# QMB 3250 Spring 2017

Sections: UF Online: 033G; Traditional students: 1593, 1665, or 1671

Patrick Thompson Phone: 392-9731
341 Stuzin Hall <u>patrick.thompson@warrington.ufl.edu</u>

Class Time: The lectures for this class are scheduled to be recorded 7<sup>th</sup> and 8<sup>th</sup> periods on Tuesdays and Thursdays in Heavener 150. They should be available on the internet shortly afterwards.

Office Hours: Tuesdays from 11:45 am - 1:45 pm (same on Thursdays when we have lecture)

If you have any problems in this course that you cannot resolve with the instructor, contact the department chair through the Information Systems and Operations Management office in 351 Stuzin Hall.

#### COURSE GOALS AND OBJECTIVES

The College's Undergraduate Committee has developed a set of learning goals and objectives that are relevant to the Core Curriculum. It is expected that students majoring in business will be able to demonstrate competency in terms of these objectives through performance on a standardized test (ETS Field Exam—see the syllabus for MAN 4504) as well as through embedded measures throughout the curriculum. All core-course syllabi are required to include explicit reference to the relevant goals and objectives out of this set (QMB 3250 targets those that are more quantitative in nature). Specific goals and objectives include:

## Goal 1: Demonstrate competency in and across business disciplines

Objective A: Demonstrate knowledge and understanding of elements of business statistics.

Objective B: Demonstrate proficiency in the use of business-related software applications.

## Goal 2: Apply appropriate problem solving and decision-making skills

Objective A: Specify and implement a framework for identifying a business problem and develop alternative solutions and a set of evaluation criteria. Objective B: Assess the outcomes of a course of action and make appropriate adjustments.

In this course, the abilities to memorize formulae and "crunch numbers" play minor roles. Since computers are widely available today, it is much more important for you to be able to choose the proper procedure and interpret the results. To accomplish these goals, we will make regular use of a statistical analysis toolkit for Microsoft Excel.

#### **PREREQUISITES**

This is the second of a two-course sequence. You should have previously taken a statistics course that covered probability, sampling, estimation and hypothesis testing (STA 2023 or equivalent). QMB 3250 builds on the foundation established in your introductory course and familiarizes you with using statistical procedures to make business decisions.

#### REQUIRED AND OPTIONAL MATERIALS

- There is no textbook for this course
- You are required to have your own licensed copy of MegaStat, an Excel add-in program.
  - You can purchase the program at <a href="https://www.mhhe.com/megastat">www.mhhe.com/megastat</a>
- You are required to obtain access to the ProctorU service for exams. Information on obtaining this access will be on the course web site.
- Optional lecture note shells will be available from Target Copy www.target-copy.com

The notes should be available on or about the first day of class.

#### **COURSE WEBSITE**

There is a single unified website dedicated to the support of this class. This is hosted on the Canvas system. Here you will find my lecture PowerPoint files and links to the actual lectures after they are delivered (these will be posted as the course proceeds). You will also find the syllabus, information about TA office hours, and formula sheets for this term's exams.

This site will open the first day of class. The preferred browser for Canvas is Chrome.

#### LIVE LECTURES

The lecture material is organized into 18 "modules" numbered Mod01 through Mod18. Most are a week long, but some are only one day. The course master schedule indicates when each one will be delivered in class. Each module will consist of three to eight segments labeled as Part A, Part B, etc. When these are presented in class, there will be short breaks between some segments so they can be captured and loaded into Canvas separately.

During weeks when there is no exam, I will usually lecture for approximately two class periods on Tuesday and two on Thursday. If there is an exam that week, there will be no Thursday lecture. Seating in the lecture room is limited but anyone in the course can attend regardless of what section you are registered in. The first day's lecture will last about one hour as I introduce the course, the syllabus, course websites and demonstrate the MegaStat computer program.

#### **EXAMS AND GRADED ASSIGNMENTS**

**Exams:** There will be four exams during the semester plus the final. **These exams are administered over the internet via ProctorU**. The four during-term exams are worth 50 points each and will consist of ten 5-point questions or the equivalent. The final exam is slightly longer and will count 65 points (more questions). Each exam covers a specific set of topics, and exams 1 through 4 are <u>not cumulative</u>. Exam 5 will likely cover some material that is cumulative. I will publish a formula sheet for each exam ahead of time detailing what each exam covers. **You will be required to use Excel and MegaStat for some of the problems on each exam.** 

Individual exams will not be curved unless the class median score is below 70 percent. I will count your best four exams so **collectively these will count for a maximum of 215 points** (about 83 percent of your grade). Because your best four exam scores count, you can skip any one exam without penalty. If you are ill and cannot take an exam, that will be your "skipped" exam. If you start an exam and then decide to abandon it, it counts as your "skip" but otherwise will not count against you.

Note that the maximum of 215 points can be obtained only if you take the final exam, which counts more. If you decide to skip the final you can only earn up to 200 points on exams and will likely not earn a full "A" grade in the course. For example if you score 45, 40, 50 and 45 on the first four exams and 50 (out of 65) on the final, the 40 on Exam 2 gets dropped even though it is a higher percentage than the 50 on the final. Your exam total is 190 points.

**Excel Assignments:** There will be ten Excel Assignments administered through the course over Canvas. Check the schedule for the exact due dates, but one is due every Monday except right after an exam. Excel assignments are worth 5 points each and we will count your top nine scores so **collectively these will count for 45 points** (17 percent of your grade).

Each Excel Assignment is generally open for 6-7 days and is due on a Monday at 11:59 pm (a minute before midnight). You will get two attempts at each one, with the higher score recorded. You get at least two hours on each attempt. The system automatically submits the assignment when the clock hits 11:59 Monday or your time expires.

If a service outage occurs during an attempt, you can come back to it as long as the clock is still running. If the service outage is so severe that you essentially "lose" this attempt, we may be able to reset it. We will only do this through Sunday at noon, however, so there is an advantage to working early. If you wait until Sunday evening or later, you may be at the mercy of the internet. There are no makeup Excel Assignments unless the entire system goes haywire for several days before the due date. Otherwise the due dates are firm and will not be extended.

The Excel Assignments use randomly-generated data so everyone has their own version. They are not monitored so nothing prevents you from working with others. Keep in mind, however, that this is how you practice using Excel under time constraints. On the actual exams you will need to do this all yourself.

**Extra Credit**: The Marketing Department runs a series of experiments in which you can participate (details will be forthcoming). You may use up to <u>five</u> of these experiments for extra credit in QMB 3250, gaining one point for each experiment. The maximum is 5 points.

#### **GRADING SCALE**

After the semester is over, we will add up your points in the various categories. There are maximums of 215 on exams and 45 on Excel Assignments for a total of 260. We will then add on any extra credit points you have earned. Grades will then be assigned according to the following scale:

A: 247 – up B+: 226 to 233 C+: 200 to 207 D+: 174 to 181 A-: 234 to 246 B: 216 to 225 C: 189 to 199 D: 164 to 173 B-: 208 to 215 C-: 182 to 188 D-: 156 to 163

This is the final scale. That means it will not change.

#### STUDENTS WITH DISABILITIES

Students requesting classroom or accommodation on exams 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.

#### **EXAM DATES**

Jan. 26 Feb. 16 Mar. 16 Apr. 6 Apr. 25

These are internet exams and you get 90 minutes on each once the ProctorU connection is established and the exam is launched. The first four exams are on Thursdays and you will be able to make ProctorU appointments starting as early as 2:00 pm. The last appointments will be at 9:30 pm. Note that it may take 20-30 minutes to get your ProctorU session up and running, so you should always plan on an exam lasting two hours. Note also that time expires at midnight so if you are late for your appointment and then have delays in getting started you may not have the full 90 minutes.

The final exam on Tuesday April 25 will last two hours. Again, you may start your QMB3250 exam as early as 2:00 pm.

#### MAKE-UP EXAMS

You can take the exams anywhere there is a good internet connection and a private space available. Even if you are on a UF-sponsored trip outside of Gainesville, you are expected to take the exams during the usual 2:00 to 9:30 pm ProctorU windows. Exceptions are sometimes made for UF Online students with demanding work schedules. Because we drop your lowest exam score there are only limited provisions for makeup exams.

The major reason for a make-up is a technical problem during the exam (if you start an exam with ProctorU and then run into technical issues so severe that you cannot finish). These problems must be documented by the ProctorU exam monitor and reported to the teaching staff. We will then schedule a make-up exam for you through ProctorU during the next day or two.

For example, the makeup exam for those with documented technical difficulties on Exam 1 will be at 7 pm, Friday January 27 or 11 am, Saturday January 28. The makeup will be similar to the main exam.

Experience with ProctorU indicates that only about one to two percent of students have these types of problems. If you start an exam and just decide to abandon it that is going to score as a zero. If you fail to start an exam it is going to score as a zero. The only way you can get in the make-up pool is by starting an exam and having the ProctorU monitor certify your technical issues and have it reported to the teaching staff member who is the local exam contact.

#### **EXAM CONFLICTS**

Conflicts with exams in another course are unfortunate, but the starting times for the QMB3250 exams are spaced widely enough for you to avoid the conflict. If you are scheduled to take an assembly exam in another course that begins at 8:20 pm, just take the QMB3250 exam beginning at 3:00 or 4:00. That gives you plenty of time for both exams.

#### **DURING EXAMS...**

Everyone will take their exams through the ProctorU service over the internet. Rules and policies covering this service are not laid out here, but be aware that you will have to take each exam in a **private** location. You cannot take an exam at Starbucks, in the courtyard of the business school or a seemingly-empty classroom. A dorm room or your home should be fine, but you will need to make sure nobody else comes into your "exam space" while you are working.

On exams, you may use a hand calculator of any type (graphing calculators are fine). You can also have the formula sheet and two sheets of scratch paper. On your computer you will need to use Excel for some of the questions on each exam. On other questions you have the *option* of using Excel. It goes without saying that you cannot use cell phones or similar devices while you are taking an exam. Such use will earn you a zero on the exam and you will be reported to the Dean of Students office.

#### **HONESTY ON EXAMS**

Because each exam lasts 90 minutes and the exam start times will occur over a span of several hours, some students will be finished before others start. This means I cannot use one set of questions on the exam. Question pools, randomly-generated data and shuffling of question order are some of the things I can do to combat improper sharing of information. I am sure I will think up new things as we go along. None of my creative perversity should bother you if you are doing your own work.

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit 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."

For a full statement of the Honor Code, please refer to:

https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/

There is another issue I want to mention about internet exams. The university pays ProctorU to monitor exams, and their offices are located in several states outside Florida. Attempting to game the system or interrupt service could also put you at risk of violating laws about interstate commerce. It is one thing to have the Dean of Students office politely ask you to come in and discuss a possible academic misconduct issue. It would be another thing entirely to have several large men, wearing black suits and dark sunglasses, show up at your door with a Federal arrest warrant.

#### APPEALS AND APPEAL DEADLINES

If you wish to appeal the grading of an exam, you must do so by e-mail. Clearly explain what exam question you are appealing and why you think you deserve more points. Because everybody's exam is potentially different, your email should also contain a quote of the question. Make sure the e-mail contains your real name, your GatorLink ID and your UF ID. You should e-mail these to this address: <a href="mailto:patderat@ufl.edu">patderat@ufl.edu</a> and make sure that the subject line of the e-mail is "Exam 1 Appeal" or "Exam 2 Appeal", etc. Appeals submitted by any other means, or without the proper subject line, may well be ignored.

For the first four exams, the appeal deadline is noon on the Monday after the exam is held. For the final exam, the deadline is noon the day after the make-up exam. Late appeals will not be considered.

Be aware that there are only about two types of appeals that ever get approved. The first is that somehow your exam was scored against the wrong key. The second would be if the wording of a question was misleading or vague to the point that your version of the question was unfair. If everybody had the same issue it would just be part of the exam.

Some things that won't get approved are: (1) you had to perform three calculations in a chain and missed only one of them; (2) you misinterpreted what the question was asking or just read it wrong; (3) you got the right answer for the wrong statistical procedure; or (4) you did not understand how to use one of the items on the formula sheet.

#### SCHEDULE FOR THE CLASS

The class schedule listing the material covered and the names of the accompanying PowerPoint slide sets is in a standalone document on Canvas and appears below.

# QMB 3250 Spring 2017 Master Schedule Updated on: January 1, 2017

Week	Start Date**	Module	Topic Covered	Assignments (Due)
1	Jan. 5	Mod01	Introduction Basic Statistics in Excel	
2	Jan. 10	Mod01 Mod02	Basic Statistics in Excel Inference Examples	Excel1 (1/16)
3	Jan. 17	Mod03 Mod04	Advanced Estimation Comparing Two Means	Excel2 (1/23)
4	Jan. 24	Mod04	Comparing Two Means Exam 1 (January 26)	
5	Jan. 31	Mod05 Mod06	Advanced Comparison One-Way Analysis of Variance	Excel3 (2/6)
6	Feb. 7	Mod06 Mod07	Kruskal-Wallis Test Two-Way Analysis of Variance	Excel4 (2/13)
7	Feb. 14	Mod07	Two-Way Analysis of Variance Exam 2 (February 16)	
8	Feb. 21	Mod08	Chi-square tests Goodness-of-fit tests	Excel5 (2/27)

<sup>\*\*</sup> Because we have lectures on Tuesday and Thursday, the start dates are the Tuesdays of each week (after the first week)

# QMB 3250 Spring 2017 Master Schedule Updated on: January 1, 2017

Week	Start Date**	Module	Topic Covered	Assignments (Due)
9	Feb. 28	Mod09 Mod10	Correlation and regression Simple regression inference	Excel6 (3/13)
			Spring Break	
10	Mar. 14	Mod10	Simple regression prediction  Exam 3 (Mar 16)	
11	Mar. 21	Mod11 Mod12	Multiple regression introduction Multiple regression-inference	Excel7 (3/27)
12	Mar. 28	Mod13 Mod14	Model Building Strategies Multiple regression-indicator variables	Excel8 (4/3)
13	Apr. 4	Mod15	Multiple regression-curvature  Exam 4 (April 6)	
14	Apr. 11	Mod16 Mod17	Time Series Index Numbers Time Series Trend Fitting	Excel9 (4/17)
15	Apr. 18	Mod18	Time Series Seasonal Models	Excel10 (4/19) This is Wednesday
	EXAM Week		Exam 5 (Tuesday April 25)	

<sup>\*\*</sup> Because we have lectures on Tuesday and Thursday, the start dates are the Tuesdays of each week.