

Northeastern University
Department of Electrical and Computer Engineering
ECEU686 / ECEG104 Electric Machines

Course Syllabus

Course Goals:

The course is intended for advanced undergraduate and beginning graduate students. Reviews phasor diagrams and three-phase circuits; the magnetic aspects including magnetic circuits and permanent magnets; transformers, their equivalent circuits, and performance; principles of electromechanical energy conversion; and elementary concepts of rotating machines including rotating magnetic fields, steady-state theory, and performance of induction machines, synchronous machines, and direct-current machines.

Instructor: Alex Stankovic, 303 Dana, 373-3007, astankov@ece.neu.edu

Subject text: Mulukutla S. Sarma, *Electric Machines*, (2-nd ed.), West Publishing Co., 1994.

Grading policy:

ECEU686: there will be a midterm exam (50 % of the total grade) and a final exam.

ECEG104: there will be a midterm exam, a class project (with presentation) and a final exam, each contributing equally to the final grade.

Homework:

There will be weekly and biweekly homeworks in this course. Although homeworks do not contribute to the final grade directly, they are essential for understanding the course material.