CS 565 Data Mining

Spring 2021

Instructor:	Dr. Huanjing Wang
Office:	COHH 4139
Office Hours:	TR 9:00am-11:00am on zoom, other times by e_mail appointment
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Prerequisites:	CS 443/G or permission of instructor.
Credit:	3 credit hours
Course Website:	https://wku.blackboard.com

Catalog Description:	The theory and application of data mining, roots of data mining, preprocessing techniques for raw data, classification algorithms and techniques, clustering algorithms and techniques, association rule mining algorithms and techniques.

(Optional) Textbook:
Introduction to Data Mining by Pang-Ning Tan, Michael Steinbach, Anuj Karpatne, Vipin Kumar 2019 (2nd Edition) ISBN-13: 978-0133128901

Course Content:
We will attempt to cover the following topics, as time allows.
- Introduction to Data Mining
- Data preprocessing
- Measures of similarity
- Classification
- Association analysis
- Cluster analysis
- Anomaly detection

Grading:

Assignments	15%
Midterm	20%
Final	20%
Project	45%

Grading Policy:	A: 90-100	B: 80-89.9	C: 70-79.9	D: 60-69.9	F: <60

Attendance:
We have two zoom meetings and the rest is online; you are expected to be online for a period of time every day to check for communication from me and/or to check the discussion boards. The two meeting dates are:
Wednesday, January 20th, 5:30pm-6:30pm (Syllabus, Introduction to Data Mining)
Wednesday, April 21st, 5:30pm-6:30pm (Final project presentation)
Assignments:
- There will be one assignment in most weeks, due on Sundays at 11:59 PM. Late assignments are only accepted in extreme circumstances and with prior permission from Dr. Wang.

- **All submission must be your own work**. You may not take/give/submit a physical or electronic copy of any part of a solution to an assignment from anyone or any public resource. If it appears your work are essentially identical, then each participant will receive zero points and further actions may be taken.

Exam
- There will be one midterm and one final exam.
- No makeup will be given for exams under normal circumstances. If you can't attend the exam, you must get permission from the instructor first, AND you must have documented excuse.
- The exam exact dates will be posted on Blackboard at the start of the semester. You will take each exam in an approved testing center. There will be a "window of opportunity" to take each exam. These "windows of opportunity" will be three days (Thursday-Saturday), so it will be very important for to you to schedule your exam as soon as you are able (I will send a detailed email about this prior to the first exam). Each student will schedule their testing times online with the appropriate testing center. All students will take these exams on one of the allotted days at the time in which they scheduled to be at the testing center. The only exceptions will be for students that have written permission from the Student Accessibility Resource center. There will be no planned make-up exams, and missing an exam will result in a zero. Only under the most extenuating circumstances will a make-up exam be considered if the instructor is aware of an issue in advance. More information about exam procedures will be posted on Blackboard. Please note that exams will be given in addition to the usual weekly material; you do not get a week "off" for testing.

Testing Centers
WKU DELO Testing Centers does not charge a fee; however, the WKU Remote Proctoring Network includes proctor locations who charge for the proctoring services as well as those who do not charge. Students are responsible for payment of any proctoring fees if they choose to use a proctor who charges a fee for this service. Students are also responsible for any additional fees that might be associated with the use of a particular proctoring site, such as parking fees.

Cheating
- Copying from the internet and any other sources (such as senior students or classmates, etc.) is cheating. You can talk about lab assignments or projects together in general (NOT IN GREAT DETAIL) but you cannot exchange any written materials.
- Plagiarism and cheating will result in a zero for the course and will be reported to the Office of Judicial Affairs. Please read the following document: http://www.wku.edu/handbook

Credit for a course in which a grade of "F" has been received can be earned only by repeating the course in residence unless prior approval is given by the head of the department in which the course was taken.

WKU Covid-19 Mask Statement
Out of respect for the health and safety of the WKU community and in adherence with the CDC guidelines, the University requires that a cloth face covering (reusable or disposable) that covers both the nose and mouth must be worn at all times when in public areas within all buildings. Students must properly wear masks face coverings while in class regardless of the room size or the nature of the classroom activities. Students who fail to wear a face covering mask as required

will be in violation of the WKU Student Code of Conduct and will be asked to comply or will face disciplinary action, including possible dismissal from the University. Accommodations to masks face coverings must be determined by the Student Accessibility Resource Center and documented before a student may attend class.

Title IX Misconduct/Assault Statement
Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at
https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf and

Discrimination and Harassment Policy (#0.2040) at
https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf.

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 Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.

*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.*

Ogden Student Course Attendance Statement
The faculty and staff of Ogden College of Science and Engineering are committed to providing you with learning experiences and opportunities. You must assume ownership of your education and be an active participant in the classroom and laboratory to take advantage of these opportunities. **Active participation requires you to attend.** Scientific studies have shown that attendance during scheduled classroom and laboratory meetings is directly correlated to your performance on assignments and exams and the potential to earn higher grades. Additionally, if you do not regularly attend class, you are missing important information about course topics, due dates, and assignment details that are crucial to your success in the course. Therefore, as a student enrolled in an Ogden course, you are expected to attend every class meeting and to inform your instructor regarding the reasons for any absences as soon as practical. **Your instructor may incorporate class attendance/participation as part of the grading criteria.**

ADA Accommodation Statement
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 inDowning Student Union, 1074. 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