

## 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 Relationships between two variables<sup>13</sup>

## Scatterplots and Correlation<sup>14</sup>

<sup>1</sup>[notes/basic\\_terminology.html](https://www.coursera.org/learn/ai-for-marketing/lecture/10164/notes/basic_terminology.html)

<sup>2</sup>[labs/1.html](#)

<sup>3</sup>[notes/visualizing\\_distributions.html](#)

<sup>4</sup>[notes/percentiles.html](http://notes/percentiles.html)

<sup>5</sup>[notes/measures\\_center.html](#)

<sup>6</sup>[labs/2.html](#)

<sup>7</sup>[notes/measures\\_spread.html](#)

<sup>8</sup>[notes/linear\\_transformations.html](#)

<sup>9</sup>[notes/density\\_curves.html](#)

<sup>10</sup>[notes/normal\\_distribution.html](http://www.mathworks.com/help/notes/normal_distribution.html)

<sup>11</sup>[labs/3.html](#)

<sup>12</sup>[notes/normal\\_distribution.html](#)

<sup>13</sup>[notes/relationships.html](http://notes/relationships.html)

<sup>14</sup>[notes/scatterplot\\_correlation.html](#)

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

**Day 1** General Theory on Modeling and Data Fitting<sup>15</sup>

**Day 2** Lab 4<sup>16</sup>

**Day 3** Linear Models and Regression Lines<sup>17</sup>

**Day 4** The question of causation<sup>18</sup>

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

**Day 1** Review

**Day 2** **MIDTERM** (study guide<sup>19</sup>)

**Day 3** Introduction to Probability<sup>20</sup>

Introduction to Probability (cont)<sup>21</sup>

**Day 4** Independent Events<sup>22</sup>

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

**Day 1** Probability rules<sup>23</sup>

**Day 2** Catchup

**Day 3** Tree Diagrams<sup>24</sup>

**Day 4** Tree Diagrams (cont)<sup>25</sup>

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

**Day 1** Fall Break

**Day 2** Probability Practice

**Day 3** Probability Practice

**Day 4** Probability Practice

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

**Day 1** Random Variables<sup>26</sup>

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<sup>15</sup>[notes/modeling\\_general.html](#)

<sup>16</sup>[labs/4.html](#)

<sup>17</sup>[notes/linear\\_regression.html](#)

<sup>18</sup>[notes/correlation\\_causation.html](#)

<sup>19</sup>[notes/midterm1\\_study\\_guide.html](#)

<sup>20</sup>[notes/probability\\_intro.html](#)

<sup>21</sup>[notes/probability\\_intro.html](#)

<sup>22</sup>[notes/independent\\_events.html](#)

<sup>23</sup>[notes/probability\\_rules.html](#)

<sup>24</sup>[notes/decision\\_trees.html](#)

<sup>25</sup>[notes/decision\\_trees.html](#)

<sup>26</sup>[notes/random\\_variables.html](#)

**Day 2** Lab Practice

**Day 3** The Binomial Setting and Distribution<sup>27</sup>

**Day 4** Mean and Standard Deviation of Random Variables<sup>28</sup>

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

**Day 1** Mean and Standard Deviation of Random Variables (cont)<sup>29</sup>

**Day 2** Combining Random Variables<sup>30</sup>

**Day 3** Combining Random Variables (cont)<sup>31</sup>

**Day 4** Review / Catchup

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

**Day 1** **MIDTERM** (study guide<sup>32</sup>)

**Day 2** Lab: Work on Projects<sup>33</sup>

**Day 3** Mean and Standard Deviation of the Binomial<sup>34</sup>

**Day 4** Binomial: Approximating by Normal<sup>35</sup>

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

**Day 1** The Sample Mean / IID Setting<sup>36</sup>

**Day 2** Work on Projects

**Day 3** The Sample Mean / IID Setting (cont)<sup>37</sup>

**Day 4** Inference I: Confidence Intervals<sup>38</sup>

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

**Day 1** Inference I: Confidence Intervals (cont)<sup>39</sup>

**Day 2** THANKSGIVING

**Day 3** THANKSGIVING

**Day 4** THANKSGIVING

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<sup>27</sup>[notes/binomial.html](#)

<sup>28</sup>[notes/rv\\_mean.html](#)

<sup>29</sup>[notes/rv\\_mean.html](#)

<sup>30</sup>[notes/rv\\_combine.html](#)

<sup>31</sup>[notes/rv\\_combine.html](#)

<sup>32</sup>[notes/midterm2\\_study\\_guide.html](#)

<sup>33</sup>[labs/projectAnalysisSteps.html](#)

<sup>34</sup>[notes/binomial\\_mean.html](#)

<sup>35</sup>[notes/binomial\\_mean.html](#)

<sup>36</sup>[notes/iid\\_setting.html](#)

<sup>37</sup>[notes/iid\\_setting.html](#)

<sup>38</sup>[notes/confidence\\_intervals.html](#)

<sup>39</sup>[notes/confidence\\_intervals.html](#)

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

**Day 1** Inference II: Hypothesis Tests<sup>40</sup>

**Day 2** Inference II: Hypothesis Tests (cont)<sup>41</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

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<sup>40</sup>[notes/hypothesis\\_tests.html](#)

<sup>41</sup>[notes/hypothesis\\_tests.html](#)