

CSC 2111 Lab 19

Objectives:

1. Handling exceptions within a program
2. Using *try/catch* block
3. Creating exception class

Question:

Design a program that repeatedly asks for the dimensions (length and width) of a rectangle and computes the area. Consider a class *Rectangle* which includes the following two functions:

```
void Rectangle::setWidth(int width);  
void Rectangle::setLength(int length);
```

If the length and width are positive, then above functions store the values in the *Rectangle* object. However, if the length and width are negative, the functions throw an object of *DimError* class that includes a message indicating which method was called and the reason for the error.

Note: *DimError* class is used by the *Rectangle* class for showing error messages.

Download lab19.cpp to get the driver function. Submit one single cpp file named as *lastname_firstname_lab19.cpp*

Output:

```
C:\WINDOWS\system32\cmd.exe  
Enter a length: 6  
Enter a width: 3  
The area is: 18  
Enter a length: 12  
Enter a width: -3  
Couldn't set the rectangle's dimensions:  
setWidth called with a negative width.  
Exiting...  
Press any key to continue . . .
```