

Results of POCAT, Spring '06

The Program Outcomes Achievement Test (POCAT) is a direct assessment tool for assessing the degree of achievement of the various outcomes of the BS-CSE program. For complete details, please see:

<http://www.cse.ohio-state.edu/~neelam/abet/DIRASSMNT/firstGroup.html>

Thirty eight students took the test in the Spring '06 quarter. The results appear in the table on the next page, one row per student. The first column in the table is the code assigned to the student. *Only* the individual students know their respective codes; there is no way for anyone else to find out how any given student performed on the test. The test is set up this way since the goal is to allow us to assess the *program* while preserving student anonymity.

The questions on the test: The questions on the POCAT are designed to help assess the degree to which specific program outcomes were achieved by BS-CSE students as they near completion of the program. The topics that the questions are based on are from the required high-level courses (CSE 541, 560, 601, 625, 655, 660, 670, 675, 680). But they are not the typical questions you might find in, say, the final exams of those courses. Instead, they are more conceptual and are intended to see how well students understand key concepts from across the curriculum and possibly apply them in new situations. Starting with the Spring '06 POCAT, we are experimenting with including questions based on some elective courses. Thus question (18) on this test was based on CSE 630.

Each question on POCAT is a multiple-choice question. Each question has, as one possible answer, something along the lines of "I have no idea". Students are asked to choose that if they really don't have any idea how to answer the question; if, on the other hand, they are not sure of the answer but can make an informed guess, they are asked to do so. There are also a couple of additional questions at the end that ask for the students' opinions on the test (such as its length, level of difficulty, etc.)

Relation to EC Criterion 3 Outcomes: The questions on POCAT help assess the degree of achievement of EAC Outcomes 3.a, 3.b, 3.c, 3.e, 3.f, and 3.k. There were 18 questions on the test administered during Winter '06. The following table lists the numbers of the questions in the test that correspond to each of these outcomes.

Cr. 3 Outcome	Related questions
3.a	1, 2, 4, 5, 7, 9, 10, 13, 15, 16, 17
3.b	4, 5, 10, 12, 13, 14, 16, 18
3.c	1, 2, 6, 11, 12, 13, 18
3.e	1, 2, 4, 5, 6, 7, 15, 16
3.f	3
3.k	5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18

The results of this POCAT will be discussed at the April 18th meeting of the Undergraduate Studies Committee.

The first column in the table is the code corresponding to the student. The next 20 columns list the answers provided by the particular student for each of the 20 questions in the test. Some of the students taking the test had not yet completed some of the required 600-level courses; for each such student, the last column indicates which courses the student had not completed. Following the rows corresponding to the individual students, is a “key” row listing the correct answers. The next row lists, for each question, the number of students who gave the correct answer. The first row lists the question numbers, and the last row lists the number of the course most directly related to the question.

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	courses† not taken
A1	f	e	b	d	d	d	c	c	c	a	c	b	c	e	a	e	c	b	c	b	
B1	a	a	b	a	f	d	c	c	b	a	c	c	e	d	c	e	c	f	c	c	a,c,d,g
C1	a	a	c	c	d	c	c	c	b	a	c	b	f	e	b	e	d	b	c	c	
D1	a	a	e	a	f	d	e	c	b	a	c	d	f	e	b	e	b	f	b	c	a
E1	a	a	d	c	d	d	a	c	b	a	c	a	e	a	b	e	d	d	c	c	
F1	a	a	d	c	c	d	e	c	b	a	d	c	f	c	b	e	d	f	b	c	
G1	c	a	d	a	d	d	b	c	b	e	c	c	f	e	b	e	b	b	c	b	
H1	a	a	e	a	d	d	b	c	b	e	c	b	e	c	b	e	c	d	c	b	f
I1	c	a	e	a	f	d	a	c	b	a	c	c	f	e	b	e	d	d	b	c	
J1	a	a	e	a	d	d	e	c	d	a	c	c	e	c	b	e	b	d	b	c	a,c
K1	a	c	e	c	d	d	b	c	b	a	d	c	f	a	b	e	b	d	c	c	
L1	e	a	b	e	f	e	a	c	c	d	e	a	b	b	a	e	f	a	c	a	
M1	a	a	b	a	d	e	d	c	c	e	b	c	d	c	d	e	d	d	b	c	c,g
N1	a	a	c	a	d	d	a	c	b	a	c	c	f	a	b	e	c	b	c	c	a
P1	d	a	b	a	f	d	a	c	b	d	c	c	f	d	b	e	d	b	c	c	
R1	a	a	d	a	d	a	b	c	b	a	c	b	e	b	b	e	b	d	c	c	
S1	a	a	d	a	d	d	a	b	a	a	c	b	e	a	b	e	c	d	c	c	f
T1	f	b	b	d	f	e	d	c	b	b	e	d	g	d	b	e	b	b	c	c	a,d
U1	c	a	d	a	d	d	a	c	b	d	c	a	e	d	b	e	d	a	c	c	
V1	c	b	e	a	d	c	a	c	c	b	a	b	b	b	b	e	d	c	c	c	
W1	c	c	b	a	f	c	e	c	d	d	c	c	c	e	a	e	d	d	c	c	
X1	d	a	d	a	f	d	c	c	b	a	c	c	f	e	c	e	c	b	c	c	
Y1	a	a	d	a	d	d	a	c	a	d	c	b	e	d	b	e	c	d	b	c	
Z1	c	c	e	a	d	d	e	d	b	a	e	c	c	e	a	e	d	f	c	c	a
A2	a	a	d	c	d	d	a	c	b	a	c	b	f	d	b	e	b	d	c	c	
B2	a	a	e	d	d	d	e	d	b	a	c	c	f	e	d	e	d	f	b	c	
C2	a	a	e	a	f	d	a	c	b	a	c	c	e	b	a	e	d	b	c	c	a
D2	a	a	c	a	f	d	b	c	a	a	c	b	c	a	c	e	c	b	c	c	
E2	a	a	c	a	d	d	a	d	b	a	c	c	e	b	b	e	b	d	c	c	
F2	c	a	b	a	d	b	a	c	b	e	d	a	e	e	d	e	d	d	b	c	
G2	a	a	c	d	f	d	a	c	b	d	c	b	c	c	a	e	d	d	c	c	
K2	f	c	d	c	f	b	b	d	b	c	c	c	f	a	b	e	c	d	c	c	
L2	a	a	e	a	d	d	b	c	b	a	c	b	f	d	b	e	b	d	b	c	
M2	a	a	b	a	d	d	a	c	b	d	c	b	e	a	b	e	b	d	c	c	
N2	a	a	c	a	f	b	c	c	c	a	c	a	b	e	d	e	b	b	c	c	
P2	c	a	e	a	d	b	e	c	b	a	c	d	e	e	a	e	b	f	c	c	
R2	c	a	e	a	f	d	d	c	b	a	c	c	e	d	b	e	b	d	c	c	
S2	c	a	e	a	f	d	b	c	b	a	c	c	e	d	b	e	b	f	c	c	
Key	a	a	b/d	a	d	d	a	c	b	a	c	c	f	d	b	e	c	d	c	c	
No. correct	22	31	20	27	22	27	15	23	28	24	30	18	13	9	24	38	9	18/7			
Related course	???	680	601	541	560	221 etc	625	625	655	655	660	675	660	670	670	680	680	630			

Note: †In the last column, *a, b, c, d, e, f, g* denote CSE 601, 625, 655, 660, 670, 675, 680 respectively.

Question 3 was about the ACM Code. Interestingly, the correct answer to the question depends on whether we are talking about the code for CS professionals or for software engineers. In counting how many students got this question correct, we have counted both of these answers as correct. Question 18 is related to CSE 630. Seven students had not taken the course; 18 of the remaining 31 students answered q. 18 correctly. Questions 19 and 20 are not technical questions but rather questions about the test itself; hence there are no right or wrong answers for these questions. For each of these questions, the “key” row simply lists the answers picked by the largest number of students.