,35, 39,45</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Dec 10-14: Supplem-Notes</strong></td>
<td>Measures of Variations</td>
</tr>
<tr>
<td>12</td>
<td>Dec. 17-21</td>
<td>9.1</td>
<td>Discrete Rand. Var. and Exp. Value</td>
<td>5,9,15,18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9.2</td>
<td>The Binomial Distribution</td>
<td>4,10,15,20</td>
</tr>
<tr>
<td>13</td>
<td>Dec. 24-28</td>
<td>9.2</td>
<td>The Binomial Distribution (cont.)</td>
<td>2,8,9,20,22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16.2</td>
<td>The Normal Distribution</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Dec. 31- Jan 4</td>
<td>16.2</td>
<td>The Normal Distribution (cont.)</td>
<td>-</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td>Review and catch-up</td>
<td>-</td>
</tr>
</tbody>
</table>

**Jan. 5-20: Eid Al-Adha Vacation**

*KFUPM policy with respect to attendance will be enforced.*  
*Final exam: To be announced later (Comprehensive).*  
*DN policy will be adopted according to KFUPM regulations (from 9 absences).*  
^ Exclude Example 3 from Section 7.8