The MS in Computer Science Program's Response to the PPR Team

All students who wanted to complete the Master's degree:

When admitted to the program, students got the list of pre-requisites and graduation requirements. In the beginning of the program, graduate advisor helps students generate a study plan. However, it appears students got lost later in the program or didn't fully understand how to successfully complete the program. Thus, the department should be more proactive to inform students more frequently how to successfully comply with those requirements during the program as well as who and where to ask for help to find co-ops, internships, assistantships, and jobs. A new graduate student orientation will help the students know how to succeed in the program. Some students mentioned that some courses in a particular track are offered less often than tracks such as software engineering. A better scheduling of the courses can help solve this issue.

Reponses:

We have a New Graduate Student Orientation where all essential information for the graduate programs is introduced to the students. The orientation has a college level introduction and breakout sessions for individual programs. The college level introduction covers the university regulations, especially the GPA requirement and the Writing Proficiency requirement. Students are informed that they should seek assistance in the department first. When the department cannot help to their satisfaction, they can ask the Dean's office for help.

The following table shows the number of WTUs offered in 400 and 500 level courses since the last Program Performance Review.

Table 1. WTUs offered in 400 and 500 level courses

Course Level	Fall 12	Spring 13	Fall 13	Spring 14	Fall 14	Spring 15
400 - 499	27	48	30	63	60	75
500 - 599	27	21	33	30	63	63

The number of WTU in both 400 and 500 level more than doubled from fall 12 to fall 14. From spring 13 to spring 15, the 400 level course units increased by 61% while the 500 level course units increased by **3 times**. At the same time, we offered 2 400-level classes and 2 500-level classes in summer 2013. In summer 2014, we offered 2 400-level classes and 4 500-level classes.

It should be noticed that during this period of time the student population also increased in both the undergraduate and graduate programs. We are still struggling to offer adequate course units for the students.

International students who wanted to complete the Master's degree and then get an CS job:

A few international students have the lack of CS basics and fundamentals. The CS department should offer more introductory, intermediate, and advanced courses more frequently so that students can build a strong foundation in CS fields. Especially, the department should give special attention to students who have the lack of verbal and written communication skills.

Response:

We still require up to 7 prerequisite computer science courses for students who don't have adequate computer science background when they are admitted. These courses cover fundamental computer science knowledge. We often received different feedback from the instructors and the students. The instructors would like the students to have essential computer science knowledge and programming skills before the students take classes with them. However, some students try to avoid taking prerequisite courses.

Starting from fall 2014, our instructors Dr. Bin Cong and Dr. Kenneth Kung have worked with the Osher Lifelong Learning Institute to improve writing skills of some graduate students. Learning from the successful cases we plan to extend the collaboration to reach more students. The Department Chair had a meeting with Ron Osajima and Russell MacKeand on January 30, 2015 for the collaboration.

Domestic full-time students who wanted to complete the Master's degree and then get an CS job:

Most of full-time students wanted to become more competitive in CS related job market. The department should increase the number of technical courses including computer programming, algorithm design, data structure, and networks courses. In addition, the department should offer more hands-on courses to teach tools, techniques, and methods which are widely used in CS fields.

Response:

It can be seen from Table 1, the total numbers of courses offered have increased. I will avoid classification of software engineering courses as non-technical. Anyway, the following table shows the numbers of units in software engineering courses and the others.

Table 2. WTUs offered in 400 and 500 level courses

Course Type	Fall 12	Spring 13	Fall 13	Spring 14	Fall 14	Spring 15
Software Engineering	21	21	24	27	51	60
Others	33	48	39	66	72	78

Domestic part-time students who wanted to complete the Master's degree and then advance their careers:

Most of part-time students receive tuition reimbursement from their employer. The department should offer more technology-based courses so that they can learn state-of-the-art technologies, new innovative ideas, or breakthrough solutions to help their employers become more successful.

Response:

Again, it is arguable that software engineering courses are not technology-based. However, Table 2 can be used for this question as well.