

**DISTRIBUTED ALGORITHMS (ALSO DISTRIBUTED ALGORITHMS FOR COMPUTER NETWORKS)**  
**COURSE INFORMATION**

**Instructor:** Assoc. Prof. Dr. Orhan Dagdeviren ([www.orhandagdeviren.com](http://www.orhandagdeviren.com) )

**Course Web Page:** <http://netos.ube.ege.edu.tr/courses.html>

**Time:** Tuesday, 9:30-12:00 (Other course: Thursday, 18:00-20:30)

**Assistant:** Res. Ass. Can Umut Ileri ( e-mail: [canumutileri@gmail.com](mailto:canumutileri@gmail.com) )

**Aim and Content:**

- This course aims to study distributed algorithm design, analysis and implementations.
- The course will especially cover distributed graph algorithms.
- Both theoretical (algorithm design and analysis) and practical aspects (implementation) of the topics will be introduced.

**Course Book:** Distributed Graph Algorithms for Computer Networks, Kayhan Erciyes, Springer, 2013.

**Supplementary Materials (Not Full List):**

1. Gerard Tel, Introduction to Distributed Algorithms (2nd ed.), Cambridge University Press, 2000.
2. Nancy Lynch, Distributed Algorithms, MIT Press, 1997.

**List of Topics:**

1. Introduction to Distributed Algorithms
2. Graphs
3. The Computational Model
4. Spanning Tree Construction
5. Graph Traversals
6. Minimum Spanning Trees
7. Routing

**Tentative Grading:**

Programming Homeworks: 15 % (2 homeworks)

Written Homeworks: 20 % (6 homeworks)

Paper Presentation: 15 %

Final: 25 %

Project: 25 %

**Attendance.**