

BAN 7000: Business Analytics for Decision Making

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Fall, 2018



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Class Room: 2014

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1 Required and Recommended Materials

(Required) Textbooks:

Professor Garvey's Business Analytics Book (New Chapters Posted Weekly on Blackboard)

(Recommended, NOT REQUIRED) Textbooks:

Camm, Jeffrey D. Cochran more, Essentials of Business Analytics, 2nd Edition ISBN-10: 1-305-62773-3 - Cengage Learning, ISBN-13: 978-1-305-62773-4

Friedman, Jerome, Trevor Hastie, and Robert Tibshirani. The elements of statistical learning. 2nd Edition Springer Series in Statistics ISBN-10: 0387848576 ISBN-13: 978-0387848570

Murphy, Kevin P. Machine Learning: A Probabilistic Perspective. 1st Edition ISBN-10: 0262018020 ISBN-13: 978-0262018029

Greene, Willliam. Econometric Analysis. 7th Edition ISBN-10: 0131395386 ISBN-13: 978-0131395381

Hillier, Frederick, Lieberman, Gerald. Introduction to Operations Research. 10th Edition. ISBN-10: 0073376299 ISBN-13: 978-0073376295

2 Course Description

This course explores business analytics concepts and applications aimed at improving business performance. The course focuses on the three facets of analytics: Descriptive Analytics, Predictive Analytics, and Prescriptive Analytics. An integral part of business analytics is the use of IT tools to support the collection and analysis of data, and converting it into actionable knowledge in the context of organization decision-making and problem solving. As such the students will learn problem analysis and formulation, data modeling, data mining, and the application of various business analytics and spreadsheet tools.

3 Prerequisites

BAN 5000 Calculus for Business Analytics. In addition, we will be discussing some technical topics within our course. A background in Algebra is also assumed. Background in Microsoft (or Open Office, Google Docs, etc) would also be useful. We will be covering some programming topics in this course as well as database management. Previous knowledge is not necessary, although it would help.

4 Course Format

This class will consist of one weekly lecture, held every other week in person, the other held virtually in the form of an online workshop, on Wednesday nights. Each class/workshop will be 2 hours and 40 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 recommends one of the textbooks listed above, however, most of this course will be based on my notes, which are posted on the blackboard page.

5 Course Objectives

1. To understand how to use business analytics to formulate and analyze business problems
2. To develop skills in collecting and modeling data to support managerial decision-making
3. To Learn how to use and design spreadsheets to implement models and solve business problems
4. To provide students with an opportunity to develop a project proposal for a business problem and apply a business analytics technique to solve it.

6 General Course Policies

1. 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 asked to leave 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. Please note that if you are carrying private conversations with other students, this also classifies as a disruption. Do not be surprised if I call you out on it. It is nothing personal, however, private conversations will result in a warning and a second violation will result in you being asked to kindly leave the classroom.
2. Important announcements will be made in class, on Blackboard, and on our Facebook Group. So please make sure you are attending class and checking the Facebook page/Blackboard! I ask everyone to check their email/Facebook/Blackboard a MINIMUM of 30 minutes before class in the event of a last minute cancellation.
3. Final course grades are final. Let me repeat this. Final course grades are final! Changes will only be made if there is a mistake in the calculation of the final grade, but legitimate 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. Do NOT request me to change a grade due to the closeness of a letter grade. I'm informing you right now, this will not happen! Same for other grading boundaries.
4. Accommodating students with special learning needs: In accordance with the university policy, students with documented 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.
5. 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.
 - (a) Exams: This will result in an immediate F and reporting to a higher authority.
 - (b) 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.
6. Extra credit opportunity is offered. However, the opportunity discussed below IS THE ONLY OPPORTUNITY. There is no additional or alternative opportunity for extra credit

work. Please keep this in mind. No, I will not give extra credit out just because you are falling behind. You have all the opportunity to gain a few extra points as laid out below.

7. All course material is posted on Blackboard. Our videos are posted on YouTube. Extra-credit and supplemental material can be found on the Facebook Group Page.
8. It is YOUR responsibility, not mine, to keep track of your grades. With that said, ensure that you use the formula indicated below to get an idea of your standing in my course. The "Total Score" grades on Blackboard **do not** properly reflect your grades. In order to determine your grade in the course, you must use the equation indicated below in this syllabus. Failure to keep track of your own grade is not an excuse for additional points, extra credit or additional revision on assignments outside the grace period for review for said assignments. It also is not a valid reason to contest a final course grade. If you receive a grade of F at the end of the semester, please keep in mind that this is not reason for me to change a final grade due to your lack of supervision of your own grade. If you need me to clarify or project what your final grade will be, or give you a comment on your progress in the course, I will be happy to do so, but YOU MUST first initiate that type of discussion with me.
9. If you are having difficulty due to a death in the family, financial problems, or other personal issues, I MUST receive an email from your academic advisor to confirm that you spoke with them about your concern. Keep in mind that while I am very VERY flexible in helping you get by in this course due to unforeseen circumstances, I must have confirmation from your advisor that you are indeed struggling, and require help across all your courses, not just mine. Failure to reach out to your advisor FIRST will not result in any extensions on assignments or exams.
10. It is ABSOLUTELY IMPERATIVE that you sign, and date, the syllabus agreement form below. This document must be submitted via Blackboard within a link that will be open. I will direct you in class as to where you can find this link. Failure to sign and date the syllabus agreement form WILL result in a holding of your grade. Failure to do so before the last day of class WILL result in an immediate F (even IF you have submitted work). Hence, it is absolutely imperative that you make it a priority to sign this document and to subsequently upload it in the link provided.
11. ALL submissions of anything in this course is digital. Furthermore, ALL documents MUST be of PDF file format upon submission. DOC, TXT, DOCX, etc will NOT be accepted as a valid submission. I have a hard absolute policy with this. So please, remember, don't let your hard work result in a 0 all due to you not submitting a PDF. We live in the 21st century, and ALL modern operating systems have the easy ability to convert any of the aforementioned types into a PDF formate. HENCE, please make sure that submissions are indeed in PDF format. Last, and most importantly, hard-submission (paper-format) WILL **NOT** be accepted as a valid form of submission.

7 Evaluation

Weekly Case Studies (12 Total)	1.5% each
Bi-Weekly Workshops (7 Total)	5% each
Attendance and Participation	7%
Midterm Exam	20%
Final Exam	20%

Your grade is calculated according to the following formula:

$$\begin{aligned}
 \text{Final Grade} = & (0.015) \cdot (\text{Case}_1 + \text{Case}_2 + \text{Case}_3 + \text{Case}_4 + \text{Case}_5 + \text{Case}_6 + \text{Case}_7 \\
 & + \text{Case}_8 + \text{Case}_9 + \text{Case}_{10} + \text{Case}_{11} + \text{Case}_{12}) \\
 & + (0.05) \cdot (\text{Workshop}_1 + \text{Workshop}_2 + \text{Workshop}_3 + \text{Workshop}_4 \\
 & + \text{Workshop}_5 + \text{Workshop}_6 + \text{Workshop}_7) \\
 & + (0.07) \cdot \left(\frac{\text{Number Of Days Attended}}{8} \right) \\
 & + (0.2) \cdot (\text{Midterm Exam}) \\
 & + (0.2) \cdot (\text{Final Exam}) \\
 & + \text{Extra Credit}
 \end{aligned}$$

Once your number grade is calculated, you can use the table below to determine your final letter grade in the course. I use a mathematical interval notation. So if your grade x is in the interval $[a, b)$ this is the same as saying $a \leq x < b$

Numerical Grade	Letter Grade
[94, 100]	A
[90, 94)	A-
[87, 90)	B+
[83, 87)	B
[80, 83)	B-
[77, 80)	C+
[70, 77)	C
[68, 70)	C-
[65, 68)	D
[0, 65)	F

8 Blackboard

All submissions for quizzes, assignments, and exams are conducted through blackboard. Make SURE you have access to this! Everything will equally be posted on blackboard. Another side-note, please DO NOT EMAIL ME via blackboard. If you need to email me, please do so DIRECTLY from your WPUNJ email account.

9 Attendance and General Participation

All students are EXPECTED to be present during our bi-weekly classes and must participate. I understand that things come up and sometimes you cannot make it to class. However, only students with reasonable medical emergencies with proper documentation is permitted to not attend. If you miss a class, it will count against your attendance grade.

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 RANDOM TIMES within each meeting. Ensure you show up ON TIME. Otherwise you could risk not being counted. And no, I will not mark you down if you are very late.

Please be active in class. I try to make this course as discussion based wherever possible. If I ask a question, please be diligent to respond. If I notice only a few students answering and others that are not, I will start randomly calling on you to answer or provide input. To avoid embarrassment or humiliation of being called off-guard, please, be diligent in contributing to any questions of discussions we may have.

If our in-class meetings take too long to cover the required material, I will post a follow up video on YouTube to cover the material we did not have time to cover. Please make sure to watch it and take notes on it in this instance. The following in-class session will only cover the material indicated on the syllabus, and **will not be a continuation of our previous discussion**.

10 Blackboard Case Studies and Workshops

10.1 Weekly Case Studies

You will be assigned 12 blackboard case studies, each worth 1.5% of your final grade. You are given ONLY one chance to submit. Each case study has a .DOC attached to it, so you do not need to worry about formatting issues. Please DO NOT DELETE SECTIONS IN THE .DOC!!!! After you make your additions to the case study .DOC, you MUST SAVE IT AS A .PDF. In blackboard upon submission of your PDF, I will not be held responsible for you accidentally not submitting. If a grade does not show up on my end, that means you did not submit. If you see a blue circle, it means you are still working on the case study and it has not been submitted, so BE SURE IT IS SUBMITTED AND NOT ONLY SAVED!

A word to the wise: by randomly guessing answers, you're only doing yourself more harm than good. Please. PLEASE. Make sure you start case studies EARLY. Some of these are NOT easy and WILL take a lot of time to complete. Starting them early will ensure that you get the work done in a proper amount of time.

Case studies are posted on Blackboard on Saturday afternoons at 12:00pm. They are due the following Saturday, at 12:00pm and 0 seconds. Case studies cover the current week's material. For example, Case Study 2 will be posted on September 22nd, 12:00pm, and will cover material discussed in class September 19th. This case study will be due on September 29th at 12:00pm (and not a second later). This same pattern continues throughout the semester.

Solutions for case studies are posted exactly at 5:00pm Saturdays. The following class, we will review through the case study during the first 10-15min of class. Please be prepared to answer. Please note, that there will be case studies almost every week, including on weeks that we do not have class in person. So please ensure that you keep an eye on blackboard for them!

10.2 Bi-Weekly Workshops

In addition to the weekly quizzes, you will be assigned 7 bi-weekly workshops. The workshops are virtual. It will comprise of a YouTube instructional video of myself covering new material. The video is structured in a manner that will ask you to complete a variety of tasks. These tasks will build towards the completion of a full workshop assignment.

You are permitted to work in groups on the workshops. **HOWEVER**, each individual must submit **their own work**. Two workshops from two students should **not** be the same. If it is, then it is an instant 0. You are permitted to work together for brainstorming purposes. At the end of the day, however, you are required to answer the questions **in your own words**.

Your submission will also comprise of a PDF document. **DO NOT SUBMIT A WORD DOCUMENT!!!** On each workshop, I will also provide you with a .DOC for you to use for structure. Fill in the answers, paste figures or create tables in them as you see fit. However, final PDF submission should follow the same section breakdown provided to you. If it does not, I will deduct 50 out of the possible 100 points on the workshop.

Workshops are posted every other Monday night at 7:00pm. They are due on the Friday of the **SAME WEEK** at 7:00pm (this only gives you 4 full days to start and finish!). Solutions to the workshop will be posted at 12:00pm on Saturday. The same late policy described below applied. In addition, please ensure that you are answering the questions as clear as you possibly can!

10.3 Late Policy for Case Studies and Workshops

Failure to submit case studies and workshops on time will result in points being deducted from your total workshop or case study grade, according to the table below (left times are exclusive, right times are inclusive. For example, if you submit a case study exactly at 12:00 and 0 seconds, this is not counted as late. If you submit at 12:00 and 1 sec, this is late, since 12:00 and 1sec > 12:00 and 0 sec. Another example, if you submit exactly at 12:30pm and 0 sec, this is a 10 point deduction. If you submit at 12:30pm and 1 sec, this is a 20 point deduction. Same rule applied throughout!). For workshops, add 7 hours to this table on each hour to obtain the proper late table.

Please ensure that you begin case studies and workshops **early**. Submitting even 1 second late is considered to have an immediate 10 point deduction. By 5:00pm, there is absolutely zero chance of earning any points. This may sound harsh, however, you have an entire week to finish the case study. Start it early, finish it early, and you will have no problems. Work schedule, class schedules or personal issues (without first obtaining approval from your advisor) will **not** be accepted as reasonable excuses for submitting a quiz late. I understand that many of you have busy schedules. However, “being busy” is not a valid reason for missing an assignment. Neither is “I wasn’t aware it was due” or “I didn’t see the case study or workshop show up!”. All of us have busy schedules, however, it is not fair to the individuals (including myself) of whom put in the hard work throughout the week, despite their own challenges, to get the workshop or case study completed on time. Hence, it is your responsibility to ensure you submit on time. Failure to do so **will** result in an immediate 0 after the deadline below, with absolutely no course of action to revert the grade.

Time Submitted	Penalty
(12:00pm,12:30pm]	−10
(12:30pm,1:00pm]	−20
(1:00pm,1:30pm]	−30
(1:30pm,2:00pm]	−40
(2:00pm,2:30pm]	−50
(2:30pm,3:00pm]	−60
(3:00pm,3:30pm]	−70
(3:30pm,4:00pm]	−80
(4:00pm,4:30pm]	−90
(4:30pm,5:00pm]	−100

11 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 (via the email address specified above) at a **MINIMUM** of two weeks prior to the exam. Failure to inform me anytime before the two weeks and missing the exam will result in an immediate 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. Any makeup must be completed before the exams are returned to the class, which generally will one week following the exam. Suggestions for studying for the exam: Attend the class, listen to in-class discussions, read the book chapters, and **DO PROBLEMS!**

Exams are entirely conducted **ON BLACKBOARD**. This means that you must ensure you have a working laptop, tablet or smart-phone to be able to download the questions and submit the answers. If for some reason you do not have access to any of these, you will need to complete the exam in another room. Please note that unlike our classroom, the other rooms cannot ensure a distraction-free environment. **ALL EXAMS ARE TAKEN IN-CLASS!** My exams are open-everything short of communication with others. There is absolutely zero communication allowed with others. Do not mistake this for being “easy” however. One suggestion I will offer: skip Googling my questions. I can assure you, I write all my own questions, all questions are new every semester, and you will not be able to find the solutions online. So don’t waste your time. Instead, focus on being able to solve the problems rather than look for it online!

Please do not ask for a physical copy of the exam. In efforts to reduce paper and for efficient and accountable grading, I conduct the exam entirely in a digital environment. A PDF is posted on Blackboard and the answer key to submit your responses is also on Blackboard. The exam is timed. The midterm you are timed for 1 hour and 20 minutes. The midterm is 25 multiple choice questions and 2 open ended questions. I design the exam in a way for you to complete it on time. Each question is designed for you to be able to answer within 2 minutes on average. If you notice you are spending too much time on a question, skip it and move to a different one. Multiple choice questions are designed to be answered in the same amount of time as open ended. In addition, just because my exams are open book does not imply that you should not study. I design each question with this assumption in mind. If you fail to study for an exam

ahead of time, you only limit your ability to finish it.

The final exam IS CUMULATIVE. It is 3 hours long, 50 questions multiple choice, 4 multi-part open ended questions. The questions are designed for you to finish each one within an average of 2 minutes.

12 Course Textbook

I provide a textbook for the class to use. I expect you to read the chapter we will cover BEFORE each lecture. All of the lectures, assignments and exams are based on the chapter. Each chapter of the book will be added on a weekly basis. You will have sufficient time to read them before class. Some of the chapters are very long, technical, and thought out. I advise you find a quiet place to read and study them. Please do not request me to post chapters earlier than what I already provide. I write the chapters as we progress throughout the course so that I can adapt to the dynamics of the course given the specific body of students in our section.

13 Laptops in Class and Required Software

I HIGHLY encourage you to bring along laptops/ipads with you in order to follow along with the software demonstrations in class, as well as take notes. I am not persnickety about what you do on your laptop. If you choose to be distracted and do something other than follow along, then that is your choice. However, I will not be held responsible to review through material that you have missed due to being distracted. Furthermore, if I find that you are causing a distraction to others, I will kindly ask you to move to another seat, or, in more extreme circumstances, leave the classroom.

We will be using a variety of software packages in this course. Most of these are on the cloud and only require you to have an internet browser. Others are required to be installed on your machines. I leverage all open source technology. This means that these packages require absolutely no cost to you, they are completely free to use. Upon discussing a new software, I will first bring you through the installation process, if one is required. Please ensure that you attend class during these sessions so as not to miss how to access (and if needed, install) the software.

14 How to Petition a Grade

Let me start by saying, I'm human, and hence I make mistakes. I write all of my own case studies, workshops, and exams for you. If you can logically and reasonably indicate to me that another answer on the case studies, workshops, or exam was possible, with no ambiguity whatsoever, then I will gladly award you the points for answering the way in which you did. If I offer a counter-argument as to why your selection was purely incorrect, then there is no award of points.

Please note that there is a time limit as to when you can petition a grade. You have at MOST one week after the solutions are posted to petition a case study or workshop grade. For example, the first case study is due on September 22nd (which is when the solutions will be posted). This means you have until September 29th to look through and petition your grade. After that time, I will NOT alter a grade even IF you are correct.

The reason for this is that we have a lot of ground to cover and if you are not doing your due diligence to review your own assignments in a timely manner, then I cannot be accommodating to your needs. So please, review your solutions in a timely manner.

On a side note. If I have noticed that your assignment was submitted late, then no petition is allowed, even if it is a mistake made on my own part.

15 YouTube

Every class, make up class, extra course material and in some instances assignment solutions are recorded live using YouTube Live. I sometimes post the link of the live stream on our private Facebook group page at the start of every class (if not, the video gets added to the playlist automatically after class). If you decide to take a free day, you can sit in live (just let me know that you need a live stream). However, your (virtual) attendance **WILL NOT COUNT!** While I offer this convenience to you, please do not be opportunistic of it. **You still are required to attend class!**

After recording a live session, the video gets sent over to our YouTube Playlist (link is given above for this). You are free to review it at anytime thereafter. While I diligently work very hard to ensure all of your privacy is protected, your voice may pop up every now and then in the video as a result of your participation in class (you are not, however, physically shown in the video). The playlist, however, is only available to those with the link provided above. So unless some hacker out there is really interested in learning about our course, the likelihood of the videos being released to the general public is pretty slim.

Please note that there are times when there will be a delay in posting. This may occur due to technical difficulties or interruptions of service. I try my best to get them up on time for your convenience. But do not hold my feet to the fire on this. They are up there as a supplement. You still must come to class fully prepared to take notes.

If I begin to notice that attendance has drastically dropped, despite it being marked against you, I will hold off intentionally on posting the videos until it has reached a proper quorum. This could prove to be devastating. So please ensure you are attending class.

According to **University Policy 02-20-01-02-09**, there are a few things you need to be made aware of. First and foremost, if you wish, for whatever reason, to record our lectures, you are free to do so. University Policy mandates I give you approval. The signing of the syllabus agreement form below is in effect permission for you to record lectures. However, according to the policy, *"Unauthorized recording, downloading, file sharing or distribution of any part of a recorded lecture, class discussion or other oral classroom communication, or using the material for any purpose other than as an aid to an individual student's learning may be considered a violation of the William Paterson University Copyright Policy (<http://www.wpunj.edu/library/copyright/copyright-policy.html>) and subject to disciplinary sanction. Unauthorized activities noted in this policy may also be a violation of William Paterson University Information Technology Policies"*. Put simply, while you are allowed to record our lectures, and have access to them via our YouTube Channel, **you are not in any circumstance permitted to share or sell the lectures**. Doing so will result in disciplinary and possibly legal consequences of yourself. So please be wise about this.

Second, this policy mandates that I receive your consent to record, since your voice will be heard on the video as part of your participation requirement (I do ensure that only MYSELF is shown in the video, and not any of you). Given that I want to give all students the ability to

access our previous lectures, if you choose **not to consent**, then you will agree not to verbally participate in the course. However, a lack of your ability to speak in the class will result in a lack of participation. Hence, I will ask you to write a one paragraph summary for every lecture so that you can receive proper participation credit in the event that you do not consent to be verbally part of any video. Failure to submit such summaries **will** result in a 0.5 point reduction for every lecture.

16 Class Cancellations and Make-Up Sessions

There are on some occasions where we will need to cancel class. Please note, I do not like to cancel class, as this gets in the way of our scheduled topics. However, just like with all of you, I have a life as well, and things do come up (mostly with my own children's life events, or, if there are academic conferences that are necessary for myself to attend).

In the event of a class cancellation, it is not always technically "canceled". First, I will try to find a replacement lecturer to cover the lecture that day, if needed. I ask that you give that lecturer the same level of respect and tolerance that you bestow me. If the type of cancellation is one where I cannot *physically* be there, but I can *virtually* be present, then I will present the lecture remotely. Please note, in this instance, **you will be required to attend the physical classroom**. I will ask for a student helper, who will receive a full 1 point of extra credit on their final course grade, to aid in the technology within the classroom. The virtual session will be conducted via Google Hangout or Skype. The student assistant will be tasked with

1. Setting up Skype/Google Hangout
2. Ensuring that everyone in the class can hear me
3. Act as a liason between students of whom have questions and myself (basically, just repeat to questions to me).
4. Solve any technical difficulties.
5. Be trusted that when attendance is taken, they physically see the student that is present in the classroom.

In the event of a weather situation, please ensure that you are enrolled in the University Emergency Alert System. At the very least, please check the homepage of William Paterson University, of whom updates operating status of the university. There are some questionable occasions when the weather appears bad for some (especially those of whom commute), and when the university is still attempting to render a decision. In such instances, I will always let you know the night before if class is canceled or not, regardless of the university's decision. My number one priority is **your safety**. If I feel that road conditions are too difficult to reach campus, I will instead move our lecture to a 100% pure virtual lecture. Weather will never be a reason for why class is canceled. We will always have it virtually in these instances (even if the university cancels class themselves). In these scenarios, attendance will not be taken, and everyone will receive full credit for that particular session.

When we conduct a 100% virtual lecture, I will follow the general structure:

1. I open up with an introduction. I wait until a certain number to arrive.

2. I begin lecture. During the lecture, you can ask questions in the chat box next to the video (a Google account is necessary in order to do so). Every 15 minutes I check the chat and answer questions.
3. I end by giving any important announcements.
4. Video is posted to the YouTube Playlist.

Please ensure you are active in asking questions. There is typically a 20 second delay between what you see on your screen and what was broad-casted live. Keep this in mind since you will not hear the response to your questions “instantaneously”.

17 Facebook and Extra Credit

17.1 Signing Up for Facebook

Facebook is a platform that I use in this course in regards to announcements and sharing information with all of you. In this class, Facebook is a platform that I have moved to in order to allow more interaction between all of you and myself. I understand respect very well about your privacy. You are allowed to use a fake name when you register, although Facebook has recently changed policies on this, so try to use a fake name that sounds real. If you already have an account, **I HEAVILY SUGGEST CHANGING YOUR PRIVACY SETTINGS**. I don't need to know what you do on the weekends, so please keep this in mind. Please, please do not change your Facebook name throughout this course. This will only add confusion for myself towards the end of the semester.

You will have one week to sign up with Facebook and join the group page for our class (link provided above). After the first week, I cannot grant you “instant” access to our group. It is a private group, so no one outside the group can see your posts. The group page is where myself and you (more on this later) will share articles, YouTube videos, and interesting links that help advance the connection between the concepts in this course to the real world. Upon signing up with Facebook, I ask that you private message me with your student id, and to join our group (go to the link above and when there click “Join Group”). You will not be permitted access to the group if you fail to send me a message on Facebook with your real name and student id. I do this for privacy and security reasons.

17.2 Facebook Communication with the Professor

Facebook Messenger is one of my primary tools for communication. I have it on my phone, and when you reach out to me, I get an immediate notification on my phone. It is virtually instant.

Now, you are allowed to message me at any time. I cannot, however, guarantee an instant reply. While I may see your message, I may be in the middle of something (if it's late at night, I'm probably working on something else). I try my absolute best to get back to you as soon as humanly possible. Some weeks are busier than others and I sometimes push off replies until my office hours. The only 100% feedback rate I can guarantee is that all messages will be answered during my office hours. Again, I try to answer as soon as you message. If I do not reply, then it means I'm having a pretty busy week.

17.3 Extra Credit

I do offer extra credit opportunity. We have 12 solid weeks of class (technically 14, but we'll go off 12). Starting on 9/9/2018 12:00am and ending on 12/1/2018 11:59pm, you are allowed to post 2 posts per week. Each post you add to the Group Page is worth 0.125 points added onto your final grade. Assuming you post 2 posts per week, for a total of 24 posts in the semester, that is a total of 3 extra credit points added to your final grade.

You are **ONLY** allowed two posts per week. A post can be a YouTube video that discusses a topic we have discussed within the previous two weeks of class or an article discussing some form of application to what we have discussed in class (it does not need to be a recent article, although it would be more useful if it were). In addition, for any post, you must write a small one-paragraph summary of the article/video, which topics in our class it discusses and how it connects to what we discussed.

Failure to write a summary will result in the post **not** being counted. Also, please **DO NOT COPY AND PASTE MATERIAL FROM THE ARTICLE**. This is plagiarism and will count against you (I will deduct points from your final grade if you do this!). For every post that contains word-for-word writing, you will have 10 points deducted off your final grade. Comments, likes, no-written shares, general questions about the class and general remarks or posts will **NOT** be counted as part of your final extra credit grade.

17.4 What NOT to Do on Our Facebook Page

Topics **MUST** relate to material discussed in the prior two weeks of posting. While I know it is tempting, some of the material out there may use or relate to heavily politicized and hotly debated topics in the public sphere. **I want us to avoid ANY and ALL hotly debated issues in the public arena, regardless of where you stand on said issues.** I will be the judge of whether or not your post may lead to something that is a "hot button issue". Please do not take this as a sign of me trying to censor your material. I only want topics directly related to **information systems**. All other topics will be considered useless, and will result in removal.

While some of these may be tangentially related to business activities, they may still not classify as "related". For example, an article that explains government funding into artificial intelligence is **NOT** related to our course, unless it describe the nature of how the AI was used within the development of an IS. On the other hand, an article that explains how marketers use CRM systems is related to our course. I want to see relevant topics and avoid topics that will spur meaningless (and frankly, very unproductive) debate. Save those for your personal time please!

Our group page is only for academic discussion pertaining to the methods and illustration of said methods in this course, **not for emotional debate**, that will lead to all sides of a popular issue being upset. If any article is posted that relates to any topic that is hotly debated in the public space, it will be removed and I will send you a warning. Posting such topics more than once will result in a total removal of yourself from the FB Group Page and all extra credit points will be voided. In addition, while I'm sure your band is awesome, your business needs booming or you need to get donations for a great cause, all such material will be removed from the page. Again, the Facebook Group Page is **ONLY** for our academic purposes and any other purposes such as promotion of, well, anything, will be removed immediately.

18 Office Hours

18.1 Where and When to Meet

As for office hours, I hold them every Tuesday and Thursday from 7:00am - 9:00am, in the Valley Road Building Room 4048. I am logged onto Facebook during this time. If you have questions and do not feel like taking a travel to the school, you can either message them to me using FB Messenger or we can schedule a Google Hangout/Skype during this time. Sometimes I will be in my office a little earlier than this, so if you swing by early, you may catch me before everyone else.

18.2 Appointments and Time Limits

I give top priority to students of whom schedule appointments ahead of time with me. You are free to swing by my office at any time. If you come by during my office hours, and my door is closed, this means that I am currently meeting with a student, and you must wait, since priority has been given to them first. In order to gain priority, I have a simple process:

1. Email me if you plan to stop by. Please provide to me a list of at least 3 different times (Only during my office hours) that work for you. I will let you know if all 3 are busy, and I will provide time frames (if they are available) of which I can meet.
2. I will block off a timeframe for you. If there are other students that plan to visit, then your time is limited to 15 minutes. Otherwise, I will grant you the ability to stay longer.
3. Once an appointment is agreed upon, I will send you an invite so it is properly placed on my calendar.

The absolute latest time that you can set an appointment is at 8:00pm the night before (Monday, if you plan to meet Tuesday, Wednesday, if you plan to meet on Thursday). After this time, you will have to “wing it” and take your chances of myself being available for meeting. I do have some policies in regards to scheduling:

1. Appointments are first come first serve. If you show up without an appointment, it is NOT guaranteed that you will be able to meet and discuss issues that you may have.
2. Right on the dot, at 9:00am, my office hours end. I allow myself 30 minutes before my course to prepare that day. As such, even if you have an appointment, you unfortunately will need to leave my office.
3. The absolute latest time available for an appointment is at 8:45am. Any time past this will **not** be considered.
4. If you made an appointment, and I have no other appointments, you are free to stay as long as my office hours last. You have top priority, and any other students that show up without an appointment will need to wait until you are complete with your inquiries.

All of these policies also apply for virtual meetings. Hence, you are not required to show up in person, although, I will strongly urge you to do so since it is more informative and interactive

that way. Also, please ensure that you have a starting point for us to work from. Simply coming to my office and claiming “I just don’t get it” is not sufficient for me to help you. **You** have the responsibility to outline where exactly your confusions lie, and where we can start from. Tell me what you understand, and where you are stuck, and we can take it from there. In the event you do come to my office and claim “I just don’t get it”, I will not help until you give me a starting point, and this only risks your time available to me. So ensure the night before that you come well prepared with specific questions and starting points!

18.3 General Office Hour Policies

I have a few policies in order for when you visit my office:

1. All meetings are behind closed doors. I trust that you will treat myself with the utmost respect during such meetings. There is no exception to the closed door policy when it is busy in the hallways. All meetings are closed door. However, they are recorded (as described below) for accountability reasons.
2. All meetings are fully recorded to ensure accountability, security and privacy. You have full rights to these videos. They are recorded on my computer, and will **not** be divulged to any third party unless legally required.
3. Since all meetings are recorded, albeit privately, I ask that you conduct yourself in the most professional manner possible. Remember, the computer is “listening”. While any topics that we discuss in private are indeed private, they may indeed be used against your benefit if you pursue any form of a very serious false accusation against myself or any other member of the university.
4. I ask that you attend my office hours with the intent to solve a specific problem you are having (personal or professional). Remember, I am here to listen and to help you. Anything that we discuss will remain in 100% confidence, unless it is absolutely necessary for myself to divulge such information due to any (1) legal warrants that are issued to me (and I will comply with any such warrants) or (2) any university inquiry in regards to any matter with you personally or professionally.
5. I ask that you attend my hours with a full mental and physical capacity. Please note that it is against university policy to attend my office hours under the influence of any form of drug or alcohol. In such an instance, it is a moral and ethical responsibility of mine to report you to the university.
6. It also is a moral and ethical responsibility of mine if you make any threats towards any other individual, including yourself or myself, during our meetings. If I perceive any such threat, please know that you will be reported to the proper university officials. I have a zero-tolerance policy for violence and threats.
7. If I notice any signs of mental disorder such as anxiety or depression, I am more than willing to speak with you about such issues. However, I am not a licensed psychologist, and you should seek the proper departments in such instances. Mental illness is a very serious matter. If you feel that you need to divulge a personal event that had occurred, I

am here to listen, and it is my moral and ethical duty to keep that confidential. I will gladly offer you the proper list of departments, individuals, and authorities for which will help you get through your difficulties. In addition, please know that if you come to me with such personal issues, I will offer you recommendations to seek the proper help you need. Please do not take this as an insult of any kind. I simply want to ensure not only your safety and well-being, but also that of your peers.

19 Course Schedule and General Syllabus Changes

19.1 Policy Regarding Changes to the Syllabus

I try my best to stick to this schedule and grade distribution. With that said, if I see that you need more time to absorb the material, some homework assignments or topics may be extended. If I begin to see that our grading distribution in regards to assignments becomes too much, I will need to redistribute points. Again, this is a very rare situation that happens. However, I understand that some of you may have more difficulty in absorbing the material than others. With that said, I want to ensure we spend the proper amount of time on each topic. If we need to change anything about this course, I will update the syllabus and post it.

If I need to make changes to the syllabus, you will be notified in class, on Blackboard, on Facebook, and via email. Changes to the syllabus may come as a consequence of in class discussions. I always consult with my students first before making any necessary changes. Please note that if you miss class, especially on a regular basis, then your voice on such matters may not be heard. I only take into consideration comments made within a class session. Moral of the story: attend class and you will have your voice heard if such a need for change arises.

19.2 Tentative Course Schedule

Week	Date	Topic	Case Study	Workshop
1	9/5/2018 (In Person)	Syllabus Review Introduction		
2	9/12/2018 (Virtual)	Introduction to R	Posted on 9/15 (Due 9/22)	Posted on 9/12 (Due 9/14)
3	9/19/2018 (In Person)	Introduction to Business Analytics Philosophy of Science Strategy and Business Analytics	Posted on 9/22 (Due 9/29)	
4	9/26/2018 (Virtual)	Basics of Statistics Basics of Probability Theory Statistical Inference	Posted on 9/29 (Due 10/6)	Posted on 9/24 (Due 9/28)
5	10/3/2018 (In Person)	Basics of Statistics Basics of Probability Theory Statistical Inference	Posted on 10/6 (Due 10/13)	
6	10/10/2018 (Virtual)	Basics of Statistics Basics of Probability Theory Statistical Inference	Posted on 10/13 (Due 10/20)	Posted on 10/8 (Due 10/12)
7	10/17/2018 (In Person)	Data Mining and Machine Learning	Posted on 10/20 (Due 10/27)	
8	10/24/2018 (Virtual)	Data Mining and Machine Learning	Posted on 10/27 (Due 11/3)	Posted on 10/22 (Due 10/26)
9	10/31/2018 (In Person)	Essentials of Empirical Modeling	Posted on 11/3 (Due 11/10)	
10	11/7/2018 (Virtual)	Essentials of Empirical Modeling	Posted on 11/10 (Due 11/17)	Posted on 11/5 (Due 11/9)
11	11/14/2018 (In Person)	Essentials of Analytical Modeling	Posted on 11/17 (Due 11/24)	
12	11/21/2018 (Virtual)	Essentials of Analytical Modeling	Posted on 11/24 (Due 12/1)	Posted on 11/19 (Due 11/23)
13	11/28/2018 (In Person)	Optimization and Simulation	Posted on 12/1 (Due 12/8)	
14	12/5/2018 (Virtual)	Optimization and Simulation		
15	12/12/2018 (In Person)	Data Management Big Data Distributed Computing		

20 Syllabus Agreement Form

Having enrolled in this course, I, _____, agree to the following:

(Full Printed Name)

1. I have fully read every character, word, paragraph, and section of this syllabus, and was either present on the first day of class, or have viewed the video of the first day of class, of which fully reviewed this syllabus, and I fully understand, and agree to abide by, the entire structure of this course and it's guiding policies.
2. I understand that I will abide by all policies put forth in this syllabus, either explicitly mentioned herein or mentioned in class heretofore.
3. To remain in contact with the professor using the communication methods described above for any issue.
4. To ensure that I contact the professor via garveym2@wpunj.edu or Facebook Messenger, and understand that any concern I may have will not be addressed if I email the wrong email address, fail to reach out to the professor using the aforementioned mediums, or use a non-WPU email account to contact the professor. In such an event, I understand that I am 100% responsible for any negative consequences of which I will bear.
5. Grades are distributed based on my work, and **not on my need**. I will not expect this professor to award me a grade that does not properly reflect, as determined by him and his criteria for grading, the result of my work, rather than the degree of effort involved, or any purpose including, but not limited to, being removed from academic probation, wanting a grade that would be awarded due to rounding up, or being friendly and in consistent contact with the professor. I further understand that the professor grades based on an equation he has described to me in this syllabus, and that he will not deviate from the equation, no matter the circumstance I find myself in.
6. To not cheat on any assignment, exam or any other aspect of this course, and that if I do, I understand that appropriate procedures will be taken with the involvement of the university, and I will receive an F for the course, along with the possibility of more severe consequences.
7. That email messages, Facebook Messages, recorded videos, books, notes, slides, comments on YouTube Videos and any other form of time-stamped communication between myself and the professor is the property of William Paterson, and that altering the content, information, or meta-information, on any of these original forms of content, without the explicit written permission from the professor, for the purpose of deceiving the professor in any way, shape, or form, is considered a violation of Section 2.4 of the **Academic Integrity Policy**, and **will result in an immediate F for the course**. In addition, I understand that **this professor will offer recommendation of expulsion from the university** in such a scenario. Examples of such manipulations may include: the altering of a grade on an assignment, an attempt to change a time-stamp on any form of document, and an attempt to change a previous email sent to the professor or from the professor.

8. To read the book chapters before every class, and attend the class. I also understand that I cannot expect the professor to lecture material that I may have missed due to persistent absence from the class.
9. To keep track of my own grade using the grade calculation presented above, and that if I am failing, it is my own responsibility to become aware of this, and change course to prevent a final grade of failure.
10. This professor makes zero exceptions to anyone and treats every student equally. I will not expect this professor to offer any extra work, make-up assignments, make-up exams (in the event of a failure), or extra videos additional to what is already posted for the purpose of improving my grade.
11. That the exam requires a computer, tablet or smart phone, and if I do not have any of these, then my exam will be taken in a computer lab or a different room that may have ambient distractions.
12. That I will attend class on time so that my attendance will be counted. I also understand that attendance will not be taken at a fixed time, and will be randomly conducted at any point between the start of class and the end of class.
13. That if I am in financial stress, academic stress, or some other unexpected event that occurs in my own personal life that thwarts my ability to perform in this class, I will **FIRST** discuss said issues with my academic advisor, and if I need additional time on assignments or exams due to such events, that my academic advisor **MUST** email the professor describing my needs. Failure of myself doing this will result in no extra time or alternate assignments to make up my work, and I understand that my grade may be affected as a result.
14. That this professor assumes that everyone of whom is registered for this course has the complete and competent ability to physically attend class, and that I will not attempt to persuade the professor to alter the structure of this course so as to appease my own schedule. In other words, I understand that if I currently hold a job, and register for this course, it is assumed by this professor that your employment schedule **will not** intersect your class schedule. I further understand that this professor will make **zero exceptions** if I am required to be somewhere else during the scheduled time of our course.

Name (Printed) _____

Signature _____

Date _____

21 Electronic Recording Disclosure Form

Having enrolled in this course, I, _____, understand

(Full Printed Name)

that lectures held within the classroom are recorded for the benefit for all the students. Throughout the course of recording, I am aware that my voice may be recorded throughout the course of the normal recording. I agree to relinquish the university and this professor from all violation of privacy considerations in any such instance. In addition, I have been made aware that if I choose not to participate in class due to privacy concerns, that I will submit a one-page summary of the lecture to the professor. I understand that failure to do so will have a negative impact on my grade.

Furthermore, I have been informed by this professor that all recorded materials within the university are to be considered the property of William Paterson University. I agree not to sell, distribute, share, post, or gift any of the videos that have been recorded during this course, either inside or outside the classroom. I have been made aware that this professor has allowed myself to record my own versions of the course, and that such recordings are also to be considered as the property of William Paterson University, and shall only be used for own educational purposes.

I fully agree to comply with the terms stated above, and understand that if I fail to abide by the terms above, that the professor, William Paterson University, or a third-party associated with William Paterson University or any classes within the university, may render academic disciplinary action as well as potential legal proceedings.

Name (Printed) _____

Signature _____

Date _____