

CAS 702  
Fall 2018  
Instructor: Dr. George Karakostas

<http://www.cas.mcmaster.ca/%7Egk/courses/CAS702.html>

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Amongst other topics, the course covers the following:

- Binomial heaps, an example of worst-case analysis
  - Amortized analysis
  - Fibonacci heaps, an example of amortized analysis
  - Hash tables, an example of randomized analysis
  - Greedy algorithms and matroids
  - Dynamic programming and all-pairs shortest paths
  - Maximum flow
  - Linear Programming and Duality
  - Primal-Dual schema as an algorithmic design tool
  - Approximation algorithms
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