<table>
<thead>
<tr>
<th>Course Title</th>
<th>EECS 1000 - Orientation to EECS (required)</th>
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<tbody>
<tr>
<td>2004 Catalog Data</td>
<td>Orientation to the facilities and procedures available to the students in the university, college and department plus an introduction to the fields of Electrical Engineering and Computer Science and Engineering (1 hour lecture/labs).</td>
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<td>Reference</td>
<td>None</td>
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<td>Course Objectives</td>
<td>To give an introduction to the facilities and services available to students at the University, College of Engineering, and Department of Electrical Engineering and Computer Science. To familiarize the students with the standard procedures for advising and registration. To promote an understanding and appreciation for careers in Electrical Engineering and Computer Science and Engineering.</td>
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<td>Prerequisites by topic</td>
<td>None</td>
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| Topics | 1. Introduction to department faculty and engineering programs within the College of Engineering. Information on professional and social organizations. Introduction to careers in Electrical Engineering and Computer Science and Engineering. [3 Weeks]  
2. Discussion of academic policies. [1 week]  
3. Information pertaining to registration and degree audit. [1 week]  
4. Co-op presentation. [1 week]  
5. Time/stress management. [1 week]  
6. Computer accounts; sending and receiving e-mail. [1 week]  
7. MATLAB. [3 weeks]  
8. Design challenge project. [4 weeks] |
| Class/Lab Schedule | One 50-minute classroom session/week. One 50-minute lab/week meets as needed for computer usage and design project. |
| Professional Component | math/basic science: 0 credits  
engineering topics: 0 credits  
general education: 0 credits |
| EE Program Outcomes | E3: Graduates engage in continuing education, broadening their understanding of the societal impact of their profession.  
E4: Graduates work well in interdisciplinary teams specifying, designing, testing and implementing electrical engineering systems.  
E5: Graduates are involved in the appropriate professional societies, have an interest in the future direction of their field, and begin the process of professional registration.  
E6: Graduates communicate effectively in oral presentations and in writing, and are adept in using modern technology in their communications. |
| CSE Program Outcomes | Not designated for CSE program outcomes. |
| Coordinator | Dr. Hilda M. Standley  
August 30, 2004 |
EECS 1000—Orientation to EECS  
Relationship to Outcomes  
Prepared by Hilda M. Standley, Fall Semester 2004

CSE Outcome #8—“Graduates are involved in professional societies, have an interest in the future direction of the field, and actualize their creative potential and lifelong learning goals.”

and EE Outcome #5—“Graduates are involved in the appropriate professional societies, have an interest in the future direction of their field, and begin the process of professional registration.”

Representatives from the student chapters of IEEE and ACM come to one lecture to talk about their respective organizations. Students are given brief introductions to these organizations, the nature of the activities, and usual meeting times and days. The freshmen are encouraged to become involved early, to meet upper-class students, and faculty members by participating.

EE Outcome #3—“Graduates engage in continuing education, broadening their understanding of the societal impact of their profession.”

and EE Outcome #6—“Graduates communicate effectively in oral presentations and in writing, and are adept in using modern technology in their communications.

So called “extras” account for 25% of the student’s grade. “Extras” cover a wide range of activities outside of the classroom and laboratories, including attendance at sporting events and special entertainment, eating at restaurants, and reading books (fiction and nonfiction) related to the fields of computer science and engineering and electrical engineering. Several titles on the approved reading list refer to the history and impact technology, e.g. “The Cuckoo’s Egg—Tracking a Spy Through the Maze of Computer Espionage,” “Drawing Life: Surviving the Unabomber,” “To Engineer is Human—The Role of Failure in Successful Design.” A student electing to read a book for “extras” credit must submit a written one-page book summary. At the end of the semester each member of an orientation design team must make a 1 – 2 minute presentation about the team’s project in front of the room in a laboratory session.

EE Outcome #4—“Graduates work well in interdisciplinary teams specifying, designing, testing and implementing electrical engineering systems.”

In the last three to four weeks of the orientation class, students organize into teams of 3 to 5 students for the orientation design project. In Fall Semester, 2004, the students designed “cannennae” for a wi-fi “shootout” competition. The students built a wi-fi antenna in order to extend the range of an Orinoco PCMCIA 802.11b card. The goal was to extend the range as far as possible without amplification. The design process included determining the gauge of the copper wire used as the receiver inside the can, its length and its placement.