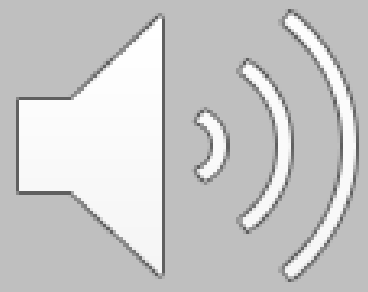


Iterative Improvement for First Year Data Science Courses



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Introduction

- Continuously improve DASC courses at the University of Arkansas from year to year
- Four courses: DASC 1001, 1222, 1104, and 1204

Methods

- Use student feedback to propose possible improvements to the data science program
- Focus areas include:
 - Homework/Projects
 - Course pacing
 - Course Syllabi
 - Lecture Topics

Key Changes

- Significant changes to course schedules to improve student workloads and make space for additional activities
- More opportunities for group projects
- Shift assignment due dates to be more consistent throughout the semester

DASC 1001 - Introduction to Data Science - Fall 2021						
Week	Date	Day	Title - Lesson Plan	Drill	Homework	Peer Mentoring
1	23-Aug	Monday	Introduction to Course & Class Concept Map			Welcome Carnival/ First Meeting
	25-Aug	Wednesday	Data Science & Data Scientists			
	27-Aug	Friday		FYDS Policies/ Academic Honesty		
2	30-Aug	Monday	Data Science & Data Scientists			UARK Basics/College Level Learning
	1-Sep	Wednesday	Student Introductions			
	3-Sep	Friday		Career Development		
3	6-Sep	Monday	[No Class - Labor Day]			Homework/Test Prep
	8-Sep	Wednesday	Data Science in Today's World			
	10-Sep	Friday		Study Abroad		
4	13-Sep	Monday	The Data Science Analytics Process I			Time Management
	15-Sep	Wednesday	The Data Science Analytics Process II			
	17-Sep	Friday		Teach Yourself How to Learn		
5	20-Sep	Monday	Data and Crit. Thinking, Intro to Case Studies I			Goal Setting/STEM Career Fair
	22-Sep	Wednesday	Intro to Case Studies II			
	24-Sep	Friday		CIS: BIOF & BMHI		
6	27-Sep	Monday	Data, Ethics, and Privacy			Advising Meeting Prep
	29-Sep	Wednesday	***STEM Career Fair@Bud Walton***			
	1-Oct	Friday		Case Study Workshop		
7	4-Oct	Monday		CS I: MMR - Part 1		Campus Resources & Professor Interactions
	6-Oct	Wednesday		CS I: MMR - Part 2		
	8-Oct	Friday	***STEM Virtual Career Fair(Thu, Oct 7)***	CIS: ACCA & BUDA		

This is a suggested schedule made for one of the First Year Data Science Courses.



Microsoft OneDrive, Word and Excel are the resources we used to create the documents for proposed changes and schedules in a way that we could collaboratively work on them



Results

- Course instructors were given presentations over the proposed changes to implement for the next cohort of students
- This process will continue each year to iteratively improve the program

Conclusions

- The First Year Data Science classes went well. However, due to Covid related adjustments that needed to be made, and the fact that all the classes were brand new, there are iterative changes that could be made to continue the momentum of the direction the program has been heading in so far.

Acknowledgements

- Course Instructors:
- Dr. Karl Schubert – DASC 1001,1222
 - Dr. Rebekah Samsonraj – DASC 1001, 1222
 - Dr. Andrew Alverson – DASC 1104
 - Dr. John Tipton – DASC 1104
 - Dr. John Gauch – DASC 1204