COMPUTER SCIENCE PROGRAM

Program Goals

The computer science program strives to meet the following goals:

1. To develop students' skills in Problem Solving , Applications, Theory and Systems.

2. To highlight the relevance of Computer Science in the real world.

3. To inculcate in the students , an appreciation of the need for rigor and precision.

Proposed Plan of Assessment:

1. A survey of incoming students will be conducted to assess their knowledge of Computer Science.

2. The Final Exam in CS 257 : Object –Oriented Programming (proposed course) will be used for assessment purposes. CS 257 will be a course in the proposed revised computer science major. Until the proposed revised major is in place, the Final Exam in CS 258 will be used for assessment, instead.

3. The Final Exam in CS 458 : Data Structures and Algorithms will be used for assessment purposes.

4. A survey of recent graduates will be conducted.

5. A Capstone Course in Computer Science is planned. In the future, this course may be used for assessment.

A result of comparison of predictions based on outcomes of exams with the final grades in Data Structures, CS 258, showed a slight discrepancy. As a result I have slightly changed the emphasis of projects in the course and changed slightly the assessment of the course to further emphasize the project work.

David Hutchison
David Hutchison
October 19, 2007

Assessment Report
Computer Science
Spring 2006

Even though our first report is a bit incomplete, we see that a quick inspection of the data and the totals indicate that there is a pretty strong correlation between the assessment data and the course grades. Since the final was comprehensive, we might expect this but in data structures an important component of the grade is the project work. This probably accounts for the seeming inconsistency that we see in the totals of students #4 and #5. In fact, this may indicate that in future assessment instruments we should probably include an assessment of the project work in a course such as data structures.

We enclose a copy of our Program Goals and Plan of Assessment along with the raw data from the assessment process. This is a preliminary attempt at implementation for the following reasons:

1. The Plan was developed in the Fall of 2005 and CS 458 is normally scheduled in the Spring. So we had no data

immediately available from the CS 458 final for use in assessment at the present time.

2. As is made clear on the Plan of Assessment, CS 258 is a kind of substitute for one of the courses to be used in assessment and this fall the enrollment happened to be unusually low. Normally, this class has an enrollment of 15 – 20 but this time it had only 9 or 10 and only 7 took the final.

3. We decided to do the surveys later when a more complete report was possible.

Assessment of

COMPUTER SCIENCE UNDERGRADUATE PROGRAM

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Proposed Plan of Assessment:

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4. A survey of recent graduates will be conducted.

5. A Capstone Course in Computer Science is planed. In the future, this course may be used for assessment.

STUDENT	FINAL GRADE	QUESTION			TOTALS
		#3	#4	#5	
1	A	24	15	15	54
2	B+	19	12	11	42
3	B	18	11	12	41
4	B	16	12	5	33
5	C	17	156	6	38
6	C	12	11	8	31
7	D	15	6	3	24

Assessment Rubric

Course # CS 258
Semester Fall 2005

Student identifier _____
Problem # 3
Student course grade _____

1. Problem Solving Skills

7 Assessed in this problem
0 Not assessed

a. Identifies an effective method for solving problems:

1 (poor)	2	3	4	5 (excellent)	Not Relevant
0	0	3	3	1	0

b. Implements method chosen correctly:

1 (poor)	2	3	4	5 (excellent)	Not Relevant
0	1	4	1	1	0

c. Checks the reasonable nature of results:

1 (poor)	2	3	4	5 (excellent)	Not Relevant
0	1	3	3	0	0

2. Demonstrates Relevance to Real World Problems

0 Assessed in this problem
7 Not assessed

3. Demonstrates Appreciation of Need for Rigor and Precision

7 Assessed in this problem
0 Not assessed

1 (poor)	2	3	4	5 (excellent)	Not Relevant
0	0	5	1	1	0

4. Overall – Presents Work Clearly and in Detail:

7 Assessed in this problem
0 Not assessed

1 (poor)	2	3	4	5 (excellent)	Not Relevant
0	1	2	3	1	0

Assessment Rubric

Course # CS 258
Semester Fall 2005

Student identifier _____
Problem # 4
Student course grade _____

1. Problem Solving Skills

0 Assessed in this problem
7 Not assessed

a. Identifies an effective method for solving problems:

b. Implements method chosen correctly:

c. Checks the reasonable nature of results:

2. Demonstrates Relevance to Real World Problems

7 Assessed in this problem
0 Not assessed

1 (poor)	2	3	4	5 (excellent)	Not Relevant
0	1	1	3	2	0

3. Demonstrates Appreciation of Need for Rigor and Precision

7 Assessed in this problem
0 Not assessed

1 (poor)	2	3	4	5 (excellent)	Not Relevant
0	1	0	4	2	0

4. Overall – Presents Work Clearly and in Detail:

7 Assessed in this problem
0 Not assessed

1 (poor)	2	3	4	5 (excellent)	Not Relevant
0	1	1	3	2	0

Assessment Rubric

Course # CS 258
Semester Fall 2005

Student identifier _____
Problem # 5
Student course grade _____

1. Problem Solving Skills

0 Assessed in this problem
7 Not assessed

a. Identifies an effective method for solving problems:

b. Implements method chosen correctly:

c. Checks the reasonable nature of results:

2. Demonstrates Relevance to Real World Problems

7 Assessed in this problem
0 Not assessed

1 (poor)	2	3	4	5 (excellent)	Not Relevant
2	1	1	1	2	0

3. Demonstrates Appreciation of Need for Rigor and Precision

7 Assessed in this problem
0 Not assessed

1 (poor)	2	3	4	5 (excellent)	Not Relevant
1	3	2	0	1	0

4. Overall – Presents Work Clearly and in Detail:

7 Assessed in this problem
0 Not assessed

1 (poor)	2	3	4	5 (excellent)	Not Relevant
1	2	1	2	1	0