



▶ Graph algorithms?

▶ Schedule

- 14 weeks
- Course: Mon. 11:15 (room 301)
- Exercises: Mon. 14:15 (room 301)

▶ Evaluation

- Exam
- Mini-project or mini-course

▶ People

- Arnaud Casteigts (course)
arnaud.casteigts@unige.ch
- Matteo De Francesco (exercises)
matteo.defrancesco@unige.ch

▶ Resources

- <https://arnaudcasteigts.net/teaching/>
- + Moodle (exercises, communication)

▶ Content (indicative)

1. Definitions and basic concepts
2. Traversals, connectivity testing, shortest paths
3. Minimum spanning trees and matroids
4. Maximum matchings in bipartite graphs
5. Random walks & the page rank algorithm
6. Mini-course on computational complexity (NP-hardness, reductions)
7. Graph coloring, Independent sets, Cliques
8. Approximation & Fixed-parameter tractability
9. Distributed graph algorithms
10. Temporal graph theory (I)
11. Temporal graph theory (II)
12. Temporal graph theory (III)
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13. Student presentations (I)
14. Student presentations (II)