# Assignment 10

# Clustering

*The purpose of this assignment is to use Python to learn how to perform K-means clustering in Python.*

This assignment provides you with an opportunity to demonstrate the achievement of the following course learning outcomes:

* Understand and apply the Python programming language
* Understand and be able to implement mean shift clustering on a given dataset

Key Information

* **Type:** *Individual*
* **Weight:** 6.25%
* **Delivery:** Course website upload
* **Due Date:** End of lab session

## Expectations

You are expected to complete this assignment individually.

Respect for academic integrity is crucial to your success. Make sure you understand what constitutes acts of academic dishonesty in the page: [What is Academic Dishonesty?](http://mcmaster.ca/academicintegrity/students/whatis.html)

## Instructions

*UsingPython, you are to complete the following questions.* ***Please submit your answers (CODE USED AND OUTPUT) as PDF* *files to the course website submission folder.***

*Please answer following questions:*

1. *Define mean shift clustering?*
2. *Implement mean shift from the ground up.*
3. *Use the make\_blob function from previous last as a test sample.*

## Rubric

To achieve full marks on this assignment, you must have answered all questions above correctly with code submitted that has no errors.