

Computer Science 270 : Data Structures

This course addresses the representation, storage, access, and manipulation of data. We discuss appropriate choices of data structures for diverse problem contexts. We consider abstract data types such as stacks, queues, maps, and graphs, as well as implementations using files, arrays, linked lists, tree structures, heaps, and hash tables. We analyze and implement methods of updating, sorting, and searching for data in these structures. We develop object-oriented programming concepts such as inheritance, polymorphism, and encapsulation. We consider implementation issues including dynamic memory management, as well as tools for programming in the large.

Credits 4

Prerequisite Courses

[Computer Science 167: Introduction to Computational Problem Solving](#)