



EEE 5425 – INTRODUCTION TO NANOTECHNOLOGY

Course number: EEE 5425 U01
Course title: Introduction to Nanotechnology
Class Number: 91869
Course ID: 033410
Prerequisite: EEE 3396
Class Days: Mo 18²⁵-21⁰⁵
Class Room: EC – 1110
Professor: Dr. Yuriy A. Vlasov
Office: EC-3832
Office tel.: 348-1056 (during office hours only)
Department tel.: 348-2807
Office Hours: class days: 15³⁰-16³⁰
E-mail: vlassovy@fiu.edu
References: reference materials will be announced in the class

Course Description:

EEE 5425 Introduction to Nanotechnology (3 credits).
 Nanoscale electrical, optical and magnetic device operation. Overview of new devices enabled by nanotechnology, methods for fabrication and characterization of nanoscale and devices.

Course Policies:

- To get assistance try to see Dr. Vlasov during listed office hours.
- Students are encouraged to ask questions and to discuss course topics with the instructor and with each other.
- Any work submitted should be signed, as the students' own work, and that no unauthorized help was obtained.
- According to University policies, cheating is considered as a serious offense. Students who are caught will receive the appropriate consequences. Baseball or other brimmed caps/hats are not allowed to be worn during an exam.
- Students who were absent from a class are responsible for material covered in that class.
- Cell phones, communicators, MP3 players, head sets, are not allowed to be used in the class. Cell phone must be turned completely off before class. Laptop computers are not allowed in the class unless they are needed for class or project work. Students using cell phones or computers for any reason other than stated above will be asked to leave the class immediately.

- Any student who is absent during essential meetings will obtain a zero mark unless he/she is able to present a documented excuse **prior to the due date**. If students are not able to attend test they should call instructor or department secretary (348-2807) to notify of problem **prior** to the due date. Only in this case will it be possible to arrange a make-up during 10 days after missed test or presentation.
- It will be possible for a student to request a grade of INCOMPLETE* only when the standard conditions used within EE department are met:
 - Must contact the instructor or the secretary immediately **before** or during the part missed, so the instructor will be aware of the circumstances causing the incomplete
 - Must be passing the course prior to that part of the course that is not completed
 - Must be unable to complete the course through **documented** circumstances beyond his/her control
 - Must make up the incomplete work through the instructor of the course and should not sit through another entire course to make up the incomplete
 - Must make up all missed work **before** the last two weeks of the following term
- Grading policy:

Attendance	5 %
Safety training	10 %
Hands on work	25 %
Project topic proposal	10 %
Oral presentation	20 %
Project paper	20 %
Paper review	10 %
- Last day to drop a course with a DR grade:**
Monday, November 3.

Course Topics:

- Definitions of nanotechnology.
- History of nanotechnology.
- Physical principles of nanotechnology.
- Scientific methods of studying and manipulating nanostructures.
- Methods of fabricating nanostructures.
- Nanomaterials and nanodevices.
- Prospective of nanotechnology.

Grading policy:

* "An incomplete grade is a temporary symbol given at the discretion of the instructor for work not completed because of serious interruption not caused by the student own negligence..."

On-line safety training (http://ehs.fiu.edu/Training/Pages/Online-Training.aspx) includes the following modules: Lab Safety Awareness, Hazard Communication, Fire Safety, Hazardous Waste Handling

Students will be assigned a project topic. Proposed project topic should be defended by the student. Each student should make a 40 min. presentation in the class and submit properly formatted paper report not later than the next class period after the presentation. Students are recommended to use PowerPoint slides for the presentation.

General deadline for oral presentation to be ready is November 1.

Paper report will be cross-reviewed by selected students.

Project will be graded by professor based upon presentation in the class, quality of paper report and reviews.

Grading scale:

96.1% – 100%	A
92.1% – 96%	A-
88.1% – 92%	B+
84.1% – 88%	B
80.1% – 84%	B-
76.1% – 80%	C+
72.1% – 76%	C
68.1% – 72%	C-
64.1% – 68%	D+
60.1% – 64%	D
56.1% – 60%	D-

Helpful information:

Helpful information may be posted on the Web: TBA

Dr. Yu. Vlasov

Monday, August 25, 2014