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MBaD 6224, JUD & DAD, Onlinw in Fall 2016
This and That As I Structure The Course
Suggestions Welcome

1   Planning Synchronous Sessions

1.1   Student Preparation for Synchronous Sessions

A. Outside Reading:

B. Text Reading

    i.

C. Video Viewing: something

D. Problems To Have Worked: something

1.2   Specific Discussion Questions & Topics

A. kjh

1.3   Agenda

A. kjh

2   The Ten Synchronous Sessions

; printed 20160701 (sharelatex time)

Week	Topic	SS	Week	Topic	SS
1) 28 Aug:	Exploring Data,	1	8) 16 Oct:	Sampling & S. Distributions,	6
2) 4 Sep:	Probability Concepts,	2	9) 23 Oct:	Confidence Interval Est.,	7
3) 11 Sep:	Special Prob. Distributions,	3	10) 30 Oct:	Hypothesis Testing, Part 1,	8
4) 18 Sep:	Decisions Under Uncertainty,	dfc	11) 6 Nov:	Adv. Hypothesis Testing,	dfc
5) 25 Sep:	Regression Analysis, plus,	4	12) 13 Nov:	Adv. Regression Analysis,	9
6) 2 Oct:	Optimization,	dfc	13) 20 Nov:	Multiple Regression,	dfc
7) 9 Oct:	Simulation,	5	14) 27 Nov:	Regression Assumptions,	10

The four "*dfc*" entries denote weeks where instead of the usual synchronous session, Professor Cioffi will open his session, Mondays at noon, to all students for a course-wide office hour.

Synchronous Session Schedule
("O" denotes an OMBA session and "HC" is an Health-Care MBA session.)

Sunday	M	T	W	R	F	S
1) 28 August	O:A,B	HC:A		HC:B		O:C; HC:C
2) 4 September	Labor Day	O:A,B; HC:A		HC:B		O:C; HC:C
3) 11 September	O:A,B	HC:A		HC:B		O:C; HC:C
4) 18 September	O:A,B	HC:A		HC:B		O:C; HC:C
5) 25 September	O:A,B	HC:A		HC:B		O:C; HC:C
6) 2 October	O:A,B	HC:A		HC:B		O:C; HC:C
7) 9 October	O:A,B	HC:A		HC:B		O:C; HC:C
8) 16 October	O:A,B	HC:A		HC:B		O:C; HC:C
9) 23 October	O:A,B[†]	HC:A[†]		HC:B		O:C; HC:C
10) 30 October	O:A,B	HC:A		HC:B		O:C; HC:C
11) 6 November	O:A,B	HC:A		HC:B		O:C; HC:C
12) 13 November	O:A,B	HC:A		HC:B		O:C; HC:C
13) 20 November	O:A,B	HC:A	Thanksgiving Holiday			
14) 27 November	O:A,B	HC:A		HC:B		O:C; HC:C
15) 4 December	Make-up Sessions					

[†]Monday & Tuesday, 24–25 October, fall on the University's Winter Break. If you are taking one or both of these days off and will be missing your regularly scheduled session, you may ask one of the other Synchronous Session leaders for permission to join a different session for this one time.

3   Displaying Excel & Corresponding Google Sheets Functions

Table Title

Function	Excel Command	Sheets Command
cell1	cell2	cell345678910111213
cell4	cell5	cell6
cell7	cell8	cell9

4 "Things You Should Know How to Do"[†]

4.1 Part 1: "JUD" (Weeks 1 – 7)

1. **Exploring Data**

   a. TBD; consider two "Summary" slides

2. **Probability Concepts**

   a. TBD; consider three "Summary" slides

3. **Special Probability Distributions**

   a. TBD; two "Summary" slides

4. **Decision Making Under Uncertainty**

   a. TBD; one "Summary" slide

5. **Regression Analysis, Time Series Analysis, and Forecasting**

   a. TBD

6. **Optimization**

   a. TBD

7. **Simulation**

   a. TBD

4.2 Part 2: "DAD" (Weeks 8 – 14)

8. **Sampling and Estimation** $[1 \rightarrow 8]$

   a. TBD; see one slide "Review"

   b. From last slide of Session 14: Sampling terminology. Methods for selecting random samples: Simple random sampling, Systematic sampling, stratified sampling, Cluster sampling, Multi-stage sampling. Introduction to Estimation. Sources of estimation error. Sampling distribution of a point estimate. Central Limit Theorem. Introduction to confidence intervals.

9. **Confidence Interval Estimation** $[2 \rightarrow 9]$

   a. TBD; see one slide "Review"

[†]Most taken directly from course slides of Dr. Philip Wirtz.

b. From last slide of Session 14: Sampling distributions. Confidence interval for means and proportions. Controlling confidence interval length: sample size for estimation of the mean, sample size for estimation of other parameters.

10. **Hypothesis Testing Part 1** $[3 \rightarrow 10]$

   a. Confidence Interval Approach to Hypothesis Testing

   b. Hypothesis Testing Approach: Single Population Mean

   c. Hypothesis Testing Approach: Proportion

   d. Hypothesis Testing Approach: Difference in Means

11. **Advanced Hypothesis Testing** $[4 \rightarrow 11]$

   a. Hypothesis Test for Differences in Means (Revisited, using ToolPak)

   b. P-Values: Directional and Non-Directional Has

   c. Independent Samples vs. Paired Samples

   d. Hypothesis Test for the Mean Difference

   e. Single Factor ("One-Way") Analysis of Variance (ANOVA)

   f. Expressing (in English) "Failing to Reject the Null Hypothesis"

12. **Regression Analysis** $[5 \rightarrow 12]$

   a. Simple Linear Regression (review from first part of the course, JUD)

   b. Sampling Error

   c. Hypothesis Testing in Simple Linear Regression

   d. p Values in Simple Linear Regression

   e. Directional Alternative Hypotheses in Simple Linear Regression and the "Two-Step Rule"

13. **Multiple Regression** $[6 \rightarrow 13]$

   a. The key distinctions between multiple regression and simple linear regression.

   b. The meaning and interpretation of partial slope coefficients.

   c. The concept of "holding constant" or "controlling for."

   d. The concepts of "unique" and "shared" variation.

   e. The concept and measure of the "multiple coefficient of determination."

   f. The concept of "standard error of the slope" in multiple regression.

   g. The nature of the sampling distribution of a partial slope.

   h. How to determine the critical value of t in multiple regression.

    i. t-values and p-values in multiple regression.

    j. The "Global F" test.

    k. Parameter interpretational differences between simple linear regression and multiple regression.

    l. Directional alternative hypotheses in multiple regression.

14. **Regression Assumptions** $[7 \rightarrow 14]$

    a. TBD; see summary slide

    b. From last slide of Session 14: Five basic assumptions of the regression model. Interactive models. Serially correlated models

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