Master of Science in Cybersecurity Data Analytics

CONTEMPORARY ANALYTICS

Summer 2023

Dr. J. Kirk Atkinson, Professor – Analytics & Information Systems				
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Course Website: http://blackboard.wku.edu				
Office Hours				
M	**T**	**W**	**Th**	**F**
Appt Only	**Appt Only**	**Appt Only**	**Appt Only**	**Appt Only**

*I typically respond to email within 24 hours, Monday-Friday. I do NOT guarantee a response to emails over the weekend (Friday 9 PM – Monday 7 AM) but typically do respond.

COURSE DESCRIPTION

We will be using Blackboard® for the course homepage. Students are expected to check this site and their email on a regular basis.

This course provides a survey approach and hands-on experience in data analytics, visual analytics, and visual data storytelling.

Analytical tools like Tableau®, RapidMiner® (or equivalent), and PowerBI® will be covered to prepare students to be competent users of this technology. Artificial Intelligence may also be discussed with respect to how technology is quickly changing analytics.

COURSE LEARNING GOALS

- Major models in use in data analytics,

- A survey of popular software tools related to data analytics,

- Major obstacles to the use of Big Data

COURSE MATERIALS

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, <u>as long as they choose to opt out for all of their classes</u>.

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/.

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

★ Regular access to a computer with high-speed Internet
★ ***A Windows-based computer recommended (Mac's are usually okay, but some assignments may require a Windows PC!)***
★ **Microsoft Office latest edition (Excel 365).**
★ Cloud storage and/or USB Storage Device (e.g. WKU My Files)

COURSE TEXTBOOKS:

- Storytelling with data: a data visualization guide for business professionals by Cole Knaflic, Wiley (2015)
- Predictive Analytics and Data Mining: Concepts and Practice with RapidMiner, Kotu & Deshpande, 2013, 1e

Both texts are readily available as used, the links above are simply ONE source, but they are likely others.

Policies & Resources

REGULAR AND SUBSTANTIVE INTERACTION (RSI)

The U.S. Department of Education requires that distance education courses must include regular and substantive interaction between students and faculty. For more information about Regular and Substantive Interaction at WKU, please visit the Regular and Substantive Interaction in Online and Distance Learning webpage. In this course, regular and substantive interaction will take place in the following ways:

- •Weekly announcements & assignment feedback
- •Hosting (optional) synchronous online meetings that further explore course material and answer student questions. These synchronous online chats via Zoom sessions will be available each ***Monday from 7:00PM to 8:00PM Central Time***.

ACADEMIC HONESTY

Honesty in this course is assumed and expected. No form of academic dishonesty will be tolerated. Any student who commits any act of academic dishonesty will receive an F in this course. Please use APA format for any needed citations and references.

(Note that cheating might involve but not be limited to the following actions: "To represent written work taken from another source as one's own is plagiarism. Plagiarism is a serious offense. The academic work of a student must be his/her own. One must give any author credit for source material borrowed from him/her. To lift content directly from a source without giving credit is a flagrant act. To present a borrowed passage without reference to the source after having changed a few words is also plagiarism".)

Any offense may be reported to WKU Judicial Affairs.

Other Important Course WKU policy Information

EMAIL AND BLACKBOARD AS OFFICIAL MEANS OF COMMUNICATION

Each student must have an active WKU email address and a Blackboard account. Email and Blackboard are considered official communication tools of this class. If you use a different email package at home, please ensure that your WKU email is forwarded correctly. It is your responsibility to check WKU email and Blackboard regularly and to be aware of all class reminders and announcements.

ADDITIONAL COURSE POLICIES

1. The professor reserves the right to make changes to the syllabus as necessary; it is your responsibility to be aware of these announced changes.
2. Grades will be posted promptly on Blackboard after each assignment or assessment has been completed. Grades may be contested for **only 3 business days** after they are posted.
3. It is your responsibility to be familiar with the academic calendar as posted on the WKU website (https://www.wku.edu/registrar/academic_calendars/). Exceptions will not be made regarding late adds, drops, or final exam conflicts.
4. Incompletes and deadline extensions will **not** be allowed for this course except in rare medical emergencies.

Schedule exceptions are **not** allowed without prior permission from the course instructor.