

**2003-2004
Assessment Plan
General Education Outcome A2**

Master the basic principles of mathematical and scientific reasoning.

Team leaders

Dr. G. Russell Barber, Associate Dean, Stetson School of Business and Economics
Dr. Susan K. Codone, Assistant Professor of Technical Communication, School of Engineering
Dr. D. Scott Davis, Associate Dean of the College of Liberal Arts & Associate Executive Vice President

Focus for 2003-2004

Master the basic principles of mathematical reasoning.

Others involved in the planning

Dr. Curtis Herink, Chair/Professor of Mathematics, College of Liberal Arts
Dr. Hani Khoury, Associate Professor of Mathematics, Tift College of Education
Dr. Charles Roberts, Assistant Professor of Mathematics, Tift College of Education

Assessment measures

- (1) Collegiate Assessment of Academic Proficiency Test (CAAP) – Mathematics portion
Measures mathematical skills in content areas ranging from pre-algebra to introductory calculus. Forty-minute administration.
- (2) Mercer University Graduation Application and Survey – Select item
Students report on how much the educational experience at Mercer contributed to their ability to solve quantitative problems.

Students who will be subject to the assessment

CAAP:

Students enrolled in specific math classes through Calculus I during Fall 2003 will be assessed. For students enrolled in 8-week courses, only the second session math classes will be included. Students enrolled in the following courses are eligible for inclusion:

Macon:	MAT 104, 121, 133, 141, 191, 226
Centers:	MATH 120, 129, 130, 160, 181
Atlanta:	MAT 226

A total of 17 course sections of a possible 46 will be included. Approximately 450 students will be tested.

Graduation Survey

All Mercer undergraduates applying for graduation are administered this survey as part of the graduation process.

Where and when the assessment will take place

CAAP:

The CAAP test will be administered December 4-13, 2003 (10 day test period). The measure will be given at the start of the last class meeting for students taking 16-week courses. Students enrolled in 8-week courses will be given the measure after the completion of the final exam.

The following contains the listing of the math courses and sections targeted for assessment in December 2003. Instructor, number of students, location, evaluator, and schedule of CAAP administration are also provided.

Evaluator	Course	#	Instructor	Location	Day/Time
Fay Howell	MAT 141.001	27	Hope McIlwain	Ware 110E	Dec. 8 1:00
Fay Howell	MAT 226.001	32	Sybil Blalock	Stetson 166	Dec. 9 8:00
Fay Howell	MAT 133.002	30	David Nelson	Willingham 103	Dec. 8 9:00
Beth Elderkin	MAT 104.001	32	Lynn Weathers	Knight 203	Dec. 9 10:50
Beth Elderkin	MAT 133.004	32	Gloria Bass	Ware 110E	Dec. 8 12:00
Beth Elderkin	MAT 191.003	31	Jeffrey Denny	Knight 307	Dec. 8 11:00
Nancy Robinson	MAT 191.002	31	Phillip Bean	Ware 110E	Dec. 8 9:00
Nancy Robinson	MAT 133.003	33	Kedrick Hartfield	Ware 217	Dec. 8 11:00
Nancy Robinson	MAT 191.001	27	Tony Weathers	Ware 110E	Dec. 8 8:00
Fred Ming*	MATH 120.2D1	25	Dean Lester	Douglas Center	Dec. 10 5:30
Laurie Lankin	MATH 120.2H1	25	Hani Khoury	Henry Center	Dec. 10 5:30
Colleen Stapleton	MATH 129.2H1	22	Hani Khoury	Henry Center	Dec. 11 5:30
Colin Harris	MATH 130.2H1	15	Hani Khoury	Henry Center	Dec. 9 5:30
Thompson Biggers	MATH 130.2D3	15	William Johnson	Douglas Center	Dec. 13 8:30 a.m.

Evaluator	Course	#	Instructor	Location	Day/Time
Fred Bongiovanni	MATH 130.2M1	32	Khalil Derzi	Macon Center	Dec. 9 5:30
Charles Roberts	MATH 160.2M1	10	Marc Lipson	Macon Center	Dec. 8 5:30
Kerri Kroeker	MAT 226.A34	32	Kevin Letherwood	Atlanta	Dec. 4 8:15 p.m.

These specific sections should produce the representative sample when considering College/School, location, and specific math class.

Graduation Survey

Graduating seniors self administer the survey as part of the graduation process. Students take the survey on the Web. This survey can be completed at any time throughout the 2003-2004 academic year prior to commencement.

Collection of data

CAAP data will be collected by faculty and staff trained as evaluators through the Provost Office. The Provost Office will organize, order, distribute and collect CAAP materials. Graduation Survey data is collected through the Registrar's Office.

Desired level of performance that demonstrates appropriate achievement of the outcome

Students should be **able to perform simple algebraic manipulations**. This would include the ability to deal with symbols and to understand abstract mathematical concepts. The ability to perform simple algebraic manipulations means that students can:

- < Differentiate between factors and terms
- < Evaluate and factor elementary algebraic expressions
- < Solve linear, quadratic, and rational equations
- < Apply linear, quadratic, and rational equations to a variety of fact situations
- < Know the order of operations
- < Perform computations with signed numbers
- < Can graph linear and quadratic equations
- < Approach the study of functions from a variety of perspectives

CAAP

70% will score above the 50th percentile when compared to national norms.

Graduation Survey

Graduating seniors will indicate that their educational experience at Mercer "very much" or "somewhat" contributed to their personal growth in solving quantitative problems. The

mean scores will be 1.50 or below on a three-point Likert scale (1 = very much, 2 = somewhat, 3 = very little).

Organization, reporting and dissemination of the results

The Provost Office will organize and report the results to the 6 undergraduate Deans and their Associate Deans. The Deans will report results to the faculty members in their respective Colleges/Schools.

Responsibility for analyzing and using the data to effect changes

The Deans, Associate Deans, and faculty members will use the data to effect changes. The primary faculty groups are the various math instructors, math departments, and curriculum committees.