

Introduction to Business Research Methods Fall 2017

Professor: Myles D. Garvey

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Office Hours: Before and after class, or by appointment

Classroom: 1 WP , Rm. 508 **Time**: 1 TTH: 8:15AM – 12:00PM

Course Web Page: http://www.facebook.com/professorgarvey

(Required) Textbook: Professor Garvey's Notes

(Recommended) Textbook:

David S. Moore and William I. Notz, *Statistics: Concepts and Controversies*, Eighth Edition. ISBN-10: 1-4641-2566-X.

Course Description:

Focus on translating a business problem into a research project: formulate hypotheses, identify and locate data sources, consider ways to gather primary and secondary data, perform analysis using major statistical computer packages, effectively present findings and interpretation.

Course Format:

This class will consist of two weekly lectures, one on Tuesday and one on Thursday. Each class will be roughly 3 hours and 45 Minutes. The meetings will consist of lecture, discussion, demonstration of concepts using statistical software, and possibly in-class videos where appropriate. I usually expect you to read my own notes (see below). The department recommendeds the textbook given above, however, most of this course will be based on my notes, which are posted weekly before class begins.

Policies:

Please adhere to professional behavior in class. Refrain from chatting, reading the newspaper, answering phones, wearing headsets etc. Such behavior is disruptive and discourteous and WILL result in you being thrown out for the remaining time of the

- class. I cannot be more clear on this. If this is a continued pattern, this will result in you receiving an F for the course.
- Important announcements will be made in class and on Facebook. So please make sure you are attending class and checking the facebook page! <u>ANNOUNCEMENTS WILL</u> NOT BE PUSHED ON BLACKBOARD!
- Final course grades are final. Let me repeat this. Final course grades are final! Changes will <u>only</u> be made if there is a mistake in the calculation of the final grade, but <u>legitimate</u> evidence suggesting the contrary must be presented to the professor. Legitimate constitutes the use of the professor's calculation in grade mismatching with the grade received. See below for more detail. It does NOT include a mistake made on a particular assignment or exam or project. Please keep in mind that grades are NOT rounded. So if you receive a 89.99, this constitutes a B+, not an A. Same for other grading boundaries.
- Accommodating students with special learning needs: In accordance with the university
 policy, students with <u>documented</u> sensory and/or other learning disabilities should inform
 the professor, so that their special needs may be accommodated. Please let me know
 IMMEDIATELY following the first lecture.
- As you may know, it is against university policy to cheat. It is a very serious violation of academic integrity. I am here to help you, but I cannot do so if you are not putting effort into your work. Please note that if cheating of any kind is observed in/out of the class, you will be reported to a higher authority in accordance with university policy on academic dishonesty. Cheating includes working in groups on individual projects/assignments, copying off other exams, breaking outlined policies for exams or projects, etc.
 - 1. Exams: This will result in an immediate F and reporting to a higher authority.
 - 2. Assignments: Assignments are to be completed INDIVIDUALLY. Many students do not understand this. As such, I have a 2-strike policy. The first time I catch you, you will receive a warning and an immediate 0 on the assignment. The second time, I will give you an F for the course. Please keep in mind that this applies to BOTH parties (the cheater and those being cheated on). So if you wish to remain honest, do NOT share answers with others.
- If you feel I have made a mistake grading an assignment or exam, please inform me and we can set up a meeting to discuss it. The general procedure for this is to first email me with your concern and the exact reason as to why I have made a mistake. I will then review your assignment or exam and determine if a mistake has been made. If none has, then that is the end of the line and your grade will remain the same. If it is determined that a mistake was made, I will adjust it. Please note, that mistakes I may have made on assignments and exams MUST be brought to my attention at MOST one week after return. After that one week, your grade CANNOT be attested and will remain as is. Please also note that a mistake does not constitute something you intended to write but did not. I grade based on what you write. So if you missed something, that is not my responsibility to fix your grade based on what you intended to write versus what you

- actually wrote. Please note that absolutely no refute or petition of mistakes can be made on the final exam or the 6th assignment.
- I have set up an email account through Google specifically for this course. Any emails directed to me to any other email other than the one listed on this syllabus WILL be ignored. I get hundreds of emails a day, and as such, I have a tendency to ignore many of them. However, if you contact me through this email, you will receive a response in less than 24 hours.
- My phone number is here for EMERGENCIES ONLY. Emergencies include not being able to make a class when it is your turn to present material or on any of the exams. I do not wish to receive text messages or phone calls pertaining to course material, assignments or project clarifications. These are low priority items that are suited for emails or facebook conversation. I am not held responsible if you decide to start working on something when the due date is the day or two before. If you contact me via phone for any other reason than the ones specified in this paragraph, your question will not be answered and you will have 10 points deducted from your final grade.
- Along with the Google account I have set up a calendar for your class meeting times and assignment / project due dates. Be sure to either put the file in your phone or to keep track of the calendar. I am NOT responsible for changes in your version of this calendar, although I will try update the live version as necessary.

Evaluation:

Work	Percent			
Weekly Assignments (5 of them, % each)	6% (30% Total)			
Midterm Exam	30%			
Final Exam	30%			
Attendance	10%			
Total	100			

Grade Calculation

Final Grade

Final Grades:

Number Range(inclusive-exclusive)	Grade
90.0-101.0	A
85-90	B+
80-85	В
75-80	C+
70-75	С
60-69	D
0-60	F

Blackboard and Virtual Learning

All submissions for assignments and projects are done through blackboard. Make SURE you have access to this! Everything will equally be posted on blackboard, with the exception of announcements. Another side-note, please **DO NOT EMAIL ME** at myles.garvey@rutgers.edu or via blackboard. I have provided the course email above. If you email me at my personal email, I will not respond. I keep record of all students who email me via a gmail account I have set up for this course. If for any reason a class is canceled (something comes up on my end OR a cancellation due to weather), I will post a video of the lecture. Your participation and "attendance" consists of asking 3 questions about the lecture and answering 3 questions posed from another student in this event, unless otherwise specified by myself.

Attendance and Participation

All students are EXPECTED to be present during both of our weekly classes and must participate. I understand that things come up and sometimes you cannot make it to class. With that said, I am only requiring you to show up for 8 out of the 10 classes (Exams NOT included for your free-bee).

BE ADVISED. I DO NOT RECOMMEND SKIPPING CLASS! If you skip a class, for what ever reason, you, and only you, are required to catch up on the material you missed out on. Attendance is taken at the half way mark of class. If you show up PAST this time, or you showed up and left early, your attendance will NOT be counted.

IF you miss more than the alloted 2 classes, then you must provide written documentation to get points as to why you took off from class. These are only for medical reasons. Sitting in traffic does not count. If it is a common pattern that you are missing class, I will email you asking what

the reason is. If it is not a good reason, then you will be risking an automatic 20 point reduction in your final grade. So please, make sure you attend class!

Weekly Assignments

You will be assigned five weekly assignments. Each assignment covers two classes worth of material. Each assignment will be a multiple-choice "quiz" which is to be submitted through blackboard. Some of the assignments may have one or two multiple choice questions which will require you to give results. These questions will most likely be asking you questions related to **R**.

Exams

There will be two exams: the midterm and the final. Make-up exams are not encouraged, however if it is absolutely necessary to miss an exam, notification must be given BEFORE the exam in a written form at a **MINIMUM** of two weeks prior to the exam. Failure to inform me anytime less than two weeks prior **will result** in a 0. The **ONLY** exception is if it is some form of medical emergency and the **proper** documentation must be presented. THIS DOES NOT INCLUDE BEING LATE DUE TO TRAFFIC! Otherwise a make up exam will not be allowed. Essay style make-up exams will be given during my office hours (by appointment) for those with well-documented excused absences. Any makeup must be completed before the exams are returned to the class, which generally will be the session following the exam. Suggestions for studying for the exam: Attend the class, listen to in class discussions, read the book chapters and DO PROBLEMS!

Course Notes

I provide course notes for the class to use. I expect you to read these BEFORE each lecture. All of the lectures, assignments and exams are based on the notes. I do not post the notes until right before the lecture begins. Please do NOT ask me to post the notes earlier than when I intend on posting them. I post them right before class because most times I am changing them to fit our class needs.

Laptops in Class and Statistical Software

We will be using the statistical software **R** in this class. Part of the lectures will be dedicated to learning the software, the other part the theory of the course. I **HIGHLY** encourage you to bring along laptops/ipads with you in order to follow along with the software demonstrations in class. If you do NOT have a laptop/ipad, you can write down notes or bring a video camera to tape the lecture to refer to later. You can download **R** from here:

http://cran.rstudio.com/

I am not responsible for showing you how to install this other than on a Windows machine. If you have a different operating system, please see the Rutgers Technology Support Center on the

5th floor for help, or consult with a fellow student, or do a quick Google search to see if there are any tutorials online that may help. You WILL be expected to know a basic level of **R** on exams, assignments and projects. I don't expect you to become an expert in it, but I do expect you to have a basic understanding of it.

Communication with the Professor

I would like to make it clear that I am here to help you, that is my job. If you fail to ask me questions via email. facebook or after/before class, then I cannot be held responsible for any potential lack of understanding of the material you may have. I will assume that if no questions are being asked then you understand the material. There is no such thing as a "stupid question". I rather see you ask a question that may seem obvious to others then be left in the dark due to pride. The process for communication is done via email, through the specified email account I have set up for this course. Please do NOT email me through Blackboard, do NOT email me at the address given on blackboard. If you do so, your email WILL be ignored. There are two main reasons I do this: (1) I get hundreds of emails per day on my usual account listed on blackboard and I have a tendency to ignore many of them until a few days or weeks later, and (2) I keep record of which students are emailing me. If you feel communication through email is not enough, I am willing to set up a phone, skype, or in-person meeting at a specified date and time. This must be prearranged through email first. DO NOT call/text/skype me without first setting up an appointment with myself through email. If you do, it WILL result in an immediate 10 point reduction off your final grade! Please keep in mind that I usually return emails within a 12-24 hour time window. If I do not, please send out another email, since this means I either did not receive your email or I have accidentally marked it as read. There are times where I will have to delay a full response to your question, in which event, I will indicate this to you in a quick follow up email

Request of Petition of Grading

As mentioned in the policies, you are allowed to email me if I have made a mistake in grading and I will consider changing the grade. I am human, I make mistakes. Petitions are meant for clear and reasonable requests. This <u>DOES NOT</u> include a misunderstanding of the answer. If your answer is ambiguous, or something is left out of it, I will not award extra points. If it is clear and obvious, then I will if I indeed accidentally missed something. You are allowed to petition your grades for assignments 1 – 4, the midterm. Assignment 5 and the final exam cannot be petitioned, even if I indeed made a mistake. I offer plenty of extra credit. Hence, if you fail to do said extra credit, I am not held liable for any potential mistakes I make on these two particular pieces of your grade. You lest not worry, however, I carefully grade these, so I can assure you that the probability of my making a mistake on these two pieces of your grade are very slim to none. To compensate for any potential mistakes on this, however, make sure you do

the extra credit and make sure you are clear and concise in your answers on the final exam and the 5th assignment.

Late Policy in Grades

<u>For assignments:</u> If you submit an assignment late (this means, ANY time PAST 11:59pm. And Yes, this means 11:59, 5sec, etc... PM), then you are deducted 10 points an hour for every hour it is late. This means, if you submit past 11:59pm, the most you can receive is 90. If you submit it past 12:59am, the most is an 80, past 1:59am, the most is a 70, etc.... You have MORE than enough time to do the assignments. As such, it is inexcusable to fail to do them and to fail to submit them on time. DON'T WAIT UNTIL THE LAST MINUTE TO START AN ASSIGNMENT! They are not easy and require time and thought. If you do them last minute, your work will not be good and you'll probably be late.

For Exams: If you fail to make an exam due to some sort of circumstance "beyond your control" other than a medical emergency, then unfortunately you will receive a 0. What does this mean? Leave your home early enough to plan for traffic. If it's an exam day and you come late to the exam, your deadline is still the same as all the others. Meaning, you have less time to do the exam. So please make sure you get up early enough to handle traffic/ train delays/ bus delays. If it is snowy weather and the university cancels class, I will reassign the exam to another day and no one will be held liable for being here. If I post an announcement about the exam regarding it's date, and you are not sure if class is "canceled" or if there is merely no lecture, PLEASE, email me. This is not an excuse to miss an exam.

For any type of grade: If you submit late, **you relinquish your right to petition your grade**. Even if I make a mistake, you are not allowed to petition the grade for any mistakes I have possibly made.

Social Media

I am available on Facebook: http://www.facebook.com/professorgarvey

Facebook IS required for this course. I will be posting material relevant to the class that may help you understand some of the concepts in today's current events. You do not NEED to post anything, however, I will be using Facebook as the primary medium of communication. If you do not have a facebook account, please create one. It is free. You are NOT required to post pictures or posts if you feel awkward about privacy. At the very minimum, Facebook is required for communication methods for this course. I will NOT be held responsible for those that refuse to create an account and miss important information regarding the course.

You are free to post material as well. I encourage group discussions on posts and arguments. Please keep the arguments academic and professional. Do not engage in political talk, mud slinging or irrelevant information. Debate is healthy, only when it is academic. If you engage in a logical fallacy, I will tell you on the comment feed. I offer extra credit for those that post material and contribute to discussion. For every relevant post OR comment you have, you will receive .1 points on your final grade, up to a total of 5 points. Every comment you make must be useful to the discussion, meaning, it can't be something like "thats a really cool post". Repeated information holds as well. Meaning, if someone commented "the sample size is 50, which seems to be a little small", and you reply "yes, that seems pretty small", that is an invalid comment, unless you add something new to the discussion. At the end of the semester, your comments are tallied up.

All the comments must be academic and not "fake". Please do not post on YOUR wall and tag me in it, please post on MY wall so the class can see and everything remains organized. Posts that I am tagged in do not count. You can post videos and links to news articles, which also count. Please make sure the posts have SOMETHING to do with our class. It can be some study in the medical fields, or any other field, that has found some result. I will be more than willing to hunt down the publication of the ACTUAL study you post so everyone can have a look and discuss.

While I don't want POLITICAL debates, you are free to post articles that use statistics in politics. Please keep ALL comments ACADEMIC and refrain from personal opinion. For example, if you find an article that deals with polling and you write "New study finds the Republican Party has a chance of winning back the Senate in 2014 and are ahead to win! Sweet!", you have written an opinion. Frame it as "New study find Republicans have a chance of winning back the Senate." Notice, no punctuation was added and no opinion written. You can comment such as "The study is flawed since it uses only a sample size of 200 people and their demographics are not in line with those of likely votes". However, PROVE your point, and make sure you REFERENCE other articles with this data. This is the type of debate you should have: Academic, Courteous and Free of Fallacy.

I don't mind where your articles come from, but PLEASE refrain from posting from extreme ends of the political spectrum (Avoid personal websites and blogs that lean mostly conservative and mostly liberal). You are free to use major media outlets (New York Times, Wall Street Journal, Fox News, MSNBC, CNN, BBC, etc...). You are also allowed to use think tanks of any political ideology since these typically have studies done on economic matters (Pew, Cato, Heritage, etc...). Don't focus on philosophical points, focus on methods. Argue for or against the methods used in the study posted.

I will delete any posts that are from left or right leaning websites, and then message you about it. Please do not feel offended if I do. I am trying to avoid sources that spark anger rather than

academic debate. Keep in mind that if you have anyone in the class blocked, then you cannot see their contributions on my wall.

You are allowed to post articles from blogs. HOWEVER, the content MUST be entirely free of politics. It must be a blog on something about some study not related to opinion and must avoid non-business "hot-topic" areas such as: Abortion, Global Warming, Social Justice, States Rights, Gun Control, etc... If I personally feel the need to post something in these areas, I will, but I expect everyone to debate in an academic manner.

Other than that, have fun! You can reach out to me on Facebook and pose questions to the class on my wall, as well as fun posts about statistics in general. Remember, be smart about what you post and how you argue! We can learn a lot and in the mean time you can earn a few extra credit points!

Agreement with the Syllabus

This syllabus is meant to be a contract between myself and all students in the class. With that said, by being enrolled in this class, you are agreeing to cooperate with all of the policies outlined in this syllabus as well as the course structure itself. If you fail to abide by these policies laid out above then it is at the professor's discretion to take action such as asking you to kindly leave the class or, in more serious instances, have you escorted out of the classroom by University Security. Please note that this syllabus may change to the discretion of the professor. This means that if at any moment the professor feels it is necessary to change:

- The Course Outline Below
- The Grade Distribution Laid out Above
- The Structure of the lessons
- Any other aspect of this course

in order to maintain the integrity of the course and your ability to learn and complete the work, then by being enrolled in this course you are implicitly agreeing to any changes. Changes typically occur in extreme cases for various reasons such as:

- Class cancellations
- Not enough time to cover certain material due to excessive time dedicated to discussion or question.
- Overload of work felt by a majority (6/3 majority) of students
- And any other reason that may necessarily impede the structure of this course.

Sometimes, changes mean changes to the grade distribution. If this happens, I will ask students PRESENT in the class what they feel the best adjustment may be and I will take this into consideration. By being enrolled in this class, you agree to any changes made by the professor at the possible suggestion of other students. If you wish to have your voice heard in these matters, then be sure to attend classes. Please also be mindful that suggestions (even by majority of students) given to this professor are not 100% guaranteed to be incorporated into the course. I am the final decision maker, and if I feel that a particular idea is a bad one in regards of the

integrity, honesty and progression of this course, then I hold the right to refuse implementation of any majority student-backed idea.

Tentative** Course Outline (Explicit Section Numbers will be given at a later time)

Date	Class #	Торіс	Book Chapters	Course Note Number	Due Dates	Notes
5/26/2015	1	Syllabus Review; Course Introductio n;				
5/28/2015	2	Understan ding Data; Introduction to R; Sources of data and literature review; Understanding research and Hypothesis development	Chapter 1	2,3,4,5		First Assignment Posted (May 29, 11:59pm) Covers lectures 1 and 2
6/2/2015	3	Basics of Sampling Informatio n from	Chapters 2,3	6,7,8		

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		Samples and the Population R data structures			
6/4/2015	4	Sampling with R Sources of Sampling Error and Sample Design	Chapter 4	9,10	First Assignment Due on June 5, 11:59pm Second Assignment Posted on June 5, 11:59pm
6/9/2015	5	Experimen ts: Good and Bad	Chapters 5,6,8	11,12,14	
6/11/2015	6	Describing Distributio ns with Graphs and Numbers Review for Midterm Exam	Chapters 11,12	15,16	Second Assignment Due on June 12, 11:59pm Third Assignment Posted on June 12, 11:59pm
6/16/2015	7	Midterm Exam	Chapters 14,17,18	19,22,23	

		Scatter Plots and Correlation Chance and Probability Probability Models			
6/18/2015	8	Regression , Prediction and	Chapter 15, 21, 22	20,21,24, 25	Third Assignment Due on June 19, 11:59pm Fourth Assignment Posted on June 19, 11:59pm
6/23/2015	9	Inference Hypothesis Testing			
6/25/2015	10	Chi-Square Tests of Independe nce	Chapter 24	26	Fourth Assignment Due on June 26, 11:59pm Fifth Assignment Posted on June 26, 11:59pm
6/28/2015	11	Review for Final Exam			,
7/2/2015	12	Final Exam			Fifth Assignment Due on July 2, 11:59pm

^{**}This schedule may be amended or changed at any time as necessary based on the Professor's discretion**