

**Norms for the General
College Placement Program**

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Background

The General College Placement Program (GCPP) was developed by a sub-committee of the General College Curriculum Committee. This sub-committee was chaired by Prof. John Romano and did its work during the 1979-80 academic year. Other members of the committee were Thomas Brothen, Sandra Dylla (Flake), Phil Layne, Joan Pinkney, Doug Robertson, and Nathan Smith.

Three separate tests were chosen by the sub-committee for use in placing new students in the appropriate Reading, Writing, and Mathematics classes. The mathematics test was developed by the mathematics faculty of the SBM Division (Robertson, 1979) to assess student skills in whole numbers, arithmetic, and algebra. The Reading and Writing Tests were obtained from the Comparative Guidance and Placement Program of the College Board (Educational Testing Service, 1977) to assess student skill levels in reading and writing.

The new testing program was pilot tested Spring quarter, 1980 during the registration/orientation period for new GC students. Because the results of this trial were positive the test battery was used unchanged for Fall 1980 registration. The norms that follow were developed from the more than 1,300 students taking the placement tests in Spring and Fall of 1980.

Mathematics Test: Whole Numbers Subtest

The whole numbers subtest consists of seven items which require students to add, subtract, multiply, and divide whole numbers. The raw scores (0-7 possible) and the percentage of 1320 students falling below each score are listed in Table 1.

Table 1 - Whole Numbers Subtest (n=1,320)

| <u>Score</u> | <u>Percentile</u> |
|--------------|-------------------|
| 7 | 77% |
| 6 | 47% |
| 5 | 24% |
| 4 | 10% |
| 3 | 3% |
| 2 | 0% |
| 1 | 0% |
| 0 | 0% |

Mathematics Test: Arithmetic Subtest

The Arithmetic subtest consists of 25 items which require students to add, subtract, multiply, and divide whole numbers, fractions, decimals, and percents. The raw scores (0-25 possible) and the percentage of 1,317 students falling below each score are listed in Table 2.

Table 2 - Arithmetic Subtest (n=1,317)

| <u>Score</u> | <u>Percentile</u> | <u>Score</u> | <u>Percentile</u> |
|--------------|-------------------|--------------|-------------------|
| 25 | 98% | 12 | 24% |
| 24 | 96 | 11 | 20 |
| 23 | 93 | 10 | 14 |
| 22 | 89 | 9 | 10 |
| 21 | 83 | 8 | 7 |
| 20 | 77 | 7 | 5 |
| 19 | 70 | 6 | 2 |
| 18 | 64 | 5 | 2 |
| 17 | 57 | 4 | 1 |
| 16 | 50 | 3 | 0 |
| 15 | 44 | 2 | 0 |
| 14 | 37 | 1 | 0 |
| 13 | 30 | 0 | 0 |

Reading Test

The reading test consists of "eight brief passages, each followed by four or five questions measuring comprehension of ideas, ability to make inferences, and understanding of vocabulary in context" (ETS, 1977, p.3). The test has been normed on over 30,000 students in Community College, Vocational-Technical Colleges and other similar institutions from around the country (ETS, 1977). The raw scores (0-35 possible) and the percentages of the national group and the 1,318 GC students falling below each score are listed in Table 4.

Table 4 - Reading Test

| <u>Score</u> | <u>National Percentile</u> | <u>GC Percentile</u> | <u>Score</u> | <u>National Percentile</u> | <u>GC Percentile</u> |
|--------------|----------------------------|----------------------|--------------|----------------------------|----------------------|
| 35 | 99% | 99% | 17 | 25% | 24% |
| 34 | 96 | 97 | 16 | 22 | 20 |
| 33 | 92 | 96 | 15 | 19 | 17 |
| 32 | 88 | 92 | 14 | 16 | 15 |
| 31 | 84 | 88 | 13 | 13 | 12 |
| 30 | 79 | 84 | 12 | 10 | 9 |
| 29 | 75 | 81 | 11 | 8 | 7 |
| 28 | 70 | 75 | 10 | 6 | 6 |
| 27 | 66 | 71 | 9 | 4 | 5 |
| 26 | 61 | 70 | 8 | 3 | 3 |
| 25 | 57 | 61 | 7 | 2 | 2 |
| 24 | 52 | 56 | 6 | 1 | 1 |
| 23 | 48 | 52 | 5 | 1 | 1 |
| 22 | 44 | 46 | 4 | 1 | 1 |
| 21 | 40 | 42 | 3 | 1 | 1 |
| 20 | 36 | 37 | 2 | 1 | 0 |
| 19 | 32 | 32 | 1 | 1 | 0 |
| 18 | 28 | 28 | 0 | 0 | 0 |

Writing Test

The writing test consists of 40 "items dealing with sentence structure, the clear expression of ideas and their logical relationship" (ETS, 1977, p.3). This test was normed on the same group used to norm the reading test. The raw scores (0-40 possible) and the percentages of the national group and the 1,318 GC students falling below each score are listed in Table 5.

Table 5 - Writing Test

| <u>Score</u> | <u>National Percentile</u> | <u>GC Percentile</u> | <u>Score</u> | <u>National Percentile</u> | <u>GC Percentile</u> |
|--------------|----------------------------|----------------------|--------------|----------------------------|----------------------|
| 40 | 99% | 100% | 19 | 18% | 13% |
| 39 | 99 | 99 | 18 | 15 | 10 |
| 38 | 99 | 99 | 17 | 12 | 8 |
| 37 | 97 | 98 | 16 | 9 | 7 |
| 36 | 95 | 98 | 15 | 7 | 5 |
| 35 | 92 | 96 | 14 | 5 | 4 |
| 34 | 89 | 94 | 13 | 4 | 3 |
| 33 | 85 | 89 | 12 | 3 | 2 |
| 32 | 81 | 86 | 11 | 2 | 2 |
| 31 | 76 | 81 | 10 | 1 | 1 |
| 30 | 72 | 76 | 9 | 1 | 1 |
| 29 | 67 | 70 | 8 | 1 | 1 |
| 28 | 61 | 63 | 7 | 1 | 1 |
| 27 | 56 | 57 | 6 | 1 | 1 |
| 26 | 51 | 51 | 5 | 1 | 1 |
| 25 | 45 | 46 | 4 | 1 | 0 |
| 24 | 40 | 38 | 3 | 1 | 0 |
| 23 | 35 | 32 | 2 | 1 | 0 |
| 22 | 30 | 26 | 1 | 1 | 0 |
| 21 | 26 | 21 | 0 | 0 | 0 |
| 20 | 22 | 17 | | | |

Conclusion

The percentile ranks of entering GC students on the GCPP reported above have a variety of possible uses. First, they can be useful in placing students in remedial programs. For example, 81% of entering students are presently recommended to take a developmental writing course (1403, 1404, 1405) before 1421; and 84% are recommended to take a developmental reading course (1401, 1402, 1406). Second, they can be useful in various college research projects. For example, GC students score the same as the Educational Testing Service's national sample of students enrolled in institutions similar to GC. This information would be useful in writing about GC programs as they might be applied to other institutions.

References

- Educational Testing Service, Using and interpreting scores on the GCP Self-Scoring Placement Tests in English and Mathematics. Princeton, N.J., 1977.
- Robertson, D.R., "An investigation of aptitude treatment interactions (ATI) with respect to programmed and lecture treatment in a college course in basic mathematics. Ph.D. dissertation presented to the Graduate School of the University of Minnesota, 1979.