Eastern West Virginia Community and Technical College
COURSE ASSESSMENT REPORT

Course Title and Number: Math for Technicians MTH 117	**Academic Term and Year of Assessment Activity (Ex: Fall, 2014):** Spring, 2019
Report Submitted By: E. Putze	**Number of Students Assessed:** 3
Date Report Submitted: 8-2-2019	**Number of Sections Included:** 1
Course Delivery Format (list all modalities used in sections assessed. Ex: web based, VDL, traditional section, hybrid course, etc.): Reading, lecture, online lab exercises, online assignments, one-on-one instruction	

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.

Role in College Curriculum: General Education Core: Mathematics

Catalog Description: This course introduces the students to mathematics applicable to technical programs of study. The class includes techniques, instruments, and calculations used to make physical and electrical measurement. The concept and application of dimensional analysis will be introduced. The fundamentals of algebra, basic geometry, and triangle trigonometry will be studied.

Assessment Methods
Provide a description of the assessment process used. Include description of instrument and performance standards in description. Note all methods.

Online Assignments: Blackboard online was used to reinforce learning of concepts contained in the textbook reading assignments.

Lab Exercises: MyMathLab online was used to enable learning by working math problems, which included immediate feedback and tutorials for each problem on an assignment. The instructor facilitated learning in class by working examples and providing one-on-one instruction for students. Student performance was observed and assessed by the instructor.

Written Tests: Problems (using different values) were utilized from assignments on MyMathLab for written tests. Partial credit was earned as appropriate.

Final Exam: Problems (using different values) from tests were utilized on the written final exam. Partial credit was earned as appropriate. Selected questions from the final exam were used for assessment.

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".

Course Outcome & Indicator	# of Students Answering Correctly +	# of Students Answering Incorrectly +	Composite
1(a)	2.25	0.75	3.0
1(b)	3.0	0.0	3.0
2(a)	1.5	1.5	3.0
2(b)	2.75	0.25	3.0
3(a)	2.25	0.75	3.0
3(b)	3.0	0.0	3.0
4(a)	2.625	0.375	3.0
4(b)	2.625	0.375	3.0
5(a)	1.5	1.5	3.0
5(b)	0.5	2.5	3.0
Total Answers	22	8	30.0
Percentage	73.33%	26.67%	100%
+ Partial credit taken into account			

Course Level Assessment Summary of Outcomes, Indicators and Results
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)
Learning Outcome 1: *Perform operations on real numbers*	(a) Final Exam, Question #2: Divide. $\frac{35}{80} \div \frac{7}{8}$ Answer: $\frac{1}{2}$	75%	25%	Yes
Learning Outcome 1:	(b) Final Exam, Question #14:	100%	0%	Yes

Perform operations on real numbers	Find the value of the following expression. (-86.8) – (-22.9) Answer: -63.9			
Learning Outcome 2: *Calculate and convert measurements*	a) Final Exam, Question #7: A cylindrical oil tank 8 ft deep holds 780 gallons when filled to capacity. How many gallons remain in the tank when the depth of oil is $3\frac{1}{2}$ ft. Answer: 341.25	50%	50%	No
Learning Outcome 2: *Calculate and convert measurements*	b) Final Exam, Question #10: Convert the unit. 3.4 sq ft = ____ sq in. Answer: 490	91.67%	8.33%	Yes
Learning Outcome 3: *Apply algebraic techniques to simplify expressions, solve equations, and evaluate formulas*	a) Final Exam, Question #19: Simplify by removing parentheses and, if possible, combining like terms. 3(x + y) – 2(x – y) Answer: x + 5y	75%	25%	Yes
Learning Outcome 3:	b) Final Exam, Question #21: A 205-inch pipe is cut into two	100%	0%	Yes

Apply algebraic techniques to simplify expressions, solve equations, and evaluate formulas	pieces. One piece is four times the length of the other. Find the lengths of the two pieces. The short piece is ____ inches long. The long piece is ____ inches long. Answers: 41, 164			
Learning Outcome 4: *Apply geometric concepts to calculate angle measure, perimeter, area, volume, and surface area*	a) Final Exam, Question #28: Find the perimeter and area of the figure. (Assume right angles and parallel sides except where obviously otherwise.) [The figure is a right trapezoid with bases of 17.7 m and 43.2 m and sides of 27.4 m and 26.6 m. The perimeter of the figure is _____ __ The area of the figure is _____ __ (Simplify your answers. Round to the nearest tenth as needed.) Answers: 114.9 m, 724.7 m^2	87.5%	12.5%	Yes
Learning Outcome 4: *Apply geometric concepts to calculate angle measure,*	b) Final Exam, Question #37: Find the total surface area and volume of the solid object shown to the right. Use the π key for π. [The object is a sphere of diameter = 1.8”]	87.5%	12.5%	Yes

perimeter, area, volume, and surface area	The total surface area is _____ __ The volume is _____ __ (Simplify your answers. Type an integer or decimal rounded to the nearest hundredth as needed.) Answers: 10.18 in^2 , 3.05 in^3			
Learning Outcome 5: *Use trigonometry to solve applied problems involving right and oblique triangles*	a) Final Exam, Question #29: Find the missing dimension of the figure shown to the right. Round to the nearest tenth. [Figure is a right triangle with a hypotenuse of 13 feet and a leg of 5 feet. The other leg is the missing dimension.] The missing dimension is _____ __ Answer: 12 ft.	50%	50%	No
Learning Outcome 5: *Use trigonometry to solve applied problems involving right and oblique triangles*	b) Final Exam, Question #44: The most efficient operating angle for a certain conveyor belt is 35°. If the parts must be moved a vertical distance of 29 ft, what length of conveyor is needed? [triangle diagram is given] The length of conveyor needed is _____ ft. (Round to the nearest integer as needed.)	16.67%	83.33%	No

	Answer: 51			
+ Partial credit taken into account				

* Please note if using a different minimum performance standard.

Conclusions **Provide a brief summary of conclusions derived based on analysis of data. Append additional pages if necessary. If appending, include notation in box to "See attached".**
The performance standard of 75% was exceeded by seven of ten indicators spread over the five Learning Outcomes assessed. The overall is 73.33%.

Previous Assessment Reports and Results **Date of Previous Assessment:** N/A **List of Outcomes Not Met:** N/A **Summary of Actions Taken to Address Unmet Learning Outcomes: Append additional pages if necessary. If appending, include notation in box to "See attached".** N/A
N/A

Action Plan and Date for Reassessment **Identify action plan for improvement or maintaining current performance levels including outcomes identified for re-assessment, curriculum revision, LOT proposal, new or revised course activities to reinforce learning outcomes, etc. Append additional pages if necessary. If appending, include notation in box to "See attached".**
Will better emphasize important topics in lectures.
Assessment Committee Recommendation/Approval **(To be posted by Assessment Committee Chair)**
☐ Approved as presented x Approved with recommendations for future reports (Explanation Required) • Use current template • Present Assessment Results in a more familiar and accessible format • Include more detail in the Action Plan which addresses any specific shortcoming(s) • Indicate that MTH 117 is a new course and that this is the first time it has run • It is acceptable to assess 4 outcomes rather than all outcomes ☐ Resubmission Required. Reason for Resubmission: **Date: 9/13/19**