# **Schedule**

A week-by-week breakdown of the material.

## Week 1 (09/05-9/09)

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

**Day 2** Visualizing Variables<sup>2</sup>

**Day 3** Percentiles<sup>3</sup> Lab 1<sup>4</sup>

### Week 2 (09/12-09/16)

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

**Day 2** Measures of Spread<sup>6</sup>

**Day 3** Linear Transformations<sup>7</sup> Lab 2<sup>8</sup>

## Week 3 (09/19-09/23)

**Day 1** Density Curves<sup>9</sup>

The Normal Distribution<sup>10</sup>

**Day 2** The Normal Distribution  $(cont)^{11}$ 

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

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

<sup>&</sup>lt;sup>2</sup>notes/visualizing distributions.html

<sup>&</sup>lt;sup>3</sup>notes/percentiles.html

<sup>&</sup>lt;sup>4</sup>labs/1.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>notes/linear\_transformations.html

<sup>8</sup>labs/2.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/normal\_distribution.html

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

#### Week 4 (09/26-09/30)

- **Day 1** Relationships between two variables<sup>13</sup>
- **Day 2** Scatterplots and Correlation<sup>14</sup>
- **Day 3** Lab 4<sup>15</sup>

### Week 5 (10/03-10/07)

- **Day 1** General Theory on Modeling and Data Fitting<sup>16</sup>
- **Day 2** Linear Models and Regression Lines<sup>17</sup>
- **Day 3 MIDTERM** (study guide<sup>18</sup>)

# Week 6 (10/10-10/14)

- **Day 1** The question of causation<sup>19</sup> Introduction to Probability<sup>20</sup>
- **Day 2** Conditional Probability<sup>21</sup>
- **Day 3** Lab 5

# Week 7 (10/17-10/21)

- Day 1 Fall Break
- **Day 2** Probability rules<sup>22</sup>
- **Day 3** Independent Events<sup>23</sup>

### Week 8 (10/24-10/28)

- **Day 1** Tree Diagrams<sup>24</sup>
- **Day 2** Random Variables<sup>25</sup>
- **Day 3** Lab: Work on Projects<sup>26</sup>

<sup>&</sup>lt;sup>13</sup>notes/relationships.html

<sup>&</sup>lt;sup>14</sup>notes/scatterplot\_correlation.html

<sup>&</sup>lt;sup>15</sup>labs/4.html

<sup>&</sup>lt;sup>16</sup>notes/modeling\_general.html

<sup>&</sup>lt;sup>17</sup>notes/linear regression.html

<sup>&</sup>lt;sup>18</sup>notes/midterm1\_study\_guide.html

<sup>&</sup>lt;sup>19</sup>notes/correlation\_causation.html

<sup>&</sup>lt;sup>20</sup>notes/probability\_intro.html

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

<sup>&</sup>lt;sup>22</sup>notes/probability\_rules.html

<sup>&</sup>lt;sup>23</sup>notes/independent events.html

<sup>&</sup>lt;sup>24</sup>notes/decision\_trees.html

<sup>&</sup>lt;sup>25</sup>notes/random\_variables.html

<sup>&</sup>lt;sup>26</sup>labs/projectAnalysisSteps.html

#### Week 9 (10/31-11/04)

Day 1 The Binomial Setting and Distribution<sup>27</sup>
 Day 2 The Binomial Setting and Distribution<sup>28</sup> Day 3
 Work on Projects<sup>29</sup>

#### Week 10 (11/07-11/11)

- **Day 1** Mean and Standard Deviation of Random Variables<sup>30</sup>
- **Day 2** Combining Random Variables<sup>31</sup>
- **Day 4 MIDTERM** (study guide<sup>32</sup>)

#### Week 11 (11/14-11/18)

- **Day 1** Mean and Standard Deviation of the Binomial<sup>33</sup>
- **Day 2** Binomial: Approximating by Normal<sup>34</sup>
- **Day 3** The Sample Mean / IID Setting<sup>35</sup>

### Week 12 (11/21-11/25)

- **Day 1** The Sample Mean / IID Setting (cont)<sup>36</sup>
- Day 2 THANKSGIVING
- Day 3 THANKSGIVING

### Week 13 (11/28-12/02)

- **Day 1** Inference I: Confidence Intervals<sup>37</sup>
- **Day 2** Inference I: Confidence Intervals (cont)<sup>38</sup>
- **Day 3** Inference II: Hypothesis Tests<sup>39</sup>

<sup>&</sup>lt;sup>27</sup>notes/binomial.html

<sup>&</sup>lt;sup>28</sup>notes/binomial.html

<sup>&</sup>lt;sup>29</sup>labs/projectAnalysisSteps.html

<sup>&</sup>lt;sup>30</sup>notes/rv\_mean.html

<sup>&</sup>lt;sup>31</sup>notes/rv\_combine.html

<sup>&</sup>lt;sup>32</sup>notes/midterm2\_study\_guide.html

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

<sup>&</sup>lt;sup>34</sup>notes/binomial\_mean.html

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

<sup>&</sup>lt;sup>36</sup>notes/iid\_setting.html

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

<sup>&</sup>lt;sup>38</sup>notes/confidence\_intervals.html

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

# Week 14 (12/05-12/09)

**Day 1** Inference II: Hypothesis Tests (cont)<sup>40</sup> **Day 2** Going further: t-distributions

**Day 3** Presentations

<sup>&</sup>lt;sup>40</sup>notes/hypothesis\_tests.html