# Computer Science 2

# Programming Assignment 2

# 2D Arrays

# 60 Points

**Schedule Program for Winter at the State Park**

A local state park is having a “Winter Fun” event. Interested people can sign up to compete in the following activities: skiing, curling, ice skating, and sledding, on 5 consecutive Saturdays.

Write a program that the park can use to record enrollment in the event. Use a 2D array to hold the number of people participating in each activity, on each Saturday, where the activities are columns and the days are rows.

Provide a menu with the following options:

1. Enroll in an activity. (Ask the user for the activity and day)
2. Print the current enrollment. (Display entire array in a table with row and column headings, include the row totals, column totals, and overall total)
3. Exit

Your program must be modular, with separate functions for options 1 and 2 and also separate functions to find the row totals, column totals, and overall total.

Design your program by completing the CS 250 Program Design Document. Be sure to include a structure chart for the program, a prototype for each function and time estimates for program design, coding each function, program testing, and total time. Save the design in a file named WinterFunDesign\_xxx.doc where xxx are your initials. Submit your program design in the Program 2 Design drop box in D2L by the beginning of the class preceding the program due date.

Write your program and save it in a file named winter\_xxx.cpp where xxx are your initials. Compile, run and test your program.

Update your Program Design Document by updating the structure chart, function descriptions, and function prototypes to fit your working program. Add the final times based on the time you actually spent on your program. Save the updated document.

Submit your final Program Design document and working .cpp file in the Program 2 drop box by the due date shown in the D2L calendar and drop box tools.