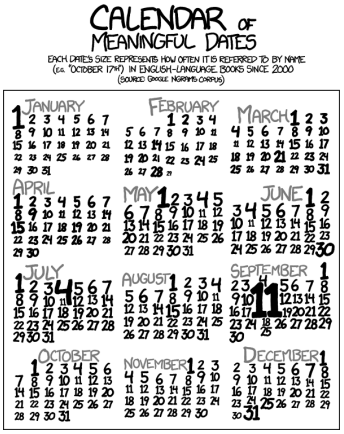
(Proposed) Course Calendar

CSE 5211 Analysis of Algorithms

Spring 2018 (January 1, 2018)

This course calendar predicts when class events are expected to happen. It is not written in stone. Nothing is certain. Things may change. Pay attention. It will be updated, but it may not be up to date. Colors are used to indicate an exam or assignment due date, a holiday, or a link to additional information. References the course include (Cormen et al., 2009), (Kleinberg and Tardos, 2006), and (Stinson, 1987).



Calendar of meaningful dates

Week 1

- Monday, January 8:
  - Course structure (Syllabus)
  - Canvas: course management system
- Wednesday, January 10:
  - Personal Project
  - Team Project: Algorithmics Workshop
- Friday, January 12:
  - Overview of Questions and Problems

Week 2

- Monday, January 15: Martin Luther King Jr. Holiday
- Wednesday, January 17:
  - Research groups for Algorithmics 2018 assigned
  - Algorithms
  - Algorithm Design: Maximum Subsequence Sum Problem
- Friday, January 19:
  - Mathematical tools for algorithm analysis

Week 3

- Monday, January 22:
  - Team request projects
  - More mathematical tools for algorithm analysis
- Wednesday, January 24:
  - More mathematical tools for algorithm analysis
- Friday, January 26:
  - Representative problems and algorithms

Week 4

January

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May

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- Monday, January 29:
  - Representative problems and algorithms
- Wednesday, January 31:
  - The Divide-and-Conquer Paradigm
- Friday, February 2:
  - Quicksort

Week 5

- Monday, February 5:
  - Teams email progress reports to instructor
  - Quicksort
- Wednesday, February 7:
  - Teams meet with instructor
  - Order statistics
- Friday, February 9:
- Teams meet with instructor
- Numerical analysis: Fast Discrete Fourier Transform

Week 6

- Monday, February 12:
  - Numerical analysis: Newton's Method
- Wednesday, February 14:
  - The Greedy Paradigm
- Friday, February 16:
  - The Greedy Paradigm

Week 7

- Monday, February 19: President's Day
- Wednesday, February 21:
  - The Greedy Paradigm
- Friday, February 23:

Week 8

- Monday, February 26:
  - Teams email progress reports to instructor
- Wednesday, February 28:
  - Teams meet with instructor
  - Midterm Review
- Friday, March 2:
  - Teams meet with instructor

January

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May

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- Midterm Examination

Week 9

- Monday, March 5: Spring Break
- Wednesday, March 7: Spring Break
- Friday, March 9: Spring Break

Week 10

- Monday, March 12:
  - Teams email progress reports to instructor
  - The Dynamic Programming Paradigm
- Wednesday, March 14:
  - The Dynamic Programming Paradigm
- Friday, March 16:
  - The Dynamic Programming Paradigm

Week 11

- Monday, March 19:
  - Graph Algorithms
- Wednesday, March 21:
  - Graph Algorithms
- Friday, March 23:
  - The Backtracking Paradigm

Week 12

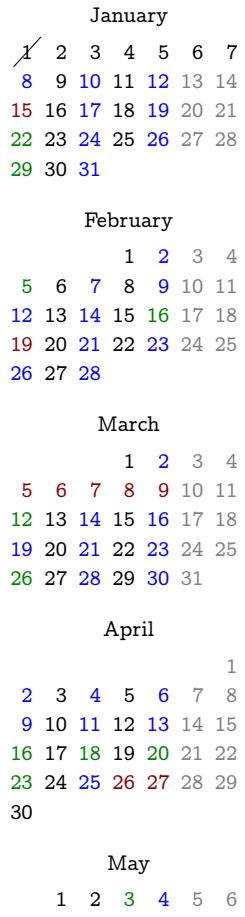
- Monday, March 26:
  - Teams email progress reports to instructor
  - The Backtracking Paradigm
- Wednesday, March 28:
  - Teams meet with instructor
  - The Backtracking Paradigm
- Friday, March 30:
  - Teams meet with instructor

Week 13

- Monday, April 2:
- Wednesday, April 4:
- Friday, April 6:
  - Complexity

Week 14

- Monday, April 9:



  - Complexity
- Wednesday, April 11:
  - Computability
- Friday, April 13:
  - Computability

Week 15

- Monday, April 16: Algorithmics Workshop (Teams 1 & 2)
- Wednesday, April 18: Algorithmics Workshop (Team 3 & 4)
- Friday, April 20: Algorithmics Workshop (Team 5 & 6)

Week 16

- Monday, April 23: Algorithmics Workshop (Team 7 & 8)
- Wednesday, April 25:
  - Course review
  - Teammate and presentation evaluations completed
  - Final report submitted on course management system
- Friday, April 27: Study Day

Week 17

- Monday, April 30: Final Examination, Crawford 210, 1:00 p.m. to 3:00 p.m.

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May

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References

Cormen, T. H., Leiserson, C. E., Rivest, R. L., and Stein, C. (2009). *Introduction to Algorithms, Third Edition*. The MIT Press, 3rd edition. [page 1]

Kleinberg, J. and Tardos, E. (2006). *Algorithm Design*. Pearson. [page 1]

Stinson, D. R. (1987). *An Introduction to the Design and Analysis of Algorithms*. The Charles Babbage Research Center, P. O. Box 272, St. Norbert Postal Station, Winnipeg, Manitoba R3V 1L6, Canada, second edition. [page 1]