Eastern West Virginia Community and Technical College
COURSE ASSESSMENT REPORT

Course Title and Number: MTH 123 Intermediate Algebra	**Academic Term and Year of Assessment Activity (Ex: Fall, 2010)** Spring 2013
Report Submitted By: Marie Van Meter	**Number of Students Assessed:** 3
Date Report Submitted: May 16, 2013	**Number of Sections Included:** 1
Course Delivery Format (list all modalities used in sections assessed. Ex: web based, VDL, traditional section, hybrid course, etc.): Traditional section with an online component (Pearson's MyMathLab)	

Course Role in the Curriculum **Provide a description of the role the course serves in the curriculum (i.e. general education requirement, program technical core, restricted elective, etc.). Note all as appropriate.**
MTH 123 Intermediate Algebra is a college level general education elective. It is prerequisite to MTH 135 College Algebra. It is a requirement for several science and technical programs of study and a recommended elective for those transferring to a 4-year program when College Algebra will be required.

Assessment Methods **Provide a description of the assessment process used. Include description of instrument and performance standards in description. Note all methods.**
Assessment is based on final exam questions, both from a paper exam and from an online in-class portion (different days). The online portion consisted of 15 questions. Twelve of its 15 questions received perfect scores by the students. The paper portion consisted of 10 questions with varying results: 1, 6, and 7 perfect responses. Three questions selected for assessment are from the online exam and one from the paper exam. Questions selected for assessment were considered correct only if the work process and the answers were completely correct. Partial credit was based on the 4-point departmental rubric (attached). Students were allowed to use a graphing calculator. Students were offered an online practice test of 25 questions based on the same learning objectives selected for the exam questions. They were *not* the same questions.

Assessment Results **Provide a summary of results including tables/charts. Incorporate information from previous assessments as appropriate. Append additional pages if necessary. If appending, include notation in box to "See attached".**
This was the only section of Math 123 offered in Spring 2013. This class had just ten enrolled. Three withdrew by early February. Three more were withdrawn because they stopped attending before midterm. Two of those three registered late and had poor attendance from the start. One more student ceased attendance on April 18 but had enough points to pass. **The remaining three were exceptionally good students. Thus, this is not comparable to previous Math 123 assessments.** Advisors had been encouraged to enroll students in Math 121 unless there is a firm plan to transfer to a program of study *requiring* College Algebra. Math 123 is not transferable.

Course Level Assessment Summary of Outcomes, Indicators and Results MTH 123 Intermediate Algebra Number of students in assessment sample = 3 Number of Sections in Assessment = 1 Add additional rows to table if necessary				
Learning Outcomes (Insert learning outcomes assessed during this cycle)	**Indicator (Insert indicators used for each outcome: exam question, scoring rubric, etc. Be specific)**	**Percent of Correct Responses**	**Percent of Incorrect Responses**	**Performance Standard Met (75%)* (yes or no)**
Outcome 1: Solve absolute value inequality	**Solve and graph solution set on the number line.** $\|x-2\|+4>9$ This online question was rated difficulty 3 of 4 by the publisher.	100	0	Yes
Outcome 2: Solve exponential application / Graph exponential functions (2 outcomes)	**Following an unexplained decline in the number of birds of prey on his property, a farmer sees a drastic rise in its small mammal population. The function $M(t)=500(1.3)^t$ can be used to estimate the number of small mammals on the premises within *t* years if hawks, owls, and similar birds fail to return.** **Estimate the number of small mammals in the area 2 years after the birds' decline. (Round to the nearest whole number.)** **Which is the correct graph of the function? [multiple choice of four possible graphs]** This online question was rated difficulty 2 of 4 by the publisher.	100	0	Yes

Outcome 3: **Solve quadratic applications**	**John owns a hot dog stand. He has found that his profit is represented by the equation $P = -x^2+58x+69$, with P being the profit in dollars, and x the number of hotdogs sold. How many hotdogs must he sell to earn the most profit?** Paper based. One student had a minor misread on the calculator but all understood that this was a max/min problem.	67	33	No, but small sample
Outcome 4: **Solve logarithmic equations**	**Solve the logarithmic equation:** $\log(x) + \log(x - 3) = 1$ Online. Publisher difficulty level 3 of 4. This problem also included the need to solve a quadratic equation using the formula and to check answers. Just one student failed to recognize that one of two solutions was extraneous due to creating a negative argument for a logarithm.	67	33	No, but small sample

* Please note if using a different minimum performance standard.

Conclusions and Action Plan **Provide a brief summary of conclusions derived based on analysis of data. Identify action plan for improvement or maintaining current performance levels. Append additional pages if necessary. If appending, include notation in box to "See attached".**
These students are well prepared for College Algebra, should they decide to take it. If advisors are successful in placing non-STEM students in MTH 121, MTH 123 may need to be offered once a year instead of in both semesters. This was the case in the past. Students also have the option of taking Statistics, which may be of more value for many majors. Continue to educate advisors on math course selection(s) to ensure student success and completion.

Effective Date for Changes or Curriculum Proposal Submission to LOT (if recommended)	**Proposed Date for Reassessment**
	Spring 2015

Assessment Committee Approval (To be posted by Assessment Committee Chair)	**LOT Review (To be posted by Assessment Committee Chair)**
Date: June 12, 2013	**Date: June 17, 2013**

Attachment 1:

Mathematics Rubric
Holistic Scoring Criteria

4	3	2	1	0
The solution is complete and correct.	The solution is complete but may contain minor errors in computation, sign errors, or errors copying data that may result in an incorrect solution.	The solution may be incomplete and may contain some significant computation errors, procedural errors, or flaws in mathematical reasoning.	The solution is incomplete and contains major computation errors and/or serious flaws in mathematical reasoning	The solution is absent, does not go beyond copying data, or is irrelevant to the task.
The process demonstrates full comprehension of mathematical concepts relevant to the task.	The process demonstrates knowledge of mathematical concepts relevant to the task.	The process demonstrates a limited grasp of mathematical concepts or procedures.	The process demonstrates a minimal understanding of mathematical concepts and procedures.	The process shows no mathematical understanding of the task.
The response communicates effectively the process used to obtain a solution.	The response communicates effectively the process used to obtain a solution.	The response may not communicate the process used to obtain a solution.	The response does not communicate the process used to obtain a solution.	The response is absent or communicates a process irrelevant to the task.

Glossary:

Solution – the final answer

Response – everything the student has written

Process – steps the student has followed to arrive at the solution