Georgia Highlands College Goal Assessment Report Form

Unit/Team: Mathematics	**Reported By: J. Christian / L. Ralston**
Date Submitted: 6-01-07	**Assessment Period: 2006-2007**

Related College Goal: Be innovative in our approach to teaching, learning, and support services.

Unit/Team Goal: Students will demonstrate the ability to apply mathematical thought and methods.

Expected Outcome: Students will be able to model concrete problems and arrive at solutions.

Outcome Assessment: In MATH 1111 (College Algebra), students will write a linear equation giving the value of equipment during the years that it will be used and determine the value of the equipment for any one of those years as a common question on the final exam. This question will be graded by a faculty member and assigned a 0, 1, or 2. A "0" will be assigned if a question is attempted but the work is incorrect. A "1" will be assigned if the work is partially correct. A "2" will be assigned if the work and the answer are both correct.

Performance Targets:

Primary Performance Target: 75 % of all students taking the final exam will attempt the question.

Secondary Performance Target: Of those attempting the question, 70% of students will score a 1 or 2.

Summary of Data Collected (Performance Results):

Primary Performance Target: Data collected in Fall 2006. 94% of the students taking the final exam attempted the question. By campus locations, Floyd had 95% attempt the question, Cartersville 91%, Marietta 98%, Acworth 85%, ATP-Carrollton 97%, and Distance Learning (Web and eCore) 100%

Secondary Performance Target: Of those attempting the question, 58% scored 1 or 2. Eight students who scored 1 or 2 failed the course. By campus locations, Floyd had 69% score 1 or 2, while Cartersville had 44%, Marietta 62%, Acworth 40%, ATP-Carrollton 71% and Distance Learning (Web and eCore) 50%

Recommended Actions:

Primary Performance Target: Target met. No further action required.

Secondary Performance Target: Instructors of Math 1111 are spending the normal amount of time on modeling concrete problems involving linear equations and arriving at solutions when first introducing the concept. The concept will be reviewed on three different days in the last six weeks of the semester.

Date: 2-1-08

Follow-up on Recommended Actions:

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Related College Goal: Be innovative in our approach to teaching, learning, and support services.

Unit/Team Goal: Students will demonstrate the ability to apply mathematical thought and methods.

Expected Outcome: Students will be able to interpret a real-life function.

Outcome Assessment: In MATH 1111 (College Algebra), students will determine the maximum profit earned by a company in a week where the total profit, P(x), to manufacture and sell x items per week is given by the function $\mathbf{P(x) = -x^2 + 50x}$ as a common question on the final exam. This question will be graded by a faculty member and assigned a 0, 1, or 2. A "0" will be assigned if a question is attempted but the work is incorrect. A "1" will be assigned if the work is partially correct. A "2" will be assigned if the work and the answer are both correct.

Performance Targets:

Primary Performance Target: 75 % of all students taking the final exam will attempt the question.

Secondary Performance Target: Of those attempting the question, 70% of students will score a 1 or 2.

Summary of Data Collected (Performance Results):

Primary Performance Target: Data was collected during Fall 2006. 81% of the students taking the final exam attempted the question. By campus locations, Floyd had 83% attempt the question, Cartersville 78%, Marietta 85%, Acworth 95%, ATP-Carrollton 76%, and Distance Learning (Web & eCore) 59%.

Secondary Performance Target: Of those attempting the question, 52% scored 1 or 2. Seven students who scored 1 or 2 failed the course. By campus locations, Floyd had 69% score 1 or 2, Cartersville 38%, Marietta 73%, Acworth 36%, ATP-

Recommended Actions:

Primary Performance Target: Target met. No further action required.

Secondary Performance Target: Instructors of Math 1111 will spend one additional class meeting on determining the maximum and minimum of a quadratic function, within the context of an application.

Date: 2-1-08

Follow-up on Recommended Actions:

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Unit/Team: Mathematics	**Reported By: J. Christian / L. Ralston**
Date Submitted: 6-01-07	**Assessment Period: 2006-2007**

Related College Goal: Use technology as a teaching and learning tool.

Unit/Team Goal: Students will demonstrate the ability to apply mathematical thought and methods.

Expected Outcome: Students will be able to use appropriate technology to enhance mathematical thinking and understanding.

Outcome Assessment: In Math 1111 (College Algebra), students will graph a polynomial function with a graphing utility to determine the intervals where the function is increasing, decreasing, or constant as a common question on the final exam. Final answer will be written in interval notation. This question will be graded by a faculty member and assigned a 0, 1, or 2. A "0" will be assigned if a question is attempted but the work is incorrect. A "1" will be assigned if the work is partially correct. A "2" will be assigned if the work and the answer are both correct.

Performance Targets:

Primary Performance Target: 75 % of all students taking the final exam will attempt the question.

Secondary Performance Target: Of those attempting the question, 70% of students will score a 1 or 2.

Summary of Data Collected (Performance Results):

Primary Performance Target: Data collected in Fall 2006. Of the students taking the final exam, 89% attempted the question. By campus locations, Floyd had 90% attempt the question, Cartersville 84%, Marietta 96%, Acworth 100%, ATP-Carrollton 93%, and Distance Learning (Web and eCore) 70%.

Secondary Performance Target: Of those attempting the question, 53% scored 1 or 2. Four students who scored 1 or 2 failed the course. By campus locations, Floyd had 58% score 1 or 2, Cartersville 30%, Marietta 58%, Acworth 46%, ATP-

Recommended Actions:

Primary Performance Target: Target met. No further action required.

Secondary Performance Target: Instructors of Math 1111 will spend one additional class meeting on using a graphing utility to graph a polynomial function and to determine the intervals where the function is increasing, decreasing, or constant. Instructors will emphasize use of interval notation and that intervals are written with respect to the domain (x-values)

Date: 2-1-08

Follow-up on Recommended Actions:

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Related College Goal: Be innovative in our approach to teaching, learning, and support services.

Unit/Team Goal: Students will demonstrate the ability to apply mathematical thought and methods.

Expected Outcome: Students will be able to graph an abstract function.

Outcome Assessment: In Math 1113 (Precalculus), students will sketch the graph of a trigonometric function, including two full periods, as a common question on the final exam. This question will be graded by a faculty member and assigned a 0, 1, or 2. A "0" will be assigned if a question is attempted but the work is incorrect. A "1" will be assigned if the work is partially correct. A "2" will be assigned if the work and the answer are both correct.

Performance Targets:

Primary Performance Target: 75 % of all students taking the final exam will attempt the question.

Secondary Performance Target: Of those attempting the question, 70% of students will score a 1 or 2.

Summary of Data Collected (Performance Results):

Primary Performance Target: Data collected in Fall 2006. 97% of the students taking the exam attempted the question. By campus locations, Floyd, Cartersville, and Acworth had 100% attempt the question, while Marietta had 97%, Distance Learning (Web and eCore) 90%, and ATP-Carrollton is not applicable.

Secondary Performance Target: Of those attempting the question, 45% scored 1 or 2. No student who scored 1 or 2 failed the course. By campus locations, Floyd had 70% score 1 or 2, Cartersville 9%, Marietta 59%, Acworth 60%, Distance Learning

Recommended Actions:

Primary Performance Target: Target met. No further action required

Secondary Performance Target: Instructors of Math 1113 will spend one additional class meeting on sketching the graph of a trigonometric function, including two full periods.

Date: 2-1-08

Follow-up on Recommended Actions:

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Related College Goal: Use technology as a teaching and learning tool.

Unit/Team Goal: Students will demonstrate the ability to apply mathematical thought and methods.

Expected Outcome: Students will be able to use appropriate technology to enhance mathematical thinking and understanding.

Outcome Assessment: In Math 1113 (Precalculus), students will graph a trigonometric function with a graphing utility; determine the x-intercepts and y-intercepts in the interval $[0, 2\pi)$ as a common question on the final exam. This question will be graded by a faculty member and assigned a 0, 1, or 2. A "0" will be assigned if a question is attempted but the work is incorrect. A "1" will be assigned if the work is partially correct. A "2" will be assigned if the work and the answer are both correct.

Performance Targets:

Primary Performance Target: 75 % of all students taking the final exam will attempt the question.

Secondary Performance Target: Of those attempting the question, 70% of students will score a 1 or 2.

Summary of Data Collected (Performance Results):

Primary Performance Target: Data was collected in Fall 2006. 94% of the students taking the final exam attempted the question. By campus locations, Floyd and Acworth had 100% attempt the question, while Cartersville had 94%, Marietta 90%, Distance Learning (Web and eCore) 90%, and ATP-Carrollton is not applicable.

Secondary Performance Target: Of those attempting the question, 70% scored 1 or 2. No student scoring 1 or 2 failed the course. By campus locations, Floyd had 88% score 1 or 2, Cartersville 55%, Marietta 74%, Acworth 80%, Distance Learning

Recommended Actions:

Primary Performance Target: Target met. No further action required.

Secondary Performance Target: Target met. No further action required

Date: 2-1-08

Follow-up on Recommended Actions: No further action required.