

Basic Electronics for Liberal Arts Majors  
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The Physics department at Bloomsburg University teaches a basics electronics course, Physics 104, intended for liberal arts majors who have very little or no traditional background in STEM subjects. Any one at the university is free to take this course though it is a requirement for music majors in order to give them a sense of electronic instrumentation and circuitry. Enrolled in the spring 2014 session were 9 music majors with 7 others from business, art and digital forensics. In addition to the range of backgrounds, students' experiences, attitudes and perceptions also covered a range of intensities. Much of the course was structured around the Arduino microcontroller board, sensors, LEDs, seven segment displays and dot matrix displays. The course met twice a week in 1 hour 15 minute sessions and was conducted in lab format such that students spent most of their time building circuits from schematics, collecting data with meters and via computer communication and altering code. Students worked in pairs and evaluation was based on completion of weekly handouts, two lab practicums (done individually) and a lab project. The presentation will discuss the nature of the handouts, how material was introduced, how students reacted to it, problems that were encountered, and teacher's and students' perception of the course's relative success and achievement of outcomes.