



## ECGR 2112-01 "Network Theory II"

Department of Electrical and Computer Engineering

Fall 2014

**Catalog Copy: ECGR 2112. Network Theory II. (3)** Prerequisites: ECGR 2111, MATH 2171, and PHYS 2102, all with a grade of C or above. Continuation of ECGR 2111. Introduction to sinusoidal steady state. Time frequency domain analysis. Power and energy. Two port networks. Fourier series. Introduction to Fourier and Laplace transforms.

**Textbook:** Nilsson and Riedel, "*Electric Circuits, 9/E*", Prentice Hall, 2011.

Package ISBN-10: 0132785714 | ISBN-13: 9780132785716

(this package includes MasteringEngineering Access Code)

(MasteringEngineering Course ID is **MIRI2112F14**)

**Mastering Website:** <http://www.masteringengineering.com>

**Class Schedule:** This class meets TR 3:30-4:45pm in EPIC-2222. No recitation is scheduled for this class.

**Course Learning Outcomes:** The objective of this course is for students to learn the fundamentals of ac circuit analysis and computer simulation.

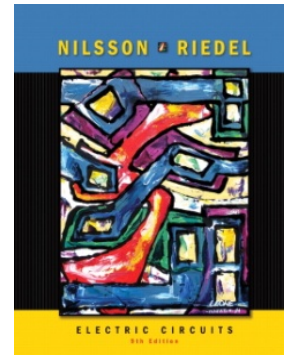
### Class Topics:

- Sinusoidal Steady-State Analysis** (Chapter 9)
- Sinusoidal Steady-State Power Calculations** (Chapter 10)
- Balanced Three-Phase Circuits** (Chapter 11)
- Intro to the Laplace Transform** (Chapter 12)
- The Laplace Transform in Circuit Analysis** (Chapter 13)
- Intro to Frequency Selective Circuits** (Chapter 14).
- Fourier Series** (Chapter 16).
- Active Filter Circuits** (Chapter 15).

**Attendance Policy:** Attendance in the lecture or recitation classes when quizzes or tests are scheduled is mandatory and a grade of zero will be assigned to any missed test or quiz. If you cannot attend a class period when a quiz/test is scheduled, your absence must be justified for a make-up quiz/test to be given. An example of proper justifications would be a doctor's note in case you get sick. You need to notify me in advance with proper justification that explains why you cannot attend. I will then let you know whether or not your reason is justified. Without an acceptable prior notice, a grade of zero will be assigned. Attendance in the regular lecture classes is mandatory in that students are responsible to be always aware of what is discussed in class and what has been assigned.

**Computer Usage:** OrCAD Capture/PSpice and MATLAB will be used for circuit analysis.

**Academic Integrity:** Students are obligated to conduct themselves in accordance with the UNCC's Code of Student Academic Integrity as stated in the 2013-2014 Undergraduate Catalog at <http://catalog.uncc.edu/undergraduate-catalogs/current/student-conduct>



**Grading:** There will be homework on the MasteringEngineering website, in-class quizzes, and three in-class tests. The weight of each item in determining the final grade is as follows:

Item	% of Grade
Homework	20
Quizzes	20
Test 1	20
Test 2	20
Final Exam on Dec. 11 (2:00-4:30pm in EPIC-2222)	20

Grading Scale:

100 – 90 A    89– 80 B    79 – 70 C    69 – 60 D    59 – 0 F

**Follow-up Courses:** Passing this course with a grade of C or better is a pre-requisite for ECGR 3111, ECGR 3121, and ECGR 3131.

**Instructor:** Dr. Mehdi Miri, ECE Department, UNC Charlotte.

**Office Hours:** MTWR 11:00-12:00, or by appointment.

**Office Location:** EPIC-2337

**Tel. & email:** 704-687- 8416 & [miri@uncc.edu](mailto:miri@uncc.edu)

**Dates to be aware of:**

- ✓ Last day to register, add, drop a class with no grade via the web Aug. 27, 2014 (11:59pm)
- ✓ Census date for spring enrollment Aug. 29, 2014
- ✓ Labor Day - University Closed Sept. 1, 2014
- ✓ Deadline to apply for December 2014 graduation Sept. 15, 2014 (11:59pm)
- ✓ Student Recess - no classes Oct. 6-Oct. 7, 2014
- ✓ Unsatisfactory grades due Oct. 10, 2014 (noon)
- ✓ Last day to withdraw from course (s); grade subject to Withdrawal Policy Oct. 20, 2014 (11:59pm)
- ✓ Thanksgiving Break - no classes Nov. 26-29, 2014
- ✓ Last day of classes Dec. 3, 2014
- ✓ Reading day Dec. 4, 2014

Prepared by Dr. Mehdi Miri on April 14, 2014.