

PHYS 222 : Electronics

The student is presented with the fundamentals of digital and analog circuit analysis. Among topics originally specific to analog circuits are DC circuit analysis using Kirchoff's laws, mesh equations, transformations, the use of multimeters and oscilloscopes, AC circuit analysis using complex impedances, capacitors, and inductors, resonance, step function analysis, and transitions. Among the topics originally specific to digital analysis are simple logic gates, IC chips, Boolean algebra, adders, flip-flops, shift registers, and counters. After the fundamentals are covered, the emphasis shifts to circuit analysis involving knowledge of both perspectives. This course includes three hours of lecture and two hours of laboratory each week. (This course may be taken for credit as

[CPSC 222](#)

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Credits 4.0

Prerequisites

PHYS 201,202 or equivalent or permission of the Chair of the Department.