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AUTHOR McMillan, James H.; Potter, David L.
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ABSTRACT

Information about student achievement outcomes is presented, and tests for each outcome area are described. The tests are categorized according to knowledge objectives, skill objectives, and intellectual disposition. Knowledge objectives include comprehension of facts and principles within a particular discipline (specialized knowledge) or a broad area of study (general knowledge). Skills are capabilities to perform intellectual and motor tasks, including verbal and quantitative communication of knowledge. Intellectual disposition is an attitude toward and an inclination to use knowledge and skills. Tests to measure intellectual disposition are self-report instruments for students to indicate their activities or values. Tests are also subcategorized as to whether they involve general or specialized knowledge or skills, or generic skills (i.e., intellectual capabilities that involve "higher order" thinking such as application, analysis, synthesis, reasoning, critical thinking, creative thinking, and problem-solving). Twenty-four tests are briefly described, with a statement of purpose and information on test length, cost, and the publisher. Also listed are tests of knowledge and skills in specific fields of study at the baccalaureate and associate degree levels. (SW)

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COLLEGE STUDENT ACHIEVEMENT
OBJECTIVES AND TESTS

James H. McMillan*
Virginia Commonwealth University

David L. Potter
State Council of Higher Education for Virginia

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Measuring student achievement is an integral part of teaching and learning in higher education. Faculty evaluate students through examinations, written and oral presentations in virtually all courses to determine students' grades and whether or not course objectives are being met.

Recently, however, the public and educational leaders have expressed concern about the limitations of traditional evaluation procedures and have proposed extraordinary means to ascertain how well students are acquiring the knowledge and skills traditionally associated with a college education. These concerns parallel similar questions about the effectiveness of elementary and secondary education. This concern is highlighted in two recent national reports, Involvement in learning, a 1984 report by the National Institute of Education, and Integrity in the College Curriculum, a 1985 report by the Association of American Colleges. Both reports call for assessment programs which evaluate students' knowledge, capacities and skills.

The response of higher education to this concern has been, at best, ambiguous. Some educators argue that student outcomes result from a complex interaction between individual

students and unique institutional characteristics, and should not be judged by common standardized tests of achievement. Others believe colleges and universities, particularly publicly supported ones, must demonstrate greater accountability by providing test scores of students that are related to the goals and objectives of the institution. Irrespective of position, however, faculty and administrators at many institutions, as well as policymakers, are discussing ways to measure student outcomes. The purpose of this paper is to summarize information about student achievement outcomes, and to provide a description of existing tests for each outcome area. This information may be helpful in deciding what, if any, existing tests should be used to assess achievement.

Tests of college student achievement can be categorized according to objectives as outlined in Table 1. These objectives are discussed in the following paragraphs. Descriptions of the instruments are in Appendices A and B.

Knowledge Objectives

Knowledge objectives include comprehension of facts and principles within a particular discipline (specialized knowledge) or a broad area of study (general knowledge).

Assessing these goals is done by tests requiring students to demonstrate how much they understand about a field of study. The tests usually consist of recall or recognition questions about basic terminology, theories, and principles.

General knowledge tests focus on areas of study such as the humanities, natural sciences, social sciences, fine arts or the liberal arts and sciences and evaluate the students' breadth of knowledge.

A few tests are available to measure the general knowledge of college students. College Level Examination Program (CLEP) examinations cover two general knowledge areas, natural sciences and social sciences. The Undergraduate Assessment Program (UAP) offers general tests in the humanities, social sciences and natural sciences. The National Teacher Examinations (NTE) contain assessments of literature/fine arts, mathematics, science, and social studies knowledge. The SAT and ACT examinations are not intended for this purpose; but, because they are difficult tests for high school seniors, some colleges and universities use them as a measure of general education at the end of the sophomore year.

The ACT College Outcome Measures Project (COMP) is the most recently developed set of tests to measure general knowledge. The COMP requires that students apply general knowledge to problems and issues commonly confronted by adults. Both the Composite Examination and the Objective Test portions of the COMP measure three general areas: functioning within social institutions, using science and technology, and using the arts.

Several tests are available to measure specialized knowledge. The College Level Examination Program (CLEP) tests, the Defense Activity for Non-Traditional Education Support (DANTES) tests, the College Board/Education Testing Service Advanced Placement Tests, and the ACT Proficiency Examination Program (PEP) tests are designed to assess students' knowledge of the content of individual courses. The Graduate Record Examination (GRE) area tests and numerous professional certification and licensure tests evaluate students from particular programs of study, for example, foreign languages, chemistry, nursing, social work, dental hygiene, engineering, elementary education.

Skill Objectives

Skills are capabilities to perform intellectual and motor tasks, including verbal and quantitative communication of knowledge. General knowledge skills are commonly developed and used in general education and include reading, writing, speaking, listening, and mathematics. Tests of general knowledge skills correlate with measures of general knowledge.

Several comprehensive assessments of general knowledge skills of college students are available. The ACT-COMP is a widely used measure of verbal skills - including reading comprehension, writing, and oral communication, and quantitative skills - including mathematics, statistics and computing. The GRE, ACT and SAT examinations also incorporate measures of verbal and quantitative skills. The College Board's Multiple Assessment Programs and Services (MAPS) is used to diagnose student deficiencies in reading, written English expression, computation, applied arithmetic, and algebra.

Three states have designed tests of general knowledge skills and require students to demonstrate competency on the tests for graduation. In Florida all students must pass four tests of the College Level Academic Skills Project (CLASP) measuring reading, listening, writing and speaking. In

Georgia students must pass the reading comprehension and essay tests of the Regents' Testing Program. In California students attending the state university system must demonstrate writing proficiency through the Graduation Writing Assessment Requirement.

Two tests of general knowledge skills are directed at teacher education majors. The National Teacher Examinations (NTE) contain a communication skills subtest, including listening, reading, writing usage and sentence construction, and essay writing. The Pre-Professional Skills Test measures listening, writing and reading skills in different subtests.

Skills in specialized knowledge areas are needed for effective performance in a particular occupation or profession. These skills are best assessed by professional certification and licensure tests. Most of the tests available, however, assess a combination of skills and knowledge, and it is difficult to extract a separate score for skills.

Generic skills are intellectual capabilities that go beyond basic skills and transcend particular disciplines. Such skills include "higher order" thinking such as application, analysis, synthesis, reasoning, critical

thinking, creative thinking, and problem-solving. While these skills may comprise for some the essence of college level work, few assessment instruments are available to measure them. The tests now in use have been used on a very limited basis, and few have developed normative scores. The tests measure some generic skills, especially problem-solving and application skills, but also evaluate knowledge or other skills. A separate score for the generic skills is not derived. The lack of instrumentation in this area is due in large part to the difficulty of achieving consensus on a definition of each skill and constructing a skill measure independent of knowledge.

Intellectual Disposition

Intellectual disposition is an attitude toward and an inclination to use knowledge and skills. There are a few tests that can be used to assess intellectual disposition. All are student self-report instruments asking students to indicate their activities or values. The College Student Experiences Questionnaire, ACT-COMP Activity Inventory, and Experience of College Questionnaire ask students to indicate typical or usual behavior, not what is ideal or desired. Presumably, students should demonstrate a greater involvement in intellectual activities as a result of college. The value

inventories force students to rank-order or choose values of greatest importance.

The Omnibus Personality Inventory measures 14 aspects of intellectual disposition, including theoretical orientation, complexity, autonomy, and response bias. This inventory is especially appropriate for assessing student values and interests directly related to academic activities. The Rokeach Value Survey measures personal values such as "comfortable life," "ambition," and "world place," and provides a way to show which values are most important.

A Note of Caution

The purpose of most of these tests is to maximize individual differences and to show how to compare individual student performances. These "norm-referenced" tests are not intended to compare individuals to an absolute or pre-set standard of knowledge or skill. The tests are designed so that the items are answered correctly by about half the students. In this situation students do not have the opportunity to demonstrate much of what they have learned. If the purpose of an assessment is to certify a level of competence in knowledge or skill, then norm-referenced tests are not appropriate. Nationally standardized norm-referenced

tests like the ACT-COMP, SAT, and GRE also are often unrelated to what may be taught in a specific college course or curriculum.

Norm-referenced tests should be used with great caution and expertise, especially when interpreting the meaning of the results. For example, it would be inaccurate and misleading to use the ACT-COMP or GRE solely to conclude, on the basis of relatively high scores, that the college or university curriculum was of high quality, particularly in comparison with other colleges. Norm-referenced tests may instead reflect to a greater extent incoming abilities and past experiences rather than the influence of the curriculum.

TABLE 1

A CLASSIFICATION OF COLLEGE STUDENT ACHIEVEMENT OBJECTIVES
AND RELATED TESTS

<u>Achievement Objectives</u>	<u>Tests</u>
I. Knowledge	
A. General Knowledge	1. SAT 2. ACT 3. CLEP general examinations 4. ACT-COMP content area scores 5. UAP tests 6. GRE 7. NTE general knowledge test
B. Specialized knowledge	1. ACT PEP tests 2. CLEP area tests 3. GRE area tests 4. College Board/ETS Advanced Placement Examinations 5. Professional Certification and Licensure tests (e.g., NTE area exams) 6. DANTES tests
II. Skills	
A. General Knowledge Skills	1. ACT-COMP process area communications test 2. GRE 3. SAT 4. ACT 5. MAPS 6. CLASP 7. Georgia Regents Testing Program 8. NTE Communications Skills Tests 9. PPST 10. Learning New Material

- B. Specialized knowledge skills
1. Professional certification licensure tests
 2. ACT PEP tests
 3. CLEP area tests
 4. GRE area tests
 5. College Board/ETS Advanced Placement Examinations
 6. Professional Certification and Licensure tests (e.g., NTE area exams)
 7. DANTES tests

- C. Generic Skills
1. Watson-Glaser Critical Thinking Appraisal
 2. Cornell Critical Thinking Test
 3. Analysis of Argument
 4. Test of Logic and Rhetoric
 5. Test of Thematic Analysis
 6. GRE Analytical Ability subtest

III. Intellectual Disposition

1. College Student Experiences
2. Experience of College Questionnaire
3. ACT-COMP Activity Inventory
4. Study of Values
5. Rokeach Value Survey
6. Omnibus Personality Inventory

APPENDIX A

GENERAL KNOWLEDGE AND SKILLS ACHIEVEMENT TESTS

NAME ACT Assessment program.

PURPOSE To assess the academic achievement of high school students.

DESCRIPTION 219 item test of four sections: English usage, mathematics, social studies, reading, and natural sciences reading.

LENGTH 195 minutes.

COST Basic test fee \$9.50.

PUBLISHER The American College Testing Program.

NAME ACT Proficiency Examination Program (PEP).

PURPOSE To assess college level academic achievement and used to grant college credit or advanced placement.

DESCRIPTION 49 tests in a wide range of fields: arts and science (8 tests), business (18 tests), education (4 tests), nursing (17 tests). Cover introductory to advanced levels. Tests complement CLEP tests.

LENGTH 3-7 hours per test.

COST Varies, from \$40.00 per student to grant credit, less for research purposes.

PUBLISHER The American College Testing Program.

NAME Advanced Placement (AP) Examinations.

PURPOSE Measure college level academic achievement in a wide range of fields.

DESCRIPTION 24 tests for introductory college courses in 13 fields, including science (3), mathematics (2), foreign language (4), English (1), fine arts (2), and history (1).

LENGTH 3 hours or less per test.

COST \$42.00 per student per test to grant credit, less for research purposes.

PUBLISHER The College Board.

NAME Analysis of Argument.

PURPOSE Measures intellectual flexibility by the strength of an argument, its analytical structure, and the logic of its organization.

DESCRIPTION Essay response to an article arguing a point of view.

LENGTH 12 minutes.

COST N/A

PUBLISHER McBear and Company.

NAME College-Level Academic Skills Project (CLASP).

PURPOSE To measure communication and computational skills expected of rising junior students. Administered to all Florida students who must achieve a passing score to receive an A.A. degree or to advance to junior year status.

DESCRIPTION Objective items are used to measure computation and reading skills. A writing sample is used to measure writing skills.

LENGTH 4-1/2 hours.

COST N/A

PUBLISHER Florida State Department of Education.

NAME College Level Examination Program (CLEP).

PURPOSE To provide a measure of achievement to enable students to earn lower level college credit.

DESCRIPTION Five General Examinations (humanities, english composition, mathematics, natural sciences, and social sciences and history) and 30 Subject Examinations in five areas (composition and literature, foreign languages, history and social sciences, science and mathematics, and business) measure achievement of content taught in many college courses. The General Examination tests material usually covered in the first two years of college, i.e., general education or liberal education. The content of the tests is based on surveys of curricula throughout the country. Each test is objective.

LENGTH 60-90 minutes each.

COST \$30.00 per test, less for research purposes.

PUBLISHERS The College Board.

NAME Pre-Professional Skills Test (PPST)

PURPOSE To measure reading, writing and mathematical skills of students enrolled in teacher preparation programs.

DESCRIPTION Three separate scores are reported: one for reading skills, using multiple choice questions to assess comprehension and judgments about written messages; one for mathematics, covering skills typically taught in high school; and one for writing, which uses both multiple choice and essay questions.

LENGTH 150 minutes

COST \$30 per student for all three tests, \$25 for two tests, \$20 for one test.

PUBLISHER Educational Testing Service

NAME College Outcome Measures Project (COMP).

PURPOSE To measure the application of general knowledge, skills and attitudes college graduates should demonstrate to function effectively as adults.

DESCRIPTION Each of two examinations (Composite Examination and Objective Test), measures six major areas of general knowledge and skills:

PROCESS AREAS

1. Communicating - speak and write for a variety of purposes.
2. Solving problems - analyze a variety of problems, e.g., scientific, social, personal.
3. Clarifying values - identify, analyze and understand implications of values.

CONTENT AREAS

4. Functioning within social institutions - identify, understand and analyze social aspects of a culture.
5. Using science and technology - identify, understand and analyze activities and products which constitute scientific/technological aspects of a culture.
6. Using the arts - identify, understand and analyze activities and products which constitute artistic aspects of a culture.

Both the Composite Examination and Objective Test contain a series of 15 simulation activities that require the application of general knowledge and skills to problems and issues commonly confronted by adults. The questions are based on television documentaries, recent magazine articles, ads, short stories, art prints, music, discussions, and newscasts. The Composite Examination includes objective essay and oral response questions.

LENGTH

The Composite Examination takes about four hours to complete. The Objective Test takes about two hours to complete. Test users have the flexibility to administer any of the six areas individually.

COST

For the Composite Examination, between \$10-20 per student. For the Objective Test, between \$3-4.50 per student.

PUBLISHER

American College Testing Program.

NAME College Student Experiences (CSE).

PURPOSE To measure the range and quality of campus experiences and student effort.

DESCRIPTION Students indicate how often they have done each experience during the current school year.

LENGTH

COST N/A

PUBLISHER University of California at Los Angeles, Laboratory for Research on Higher Education.

NAME Cornell Critical Thinking Tests.

PURPOSE To measure critical thinking.

DESCRIPTION Two forms of the objective test are available, one for children and one for adults. There are 52 multiple choice questions assessing deduction, semantics, credibility, induction, and assumption identification.

LENGTH 45-50 minutes.

COST N/A

PUBLISHER Midwest Publishing Co.

NAME Defense Activity for Non-Traditional Education Support (DANTES).

PURPOSE To measure content contained in one semester college courses; complement CLEP tests.

DESCRIPTION Individual tests are available in science, social science, business, applied technology, languages, and mathematics.

LENGTH 90 minutes per test.

COST \$25.00 per test for individual testing; less for research purposes.

PUBLISHER Educational Testing Service.

NAME Experience of College Questionnaire (ECQ).

PURPOSE To assess students academic experiences.

DESCRIPTION A self-report instrument that assesses frequency of student academic activities, based on Bloom's taxonomy of educational objectives.

LENGTH N/A

COST N/A

PUBLISHER Arthur W. Chickering, Memphis State University.

NAME Learning New Material.

PURPOSE To measure the ability to learn new material.

DESCRIPTION Students read three passages from recently published material in the natural sciences, social sciences, and the humanities, and answer objective questions on the content.

LENGTH 35 minutes.

COST N/A

PUBLISHERS Harvard University.

NAME Multiple Assessment Programs and Services (MAPS).

PURPOSE To identify academic weaknesses of beginning college students.

DESCRIPTION Six tests measure reading, written english expression, computation, applied arithmetic, elementary algebra, and advanced algebra.

LENGTH About 20 minutes per test.

COST N/A

PUBLISHER The College Board.

NAME National Teacher Examinations (NTE).

PURPOSE To assess communication skills (listening, reading, writing) general knowledge (literature/fine arts, mathematics, science and social studies) of graduating teacher education students.

DESCRIPTION The Core Battery consists of separate tests of communication skills, general knowledge and professional knowledge. Students answer multiple choice questions; listen to tapes, and write essays. There are 26 area tests in major areas such as elementary education, biology and foreign languages.

LENGTH Six hours for the Core Battery; 2-1/2 hours for each area tests.

COST \$40.00 for the Core Battery; \$20.00 per area test.

PUBLISHER Educational Testing Service.

NAME Omnibus Personality Inventory (OPI).

PURPOSE To assess selected personality factors, values and interests related to academic activity.

DESCRIPTION 385 item self-report instrument with 14 aspects of personality and values. Six scales are used to indicate an intellectual disposition score.

LENGTH 45-60 minutes.

COST \$.50-1.00 per test depending on quantity.

PUBLISHER The Psychological Corporation.

NAME Regent's Testing Program.

PURPOSE To measure reading and writing skills of all rising juniors in the University System of Georgia. Students must pass the tests to graduate.

DESCRIPTION The Reading Test has ten passages with questions on each to measure vocabulary, literal comprehension, inferential comprehension and analysis. The Essay Test requires students to demonstrate adequate writing skills through the composition of an essay.

LENGTH Each test takes about one hour.

COST N/A

PUBLISHER The University System of Georgia.

NAME Rokeach Value Survey.

PURPOSE To measure personal values in relation to comparison groups.

DESCRIPTION Students rank 36 items that indicate different values. Values are divided into terminal (for example, comfortable life, world peace) and behavioral (for example, loving, ambition).

LENGTH 15 minutes.

COST \$.50-1.00 per test depending on quantity.

PUBLISHER Halgren Tests.

NAME Scholastic Aptitude Test (SAT).

PURPOSE To measure verbal and mathematical reasoning abilities related to successful performance in college.

DESCRIPTION 135 item test measuring reading comprehension, vocabulary, and mathematical problem-solving ability.

LENGTH 2-1/2 hours.

COST N/A

PUBLISHER The College Board.

NAME Study of Values.

PURPOSE To measure the relative prominence of values and interests.

DESCRIPTION 45 item test measures six factors: theoretical, economic, aesthetic, social, political, and religious.

LENGTH 20 minutes.

COST \$11.55/35 tests.

PUBLISHER The Riverside Publishing Company.

NAME Test of Logic and Rhetoric.

PURPOSE To measure ability to communicate with sound arguments and clear writing.

DESCRIPTION Essay test graded on spelling, grammar, organization, and quality of arguments.

LENGTH 25 minutes.

COST N/A

PUBLISHER Harvard University.

NAME Test of Thematic Analysis.

PURPOSE To measure analysis of reading material and the ability to marshall pertinent information in support of an argument.

DESCRIPTION Essays written in which four imaginative stories are compared.

LENGTH 30 minutes.

COST N/A

PUBLISHER McBear and Company.

NAME Undergraduate Assessment Program (UAP).

PURPOSE To measure college achievement in general education and business.

DESCRIPTION There are three general education area tests, humanities, social science, and natural science, and one test in business. No current norms are available.

LENGTH One hour for each general education test; two hours for the business test.

COST Negligible; institutions must do own scoring.

PUBLISHER Educational Testing Service.

NAME Watson-Glaser Critical Thinking Appraisal.

PURPOSE To assess several components of critical thinking.

DESCRIPTION 80 item objective test of five aspects of critical thinking - inferences, recognition of assumptions, deduction, interpretation, and evaluation of arguments. Two alternate forms are available. The items include problems, statements, arguments and interpretation of material encountered on a daily basis.

LENGTH 50 minutes.

COST About \$1.00 per test.

PUBLISHER The Psychological Corporation.

APPENDIX B
TESTS THAT ASSESS SPECIALIZED
KNOWLEDGE AND SKILLS

**TESTS THAT ASSESS SPECIALIZED
KNOWLEDGE AND SKILLS**

Listed below are tests to measure knowledge and skills in specific program areas, including baccalaureate and associate degree programs. These lists were prepared initially by a task force of faculty and administrators in Tennessee to evaluate student performance in majors.

Baccalaureate Degree Programs

<u>Program/Major</u>	<u>Test</u>
Architecture	Uniform Architect Registration Examination.
Biology, General	ETS GRE Advanced Biology Test.
Business and Commerce, General	ETS UP Field Test in Business.
Accounting	American Institute of Certified Public Accountants Achievement Test: Level II.
Finance	ETS UP Field Test in Business.
Business Administration	ETS UP Field Test in Business.
Management	ETS UP Field Test in Business.
Marketing	ETS UP Field Test in Business.
Real Estate	ETS UP Field Test in Business.
Insurance	ETS UP Field Test in Business.
International Business	ETS UP Field Test in Business.
Computer & Information Sciences	ETS GRE Advanced Test in Computer Science.
Education, General	National Teacher Examinations.
Elementary Education	National Teacher Examinations.
Secondary Education	National Teacher Examinations.
Special Education, General	National Teacher Examinations.

Pre-Elementary Education	National Teacher Examinations.
Art Education	National Teacher Examinations.
Instrumental Music Education	National Teacher Examinations.
Public School Music Education	National Teacher Examinations.
Music Education	National Teacher Examinations.
Health and Physical Education	National Teacher Examinations.
Physical Education, K-9	National Teacher Examinations.
Physical Education, 7-12	National Teacher Examinations,
Physical Education	National Teacher Examinations.
Health Education	National Teacher Examinations.
Business Education	National Teacher Examinations.
Distributive Education	National Teacher Examinations.
Home Economics Education	National Teacher Examinations.
Vocational Home Economics Education	National Teacher Examinations.
Engineering, General	Engineer In-Training Examination.
Architectural Engineering	Engineer In-Training Examination.
Chemical Engineering	Engineer In-Training Examination.
Civil Engineering	Engineer In-Training Examination.
Electrical Engineering	Engineer In-Training Examination.
Mechanical Engineering	Engineer In-Training Examination.
Industrial Engineering	Engineer In-Training Examination.
Engineering Science & Mechanics	Engineer In-Training Examination.
Music	National Teacher Examinations for Music Education. ETS GRE Advanced Test in Music.
Foreign Languages, General	ETS GRE Advanced Tests (French, German, Spanish) Deutsches Zertifikat (German), from the Goethe Institut.

Nursing	National Council Licensing Examination ACT-PEP (Proficiency Examination Program). National League for Nursing Achievement Tests.
Dental Hygiene	National Board of Dental Hygiene Examination.
Medical Record Librarianship	American Medical Record Association National Registry Examination.
Environmental Health	Registered Professional Environmentalist Examination.
English, General	ETS Literature Assessment Test. ETS languages Skills Test, College Board.
Philosophy	ETS GRE Advanced Test in Philosophy.
Mathematics, General	Mathematics Association of America Putnam Examination. ETS GRE Advanced Test in Mathematics.
Physics	ETS GRE Advanced Test in Physics.
Chemistry	American Chemical Society Examinations. ETS GRE Advanced Test in Chemistry.
Geology	ETS GRE Advanced Test in Geology.
Earth Sciences, General	ETS GRE Advanced Test in Geology.
Psychology, General	ETS GRE Advanced Test in Psychology.
Social Work	Montana Social Work Competence Scales.
History	ETS GRE Advanced Test in History.
Political Science	ETS GRE Advanced Test in Political Science.
Sociology	ETS GRE Advanced Test in Sociology.

Associate Degree Programs

<u>Program/Major</u>	<u>Test</u>
Accounting Technologies	Accreditation Council for Accountancy Examination.
Dental Hygiene Technology	National Board of Dental Hygiene Examination.
Dental Laboratory Technology	Recognized Graduate Examination of the National Board for Certification in Dental Technology.
Medical Laboratory Technician	Committee on Allied Health Education Certification Examination. National Certification Agency for Medical Laboratory Personnel Examination for Registry. American Society of Clinical Pathologist, Board of Registry Examination for Registry. American Medical Technologists; Examination for Registry. International Society of Clinical Laboratory Technologist Examination for Registry. State of Tennessee, Department of Public Health, Laboratory Licensing Service Examination for Licensing.
Multiple Competency Clinical Technician	American Occupational Therapy Association Certification Examination.
Animal Laboratory Assistant Technology	American Veterinary Association Certification Examination.
Radiologic Technology	American Registry of Radiologic Technologists Certification Examination.
Nursing, R.N.	Tennessee State Board Examination National League for Nursing Achievement Tests.
Occupational Therapy Technology	American Occupational Therapy Association Certification Examination.
Medical Record Technologies	American Medical Record Association Certification Examination.
Medical Assistant Technology	American Association of Medical Assistants Certification Examination.

Inhalation Therapy	American Association of Respiratory Therapist Registration Examination.
Electroencephalographic Technician	American Board of Registration of Electroencephalographic Technologists Certification Examination.
Physical Therapy	American Physical Therapy Association Certification Examination.
Orthotic/Prosthetics Technology	American Orthotics/Prosthetics Association Certification Examination.
Emergency Medical Technology	State of Tennessee Proficiency Certification Tests.
Engineering Design Technology	Institute for Certification of Engineering Technicians Examinations.
Civil Technology	Institute for Certification of Engineering Technicians Examinations.
Electronics & Machine Technology	Institute for Certification of Engineering Technicians Examination.
Food Services Technologies	American Dietetic Association Certification Examination.
Interpreter (Deaf) Training	National Registry for Interpreter Training Certification Tests.

*A survey of program evaluation activities within Tennessee State Board of Regents institutions was conducted during the summer of 1981 (for a discussion of survey rationale, procedures and principal findings, see Richard G. Dumont, "Preliminary Report on the Results of the Survey of Program Evaluation Activities within The State University and Community College System of Tennessee, August, 1981). A list of externally validated instruments of actual or potential use was compiled and subsequently distributed among all SBR institutions for further review and modification. The present compilation is the result of systematic research with substantial institutional input and representation.