COMP3201 Fall 2018

## **Assignment 2**

Published: 2018-09-25 Due: 2018-10-05

Write an evolutionary algorithm to solve the Eight Queen puzzle.

## Task 1:

Initialization

Fitness evaluation

Mutation (swap two elements)

Crossover (cut and crossfill)

The provided python code files include:

main.py - The main program file which will be used to run your code

(2 mark) **initialization.py** - Complete this method that generates a population of permutations

(3 marks) **evaluation.py** - Complete this method that evaluates the fitness of a permutation

(2 mark) **mutation.py** - Complete this method that implements the swap mutation for a permutation

(3 marks) **recombination.py** - Complete this method that implements the *cut-and-crossfill* recombination for two chosen permutations

Please submit your completed **initialization.py, evaluation.py, mutation.py, and recombination.py**. <u>Do not need to submit **main.py**</u>.