Education Meeting Minutes
Friday, March 7, 2008

The meeting was convened at 2pm by Prof. Adam Porter who was the chair of the Introductory Sequence Review Committee. Attached to these minutes is a copy of the report submitted by the committee in advance of this meeting.

Adam reviewed the origin of the committee’s formation, the charge to the committee by Larry Davis, Dept Chair, the data collection process, the initial findings and committee recommendations. Since the committee was not asked to review outcomes of the 400 level courses, an assumption was made that the current 400 level courses did not need any further analysis. Some changes have already been made to CMSC 131, 132, 212, 311, and 330. The committee recommended continuing to monitor CMSC 132 and further streamlining of its course content. Attached are Adam’s slides from the opening presentation.

The majority of the meeting was spent discussing issues raised by the report and corrections/changes needed to ensure that students have acquired needed skills/knowledge by the time that they are taking 400 level courses. The committee did recommend that in the future, major curriculum changes not be undertaken without first gathering baseline data and then having an in-process measurement. Some of the questions/issues raised were:

1. Why are students currently taking up to 5 years on average to complete their UG course work (this time-line seems to be on the rise);
2. What process should be used to decrease the number of topics included in the current curriculum and determine what should be included;
3. What can be done to excite prospective students and their parent to select computer science (especially at UMD) as their major; there is no information on the current web site addressing this issue.
4. What is the department’s educational mission; educational goals and expectations are not clear; the department must articulate fundamental strategies;
5. There is limited hard data available to make good decision; this needs to be done vs. basing decisions on anecdotal information;
6. There has not been any comparison of the current UG educational program with that of other strong CS departments.

Bill Pugh suggested that any faculty members interested in conducting surveys in their classes should contact him and he will provide information about using existing software to record data. There was a suggestion that entry and exit data would be very helpful in understanding students’ perspectives and in determining what skills/knowledge was acquired during the teaching of the course material. The department may need to develop a database with web interface to record and analyze course data.
There was some concern voiced that a major review of the entire program would take too long. A suggestion was made that time would be better spent making strategic reviews of X courses and implementing changes by fall 2008. What information exists implies that topics that were once taught at the 300 level have been pushed down to the 100 and 200 level courses. Some students are not prepared to handle some of these topics even though they may be hard working and bright, due to lack of preparation at the high school level.

There is also a group of strong students who are willing to work hard and can do more than they currently are required to do. A suggestion was made to offer a separate freshman honors seminar for these students.

A third group of students are doing well but have found CMSC 212, as an example, stressful and have transferred out of CS. They feel that they cannot continue in CS if future courses will continue to make them uncomfortable and feel unsuccessful.

The range of students is a bigger problem than the “quality” of admitted students. Many of these students are bright and capable but due to poor study habits etc. cannot handle some of the more challenging topics.

One of the student committee members emphasized the need for a survey course at the 100 level which would include some of the “exciting topic in CS”. The need for this type of course has been discussed in the past at faculty retreats. This type of course would provide an overview to students and might give them a better idea of the exciting work that they can be involved in if they continue and receive their degrees in CS. The course could be open to non-CS majors and some of these students might change majors due to a better understanding of what computer science is really about (not all programming).

There was general agreement that a committee should be formed soon which, would include students, to address the issues raised. Continuing this review is needed to keep pace with the discipline, strengthen the program, and provide a program where the majority of students feel successful and are excited to be in the discipline.

The meeting was adjourned at 3pm.