High Performance Computing
CS480

Instructor:	Erik Krohn
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Text Message Only:	608-492-1106
Class Time:	Tuesday & Thursday: 1:20pm - 2:50pm
Classroom:	Tuesday: Halsey 237, Thursday: Halsey 101C
Office Location:	Halsey 216
Office Hours:	Tuesday & Thursday: 3:00pm - 4:00pm
	Wednesday: 10:30am - 12:30pm
Prerequisites:	CS262 (preferably CS271)
Course Website:	https://uwosh.instructure.com/

Course Information
This course covers the core concepts of high performance computing with big data. Topics included Hadoop, Pig, Hive, Spark and parallel/distributed programming in Java.

Course Website
You should check canvas on a regular basis - it will contain lecture notes, handouts, assignments, announcements, and grades. I'll do my best to let you know when something new and important comes up, but it is your responsibility to check the web site frequently for information that you might not get otherwise.

Activities
Activities are given as a step-by-step introduction to a topic we are learning. They will generally guide you through the software we are using and show you how to use each tool. Each activity will end with small problems to ensure you have learned the basics of the software tool we are learning.

Projects
All projects involve looking at some larger dataset and answering questions about it.

New Topic
You will be responsible for learning a new tool or piece of software in this course. You will need to create an activity based on this tool. You will also be responsible for giving a 20 minute presentation in the course about the tool. You will also be responsible to creating an activity for your tool along with solving 4 activities created by your fellow students.

Topic Coverage

- Hadoop

- MapReduce

- Pig

- Hive

- Spark

- Parallel Computing

- Distributed Computing

Grading

Course grades will be based on activities, projects and your work on your new topic. Your final grade will be computed with the following percentages:

- 18% - activities

- 48% - projects

- 10% - new topic presentation

- 12% - new topic activity

- 12% - completion of new topic activities

If you believe anything was graded incorrectly or unfairly and would like to have it regraded, you must let me know about it within *one week* of having the item graded. I will regrade the entire submission and you may gain or lose points.

Grading will be on a plus/minus system. Grading may be done on a curve depending on the overall performance of the class. If no curve is used, your grade will be computed based on the following:

Percentage	Grade	Percentage	Grade
≥ 92	A	72 - 78	C
90 - 92	A-	70 - 72	C-
88 - 90	B+	68 - 70	D+
82 - 88	B	62 - 68	D
80 - 82	B-	60 - 62	D-
78 - 80	C+	< 60	F

Other Information

1. Attendance is not taken in this course. However, you are unlikely to do well if you miss lecture.

2. **Academic dishonesty** of any kind will not be tolerated. All assignments, labs, mini assignments and exams are to be completed individually. While discussion of ideas and problems with fellow students is encouraged, all projects and labs must be done individually. In certain circumstances, code fragments from the instructor may be provided to eliminate tedious coding or to provide a common framework for all students. **All other code must be original**. Online resources may be used to help you understand the material, but you may not copy online code nor can you "borrow" code from other students, past or present.

   Any suspected academic dishonesty will be dealt with on a case-by-case basis. Any clarification of what does or does not constitute academic dishonesty must take place **before** you turn in questionable work. For clarification on what constitutes academic dishonesty, contact me or consult the printed policy in the UWO Student Discipline Code, Chapter UWS 14.

3. If you are in need of accommodations for this course, please see the Dean of Students for assistance: https://www.uwosh.edu/deanofstudents/Accessibility-Center/student-resources

4. Students are advised to see the following URL for disclosures about essential consumer protection items required by the Students Right to Know Act of 1990: https://uwosh.edu/financialaid/consumer-information/.

5. If any substantive changes are made in the course syllabus, such as changes in schedule or assignments, notification will be provided in a timely manner and a revised syllabus will be made available.