

B. Instructor Information Sheet

1. General Information:

Instructor: Dr. Lionel R. Orama Exclusa, P.E.

Title: Professor

Office: S-702

Phone: 832-4040 ext. 4009

Office Hours: T-TH 7:40 – 8:40am, and 12:00 -12:30pm

If there is a conflict with my office hours make an appointment!

E-mail / URL: lorama@ieee.org, <http://www.ece.uprm.edu/~lorama/>

2. Course Description:

Course Number: INEL 5415

Course Title: Power Systems Protection

Course Textbook: The Art & Science of Protective Relaying, C. Russell Mason, GE Publication, available at <http://www.geindustrial.com/pm/notes/artsci/>

3. Purpose:

This is a course for majors in electric power engineering. The purpose of this course is to teach the fundamental concepts protection and relying of power systems with emphasis on system design and specification of components.

4. Course Goals:

After completing the course, the student should be able to specify and set up relays for the protection of a power system.

5. Requirements:

All students are expected to:

Think. Individually do all assigned homework, and work in teams on class projects. Arrive on time. Attend lectures, and approve quizzes.

6. Laboratory/Computer Usage:

There is no laboratory for this course.

7. Instructional Strategy:

The course will consist of lectures, discussions and problem solving. When homework is assigned it will be due a week later. Homework will be discussed in class. Students are expected to work hard.

8. Evaluation/Grade Reporting:

There will be quizzes (80%) and a final project (20%). None of the quizzes will be eliminated. There will be no repositions.

- Grading scale: 100-90 A, 89-80 B, 79-70 C, 69-60 D, 59 or less F
- Academic fraud will result in discipline procedure (Discipline Board of the Dean of Students)
- Final grade will be affected at a rate of 1% for every two absences, and every three late entrances will be one absence.

9. Deadlines for Assignments:

Not yet assign.

10. Student Assistance: N/A

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11. Attendance and Behavior:

Attendance is mandatory and you will behave.

The only electronic equipment you are allowed to bring to class is your calculator, a hearing aid, pacemaker or other health aid you may need. Cellular phones and pagers are not to be used in class.

12. Instructor Responsibilities:

The instructor will grade all evaluation tools within two weeks, will keep regular office hours and attempt to answer all questions.

13. Course Outline and Schedule:

Topics	Required reading - Assigned problems	Number of lectures	
		MWF	
Protective Relaying fundamentals	Recommended reading Class notes, Chapter 1-Mason		3
Ct Performance	Class notes		3
Operating principles of relays	Class notes		3
Transformer protection	Class notes		4
Bus protection	Class notes		3
Operating principles of induction relays	Class notes		3
Operating principles of directional relays	Class notes		9
Operating principles of distant & static relays	Class notes		5
Line protection	Class notes		5
Pilot relaying	Class notes		4
Generator Protection Survey	Class notes		3

14. Additional References:

1. Applied protective relaying, Westinghouse Electric Company.
2. The Art & Science of Protective Relaying, C. R. Monson, Wiley.
3. Protective Relaying J. L. Blackburn, Marcel Dekker
4. Instructor assigned material will be announced.