# **Cover Sheet: Request 10066**

# QMB7565 Statistical Research Methods

### Info

THIO	
Process	Course New Ugrad/Pro
Status	Pending
Submitter	Brawner,Patricia A brawner@ufl.edu
Created	2/20/2015 2:27:27 PM
Updated	8/26/2015 4:57:41 PM
Description	This course will help students understand concepts in statistics. This will enable them
	to undertake advanced econometrics courses later on. Topics covered in the course
	will be: summary statistics, estimations, hypothesis testing, sample size estimations,
	correlations, multivariate regressions, testing for patterns, and testing independence.

Actions					
Step	Status	Group	User	Comment	Updated
Department	Approved	CBA - Information Systems and Operations Management 011707000	Aytug, Haldun		2/20/2015
Added DBA Q	MB 7565 S	tatistical Researc	h Methods Syllat	bus.docx	2/20/2015
Added QMB 7	7565 ucc1.d	осх			2/20/2015
College	Approved	CBA - College of Business Administration, Warrington	Mathis, Renee C		2/20/2015
No document	changes				
University Curriculum Committee	Comment	PV - University Curriculum Committee (UCC)	Garfield, Wanda	This request was accidentally denied. It was reopened per Brandi Baker's request to be pending at UCC.	8/27/2015
No document	changes				
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			8/27/2015
No document	changes	••••	•		
Statewide Course Numbering System					
No document	changes				
Office of the Registrar					
No document	changes				
Student Academic Support System					
No document	changes				
Catalog					
i ivo aocument	: changes				

Step	Status	Group	User	Comment	Updated
College					
Notified					
No document changes					

# UF FLORIDA

# **UCC1: New Course Transmittal Form**

# Recommended SCNS Course Identification

1. Prefix QMB2. Level 73. Number 5654. Lab Code None

5. Course Title Statistical Research Methods

6. Transcript Title (21 character maximum) Stat Research Methods

7. Effective Term Fall	8. Effective Year 2015 9. Rotating Topic? No		
10. Amount of Credit 3	11. If variable, # minimum and # maximum credits per semester.		
12. Repeatable credit? No	13. If yes, total repeatable credit allowed #		
14. S/U Only? No	15. Contact Type Regularly Scheduled [base hr]		
16. Degree Type Professional	17. If other, please specify: Click here to enter text.		
	,		

18. Category of Instruction Advanced

### 19. Course Description (50 words maximum)

This course will help students understand concepts in statistics. This will enable them to undertake advanced econometrics courses later on. Topics covered in the course will be: summary statistics, estimations, hypothesis testing, sample size estimations, correlations, multivariate regressions, testing for patterns, and testing independence.

#### 20. Prerequisites

Click here to enter text.

#### 21. Co-requisites

Click here to enter text.

#### 22. Rationale and Placement in Curriculum

This course is required for all DBA students. Students must pass this 1-week course in order to progress into remainder of DBA curriculum, which has advanced econometric courses throughout. Proficiency in statistics is necessary for the research requirements in the DBA program.

23. Complete the syllabus checklist on the next page of this form.

Syllabus Requirements Checklist The University's complete Syllabus Policy can be found at:
http://www.aa.ufl.edu/Data/Sites/18/media/policies/syllabi_policy.pdf
The syllabus of the proposed course <b>must</b> include the following:
🖂 Course title
$\boxtimes$ Instructor contact information (if applicable, TA information may be listed as TBA)
$oxed{>}$ Office hours during which students may meet with the instructor and TA (if applicable)
⊠ Course objectives and/or goals
igtiangleq A weekly course schedule of topics and assignments.
$oxedsymbol{\boxtimes}$ Methods by which students will be evaluated and their grades determined
Information on current UF grading policies for assigning grade points. This may be achieved by including a link to the appropriate undergraduate catalog web page: <u>https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx</u> .
☑ List of all required and recommended textbooks
🔀 Materials and Supplies Fees, if any
A statement related to class attendance, make-up exams and other work such as: "Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: <u>https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx</u> ."
A statement related to accommodations for students with disabilities such as: "Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation."
A statement informing students of the online course evaluation process such as: "Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <u>https://evaluations.ufl.edu</u> . Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <u>https://evaluations.ufl.edu/results</u> ."
It is <b>recommended</b> that the syllabus contain the following:
🔀 Critical dates for exams or other work
Class demeanor expected by the professor (e.g. tardiness, cell phone usage)
$\boxtimes$ The university's honesty policy regarding cheating, plagiarism, etc.
Suggested wording: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code ( <u>http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/</u> ) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.
Contact information for the Counseling and Wellness Center: <u>http://www.counseling.ufl.edu/cwc/</u> ,

# SYLLABUS: STATISTICAL RESEARCH METHODS

### QMB 7565 (3 Credits) – SUMMER 2015, DBA18

INSTRUCTOR:	Praveen Pathak
OFFICE:	STZ 339
	praveen@ufl.edu
	(352) 392-9599 (Office)
	(352) 246-0298 (Cell – for emergencies)

**OFFICE HOURS:** 9 am to 4 pm EST

### **COURSE WEBSITE:** http://lss.at.ufl.edu

**COURSE COMMUNICATIONS:** I check my e-mail all the time and e-mail is the easiest way to contact me. I will make every effort to reply ASAP. In case of emergencies I have provided my cell number. But that would be strictly for emergencies.

**REQUIRED TEXT:** An Introduction to Statistical Methods and Data Analysis, by R. Lyman Ott and Michael Longnecker (6<sup>th</sup> edition, Brooks/Cole Cengage Learning, 2010), ISBN 978-0-495-01758-5

REQUIRED SOFTWARE: We will use SPSS and Microsoft Excel to run our tests and analyze data

**PURPOSE OF COURSE:** Knowledge of statistics is important for any researcher who needs to extract information from quantitative or qualitative data. My purpose in this course is to introduce statistical tools required for hypothesis testing and linear models. This course should provide you with a package of statistical concepts and procedures that will help you understand how and why statistical techniques work and how to employ them in your research.

# COURSE POLICIES:

**ATTENDANCE POLICY:** Necessary to attend all lectures as this is a fast paced course and missing certain sections would mean it would be difficult to understand later parts.

### QUIZZES

- All the quizzes will be open-book, open laptop, and open notes.
- Practice problems/quizzes will be recommended after every module and their solutions will be posted. Please work through these recommended problems/quizzes.
- There will be 4 quizzes One each at the end of each of the first four modules. Quizzes are to be done individually.
  - Quizzes will be administered online on Canvas system. Questions will be multiple choice and true/false type (total 8 questions). Each quiz will be max 20 minutes.
  - Quizzes will be open at 1:30 pm on each day, but will close at 2 pm the same day. Once you start the quiz you will have a maximum of 20 minutes to finish the quiz. At the end of 20 minutes all answers you have chosen will be submitted to the system.

• Sample quizzes are available online. Difficulty of actual quiz will be similar to that in sample quiz.

### **FINAL EXAM**

- On the last day of the class there will be final exam.
  - Final exam will consist of questions for which you will have to do calculations on laptop and show steps for the answers. Questions will not be multiple choice or true/false type. They will be similar to the end of chapter problems that we do in class. Exam will be administered on paper. You will write answers on the paper after doing necessary required calculations in excel/spss. You will submit the excel files you work on online.
  - Final exam will be open book, and open notes.

MAKE-UP POLICY: You are expected to attend all classes and take all quizzes, assignments, and exams on time. Make-up assignments, quizzes and final exam will be given only if there is genuine emergency either of work related, medical, or personal nature. However, as much as possible you should discuss such things in advance with me. Then we can schedule an alternate place and/or time for your assignment/quizzes. In certain cases I will require documentary proof establishing the nature of emergency. Our course policies on attendance, make-up exams is modeled after the UF policies mentioned at this link: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

### GRADING

Sr. No.	Evaluation Mechanism	Weights
1.	Four Quizzes (individual)	48 %
	Each quiz weight 12%	
2.	Final Exam (individual)	52 %

Grades will be awarded using the following table:

Points earned (on	Letter grade
a scale of 100)	
90 - 100	А
85 - 89.9	A-
80 - 84.9	B+
75 – 79.9	В
70 – 74.9	В-
65 – 69.9	C+
60 - 64.9	С
0 – 59.9	C-, D+, D, D- or E as
	seen fit by instructor

UF grading policies are available at <u>https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx</u>. This link gives details of how grade points are assigned for individual grades, how GPA is calculated and other related information. Please familiarize yourself with these policies.

### **UF POLICIES:**

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students requesting accommodation for disabilities must first register with the Dean of Students Office (http://www.dso.ufl.edu/drc/). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

**UNIVERSITY POLICY ON ACADEMIC MISCONDUCT:** UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<u>http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/</u>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

**UNIVERSITY POLICY ON COURSE EVALUATION:** Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <a href="https://evaluations.ufl.edu">https://evaluations.ufl.edu</a>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <a href="https://evaluations.ufl.edu/results">https://evaluations.ufl.edu/results</a>.

# GETTING HELP:

For issues with technical difficulties for E-learning in Canvas, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP select option 2
- <u>https://lss.at.ufl.edu/help.shtml</u>

Contact information for the Counseling and Wellness Center: <u>http://www.counseling.ufl.edu/cwc/</u>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies

TOPICS COVERED:

Day	Module	Topics	Readings
1	Module 1 Descriptive statistics	<ul> <li>Graphical methods (Histogram, Boxplot)</li> <li>Measures of central tendency</li> <li>Measures of variability</li> </ul>	Sections 3.3, 3.4, 3.5, 3.6
	Module 2 Random variables and Random sampling	<ul> <li>Discreet and continuous random variables</li> <li>Probability distributions</li> <li>Random sampling</li> <li>Sampling distributions</li> <li>Central Limit theorem and applications</li> </ul>	Sections 4.6, 4.7, 4.8, 4.9, 4.10, 4.11, 4.12
2	Module 3 Statistical inference	<ul> <li>Estimating population mean</li> <li>Choosing sample size for estimation</li> <li>Single variable hypothesis test</li> <li>Level of significance of a statistical test</li> <li>Power of a test</li> <li>Inference about difference between two population means</li> <li>Inference about equality of population variances</li> </ul>	Sections 5.2, 5.3, 5.4, 5.5, 5.6, 5.7 Sections 6.2, 6.4 Sections 7.2, 7.3
3	Module 4 Regressions	<ul> <li>Correlation</li> <li>Estimating model parameters</li> <li>Inferences about regression parameters</li> <li>Lack of fit in linear regressions</li> <li>Checking model assumptions</li> </ul>	Sections 11.2, 11.3, 11.5, 11.7 Sections 12.2, 12.3, 12.4 Sections 13.4
4	Module 5 ANOVA	<ul> <li>Completely randomized design</li> <li>Randomized complete block design</li> <li>Estimation of treatment differences</li> <li>Comparison of treatment means</li> <li>Fisher's Least Significant Difference</li> </ul>	Sections 8.2, 8.3 Sections 9.2, 9.3, 9.4
5	Module 6	<ul> <li>Goodness of fit Chi-square test</li> <li>Contingency tables</li> <li>Test for independence</li> </ul>	Sections 10.3, 10.4, 10.5

Day	Module	Topics	Readings
	Categorical data		
6	Review	<ul><li>Review of the material</li><li>Discuss exam</li></ul>	

<u>Disclaimer</u>: This syllabus represents my current plans and objectives. As we go through the course, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.