

Syllabus

Course Information

Title	Course no.	Semester	Required
Electronics	GSCI 104	Spring	Cluster 3 lab option

Basic Electronics

Section no.	Year	Class times	Location
10	2012	Monday 11:15-1:05	2312
12	2012	Wednesday 11:15-1:05	2312
14	2012	Friday 11:15-1:05	2312

Instructor Information

<u>Instructor:</u>	Dr. Kevin Giovanetti			
<u>Office:</u>	Physics and Chemistry Building 2178			
<u>Phone (office, cell)</u>	8-6353, 540-383-8368			
<u>Office Hours</u>				
Mon	Tues	Wed	Thurs	Fri
10 AM-11AM 2:30PM -4:30PM	By appointment	10 AM-11AM 2:30PM -4:30PM	By appointment	10 AM-11AM (some Fridays)

Course Description

This is a course designed to partially satisfy the goals and objectives for [Cluster 3 \(Mathematics and Science\)](#).

Our goal is to learn as much about electricity and electronics as possible. Instruction will primarily be based on hands-on projects. Students will have some freedom to choose the direction of their development and will be responsible for progressing through the material of interest.

Required Materials

A manual and notebook will be provided. There is no required text. Reference books on electricity and electronics will be provided for use in the labs.

Equipment

Equipment will be provided for work in the lab. This equipment is to be used exclusively in the lab.

NO EQUIPMENT MAY BE TAKEN FROM THE LAB WITHOUT WRITTEN PERMISSION OF THE INSTRUCTOR.

Attitude

We encourage students to immediately provide feedback on the course and the lab environment. If you have positive suggestions don't hesitate to discuss them with your instructor. Electricity and electronics should be a fascinating arena for exploration and discovery and we hope to offer you the opportunity to experience this excitement.

Academic Honesty

This course will follow the standards described on general guideline page under the heading Academic Honesty and Safe Assign. Collaboration on projects will be allowed. More details will be provided when projects are assigned. On-line quizzes are to be done without the aid of classmates or colleagues. Some resources such notes, books, and websites are allowed and specific ground rules will be discussed during the first class session.

Grades

Grades will be based on participation. To receive a grade of B for the semester a student should attend every class, work diligently during the lab period, maintain a clear record of performance in his or her notebook and complete the final project in a reasonable amount of time. Grades will not be based on the amount of material covered but on the quality of the effort put into the lab work and the notebooks. Students should arrive on time and work diligently when in the lab. Students can divide their time among:

1. carrying out exploratory experiments (building circuits),
2. reading reference material,
3. discussing concepts with students and instructors,
4. updating their notebooks.

There will be a required final project that must be completed by all the students. The instructor will partially help students complete this project. The instructor will periodically examine the students' notebooks to insure that the students are adequately documenting their knowledge and recording information that allows them to progress.

To receive an A, students will be expected to spend some additional time on the above areas. There will be material available on the web each week. Students should work through this extra material. A weekly on-line quiz will be used to evaluate your work. Students who qualify for a B and then obtain a grade of 75 or higher as a quiz average will receive an A.

If a student arrives late or is not working during a lab session the professor may request a written report for the lab.

Nature of Course Content

The course is designed to acquaint the student with:

- basic instrumentation (voltmeter, ammeter, oscilloscope),
- circuit drawing (building a circuit from a plan and drawing an existing circuit),
- circuit design (problems encountered in making a design work),
- independent learning (what to do when the instructor is busy),
- effective information recording (How did I get the voltmeter to work?),
- binary numbers,
- logic,
- sound,
- making measurements and interpreting the measurements,
- and the basics of modern electronics and electricity.

Adding/Dropping Classes

Students are responsible for registering for classes and for verifying their class schedules on e-campus. Students must consult JMU academic calendars to determine when a class may be added or dropped.

Contacting the Instructor

Students should email the instructor when questions or problems arise. Students may also reach the instructor by cell phone. Students are especially advised to use cell phones when the instructor is not in his office.

Disability Accommodations

(see <http://www.jmu.edu/curriculum/syllabus.shtml> → [Disability Accommodations](#)). Any concerns should be discussed with the instructor as soon as possible so the optimal accommodations can be arranged.

Inclement Weather Policies

(see <http://www.jmu.edu/curriculum/syllabus.shtml> → [Inclement Weather](#)). As stated there are several options for covering missed material. Students will be notified as to the specific makeup procedure should classed be canceled.

Religious Observation Accommodations

All faculty are required to give reasonable and appropriate accommodations to students requesting them on grounds of religious observation. The faculty member determines what accommodations are appropriate. Students should notify the faculty by no later than the end of the Drop-Add period the first week of the semester of potential scheduled absences and determine with the instructor if mutually acceptable alternative methods exist for completing the missed classroom time, lab or activity.

General Policies

Students are advised to read the material at

<http://www.jmu.edu/curriculum/syllabus.shtml>

This site covers many of the general guidelines and rules that serve as the default policies for this course.