

Data Structures & Algorithms

2018 – 2019

Course Description

Data Structures & Algorithms is the next course in the computer science progression following AP Computer Science A. It extends the concepts introduced AP CS, including object-oriented programming with Java. The course begins with a brief introduction to machine learning and data science. Additionally, students will explore the mathematical and theoretical bases of modern computer science, including analysis of fundamental algorithms and their relative efficiencies, computational complexity, and the specific coupling of data structure to computational task. Data structures explored include Linked Lists, Stacks, Queues, Heaps, Hash Tables, Trees, and Graphs.

Instructors' Contact Information

Instructor	Email	Office	Office Hours Availability				
			Monday	Tuesday	Wednesday	Thursday	Friday
Ian Frame	iframe@lwsd.org	227	6:45 – 7:30 2:30 – 2:50	6:45 – 7:30 2:30 – 2:50	6:45 – 7:30	6:45 – 7:30 2:30 – 2:50	6:45 – 7:30 2:30 – 2:50
Bethany Kankelborg	bkankelborg@lwsd.org	222	7:10 – 7:30 2:30 – 3:30	7:10 – 7:30 2:30 – 3:30	7:10 – 7:30	7:10 – 7:30 2:30 – 3:30	7:10 – 7:30 2:30 – 3:00

Grading

Homework/Labs	10%
Engagement and Professionalism	10%
Project Presentation	10%
Projects	35%
Tests	35%

Parent Note

- Late work will be marked as missing in Skyward no later than the day after it is due. We encourage parents to ensure they are receiving the missing report emails from Skyward.
- All parents will have access to PowerSchool and will be able to see the calendar with all assignments and assessment dates. Please check this regularly.
- Late work will earn a full letter grade penalty and no late work will be accepted more than one week past the due date.

Academic Integrity & Plagiarism

Plagiarism is taken very seriously in this course. All assignments will be submitted to a plagiarism detector. Each assignment will have its own collaboration policy, but a good rule of thumb is to limit your interactions with classmates to “high-level whiteboard” conversations. Using another student or another group’s code, even with citations, may constitute cheating. When you submit an assignment, you are claiming the work as your own and will be held responsible for being able to explain it should a question of integrity arise. **When you are unsure if something constitutes plagiarism, please ask your teacher!**