**Instructor:** Dr. Keith Corzine

**E-mail:** Corzine@Clemson.edu

**Office:** 213 Riggs Hall

**Phone:** 864-656-5925

**Office Hours:** Tuesday and Thursday 9:30am-11:00pm, Wednesday 3:30pm-4:55pm

**Text:** P.C. Krause, O. Wasynczuk, S.D. Sudhoff, *Analysis of Electric Machinery and Drive Systems*, Wiley-IEEE Press, 2001.

**Course Contents:**

* Mechanical systems and control
* Dc motor drives (Chapters 2, 11, and 12)
* Permanent-magnet synchronous machines (Chapter 6)
* Inverters and modulation (Chapter 13)
* Brushless dc drives (Chapters 6 and 15)
* Induction machines (Chapter 4)
* Induction motor drives (Chapter 14)
* Power conversion and drive systems (Chapter 15)
* Additional motor drive topics

**Grading:**

Homework 20

Projects 20

Quizzes 20

Exams (2) 30

Class Attendance 10

**Notes:**

* A number of software packages will be used for this course. Matlab/Simulink and/or PSCAD is required for some simulation assignments.
* Late assignments will be graded using the versatile arctangent function as follows:



where *D* is the number of days elapsed between the day when the assignment was due and the day it was turned in.

* Discussing assignments with classmates is acceptable, but plagiarism will result in a grade of zero for the assignment.
* Neatness is expected on homework and exams and will be part of the grade.
* Students taking this course as ECE619 will be assigned more in-depth class projects and will be required to carry out and potentially present a project in their related field of study.
* Consistent class attendance is expected and included in the course grade. If it is not possible to attend class, please e-mail the instructor with the reason and arrange to obtain a copy of the course notes from a classmate.
* It is requested that students review the information on academic integrity at

<http://www.clemson.edu/academics/academic-integrity/>

*As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a “high seminary of learning.” Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.*

* “It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities. Students are encouraged to contact Student Disability Services to discuss their individual needs for accommodation.” Any student with an official Clemson University recognized learning disability must inform the instructor within the first week of class meetings so that arrangements can be made to meet the student’s needs. Details on policies and procedures are available at [www.clemson.edu/sds](file:///C:\Users\Nikitas\AppData\Local\Temp\www.clemson.edu\sds).
* This syllabus may be changed at any time during the course; with adequate notice to students given.