



# Faculty of Engineering and Technology

Department of Electrical and Computer Engineering

## ENEE 2408 – Electrical Machines

2<sup>nd</sup> semester 2018/2019

### Course Outline

Instructor

- Dr. Mahran Quraan  
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Office Hours

- N/A

Teaching Assistant

- N/A

Contact Hours

- 4 credit hours
- Lectures:  
4 hours x 16 weeks = 64 hours

Prerequisites:

- ENEE 2301  
Network Analysis I

Course Website:

N/A

### Important Dates

- First Exam  
Sunday, 17/03/2019
- Second Exam  
Sunday, 05/05/2019

### Course description

The course aims to understand the characteristics, construction, and operation of transformers and electrical machines such as synchronous machines, induction motors, and DC motors.

### Course Content

The following topics will be covered:

- Introduction to machinery principles
- Transformers
- AC machinery fundamentals
- Synchronous machines
- Induction machines
- DC machinery fundamentals
- DC machines

### Textbook

Electric Machinery Fundamentals, by Stephen J. Chapman, 5<sup>th</sup> edition

### Learning Outcomes

1. To provide basic knowledge and theories of AC electric machines.
2. To provide basic knowledge and theories of DC electric machines.
3. To provide basic knowledge and theories of transformers.

### Evaluation

1 <sup>st</sup> & 2 <sup>nd</sup> Exams	40 %
Final Exam	40 %
Quizzes	10 %
project	10 %