Master of Science in Engineering (MSE)

The General Engineering (GE) Program agrees with the External Reviewer’s recommendations (June 4, 2007). The COE PPR Committee Report is based on the GE Program Self-Study (November 17, 2006), the External Reviewer’s Report (based on an external reviewer’s campus visit on February 19-20, 2007).

The SJSU MSE program is that it is a unique program in the country and could become a national model for industry masters programs. The reviewer expressed that the MSE program is different than most other MS in Engineering programs due primarily to the student group projects, which have a strong industrial focus and are intimately connected with an industrial partner. This is truly a program differentiator in the country! With a student body of 500-600 just in the on-campus program, almost all of which are paying their own ways (not research funded), the MSE program represents a revenue resource stream, and it appears to have the ability to continue to grow if SJSU is willing to make investments in the program.

The current faculty is highly committed to the program, expressed a strong interest in keeping it going, very favorable about their student interactions (committed students was mentioned several times), and also in some cases (especially for the project mentors) saw it as a great opportunity for them to network with local industries (and with former students that move into local industries). There appears to be a strong commitment to assessment of learning outcomes across the program. According to the external reviewer the assessment process looks very similar to the undergraduate level ABET assessment done at Oregon State University (OSU).

The COE Program Planning Review (PPR) Committee has made the following recommendations:

(i) The quality and commitment of faculty teaching the core course must be maintained.

(ii) A matured option should be transferred to the department for those specialty areas which are of particular interest to existing departments that have faculty champions from those departments. Some of the specialty options that are developed (such as Bioengineering for example) don’t have one natural home at the university (because they are highly interdisciplinary in nature) and would be better served by staying in MSE.

(iii) The MSE program must be given the faculty support (released FTE) and resources to maintain its option programs

(iv) There are several assessment areas that need to be attended to: longitudinal tracking of the students during the program, and alumni with a feedback loop into the program to adjust learning outcomes; industry feedback into the program should more rigorously be pursued, and in particular each industry representatives/mentors for the student projects should be interviewed for feedback.
To maintain the integrity and viability of the program, there needs to be an investment made in the program Administrative Support Structure.

**College of Engineering PPR Committee:**
Ahmed Hambaba, Chair
Minnie Patel, CoE PPR Facilitator and ISE Facilitator
Gregory Young, CME Facilitator
Kurt McMullin, CEE Facilitator
Thuy Le, EE Facilitator
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