V. Qualitative Assessment of Student Performance: using the arguments above and other data support the claim that students who completed this course with a grade of C or better have achieved each of the intended outcomes of this course.

Six teams were formed for spring 2007 EE415. Each team was matched with a project, a sponsoring company or institution, and a mentor. For all students, scores on work during the semester, self/peer/mentor evaluations, and scores on the final presentation show clear evidence that each team:

(A) Possesses an acceptable ability to apply knowledge of mathematics, science and engineering.

(B) Possesses an acceptable ability to design and conduct experiments as well as analyze and interpret data.

(C) Possesses an acceptable ability to design a system, component, or process to meet desired needs.

(D) Possesses an acceptable ability to function on multidisciplinary teams.

(E) Possesses an acceptable ability to identify, formulate, and solve engineering problems.

(F) Possesses an acceptable understanding of professional and ethical responsibility.

(G) Possesses an acceptable ability to communicate effectively in written and oral formats.

(H) Possesses an acceptable broad education necessary to understand the impact of engineering solutions in global, economic, and societal context.

(I) Recognizes the need for, and has the ability to engage in life long learning.

(J) Possesses a broad education and knowledge of contemporary issues.

(K) Possesses an acceptable ability to use techniques, skills and modern engineering tools necessary for engineering practices.

As shown in the detailed descriptions, caveats were associated with outcomes (H) and (I); however, future offerings of the course will strengthen the evidence documenting those outcomes. The four evaluation activities listed below insure that each student was contributing effectively to their team and thus that the individual students were characterized by Outcomes (A)-(K): 1) scores on work during the semester, 2) scores on individual student contributions to the team presentations, 3) scores on individual student lab books, and 4) scores from peer/mentor grading forms.
While teaming skills are an important part of EE415, it is essential that the instructor continue to partition graded activities so there are sufficient evaluations of the individual students as well as the team.

VI. Concerns: state any concerns you may hold about this class – were the students adequately prepared coming into it? Are there topics or outcomes where (some) students were weak after completing the course? Other concerns? Were there any comments on students’ course evaluations that should be addressed in future instances of the course? This section is very important for improving our program: it provides critical input to the curriculum committee for identifying areas requiring attention.

Comments at the end of the semester continue to focus on team member commitment to their team. It appears that, despite frank and open discussions about the imperative nature of teamwork, some students are either unwilling or unable to dedicate time to their team and project.

Now that all students entering EE415 must have completed all of their three hundred level courses as a prerequisite, this should help with some of the concerns of time management and competing courses. However, some students were “grandfathered” in this semester due to their proximity to graduation.

However, the “taking initiative” part of this situation seems to be the “bridging” issue that many people face as they transition from a student lifestyle/mindset in academia to industry in the real world. The instructor attempted to monitor these situations by having students perform self/peer evaluations at the mid-term as well as at the end of the class. This provided an interim piece of feedback that had a positive effect in two specific cases this spring.

The instructor had fully intended to obtain similar mid-term evaluations from the team mentors. However, the timing didn’t seem right and the opportunity passed. With teams already assembled and work underway, in fall 2007 EE416 the instructor will be better situated for obtaining mid-term evaluations from the mentors.

Communications with non-native speakers was also mentioned by several students in their end of semester comments. Since some students’ English skills are rather challenged, they apparently do not participate thoroughly in group meetings. The instructor noticed the additional concerns that this raised in presentations this spring. Perhaps the department could look into sanctioning a program to assist students with marginal communication skills. Even establishing some counseling guidelines for faculty who are concerned about a student’s ability to communicate would be helpful.
Once again, it is imperative that the assignment to teach EE415 be made at least 2 months ahead of time for the Fall/Spring sequence, and preferably 3 months ahead for the Spring/Fall sequence due to the holiday season in December. A shortened preparation period makes it extremely challenging to find a variety of projects and schedule guest speakers for the coming semester. A longer lead time provides the opportunity to take the time to search for quality projects and reduces the possible necessity of taking on a project because it is near at hand.

Signature ______________________________ Date: 9 May 2007

Please email a copy of the completed form to Patricia Arnold, patricia@eeecs.wsu.edu and deliver a signed hardcopy to her mailbox.