

VILLANOVA UNIVERSITY
DEPARTMENT OF PHYSICS
Electronics

Physics 3310-01

Fall 1997

Text: *Basic Electronics for Scientists*, by James J Brophy, Fifth Edition, by McGraw Hill-1990;
Essential Electronics, by Stubbins, Willey Editor.

References: 1) *The Art of Electronics* by P. Horowitz and W. Hill, Second Edition by Cambridge University press-1990. 2) *Microelectronics*, by J. Millman and A. Grabel, Second Edition.

Instructor: Dr. John K. Vassiliou, Room # M365, Tel: 519-4880, [e-mail: Vassilio@ucis.vill.edu](mailto:Vassilio@ucis.vill.edu)

Course Content: Direct Current Circuits, Alternating Currents, Diodes, AC circuits, Transistors, Operational Amplifiers, Basics of Digital Electronics, Boolean Algebra of Digital Systems, Combinational Digital Electronics, Sequential Digital Electronics.

Office Hours: Tuesday, Wednesday 1:30-2:30, Thursday 11:30-12:30 & Tuesday 4:00-5:00. If the time is inconvenient you can see me immediately after the class or any other time you wish. Call first or leave a message in the physics office or in my mail box.

Homework: Homework will be assigned each week. I am going to selectively solve some problems you might find difficult and provide you with hard copy solutions. I encourage you to work out all the problems.

Quizzes: We will have a take-home quiz every other week, on the homework or simply altered problems. Some weeks we will have a quiz taken in the class. Quizzes are an important part of your grade. Quizzes and homework grade will help me to formulate an opinion about your performance. An extra bonus grade will be given to students who attend the lectures regularly and score high in the quizzes and homework.

Tests: September 25, October 23, November 20, December 18 (Final Exam)

Grading: The grade will be determined as follows:

Test # 1	100
Test #2	100
Test #3	100
Quizzes & Homework	100
Final Exam	200
Total	600