

DISTRIBUTED SYSTEMS COURSE INFORMATION

Course Name: Distributed Systems (see web page: Teaching Link from my personal web page www.orhandagdeviren.com)

Instructor: Assist. Prof. Dr. Orhan Dagdeviren (see web page for instructor information)

Assistant: Res. Ass. Elif Acar Haytaoğlu (e-mail:elif.acar@ege.edu.tr, web page: <http://ube.ege.edu.tr/~acar/>)

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 an analysis) and practical aspects (implementation) of the topics will be introduced.
- “Distributed Algorithms” course is the unofficial prerequisite course for this lesson.

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

Supplementary Metarials (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. Minimum Spanning Trees
2. Routing
3. Self-Stabilization
4. Vertex Coloring
5. Maximum Independent Sets
6. Dominating Sets
7. Matchings
8. Vertex Cover

Tentative Grading:

Course Presentation: 20 %

Homeworks (5-6 homeworks): 20 %

Final Project: 60 %

Complementary exam will be based on final project.

Attendance.