Mr. Zingsheim, IAC chair, called the meeting to order at 8:40 a.m. Members introduced themselves. Dr. Durant thanked the group for their participation.

Dr. Durant asked that members later review the minutes from the May 23, 2007, meeting and send him any comments or corrections. Those minutes and other meeting materials are available on the CE IAC web site.

**Enrollment overview**
There are 72 CE freshmen this year, a significant increase over last year and the largest incoming class since fall 2002.

**Retention**
Dr. Meier presented information on how the 3.0 curriculum is helping with retention. Depth in both hardware and software is now better balanced in each quarter throughout the four years. The fact that core hardware courses start in the freshman year has shown positive results. A five-course sequence in embedded systems and the extension of the senior design sequence from two to three courses were other enhancements to the 3.0 curriculum which was first implemented in
fall 2006. Since then, retention has increased an average of 12% overall, which is above the national average.

In the past, comments from students leaving the program reflected badly on the program itself; now comments are mostly that CE is not the right career fit and students are changing majors entirely.

**Proposed curriculum changes**
Dr. Durant presented the proposed 3.3 curriculum, which will affect fall 2009 incoming freshmen. The core is not changing, but a few enhancements are planned.

- Entrepreneurial courses – IE423 and MS221 will be replaced with MS2220 and MS3423 to give students a better overview of the business decisions that drive engineering. MS2220 will cover micro- and macro-economics and finance, and MS3423 is an entrepreneurial course where students will write a business plan for their senior design project. The Rader School of Business has been offering three one-credit entrepreneurship courses for the past several years; the new MS3423 course will combine those topics.

- The freshman programming sequence currently has two lecture hours and two lab hours per week. The proposal is to increase the lecture hours to three per week (keeping two hours of lab). One program technical elective will be eliminated to make room for this change (two technical electives will remain).

- The CS3212 computer graphics course will be increased to four credits. The one-credit computer ethics course will be eliminated. The General Studies HU432 ethics course now does a better job of covering technology issues than in years past so is seen as sufficient for CE needs.

- The EE210 electronics course will be redesigned for CEs (and will change to a CE-number). Our electronics coverage was weaker than recommend nationally.

- The CE1900 sequence will move a quarter earlier so that freshmen will start it in the fall.

**Recent events**
- The high school Op competition took place during Thanksgiving week. Dr. Welch, who coordinated this event in the past, left MSOE to practice law in California. Dr. Durant coordinated it this year. One hundred eight high school students participated in the computer competition. Seven faculty and 15 current students volunteered.

- The third CE student social networking event took place on September 29. Leo Vinitsky from FedEx sponsored the food and polo shirts and also spoke at the event. The next one is planned for March. Participation has consistently been 75-80% of all CEs. Feedback from students indicated a desire to see senior design projects.
• Open House tomorrow; Dr. Meier will coordinate. The next one will be in April. We appreciate having an industry partner present. Johnson Controls volunteered last time. The industry rep stays in the CC area, mingling with students and parents. Anyone interested, please contact Dr. Durant.

• This year’s senior design show will take place on Friday May 22. The spring IAC meeting will take place that morning, with project tours afterwards.

Discussion: Computer Languages
Where and why Assembly, Java, and C++ are used in the curriculum was explained. There was some discussion. Most agreed that concepts can be taught with Java, most companies use C and C++, understanding Assembly is a good idea, and a better understanding of data structures and time complexities would be helpful.

Program Outcomes and Objectives
Dr. Durant reviewed the program’s current outcomes and objectives and asked for feedback. Regarding “communication skills,” there was discussion on how to incorporate cultural diversity into the curriculum, since so many companies now operate globally. Dr. Durant agreed this is an important topic, and said he would investigate how to touch on it in a variety of courses. Mr. Izzo suggested bringing in professional engineers to speak about their experiences in this area (and he volunteered). Perhaps it could be added to the CE networking event.

Regarding “professional responsibility and the application of ethical principles,” there was discussion on how easy it is for engineers to be corrupted into hackers, i.e., bypassing professional ethics when trying to satisfy the customer. IEEE does have a code of ethics, and Dr. Durant said we have been trying to get our students more active in that organization. A group of students is working on it now.

It was commented that the grouping of the flowchart was very helpful in seeing where skills/qualities are developed.

General Discussion
The floor was opened to any further comments. Mr. Ogden (student rep) suggested forming a student group to be IAC-associated. They would meet regularly, talk about industry trends, job searching, and perhaps sponsor computer-related events. Members liked the idea and suggested hosting some meetings at company sites and rotating speakers among this committee. The students should come up with a structure and inform this committee so that they can participate as appropriate. It was suggested that SE students be invited to join also.

The meeting adjourned at 10:50 a.m. All were invited to attend the student forum in S-341.