# **BA 513 – Information Technology and Analytics**

WEB Only\_\_\_\_

Dr. J. Kirk Atkinson, Associate Professor – Information Systems					
Office: Grise Hall 229	Phone: (270)745-8845				
Email: <u>kirk.atkinson@wku.edu</u> *					
Course Website: http://blackboard.wku.edu					
Office Hours					
Monday through Wednesday, 10AM – 11;30 AM					
Others by Appointm	nent				
*I typically respond to email within 24 hours, Monday-Friday. I do NOT guarantee a response to emails over the weekend (Friday 5 PM – Monday 8 AM).					

Prerequisite: BA 503 or the equivalent.

Critical thinking in strategic uses of business intelligence; resources (computers, software, data/information, and people); and innovations in effective data management. Issues in ethical use of data, teamwork and leadership included.

<u>Overview</u>: This course is designed to introduce students to management issues related to information technology and data analytics as it is being practiced in organizations today. Topics include:

- using analytics to develop competitive strategies,
- using analytics to change organizational processes,
- applying knowledge gained from data analysis to business strategies and directions,
- translating the knowledge acquired through data analysis to executive-level language,
- knowledge sharing, knowledge management, and
- social, political and ethical issues associated with information technology and data analytics.

Text/Materials: (All Required)

#### Texts:

Minelli, M., Chambers, M., Dhiraj, A., "Big Data, Big Analytics: Emerging Business Intelligence and Analytic Trends for Today's Businesses", 2013, ISBN: 978-1-118-14760-3

Knaflic, C. N., "Storytelling with Data: A Data Visualization Guide for Business Professionals", 2015, ISBN: 978-1-119-00225-3

<u>PC</u>: You must own or have consistent access to a personal computer of modern design WITH ADMINISTATIVE RIGHTS. You must have access to Microsoft Office-type software (2013). Office 2016 is fine as well. At the creation of this requirement, it was not yet released. You must also be equipped to download

Other: You should have consistent High-Speed Internet access.

software and/or data sets as required.

- **USB drive**, or other dedicated media (e.g. your own hard disc, <u>cloud storage</u> - recommended) to store class projects, data, etc.

<u>Grading</u>: Your grade is earned through your performance on quizzes, participation, and projects/cases. As the instructor, I only assign the grade that you have earned. Grades are assigned in a manner consistent with the WKU Catalog Descriptions. *You should note that "A" is not the de-facto grade in this class*.

Grading is on a competitive basis which means that if you meet the expectations for the assignment you will earn a "C". You will have to perform above the expectations to earn an "A".

- A Excellent work; student consistently exceeded class expectations (professionalism, quality, detail, presentation, etc.); among the very best in the class (top 1/3); assignment scores are 90%+
- B Above Average work; student met class expectations; better than the class average; exam scores are 80%+
- C Average work; student marginally met class expectations; performed at a level that would be considered "average" as compared to classmates; graduate students should not consistently work at this level!
- D There is a no D rule in my course; graduate students should never work at this level!
- F Unacceptable quality work<sup>1</sup>; <u>any</u> form of academic dishonesty (automatic F in class); missed exams, projects, assignments; etc...

#### **GRADING CRITERIA**

REQUIREMENT	Number	Points Each	Total / Percentage of Grade
Introduction Activity	1	50	50
Lab Assignments	9	50	450
Student Constructed Quizzes	5	30 350	150
Final Project/Presentation			350
Total			
			1000

The points-based grading scale (not percentage based!) that will be used is:

#### Graded Deliverables:

- Introductory Self-Assessment: A spreadsheet project will be assigned that does count for credit; the primary mission of the assignment is to provide each student with a measure of their spreadsheet skills. The course is not solely focused on spreadsheets, but as a business tool effective skills are a necessity.
- <u>LAB Assignments</u>: Lab assignments will be conducted as individual projects unless otherwise instructed. These labs are designed to support your basis learning of the concepts/tools covered and also in your Final Project work.
- <u>Quizzes</u>: *You* will be required to create quiz questions, five (5) per assigned units. These quizzes will then be submitted to your professor via Bb. The questions will be reviewed for quality control and duplicity then loaded into Bb by your professor. <u>Questions delivered in a format that doesn't load directly into Bb will be awarded zero points</u>. The quizzes may consist of multiple choice questions and may cover anything discussed in class as well as topics related to cases/projects. The rationale is that a deeper level of understanding occurs when one must write and respond to questions, as opposed to simply reading a book and relying on rote memorization of materials. A formatting document will be supplied as well a short video explaining how the questions are loaded into Bb.
- <u>Final Project/Presentation</u>: Research tells us that optimal learning occurs when students work out their own understanding of the class material. One of the best techniques, especially at the graduate-level, to support this is to have students discuss and debate class topics using a self-directed learning approach (Knowles, 1983). This is achieved in this course by forming teams with assigned projects. The project is designed to "connect the dots" and culminates in a class presentation that demonstrates each member's ability to explain results achieved. Each team member MUST be actively engaged in the presentation. Peer-review will be a component of this grade.

<u>Please take note of the absence of a traditional final examination</u>. The final project is intended to be demanding and heavily emphasized in the overall grading scheme. Final projects will be presented during the normal final examination period.

<u>Lectures</u>: This class is an online lecture/Lab based course. Lecture along with the accompanying PowerPoint slides will be provided on an as-needed basis. There may also be additional videos required.

<u>Internet</u>: The majority of material will be distributed via Bb on the Internet. Class notes, instructional material, and student assignments will be posted on the class website or take the form of hand-outs. Additionally, team projects may require the use of Internet-enabled technologies for communication (E.g. GoogleDocs). Students are responsible for their own Internet access. Your professor cannot troubleshoot connections or computer problems for you. The class website can be found at <u>http://blackboard.wku.edu</u>.

<u>Class Attendance/Participation</u>: Although not directly scored, participation in weekly activities is a required element of the class and students must be engaged on a regular basis throughout the week. <u>Failure to</u> substantively participate and perform on your assigned team may lead to failure for the course.

<u>E-Mail Formatting</u>: E-mail is the most common way for students to contact me. As I receive a lot of mail each day, I automatically filter messages into different boxes. You need to use the following format each time that you create the SUBJECT line <u>or your mail will not be properly received</u>. My e-mail program will put 'other' mail into the junk/spam/trash or other folder.

Subject: BA513 Online, A Brief Subject Statement

Example: BA513 Online, Smith, A question about next week's deliverable

<u>Note</u>: E-mail is an impersonal medium. If you need to talk about something important, personal, etc. please either call my office or arrange to visit me personally.

<u>Naming Files for Submission</u>: When you submit a file (to the dropbox, discussion forum, or ?) be sure to name it using the following convention:

For individual cases: YourLastName Project Title
Example: Smith Lab1 (please use the appropriate file extension (e.g.'s docx, pdf)

<u>Academic Dishonesty</u>: Plagiarism and cheating are serious offenses and **will** be result in an F for the course. For more information, refer to the "Academic Dishonesty" policy in the University Catalog. This is difficult to commit in this course due to the absence of writing; however, there may be third-party sources involved as teams present their final project and if so, appropriate citations (A.P.A.) are expected.

### **Student Disability Services**

In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services located in the Downing Student Union.

Please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services.

## **Assignments**

Assign	Task	Due
1.	Spreadsheet assignment designed to provide	03/23
	each student with an assessment of their skill	
	level.	
	Course orientation, introductions, team	
	formation, roles assigned	
2	Data workshop, sources, cleansing	03/27
	Discuss BD-BA Chapter 1 & 2	
3.	Spreadsheet extensions	03/31
	Discuss BD-BA Chapter 3	
4.	Data Mining	04/7

	Quiz Questions DUE! Chapters 1-3	
	Discuss BD-BA Chapter 4 & 5	
5.	Data Mining	04/10
	Quiz Questions DUE! Chapters 4-5	
	Discuss BD-BA Chapter 6 & 7	
6.	Project assignment & Data visualization	04/14
	Quiz Questions DUE! Chapters 6-7	
	Discuss Storytelling text Intro & Chaps 1-2	
7.	Tableau	04/17
	Discuss Storytelling text Chaps 3 - 4	
8.	SAS Visual Analytics	04/24
	Discuss Storytelling text Chaps 5 - 6	
9.	Data Analysis and interpretation	04/28
	Quiz Questions DUE! Chapters 1-6 (Storytelling)	
	Discuss Storytelling text Chaps 7 - 8	
10.	Telling a story with the data	05/01
	Quiz Questions DUE! Chapters 7-8 (Storytelling)	
	Discuss Storytelling text Chaps 9 -10	
11.	No new assignment – open lab time (WEB)	05/08
Final	Final Presentations – due by midnight $\rightarrow$	05/11

### REFERENCES

Knowles, M., "Self-Directed Learning", 1983, ISBN: 978-0842822152