

## 500.101 What is Engineering? Section 2 – Fall 2002

### COURSE INFORMATION (last updated 09.05.02)

<b>Course Description:</b>	This is a course of lectures, laboratories , and special projects. Its objective is to introduce students not only to different fields of engineering but also to the analytic tools and techniques that the profession uses. Assignments include hands-on and virtual experiments, oral presentations of product design, and design / construction / testing of structures.
<b>Instructor:</b>	Dr. Benjamin W. Schafer Office: 203 Latrobe Hall (Phone 6-7801) e-mail: <a href="mailto:schafer@jhu.edu">schafer@jhu.edu</a> Office Hours: by appointment or drop-in
<b>Teaching Assistants:</b>	Abigail Witzemann ( <a href="mailto:abby@jhu.edu">abby@jhu.edu</a> ) Nisha Agrawal () Liakos Ariston ( <a href="mailto:yakera@yahoo.com">yakera@yahoo.com</a> )
<b>Lectures:</b>	Mon., Wed., 2:00 – 2:50, 214 Maryland Hall
<b>Labs:</b>	Tues., 2:00 – 4:00, 5 or 226 Maryland Hall
<b>Text:</b>	online: <a href="http://www.ce.jhu.edu/virtlab">www.ce.jhu.edu/virtlab</a> PICK ONE FOR THE ENGINEERING ESSAY Asimov, Isaac, <u>I, Robot</u> Ball, Philip, <u>Designing the Molecular World</u> Billington, David, <u>The Tower and the Bridge</u> Drexler, K. Eric, <u>Engines of Creation</u> (nanotechnology) Ferguson, <u>Engineering and the Mind's Eye</u> Feynman, Richard, <u>Feynman Lectures on Computation</u> Gordon, J. E., <u>The New Science of Strong Materials</u> Kapek, Karel, <u>Toward the Radical Center</u> (robots, ecology) White and Doering, <u>Electrical Engineering Uncovered</u> (\$\$)
<b>Ethics:</b>	The strength of the university depends on academic and personal integrity. In this course, you must be honest and truthful. Ethical violations include cheating on exams, plagiarism, reuse of assignments, improper use of the Internet and electronic devices, unauthorized collaboration, alteration of graded assignments, forgery and falsification, lying, facilitating academic dishonesty, and unfair competition. Report any violations you witness to the instructor. You may consult the associate dean of students and/or the chairman of the Ethics Board beforehand. See the guide on "Academic Ethics for Undergraduates" and the Ethics Board web site ( <a href="http://ethics.jhu.edu">ethics.jhu.edu</a> ) for more information.
<b>Grading:</b>	Labs           35% Essays        20% Dome         30% Contribution  15% note: class participation, lab participation, self- and peer-grading of team members etc. are all included in the "contribution" portion of your grade. If final exam is required, the exam counts 25%, and the other categories are re-adjusted.