# CAP 4612

## Group Project (100 points)

Students will work in groups (of three or four students) to work on a real world dataset as discussed in the class to:

(a) implement the following algorithms:
- The Relief Algorithm for feature ranking and selection.
- One of the classification algorithms that was explained in the class.

(b) Use one the machine learning software tools that was discussed in the class to design and apply an Artificial Neural Network that can be used for the classification process.

You need to submit:

(a) Your complete source code
(b) Project presentation slides.
(c) A project report that includes:
- Discussion of the used dataset
- Discussion of the complexity of the implemented algorithms
- Discussion of the selected features
- Discussion of the used classifiers
- Screenshots of the results using different algorithms.
- Discussion of the testing results for the datasets that was used for testing.
- The results should include the used features, the classification accuracy, and the resultant confusion matrix.