Please read the directions carefully. This exam is due by 11:59:59 PM on Saturday Oct 23, to be emailed to

mikeb@buffalo.edu AND *ifte2000@gmail.com* AND *safwan.weshah@gmail.com*

You must answer ALL THREE questions. No late exams will be accepted, even by minutes, so plan accordingly. After weeks of hard work, please don't miss an exam grade because of a late email. There is a page limit of two pages (i.e. two sides of one sheet) for each question. Your answers must be single-spaced, with margins no larger than .7", in MS Word or pdf file format. Please name your file: *yourname.doc or yourname.pdf*, where yourname is your name.

A note about grading, in order to better help you write your essays:

Accreditation Board (ABET) outcomes for this course:

c) an ability to design and construct a hardware and software system, component, or process to meet desired needs, within realistic constraints such as economic, environmental, social, political, ethical, health & safety, manufacturability, and sustainability.

f) an understanding of professional, legal, and ethical issues and responsibilities as it pertains to computer engineering.

h) the broad education necessary to understand the impact of computing in a global, economic, environmental, and societal context.

g) an ability to effectively communicate technical information in speech, presentation, and in writing.

j) a knowledge of contemporary issues.

How to answer essays:

Essays are graded on content, explanation, convincing argument, and demonstration of a level of understanding. Free and abstract thought is encouraged, but only in defense of a solid point-of-view. Lists, or bullets, that are essentially correct but with no explanation, are given the minimum allowable credit (typically ONLY 20 out of 33 points). Each question must be approached from many angles: societal, legal, technical, managerial. Additional credit will be given for a demonstration of a substantial level of understanding (discussion of opposing points of view, for example, or the use of an example from real life, your reading, your team project, or an imagined impact of the subject, on your future job as a software engineer). Do not flood your answer with every possible point of view. Underlining your main points will help you focus your answer.

An example essay question, the rationale, and grading rubric:

What current event (i.e. story that has lately been in the news) could benefit from a computer software solution? Explain why and how, and describe the software solution. What special concerns would your system need to overcome? This question is graded as follows:

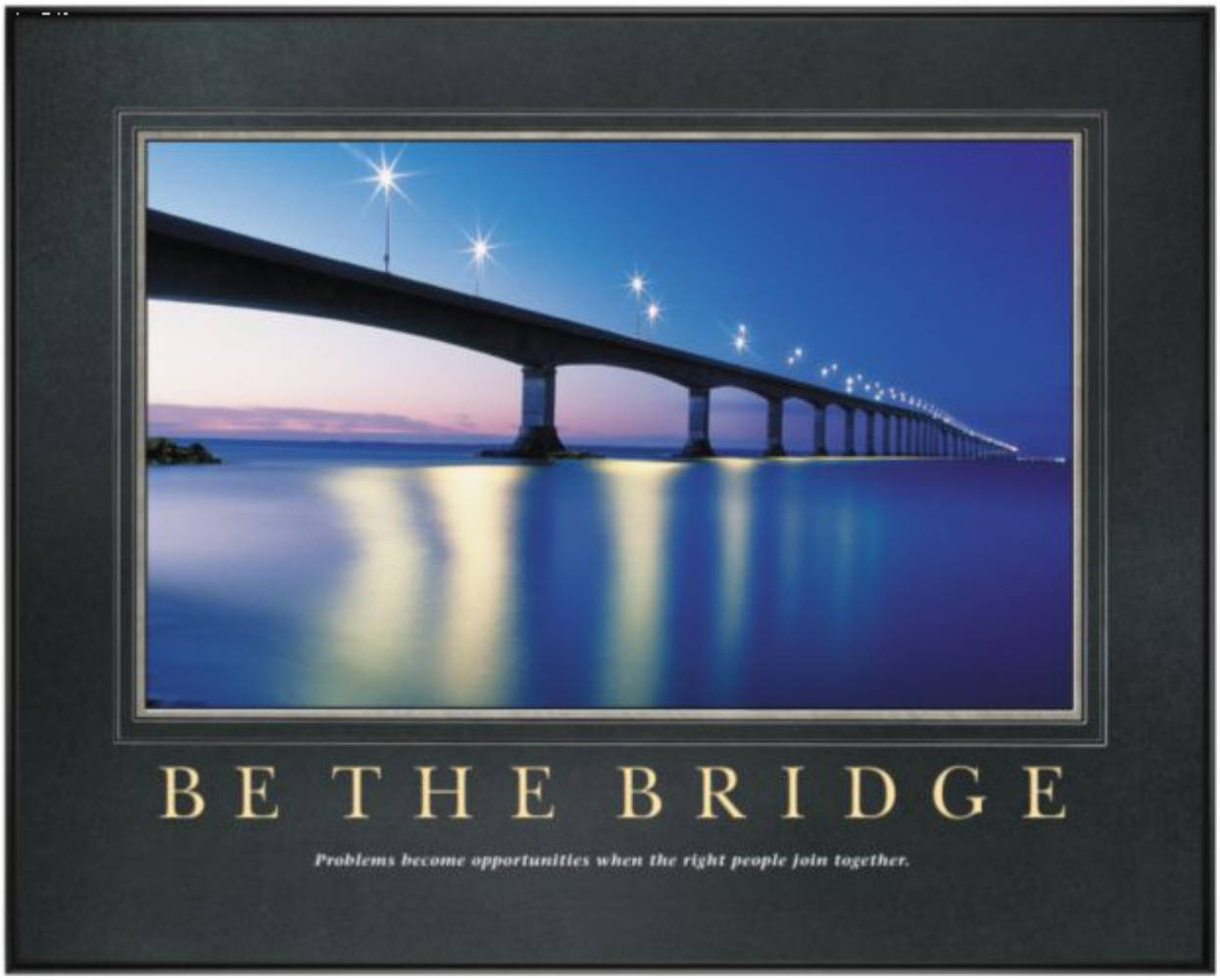
I would expect knowledge of contemporary issues. The problem must be newsworthy and notable; the solution must make technical, financial, legal, and ethical sense. Global warming, anti-terrorism, protection of children from Internet predators, computer crime, etc. are all likely issues. This question will test a student's problem solving from a practical, software-engineering sense: which problems lend themselves to technical solutions, and – given a clean slate - how do we approach the solution? The student should mention legal and ethical concerns. The student should express both the advantages and disadvantages of their particular solution, and discarded solutions.

The question is worth 33 points: 5 if it is in fact contemporary, 5 if it attacks an "important" (non-trivial) societal issue (environment, safety, economic, etc.), 5 if the solution makes technical sense, 5 if the solution makes economic, legal, and ethical sense (or if the student at least recognizes violations of those factors), 5 for the disadvantages of the proposed solution, and 5 for disadvantages of discarded solutions. 3 points are awarded for other similar problems that this solution might address.

The Exam:

Include your name and team letter in your submission: (1 pt.)

Question 1: Why is the following a bad idea? (33 pts.) (tm. Successories.com)



Question 2: Do you believe that a friendly user interface means more project cost, coding, and complicated design? This is a question about cost and effort and not about interface design. Support all sides of the argument with examples. (33 pts.)

Question 3: Identify five features of Facebook design that you really like and five design features that annoy you. Support your answer by providing educated arguments as a software engineering student who knows how to appreciate a good design, not just by merely saying "I like it because I like it!". (33 pts.)

Caution: You are asked to talk about design features such as the mysterious location of the logout link and NOT functional oddities such as being able to eat and drink or raise farm animals on Facebook!

Hints: If you are a veteran user of Facebook, try to recall the first few days of you as a new user. For the new user, log in to a new account and relay your experiences.

Disclaimer: Although there are many social networking sites, Facebook is chosen based on its commercial ranking [1]. None of the course staff are affiliates with Facebook, nor would they ever be caught dead using it.

[1] http://www.ebizmba.com/articles/social-networking-websites