FMB 068

# GENERAL TOPOLOGY
FALL 2010-2011

INSTRUCTOR: Mert Çağlar

TIMETABLE: Will be announced

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ASSESSMENT: One mid-term and one final examination, and several homework assignments will be given during the semester. The letter grade of the student will be determined upon considering the exams and the homeworks along with student's participation to the course.

PRE-REQUISITIES: Solid background in basic Real Analysis.

PRINCIPAL TEXTBOOK: S. Willard, *General Topology*, Dover Publications, Mineola, NY, 2004.

### PROGRAMME

| WEEKS | SUBJECTS TO BE COVERED |
|---|---|
| 1 & 2 | Set theory and metric spaces |
| 3 & 4 | Topological spaces |
| 5 & 6 | New spaces from old |
| 7 & 8 | Convergence |
| **Will be announced** | **Mid-term Exam** |
| 9 & 10 | Separation and countability |
| 11 & 12 | Compactness |
| 13 & 14 | Metrizable spaces and connectedness |
| **Will be announced** | **Final Examination** |

SUGGESTED READING:

- J. Dugundji, *Topology*, Eighth printing, Allyn and Bacon, Inc., Boston, 1973.

- R. Engelking, *General Topology*, Revised and completed edition, Heldermann Verlag (Sigma series in pure mathematics, Vol. 6), Berlin, 1989.

- John L. Kelley, *General Topology*, (Reprint of the 1955 ed. published by Van Nostrand, New York), Graduate Texts in Mathematics 27, Springer, 1975.