CISC106: Objectives and Schedule

<u>Required</u>: Memory Stick, or flash memory drive is needed for lab work, if you do not plan on bringing your laptop to the lab sessions.

COURSE DESCRIPTION

This course teaches principles of computer science illustrated and applied through programming in a general-purpose language. Programming projects illustrate computational problems, styles, and issues that arise in computation.

COURSE OBJECTIVES:

By the end of course, you should be able to do all of the following.

- 1. Develop abstract, computational data models
- 2. Follow and explain an explicit Design Recipe to go from an idea to a final program
- 3. Develop test procedures for programs
- 4. Write programs over atomic data, classes, mixtures of data, and data of arbitrary size
- 5. Use basic input and output libraries for text, graphics, plots, and files
- 6. Use function composition correctly
- 7. Use conditional statements correctly
- 8. Explain state, mutation, and scoping in programming
- 9. Write iterative programs using for and while loops
- 10. Write recursive programs
- 11. Familiarity with basic searching and sorting algorithms
- 12. Recognize basic time/space behavior of simple programs
- 13. Abstract over and analyze simple programming patterns (refactoring)
- 14. Write programs for numeric problems

Week of:	Course Objectives	Text
Feb 7	Introduction, Computer Components, Course Objectives 1,2	1, 2.1-2.7
Feb 14		
Feb 21		
Feb 28		