Catalog Data:
MEC 400: Nanotechnology Research. 3 Credits. This is the capstone course for the minor in Nanotechnology Studies (NTS). Students learn primary aspects of the professional research enterprise through writing a journal-quality manuscript and making professional presentations on their independent research (499) projects in a formal symposium setting. Students will also learn how to construct a grant proposal (a typical NSF graduate fellowship proposal), methods to search for research/fellowship funding, and key factors in being a research mentor.
Cross-listed with ESM/EST/BME 400
Unofficial Co-requisites: MEC/ESM/EST/BME 213; MEC/ESM/EST/BME 499

Instructor: Chad S. Korach, 141 Light Engineering, 632-1182, chad.korach@stonybrook.edu

Course Overview: Nanotechnology and Research will help you develop some of the professional skills you need to participate in the research enterprise which is extremely important in the nanotechnology field today. This course is also a requirement for the Nanotechnology Studies (NTS) minor.

We will use one book for this course, Writing Successful Science Proposals, by Friedland and Folt. It has some great tips on research writing in general. We will also use information from some websites and other external resources which will be posted to the BlackBoard site (check under "Course Documents" and "External Links").

We will meet periodically (not every week) to discuss particular aspects of the course and your work -- the class meetings will be posted on BlackBoard, so please check frequently.

Course grading is by letter grade.

The following assignments will comprise the graded material (all weighted equally towards final grade) for this course:

1. Review 3 professional journal publications (in nanotechnology, of course) using a standard reviewer's report format

2. Attend and report on 3 professional presentations on campus (also in nanotech). You will critique both the style and the content in your reports.

3. Write a journal-quality manuscript on your current or past research projects.

4. Prepare a PowerPoint presentation on your research (as well as a poster, if you are attending URECA later in the Spring, which you should be).
5. Write a brief research proposal in response to an RFP (request for proposal).

You are also required to attend the Nanotechnology Studies Symposium at the URECA campus-wide research symposium in late April.

As a result of these activities, you should have learned how to successfully participate in the nanotechnology research enterprise, how to professionally report on and present your research, and how to write a proposal to get the resources to conduct your research.

Americans with Disabilities Act:
If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, room 128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

Academic Integrity:
Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at http://www.stonybrook.edu/uaa/academicjudiciary/

Critical Incident Management:
Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.