## Schedule

A week-by-week breakdown of the material.

### Week 1 (09/07-9/11)

- **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 (09/14-09/18)

- **Day 1** Measures of Center<sup>5</sup>
- **Day 2** Lab 2<sup>6</sup>
- **Day 3** Measures of Spread<sup>7</sup>
- **Day 4** Linear Transformations<sup>8</sup>

### Week 3 (09/21-09/25)

- **Day 1** Density Curves<sup>9</sup>
  - The Normal Distribution<sup>10</sup>
- **Day 2** Lab 3<sup>11</sup>
- **Day 3** The Normal Distribution (cont)<sup>12</sup>
- **Day 4** The Normal Distribution (cont)<sup>13</sup>

# Week 4 (09/28-10/02)

# **Day 1** Relationships between two variables<sup>14</sup>

```
<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>labs/2.html

<sup>&</sup>lt;sup>7</sup>notes/measures\_spread.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>labs/3.html

<sup>&</sup>lt;sup>12</sup>notes/normal\_distribution.html

<sup>&</sup>lt;sup>13</sup>notes/normal\_distribution.html

<sup>&</sup>lt;sup>14</sup>notes/relationships.html

- **Day 2** Lab 4<sup>15</sup>
- **Day 3** Scatterplots and Correlation <sup>16</sup>
- **Day 4** General Theory on Modeling and Data Fitting<sup>17</sup>

## Week 5 (10/05-10/09)

- Day 1 Review
- Day 2 MIDTERM (study guide<sup>18</sup>)
- **Day 3** Linear Models and Regression Lines<sup>19</sup>
- **Day 4** Linear Models and Regression Lines<sup>20</sup>

### Week 6 (10/12-10/16)

- **Day 1** The question of causation<sup>21</sup>
  Introduction to Probability<sup>22</sup>
- **Day 2** Lab 5
- **Day 3** Introduction to Probability (cont)<sup>23</sup>
- **Day 4** Probability rules<sup>24</sup>

## Week 7 (10/19-10/23)

- Day 1 Fall Break
- **Day 2** Conditional Probability<sup>25</sup> Independent Events<sup>26</sup>
- **Day 3** Tree Diagrams<sup>27</sup>

# **Day 4** Tree Diagrams (cont)<sup>28</sup>

15labs/4.html
16notes/scatterplot\_correlation.html
17notes/modeling\_general.html
18notes/midterm1\_study\_guide.html
19notes/linear\_regression.html
20notes/linear\_regression.html
21notes/correlation\_causation.html
22notes/probability\_intro.html
23notes/probability\_intro.html
24notes/probability\_rules.html
25notes/probability\_conditional.html
26notes/independent\_events.html
27notes/decision\_trees.html

<sup>28</sup>notes/decision trees.html

#### Week 8 (10/26-10/30)

- **Day 1** Random Variables<sup>29</sup>
- Day 2 Lab Practice
- **Day 3** The Binomial Setting and Distribution<sup>30</sup>
- **Day 4** Mean and Standard Deviation of Random Variables<sup>31</sup>

### Week 9 (11/02-11/06)

- **Day 1** Mean and Standard Deviation of Random Variables (cont)<sup>32</sup>
- **Day 2** Combining Random Variables<sup>33</sup>
- **Day 3** Combining Random Variables (cont)<sup>34</sup>
- Day 4 Review / Catchup

### Week 10 (11/09-11/13)

- **Day 1 MIDTERM** (study guide<sup>35</sup>)
- **Day 2** Lab: Work on Projects<sup>36</sup>
- **Day 3** Mean and Standard Deviation of the Binomial<sup>37</sup>
- **Day 4** Binomial: Approximating by Normal<sup>38</sup>

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

- **Day 1** The Sample Mean / IID Setting<sup>39</sup>
- Day 2 Work on Projects
- **Day 3** The Sample Mean / IID Setting (cont)<sup>40</sup>
- **Day 4** Inference I: Confidence Intervals<sup>41</sup>

# Week 12 (11/23-11/27)

## **Day 1** Inference I: Confidence Intervals (cont)<sup>42</sup>

```
<sup>29</sup>notes/random variables.html
```

<sup>&</sup>lt;sup>30</sup>notes/binomial.html

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

<sup>&</sup>lt;sup>32</sup>notes/rv\_mean.html

<sup>&</sup>lt;sup>33</sup>notes/rv\_combine.html

<sup>&</sup>lt;sup>34</sup>notes/rv\_combine.html

<sup>&</sup>lt;sup>35</sup>notes/midterm2\_study\_guide.html

<sup>&</sup>lt;sup>36</sup>labs/projectAnalysisSteps.html

<sup>&</sup>lt;sup>37</sup>notes/binomial\_mean.html

<sup>&</sup>lt;sup>38</sup>notes/binomial mean.html

<sup>&</sup>lt;sup>39</sup>notes/iid setting.html

<sup>&</sup>lt;sup>40</sup>notes/iid setting.html

<sup>&</sup>lt;sup>41</sup>notes/confidence\_intervals.html

<sup>&</sup>lt;sup>42</sup>notes/confidence\_intervals.html

- Day 2 THANKSGIVING
- Day 3 THANKSGIVING
- Day 4 THANKSGIVING

# Week 13 (12/01-12/04)

- **Day 1** Inference II: Hypothesis Tests<sup>43</sup>
- **Day 2** Inference II: Hypothesis Tests (cont)<sup>44</sup>
- Day 3 TBA
- Day 4 TBA

# Week 14 (12/07-12/11)

Day 1 TBA

Day 2 TBA

Day 3 TBA

Day 4 TBA

<sup>43</sup>notes/hypothesis\_tests.html

<sup>44</sup>notes/hypothesis\_tests.html