

## CS 570 Introduction to Programming, Data Structures, and Algorithms Course Outcomes

Each course outcome is followed in parentheses by the Program Outcome to which it relates.

- Write programs using basic statements, data types, expressions, control flow, library functions, and I/O functions. (1)
- Write classes and use inheritance to extend an existing class. (1)
- Write programs that include recursive algorithms. (1)
- Describe the notion of abstract data types and their use in object-oriented designs. (1)
- Implement basic data structures such as vectors, linked lists, stacks, and queues. (1)
- Use and/or implement basic tree data structures such as binary trees, priority queues, and balanced trees. (1)
- Use and/or implement hashing. (1)
- Use and/or implement fundamental graph algorithms such as topological sort, shortest path, depth-first search, and breadth-first search. (1)