

# CS 403 Algorithm Design & Analysis Lab

## Assignment 5

- Submit a report (with full explanation of your algorithm's running time and complexity) along with the codes and read me file in a zipped folder. The report should be in PDF format as a single document. If you want to assume something during coding, then mention in your report.
  - The deadline of submission is **11:59 am 25 April 2018** . Late submissions will have **penalty of 15% per day** (that is 15% per day will be reduced on the score you achieve as the late submission penalty).
  - You have to do code for all questions and give a good explanation in your report. Your reports would be evaluated thoroughly. Please provide pseudo codes in report.
  - We will provide test data sets at the time of evaluation. In that case, your code should be well generalized. Analyze your codes with different test sets during implementations of algorithms.
  - Submit your assignments **only** to coursetacs403@gmail.com
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- 1) Implement an algorithm to find maximum flow by choosing good augmenting paths (Scaling Algorithm, see section 7.3 of the textbook).
  - 2) Implement max-flow algorithm to find a matching in a graph of largest possible size (see section 7.5 of the textbook).
  - 3) Implement an algorithm to solve the directed edge-disjoint paths problem (see section 7.6 of the textbook).