# Schedule

A week-by-week breakdown of the material.

# Week 1 (01/05-01/09)

**Day 1** Basic Terminology<sup>1</sup>

**Day 2** Lab 1<sup>2</sup>

**Day 3** Visualizing Variables<sup>3</sup>

Day 4 Percentiles<sup>4</sup>

# Week 2 (01/12-01/16)

**Day 1** Measures of Center<sup>5</sup> Measures of Spread<sup>6</sup>

**Day 2** Lab 2<sup>7</sup>

**Day 3** Linear Transformations<sup>8</sup> Density Curves<sup>9</sup>

**Day 4** The Normal Distribution <sup>10</sup>

# Week 3 (01/19-01/23)

**Day 1** Relationships between two variables<sup>11</sup>

**Day 2** Lab 3<sup>12</sup>

**Day 3** Scatterplots and Correlation<sup>13</sup>

Day 4 General Theory on Modeling and Data Fitting<sup>14</sup>

<sup>&</sup>lt;sup>1</sup>notes/basic\_terminology.html

<sup>&</sup>lt;sup>2</sup>labs/1.html

<sup>&</sup>lt;sup>3</sup>notes/visualizing\_distributions.html

<sup>&</sup>lt;sup>4</sup>notes/percentiles.html

<sup>&</sup>lt;sup>5</sup>notes/measures\_center.html

<sup>&</sup>lt;sup>6</sup>notes/measures\_spread.html

<sup>&</sup>lt;sup>7</sup>labs/2.html

<sup>&</sup>lt;sup>8</sup>notes/linear\_transformations.html

<sup>&</sup>lt;sup>9</sup>notes/density\_curves.html

<sup>&</sup>lt;sup>10</sup>notes/normal\_distribution.html

<sup>&</sup>lt;sup>11</sup>notes/relationships.html

<sup>&</sup>lt;sup>12</sup>labs/3.html

<sup>&</sup>lt;sup>13</sup>notes/scatterplot\_correlation.html

<sup>&</sup>lt;sup>14</sup>notes/modeling\_general.html

### Week 4 (01/26-01/30)

- **Day 1** Linear Models and Regression Lines<sup>15</sup>
- **Day 2** Lab 4<sup>16</sup>
- **Day 3** The question of causation<sup>17</sup>
- **Day 4** Introduction to Probability<sup>18</sup>

### Week 5 (02/02-02/06)

- Day 1 Review
- Day 2 MIDTERM
- **Day 3** Introduction to Probability (cont)<sup>19</sup>
- **Day 4** Independent Events<sup>20</sup>

### Week 6 (02/09-02/13)

- **Day 1** Probability rules<sup>21</sup>
- Day 2 Catchup
- **Day 3** Tree Diagrams<sup>22</sup>
- **Day 4** Tree Diagrams (cont)<sup>23</sup>

### Week 7 (02/16-02/20)

- **Day 1** Snow day
- Day 2 Probability Practice
- Day 3 Probability Practice
- Day 4 Probability Practice

# Week 8 (02/23-02/27)

#### **BREAK**

<sup>&</sup>lt;sup>15</sup>notes/linear\_regression.html

<sup>&</sup>lt;sup>16</sup>labs/4.html

<sup>&</sup>lt;sup>17</sup>notes/correlation\_causation.html

<sup>&</sup>lt;sup>18</sup>notes/probability\_intro.html

<sup>&</sup>lt;sup>19</sup>notes/probability\_intro.html

<sup>&</sup>lt;sup>20</sup>notes/independent\_events.html

<sup>&</sup>lt;sup>21</sup>notes/probability\_rules.html

<sup>&</sup>lt;sup>22</sup>notes/decision\_trees.html

<sup>&</sup>lt;sup>23</sup>notes/decision\_trees.html

### Week 9 (03/02-03/06)

- **Day 1** Random Variables<sup>24</sup>
- **Day 2** Lab Practice
- Day 3 Snow Day
- **Day 4** The Binomial Setting and Distribution<sup>25</sup>

### Week 10 (03/09-03/13)

- **Day 1** Mean and Standard Deviation of Random Variables<sup>26</sup>
- **Day 2** Mean and Standard Deviation of Random Variables (cont)<sup>27</sup>
- **Day 3** Combining Random Variables<sup>28</sup>
- **Day 4** Combining Random Variables (cont)<sup>29</sup>

# Week 11 (03/16-03/20)

- **Day 1** Review / Catchup
- **Day 2** Lab: Work on Projects<sup>30</sup>
- Day 3 MIDTERM (study guide<sup>31</sup>)
- **Day 4** Mean and Standard Deviation of the Binomial<sup>32</sup>

### Week 12 (03/23-03/27)

- **Day 1** Binomial: Approximating by Normal<sup>33</sup>
- Day 2 Work on Projects
- **Day 3** The Sample Mean / IID Setting<sup>34</sup>
- **Day 4** The Sample Mean / IID Setting (cont)<sup>35</sup>

# Week 13 (03/30-04/03)

### **Day 1** Inference I: Confidence Intervals<sup>36</sup>

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<sup>24</sup>notes/random variables.html
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<sup>&</sup>lt;sup>25</sup>notes/binomial.html

<sup>&</sup>lt;sup>26</sup>notes/rv\_mean.html

<sup>&</sup>lt;sup>27</sup>notes/rv\_mean.html

<sup>&</sup>lt;sup>28</sup>notes/rv\_combine.html

<sup>&</sup>lt;sup>29</sup>notes/rv\_combine.html

<sup>&</sup>lt;sup>30</sup>labs/projectAnalysisSteps.html

<sup>&</sup>lt;sup>31</sup>notes/midterm2\_study\_guide.html

<sup>&</sup>lt;sup>32</sup>notes/binomial mean.html

<sup>&</sup>lt;sup>33</sup>notes/binomial mean.html

<sup>&</sup>lt;sup>34</sup>notes/iid setting.html

<sup>&</sup>lt;sup>35</sup>notes/iid\_setting.html

<sup>&</sup>lt;sup>36</sup>notes/confidence\_intervals.html

**Day 2** Inference I: Confidence Intervals (cont)<sup>37</sup>

**Day 3** Inference II: Hypothesis Tests<sup>38</sup>

**Day 4** Inference II: Hypothesis Tests (cont)<sup>39</sup>

# Week 14 (04/06-04/10)

Day 1 TBA

Day 2 TBA

Day 3 TBA

Day 4 TBA

<sup>&</sup>lt;sup>37</sup>notes/confidence\_intervals.html

<sup>&</sup>lt;sup>38</sup>notes/hypothesis\_tests.html

<sup>&</sup>lt;sup>39</sup>notes/hypothesis\_tests.html