Assessment: Course Four Column

Courses (MATH) - Math

MATH 251:Discrete Mathematics I

Course Outcomes	*Assessment Measures*	*Results*	*Actions*
Propositional calculus of logic - Demonstrate the understanding of the Propositional calculus of logic **Course Outcome Status:** Active **Next Assessment:** 2022-2023	**Assignment - Written -** 1. Homework assignments: Ch. 2 The Logic of Compound Statements; sections 2.1, 2.2, 2.3 Ch. 3 The logic of Quantified Statements; sections 3.1, 3.2, 3.3 and 3.4 2. Midterm Exam problem #3, 4, **Criterion:** Homework assignment: A student get 70% or above for relevant homework assignment. Midterm Exam: Student get correct or more than 50 percent partially correct answer on relevant problem(s).	**Reporting Period:** 2017-2018 **Criterion Met:** Yes The scores on Midterm exam problem #3 and 4 were 75% and 100 % respectively. Homework 2.1 2.2 2.3 Average Score 100 90 100 96.7 Homework 3.1 3.2 3.3 Score 100 94 70 91 (01/16/2019)	
Evaluate mathematical proofs - Be able to evaluate mathematical proofs **Course Outcome Status:** Active **Next Assessment:** 2022-2023	**Assignment - Written -** 1. Homework assignments: Ch. 4 Elementary Number Theory and Methods of Proof; sections 4.1, 4.2, 4.3, 4.4 2. Midterm Exam problem #7, 8. **Criterion:** Homework assignment: A student get 70% or above for relevant homework assignment. Midterm Exam: Student get correct or more than 50 percent partially	**Reporting Period:** 2017-2018 **Criterion Met:** Yes The scores on midterm exam problem #7 and 8 were 70% and 100% respectively. Homework 4.1 4.2 4.3 Average Score 100 100 83.3 94.1 (01/16/2019)	

Course Outcomes	Assessment Measures	Results	Actions
	correct answer on relevant problem(s).		
Sequences and mathematical induction - Sequences and mathematical induction **Course Outcome Status:** Active **Next Assessment:** 2022-2023	**Assignment - Written -** 1. Homework assignments: Ch. 5 Sequences, Mathematical Induction and Recursion; sections 5.1, 5.2, 5.6, 5.7 2. Midterm Exam problem #10 **Criterion:** Homework assignment: A student get 70% or above for relevant homework assignment. Midterm Exam: Student get correct or more than 50 percent partially correct answer on relevant problem(s).	**Reporting Period:** 2017-2018 **Criterion Met:** No Homework 5.1 5.2 5.6 5.7 Average Score 100 0 100 100 75 The score on the midterm problem #10 was 60% (01/16/2019)	**Action:** For the subject, Mathematical induction and recursion, I would revise the homework assignments to make sure students understand the material. (01/16/2019)
Countable sets - Understand countable sets **Course Outcome Status:** Active **Next Assessment:** 2022-2023	**Assignment - Written -** 1. Homework assignments: Ch. 7 functions; section 7.4 2. Final Exam problem #5 **Criterion:** Homework assignment: A student get 70% or above for relevant homework assignment. Midterm Exam: Student get correct or more than 50 percent partially correct answer on relevant problem(s).	**Reporting Period:** 2017-2018 **Criterion Met:** No Homework 7.4 Average Score 50 50 The score on the final exam problem #5 was 75%. (01/16/2019)	**Action:** Understanding countable sets can be hard. I would do the following action plans to enhance student's learning; Revise the homework assignment, Assign additional writing assignment to ensure students understand the concept on countable sets. (01/16/2019)
Functions and their properties - Functions and their properties **Course Outcome Status:** Active **Next Assessment:** 2022-2023	**Assignment - Written -** 1. Homework assignments: Ch. 7 functions; sections 7.1, 7.2, 7.3 2. Final Exam problem #1, 2, 3 **Criterion:** Homework assignment: A student get 70% or above for relevant homework assignment. Midterm Exam: Student get correct or more than 50 percent partially correct answer on relevant problem(s).	**Reporting Period:** 2017-2018 **Criterion Met:** Yes Homework 7.1 7.2 7.3 Average Score 100 100 100 100 The scores on the final problems #1, 2, and 3 were 75%, 100% and 100% respectively (01/16/2019)	
Equivalent relations and their	**Assignment - Written -** 1. Homework	**Reporting Period:** 2017-2018	

Course Outcomes	Assessment Measures	Results	Actions
properties - Equivalent relations and their properties **Course Outcome Status:** Active **Next Assessment:** 2022-2023	assignments: Ch. 8 Relations; sections 8.1, 8.2, 8.3 2. Midterm Exam problem #2 **Criterion:** Homework assignment: A student get 70% or above for relevant homework assignment. Midterm Exam: Student get correct or more than 50 percent partially correct answer on relevant problem(s).	**Criterion Met:** Yes Homework Average 8.1 8.2 8.3 Score 100 100 95 98.3 Midterm Problem #2: Correct (01/16/2019)	
Graphs and Trees - Graphs and Trees **Course Outcome Status:** Active **Next Assessment:** 2022-2023	**Assignment - Written -** 1. Homework assignments: Ch. 10 Relations; sections 10.1, 10.2, 10.3, 10.4 2. Final Exam problem #12, 13 **Criterion:** Homework assignment: A student get 70% or above for relevant homework assignment. Midterm Exam: Student get correct or more than 50 percent partially correct answer on relevant problem(s).	**Reporting Period:** 2017-2018 **Criterion Met:** Yes Homework Average 10.1 10.2 10.3 10.4 Score 90 100 97.5 100 96.9 The scores on the final exam problem #12 and 13 were 100% and 75% respectively. (01/16/2019)	**Action:** The Math 251, Discrete Math class was offered for one student as an independent study. Since the class consisted of only one student, it was hard to get any statistical evidence for the assessment. The student did show excellent understanding on most class materials as most upper level math class students do. However, the student did not perform as well on the learning Outcome #3 Sequences and mathematical induction and the learning outcome #4 Understand countable sets. For the two learning outcomes, I will need to emphasize the degree of difficulty and am planning to record additional videos going over better examples to explain the concepts. (01/16/2019)