

# Lecture 1: Introduction

---

**Instructor:**

Dr. Gleb V. Tcheslavski

**Contact:**

[gleb@ee.lamar.edu](mailto:gleb@ee.lamar.edu)

**Office Hours:**

TBD; Room 2030

**Class web site:**

<http://www.ee.lamar.edu/gleb/power/Index.htm>



## Pre-requirements

---

Classes:

- ELEN 3312 Circuits II
- ELEN 3371 Electromagnetics

Topics:

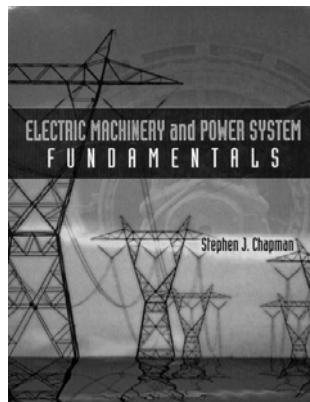
- DC and AC Circuits;
- Calculus-Based Physics in Electricity and Magnetism;
- Analytic Geometry and Calculus II including Vector Analysis and Vector Calculus;
- Linear Algebra.



## Your textbook

---

*Electric Machinery and Power System Fundamentals*, Stephen J. Chapman, McGraw Hill Publishers, 2002, ISBN 0072291354.



## Class structure and your grades

---

Five to ten homeworks, two midterm exams, and the final exam.  
Exams are closed books/notes.  
Homeworks and exams are covered by the Academic Honor Code

**Attendance Policy:** Attendance is mandatory with exemptions of individual or family emergencies, health conditions etc. Valid documentation will be required. You are highly **ADDVISED** to attend all lectures! Your attendance may affect your final grade.


NO late homeworks will be accepted!

Tentative grading weights:

Homework	Midterms	Laboratory	Final exam
20%	10%+15%	30%	25%

Final exam: Thursday, **May 7, 11:00 am**

## Styles, notations, legends...

- Colors:
  - Normal text and formulas
  - Something more important (imho)
  - Important formulas and results
  - Very Important Formulas
  - Miscellaneous
- Equations notations: (2.17.3)
  - Lecture #
  - Slide #
  - Formula #
- [xx] next to the formula or in text indicates units.
- Matlab logo:  indicates the corresponding Matlab function

## Some history



Nikola Tesla (Никола Тесла) (10 July 1856 – 7 January 1943) was an inventor, physicist, mechanical engineer and electrical engineer. Born in Serbia, he later became an American citizen. Tesla is best known for his many revolutionary contributions to the discipline of electricity and magnetism in the late 19th and early 20th century. Tesla's patents and theoretical work formed the basis of modern alternating current electric power (AC) systems, including the poly-phase power distribution systems and the AC motor, with which he helped usher in the Second Industrial Revolution.



According to legend, Tesla was born precisely at midnight during an electrical storm...