

Faculty of Science

**Course**: CSCI 3070U: Design and Analysis of Algorithms

**Tutorial:** #9

**Topic:** Minimum spanning tree

In this tutorial, you will develop an algorithm to compute the second best minimum spanning tree for a given undirected graph G=(V,E).

1. Write the pseudocode or outline for the algorithm
2. In the language of your choice (C, C++, Java, Python):
   1. Write an adjacency list implementation for a graph
   2. Implement your algorithm to find the second-best spanning tree
3. Determine the running time complexity for your algorithm, in terms of |V| and |E|