CSCI1122 - Computer Science II

Credits:	4 (4/0/0)
Description:	This course focuses on advanced programming concepts including an introduction to data structures, analysis of algorithms, recursion, searching, sorting and memory management.
Prerequisites:	• CSCI1121
Corequisites:	
Pre/Corequisites*:	
Competencies:	1. Differentiate between recursive and non-recursive programs. 2. Construct programs using recursion. 3. Write programs using objects. 4. Differentiate between dynamic and static storage allocation. 5. Utilize indirect addressing techniques. 6. Measure the efficiency of algorithms. 7. Implement data structures including arrays, linked lists, stacks, queues, pointers, and binary search trees. 8. Employ sorting algorithms including Selection Sort, Bubble Sort, and Merge Sort. 9. Utilize searching algorithms including Linear Search and Binary Search. 10. Analyze memory management issues related to searching and sorting algorithms. 11. Create simple classes. 12. Build complex classes using inheritance.
MnTC goal areas:	None

**Can be taking as a Prerequisite or Corequisite.*