COURSE DESCRIPTION
A seminar for students in the College of Information and Technology Studies. Seminar topics vary annually by section and cover a variety of subjects under the scope of information, technology, and engineering studies.

SEMINAR DESCRIPTION
What is Nanomedicine? Recent advances in the field of nanotechnology have made major medical breakthroughs. They have been possible because scientists with vastly divergent areas of expertise have worked together in a cooperative and integrative manner. The challenge scientists' face is to communicate effectively with those of varied disciplines, both teaching their expertise, and learning that of others. This course both explores the fundamental nano-science behind these breakthroughs, and examines the communication challenges we all face to foster further scientific discovery at the nano-scale.

LEARNING OUTCOMES
Freshman 102 Seminars offer first-year students the opportunity to work with experienced faculty who are passionate and knowledgeable about the seminar topic. 102 seminars are introductory in the sense that little prior background is expected, yet they are real inquiries into the methods, components, and substance of a particular subject. In addition to developing meaningful bonds with faculty and peers, 102 seminars provide an intellectually exciting way of transitioning to the university.

General learning outcomes that have been established for all 102 seminars:
• Improve critical thinking by developing evaluative, problem-solving, and expressive skills.
• Enhance group communication skills through discussions, small-group work, presentations or debates.
• Develop intellectual curiosity and better understand the role of a student in an academic community.

Specific learning outcomes for this course:
• Understand the difference between nanomedicine and science fiction.
• Reach a comfort level in the popular and medical literature so that advances in nanomedicine could be investigated by the student in the future.

EVALUATION AND GRADING PROCEDURES
All First-Year 102 seminars are graded on an A - C/U basis. Students will be evaluated on the basis of exams, short written assignments, journals, presentations, and participation in discussion of lecture materials, and interaction with faculty and other students. Because of the variety of offerings, it is not possible to specify precise breakdowns of the value of each type for all sections.

**DISABILITY SUPPORT SERVICES SYLLABUS STATEMENT**
If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, located in the ECC Building, (631) 632-6748. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

**ACADEMIC INTEGRITY STATEMENT**
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. Any suspected instance of academic dishonesty will be reported to the Academic Judiciary. 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/](http://www.stonybrook.edu/ uaa/academicjudiciary/)

**COURSE REQUIREMENTS**

1. **Class Participation:** Students are expected to contribute their own ideas and to ask questions during class.

2. **Class Attendance:** Students are expected to attend all of the class sessions for the First-Year Seminar.

3. **Assignments:** Students must attend at least two of the Provost’s Graduate Student Seminars and write 200 words on each seminar that includes the name of the speaker, the title, whether they kept you awake, what you learned, whether there was food, how many of your ITS classmates also attended…stuff like that.

4. **Required Reading:** As noted below

5. **ITS Requirements:** Students will be required to attend at least one program during the spring semester, from choices provided on an ITS monthly calendar. Additionally, all students are required to attend the ITS end-of-year celebration scheduled on Wednesday, April 27, 2011, during campus lifetime, location TBA.

Grading based on: Attendance 70% (7 x 10 pts each) Quiz 20% (4 x 5 pts each, drop lowest quiz) Written 10% (2 x 5 pts each)

To get an A 96 points, A- 93 points, B+ 88 points, B 83 points, B- 78 points, C+ 73 points, C 68 points, C- 63 points, U less than 63 points.

### 102 FIRST-YEAR SEMINAR

**Tuesday SCHEDULE**

**Spring 2014**

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignments</th>
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<tbody>
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<td>Date</td>
<td>Task</td>
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<tr>
<td>1/30/2014</td>
<td>Course Introduction: Definition of nanoscience and nanotechnology. Overview of the disciplines involved in nanoscience research. Look through Science magazine for nanoscience in class Read Whitesides and Bionano Overview Articles for Feb 6 class.</td>
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<td>2/6/2014</td>
<td>Quiz on Whitesides and Bionano Overview Class Discussion of nanomedicine: fact vs. fiction Discussion of Length Scale, Enabling Technologies, Precision, Biocompatibility Quiz Lab Tour with practical observation of length scale, enabling technology, precision, biocompatibility Assign articles for 2/13 on nano applications to cardiovascular</td>
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<tr>
<td>2/13/2014</td>
<td>Quiz on assigned cardiovascular readings Class Discussion of nano applications to cardiovascular Assign articles for 2/20 on nano applications to neurology</td>
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<td>2/20/2014</td>
<td>Quiz on assigned neurology readings Class Discussion of nano applications to neurology Assign articles for 2/27 on nano applications to orthopedic medicine</td>
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<td>2/27/2014</td>
<td>Quiz on assigned orthopedic medicine readings Class Discussion of nano applications to orthopedic medicine Assign articles for 3/6 on nano applications to cancer</td>
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<td>3/6/2014</td>
<td>Quiz on assigned cancer readings Class Discussion of nano applications to cancer Assign articles for 3/13 on nano applications to immunity</td>
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<tr>
<td>3/13/2014</td>
<td>Quiz on assigned immunity readings Class Discussion of nano applications to immunity</td>
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