

Computer Science Industry Advisory Board Meeting Minutes - 1998

I. Panel Discussion of IAB Members

- Languages
- Skills

Members of the industry advisory board listed the most useful languages for students to be familiar with.

- C
- C++
- SQL
- Cobol
- Java

Members stressed the need for students to understand the fundamental concepts such as pointers. They worried that Java may not focus enough on these fundamentals. They also mentioned that the Java standards aren't there. Web technology is used in these companies more for information dissemination than for their "bread and butter" work.

Some members felt that traversing a relational database is as important as knowing computer languages. Other important skills mentioned:

- SQL
- Normalization and query optimization
- Communication Skills
- Knowing how to learn
- Problem solving

It was suggested to make it clear to students that coding is just a small part of the picture. Along the same line, the goal is not to simply get the job done, but to get it done efficiently and so the end product is well structured. New programmers frequently get the job done, but it is so inefficient and poorly structured that it needs to be done over.

II. Curricular Changes

IAB members discussed designing a new curricula or use the present courses and create a new layout for them.

It was mentioned the UM has a one year, senior level course where students build a compiler. This course seemed to pull all aspects of software engineering and computer science together.

A point was made that we should watch grade inflation. A suggestion was made not to add new courses but rather to make the existing courses harder. Along this line two members felt that Calculus should be switched back to two semesters, 5 credits each.

Others suggested reducing the amount of math which our students are required to take. Specifically it was suggested to drop the last semester of Calculus and/or drop Differential Equations from our required courses. These courses could be made part of the mathematical option.

It was suggested that we create a new elective course for the business option. This course would teach students to use business applications “like a business person”.

Dennis Dixon suggested that in the future we might want to run a session where all participants start out with a clean sheet of paper and design curricula. The new curricula could then be compared with what we have. Another option is to use the courses which we have and create a new layout for them (i.e. what is taken in the freshman, sophomore, ...year.)

III. Wrap up discussion

The committee members discussed briefly how our program should be differentiated from other computer science programs. Dennis Dixon suggested that our motto could be “preparing students for industry” or “meeting the needs of industry”.

Questions:

- Should we focus on software engineering?
- Should we focus on networking?
- Should we focus on embedded programs?