



## COURSE DESCRIPTION

### PHY104: Applied Physics

<b>CREDIT HOURS</b>	<b>3 Credit hours (2 Lectures, 1 Lab, 0 Tutorial)</b>
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<b>PREREQUISITE</b>	<b>PHY103</b>
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#### COURSE DESCRIPTION

This course introduces the characteristics and applications of semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and trouble shoot analog and logic circuits using appropriate techniques. This course covers the concepts, equations and construction of analogue and digital electronics circuits. The laboratory part is designed to provide students with fundamental concepts of Electronic Circuits for lab experience. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog circuits using appropriate techniques and test equipment. Every class will have a short lecture introducing the procedures, concepts, formulas and instructions relevant to the experiment. The lecture will also cover what is expected in the lab-report; don't be late. Attendance and participation is mandatory. Experiments will usually be performed in groups, but each student will turn in an individual lab report.

#### References

- Floyd T. L., *Electronic Devices, Prentice Hall*, 9th Edition (2011).
- Horowitz P. and Hill W., *The Art of Electronics, Cambridge University Press*, 2nd Edition (1989)
- Boylestad R.L. and Nashelsky L., *Electronic Devices and Circuit Theory*, Pearson Education (2005).