# BDAN 310 BUSINESS DATA ANALYTICS

## SYLLABUS – CREWS (Fall 2024)

## Course Description

An introduction to the application of data analytics methods to business issues. Topics include business case studies, data analytic, model building techniques, and communication of results.

## Required Text

**Business Analytics, 2nd Edition** by Jaggia (and co-authors)
ISBN 9781264302802 (ebook)
*NOTE: Everyone should have access to the eBook in Blackboard for the first two weeks of class. After those first two weeks, if you are not using Big Red Backpack, you will need to purchase access to the book separately, which you can rent directly from the publisher (McGraw-Hill) at the following link:*
https://www.mheducation.com/highered/product/business-analytics-jaggia-kelly/M9781264302802.html

## Learning Objectives

Upon completion of this course, students should be able to:

- Develop effective models of business scenarios.
- Use statistical techniques to analyze business data.
- Improve your analytical tool skills for making data-driven business decisions.

## Instructor Information

Dr. Thad Crews, Grise Hall 227, 270-745-3509

*After earning my bachelor's degree from WKU, I began my professional career as a software engineer for Electronic Data Systems, a Fortune 500 company. However, my true passion is education. For this reason, I completed a PhD in computer science from Vanderbilt University, consistently recognized by U.S. News and World Report among the top graduate programs for Education in the United States.   I then joined the faculty at Western Kentucky University, and I am proud to note this is my 29th year of dedicated teaching on the Hill. I have served as National Chair of the Technology in Education Committee for the Association of Information Technology Professionals (AITP). I have written two college textbooks on computer programming and collaborated with leading national education publishers (Pearson and Cengage) to develop cutting-edge digital solution products for higher education. Through it all, teaching remains my foremost passion. I am thrilled to be teaching this course this semester, and I encourage you to reach out with any questions or comments you may have at any time. Your success is my primary goal!*

## Email

My email is **thad.crewsii**@wku.edu which includes an **ii** *(like Roman numeral 2)* after my last name:

> *Be sure you email* **thad.crewsii** *because any other WKU "Thad Crews" email will* <u>NOT</u> *get to me.*

Your subject line matters. For example, **BDAN 310 Unit 2c Question 6** includes your class, the unit item, and the specific issue inside that unit item. Emails with proper subject lines will get a response within 24 hours, often much sooner. Emails with poor subject lines will be delayed, and the email might be returned unanswered with instructions to resend with a proper subject line.

# Calendar

**BDAN 310 Calendar** (Fall 2024)

| | | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|---|
| August 19 - August 23 | Week 1 | Class Begins | | | | Unit 1 Due |
| August 26 - August 30 | Week 2 | | | | | Unit 2 Due |
| September 2 - Sept 6 | Week 3 | Labor Day | | | | Unit 3 Due |
| September 9 - Sept 13 | Week 4 | | | | | Practice Presentation |
| September 16 - Sept 20 | Week 5 | | | | | Unit 4 Due |
| September 23 - Sept 27 | Week 6 | | | | | Unit 5 Due |
| September 30 - October 4 | Week 7 | | | | | CASE STUDY A |
| October 7 - October 11 | Week 8 | Fall Break | Fall Break | | | Unit 6 Due |
| October 14 - October 18 | Week 9 | | | | | Practice Presentation |
| October 21 - October 25 | Week 10 | | | | | Unit 7 Due |
| October 28 - November 1 | Week 11 | | | | | Unit 8 Due |
| November 4 - Nov 8 | Week 12 | | Election Day | | | CASE STUDY B |
| November 11 - Nov 15 | Week 13 | | | | | Unit 9 Due |
| November 18 - Nov 22 | Week 14 | | | | | Unit 10 Due |
| November 25 - Nov 29 | Week 15 | | | Thanksgiving Break | Thanksgiving Break | Thanksgiving Break |
| December 2 - December 6 | Week 16 | | | Capstone Project Due | Final Exam Due | |

# Points Breakdown

| | | | |
|---|---|---|---|
| Units | 10 | @60pts | 600 |
| Case Studies | 2 | @60pts | 120 |
| Practice Presentations | 2 | @10pts | 20 |
| Capstone Project | 1 | @60pts | 60 |
| Proctored Final Exam | 1 | @100pts | 100 |
| TOTAL POINTS | | | 900 |

**A final grade of "A"** (90%) **requires 810 points**
**A final grade of "B"** (80%) **requires 720 points**
**A final grade of "C"** (70%) **requires 630 points**
**A final grade of "D"** (60%) **requires 540 points**

**All items are due on Friday night of their assigned week.**

**Student Benefit #1 // Weekend Extensions:** Items are due Friday night, with an automatic weekend extension (at full credit with no late penalty or deductions) until Sunday night. The weekend extension is the "On Your Own Zone" when I am less likely to be checking email or to be available for assistance. Items not submitted by Sunday night are "twice late" and will receive a grade of zero. Late work is not accepted after the "twice late" Sunday night.

**Student Benefit #2 // Drop-and-Replace policy:** In addition to the weekend extensions, there is also a "drop-and-replace" policy where your three lowest unit part scores (60 points total) will be dropped and replaced by your next three lowest unit part scores. Your three lowest unit part scores can come from the same unit or from different units.

## Unit Quizzes

Most units will include two quizzes. The _concepts quizzes_ will cover conceptual materials from lecture, textbook, and other third-party readings or video materials. The _R code quizzes_ will cover the R code training materials provided in the unit. Each quiz is 1 attempt only. Each quiz is open book and open notes.

## Unit "Check Your Work" Homework

Most units will include a CHECK-YOUR-WORK activity that allows you to check your work as you go. You can submit each answer one-at-a-time and check to see if your answer is correct. You can submit an unlimited number of times before the due date. This gives you an *EXCELLENT* way to check your understanding as you go. Your highest score is the one that counts for your grade.

## Capstone Project (Recorded Presentation)

The Capstone covers your overall understanding of R code for predictive analytics, including your ability to explain the results of your work. There will also be some assigned "Practice Presentations" to help you get comfortable recording yourself as you explain the work you are showing.

## Final Exam (Proctored)

The final exam is a proctored exam that will cover only the unit concepts (textbook) materials. There are no R code questions on the final exam. Below are three important notes about the Final Exam:

1. **The Final Exam is proctored exam**. In the first or second week of the course, you will receive an email from the **Distance Learning and Testing Centers (DLTC)** with instructions about how to register for the exam. Be sure to read those instructions and register for the exam.

2. **The Final Exam is closed book. However, you can create a single page (front and back) of hand-written notes that you can use during the Final Exam.** Everything on the page must be hand-written. No printed text or printed images are allowed. If you want to develop your page of hand-written notes unit by unit as you cover each new unit, that might be easier than trying to create the study notes all at once at the end of the semester. After you finish your Final Exam, you will give your page of hand-written notes to the proctor. You will NOT get the notes back. Your name should be clearly written on your page of study notes.

3. **The Final Exam will cover the unit concepts (textbook) materials only.** There are no R code questions on the final exam. The final exam has the same format as the unit concepts exams, except the final exam will NOT be open book. The only notes you are allowed to use during the final exam are the single page of hand-written notes you create yourself. There will be around 50 to 60 questions on the final exam.

## Academic Integrity

Students are expected to pursue their studies with commitment to intellectual honesty and personal integrity. Cheating, plagiarism, and other acts of academic dishonesty are discussed in the Academic

[Requirements and Regulations](#) section of the WKU Undergraduate Catalog. Possible penalties for academic dishonesty include a failing grade in the course without the possibility of withdrawal.

*The Gordon Ford Leadership Team wants you to be aware of the following:*

## WKU Counseling and Testing Center

The university experience should be challenging, but not overwhelming. To this end, the WKU Counseling Center provides a variety of services to help strengthen students' capacity to tolerate distress, form healthy relationships, and seek healthy expressions of their ideals and values. If you would like to speak with someone, you may contact WKU's [Counseling and](#) [Testing Center](#) at 270-745-3159 or use their Here to Help service at [https://www.wku.edu/heretohelp/heretohelpemail.php](https://www.wku.edu/heretohelp/heretohelpemail.php). If you need immediate help, please visit the Counseling Center in 409 Potter Hall or call the 24-hour emergency help line at 270745-2548.

## Big Red Backpack

The Big Red Backpack program is the title of WKU's partnership with Barnes & Noble College for their First Day Complete initiative. Big Red Backpack is a course materials delivery program that ensures students have their required course materials on the first day of class and may reduce the costs of materials for many of their courses. Enrollment in the program occurs automatically when students register for classes. Students may opt out of the program each semester, as long as they choose to opt out for all of their classes.

Students MUST carefully and completely follow all instructions regarding the Big Red Backpack Program. Those instructions will be provided by:

1. An email to all Topper email addresses from the Big Red Backpack Program one month prior to the start of classes.
2. The Big Red Backpack Program site: [https://www.wku.edu/bigredbackpack/](https://www.wku.edu/bigredbackpack/).

Students should refer to the Big Red Backpack Program site referenced above for opt-out deadlines and any additional details.

The University Leadership Team wants you to visit [http://www.wku.edu/syllabusinfo/](http://www.wku.edu/syllabusinfo/) for WKU's most up-to-date information about COVID-19, Title IX Discrimination & Harassment, ADA Accommodation, Regular and Substantive Interaction (Online Courses Only), and various other Things You Should Know.

## ADA Accommodations

In compliance with university policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, Room 1074.  The SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

**Title IX/ Discrimination & Harassment**

Western Kentucky University (WKU) is committed to supporting faculty, staff, and students by upholding WKU's Sex and Gender-Based Discrimination, Harassment, and Retaliation (#0.070) and Discrimination and Harassment Policy (#0.2040). Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Executive Director, Office of Institutional Equity/Title IX Coordinator, Ena Demir, 270-745-6867 or Title IX Investigators or Michael Crowe, 270-745-5429. Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

Please visit **http://www.wku.edu/syllabusinfo/** for more important WKU information you should know.