Program Assessment Form (Academic Program)

Developmental Math

Created on: 03/12/2020 09:41:00 AM WPST
Last Modified: 06/17/2021 04:53:19 AM WPST

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General Information (Program Assessment Form (Academic Program))

Standing Requirements

NMC MISSION STATEMENT & ESIP (COLUMN 1 OF THE 5-COLUMN MODEL)

NMC Mission Statement:Northern Marianas College, through its commitment to student learning, provides high quality, affordable and accessible educational programs and services for the individual and people of the Commonwealth.ESIP for Developmental Math:The purpose of the developmental mathematics program is to effectively provide students the basic mathematics and algebraic skills and offer and provide support to students toward success in subsequent college-level math courses required for their degree or certificate programs.

OUTCOMES (COLUMN 2 OF THE 5-COLUMN MODEL)

Developmental Math Outcome Set

MA NDU PLO 1
Perform systematic estimating and calculating the set of real numbers.

Mapping
General Education Outcomes (GELOs): GEO Quantitative and Scientific Reasoning 6.1, GEO Quantitative and Scientific Reasoning 6.2

MA NDU PLO 2
Communicate and translate ideas from verbal to symbolic form and vice-versa for linear equations and inequalities.

Mapping
General Education Outcomes (GELOs): GEO Critical Thinking 1.1, GEO Critical Thinking 1.2

MA NDU PLO 3
Read and Interpret graphs of linear equations in two variables.

Mapping
General Education Outcomes (GELOs): GEO Critical Thinking 1.1, GEO Critical Thinking 1.2, GEO Quantitative and Scientific Reasoning 6.1, GEO Quantitative and Scientific Reasoning 6.2

MA NDU PLO 4
Solve systems of linear equations in two variables.

Mapping
General Education Outcomes (GELOs): GEO Critical Thinking 1.1, GEO Critical Thinking 1.2, GEO Quantitative and Scientific Reasoning 6.1, GEO Quantitative and Scientific Reasoning 6.2

MA NDU PLO 5
Demonstrate the use of polynomials and properties of exponents.

Mapping

General Education Outcomes (GELOs): GEO Critical Thinking 1.1, GEO Critical Thinking 1.2, GEO Quantitative and Scientific Reasoning 6.1, GEO Quantitative and Scientific Reasoning 6.2

MA NDU PLO 6

Demonstrate the ability to factor polynomials.

Mapping

General Education Outcomes (GELOs): GEO Quantitative and Scientific Reasoning 6.1, GEO Quantitative and Scientific Reasoning 6.2

MA NDU PLO 7

Apply various operations with rational expressions.

Mapping

General Education Outcomes (GELOs): GEO Critical Thinking 1.1, GEO Critical Thinking 1.2, GEO Quantitative and Scientific Reasoning 6.1, GEO Quantitative and Scientific Reasoning 6.2

Developmental Math Outcome Set_September 2020

PLO 4

Solve systems of linear equations in two variables.

Mapping

Developmental Math Outcome Set : MA NDU PLO 4, MA NDU PLO 5,

General Education Outcomes (GELOs): GEO Critical Thinking 1.1, GEO Critical Thinking 1.2

PLO 5

Demonstrate the use of polynomials and properties of exponents.

Mapping

Developmental Math Outcome Set : MA NDU PLO 4, MA NDU PLO 5,

General Education Outcomes (GELOs): GEO Critical Thinking 1.1, GEO Critical Thinking 1.2

CURRICULUM MAP

Active Curriculum Map s

GELOS & PLOs NDU Math (See appendix)

Alignment Set GELOS & PLOs NDU Math

Created 11/10/2020 5:18:30 am WPST
Last Modified 11/10/2020 5:20:31 am WPST

2020-2021 Assessment Cycle

MEANS OF ASSESSMENT & CRITERIA FOR SUCCESS (ASSESSMENT PLAN OR COLUMN 3 OF THE 5-COLUMN MODEL)

Mission Statement

NMC Mission Statement:Northern Marianas College, through its commitment to student learning, provides high quality, affordable and accessible educational programs and services for the individual and people of the Commonwealth.ESIP for Developmental Math:The purpose of the developmental mathematics program is to effectively provide students the basic mathematics and algebraic skills and offer and provide support to students toward success in subsequent college-level math courses required for their degree or certificate programs.

Measures

Developmental Math Outcome Set_September 2020

Outcome

Outcome: PLO 4
Solve systems of linear equations in two variables.

Measure: Bell-Quizzes on Chapter 7
Course level Direct - Other

Details/Description:	Bell-Quizzes on chapter 7 will be given to students to assess SLO 2.
Success Criteria:	At least 70% of the students will be able to evaluate and solve polynomials and quadratic equations.
Implementation Plan (timeline):	Weeks when Chapter 7 is covered.
Key/Responsible Personnel:	Mr. Sean Pak, Faculty Member

Measure: Chapter 2 On-line Quizzes
Course level Direct - Other

Details/Description:	Online-Quizzes on chapter 2 will be given to students to assess SLO 2.
Success Criteria:	At least 70% of the students who are assessed will be able to evaluate and solve simple polynomials and quadratic equations.
Implementation Plan (timeline):	Weeks when Chapter 2 is covered.
Key/Responsible Personnel:	Mr. Sean Pak, Faculty Member

Measure: Test Chapter 2
Course level Direct - Exam

Details/Description:	Test on chapter 2 will be given to students to assess how well students master SLO 2.
Success Criteria:	At least 70% of the students who are assessed will be able to evaluate and solve simple polynomials and quadratic equations.
Implementation Plan (timeline):	Culmination of Chapter 2.
Key/Responsible Personnel:	Mr. Sean Pak, Faculty Member

Outcome: PLO 5
Demonstrate the use of polynomials and properties of exponents.

Measure: Bell-Quizzes on Chapter 6
Course level Direct - Other

Details/Description:	Bell-Quizzes on chapter 6 will be given to students to assess SLO 7.
Success Criteria:	At least 70% of the students who are assessed will be able to solve systems of linear equations in two variables and verify solutions to the system.
Implementation Plan (timeline):	Weeks when Chapter 6 is covered.
Key/Responsible Personnel:	Mr. Sean Pak, Faculty Member

Measure: Online-Quizzes on Chapter 6
Course level Direct - Other

Details/Description:	Online Quizzes on chapter 6 will be given to students to assess SLO 7.
Success Criteria:	At least 70% of the students who are assessed will be able to solve systems of linear equations in two variables and verify solutions to the system.
Implementation Plan (timeline):	Weeks when Chapter 6 is covered.
Key/Responsible Personnel:	Mr. Sean Pak, Faculty Member

Measure: Test Chapter 6
Course level Direct - Exam

Details/Description:	Test on chapter 6 will be given to students to assess SLO 7.
Success Criteria:	At least 70% of the students who are assessed will be able to solve systems of linear equations in two variables and verify solutions to the system.
Implementation Plan	Culmination of Chapter 6 .

(timeline):	
Key/Responsible Personnel:	Mr. Sean Pak, Faculty Member

SUMMARY OF DATA COLLECTED AND USE OF RESULTS (ASSESSMENT FINDINGS OR COLUMNS 4 & 5 OF THE 5-COLUMN MODEL)

Finding per Measure

Developmental Math Outcome Set_September 2020

Outcome

Outcome: PLO 4
Solve systems of linear equations in two variables.

Measure: Bell-Quizzes on Chapter 7
Course level Direct - Other

Details/Description:	Bell-Quizzes on chapter 7 will be given to students to assess SLO 2.
Success Criteria:	At least 70% of the students will be able to evaluate and solve polynomials and quadratic equations.
Implementation Plan (timeline):	Weeks when Chapter 7 is covered.
Key/Responsible Personnel:	Mr. Sean Pak, Faculty Member

Findings for Bell-Quizzes on Chapter 7

Summary of Findings:	The average of the Bell-Quizzes was 88%. 88% of the students who took the quiz had the Acceptable or exceptional level which is above 70%.
Results :	Success Criteria Achievement: Exceeded
Recommendations:	The average of the Bell-Quizzes reached the target. May use similar instructions including examples and exercises since the goal has been reached. I think the lecture videos I made and posted for each section in the textbook were helpful for students to achieve the goal.
Reflections/Notes:	See recommendations above.

Measure: Chapter 2 On-line Quizzes
Course level Direct - Other

Details/Description:	Online-Quizzes on chapter 2 will be given to students to assess SLO 2.
Success Criteria:	At least 70% of the students who are assessed will be able to evaluate and solve simple polynomials and quadratic equations.
Implementation Plan (timeline):	Weeks when Chapter 2 is covered.
Key/Responsible Personnel:	Mr. Sean Pak, Faculty Member

Findings for Chapter 2 On-line Quizzes

Summary of Findings:	The average of the Online-Quizzes was 89%. 92% of the students who took the class work had the Acceptable or exceptional level which is above 70%.
Results :	Success Criteria Achievement: Exceeded
Recommendations:	The average of the Online-Quizzes reached the target. May use similar instructions including examples and exercises since the goal has been reached. I think the lecture videos I made and posted for each section in the textbook were helpful for students to achieve the goal.
Reflections/Notes:	See recommendations above.

Measure: Test Chapter 2
Course level Direct - Exam

Details/Description:	Test on chapter 2 will be given to students to assess how well students master SLO 2.
Success Criteria:	At least 70% of the students who are assessed will be able to evaluate and solve simple polynomials and quadratic equations.
Implementation Plan (timeline):	Culmination of Chapter 2.
Key/Responsible Personnel:	Mr. Sean Pak, Faculty Member

Findings for Test Chapter 2

Summary of Findings:	The average of the chapter test together with chapter 6 and 7 was

	87%. 94% of the students who took the test had the Acceptable or exceptional level which is above 70%.
Results :	Success Criteria Achievement: Exceeded
Recommendations:	The average of the chapter test reached the target. May use similar instructions including examples and exercises since the goal has been reached. I think the lecture videos I made and posted for each section in the textbook were helpful for students to achieve the goal.
Reflections/Notes:	See recommendations above.

Outcome: PLO 5
Demonstrate the use of polynomials and properties of exponents.

Measure: Bell-Quizzes on Chapter 6
Course level Direct - Other

Details/Description:	Bell-Quizzes on chapter 6 will be given to students to assess SLO 7.
Success Criteria:	At least 70% of the students who are assessed will be able to solve systems of linear equations in two variables and verify solutions to the system.
Implementation Plan (timeline):	Weeks when Chapter 6 is covered.
Key/Responsible Personnel:	Mr. Sean Pak, Faculty Member

Findings for Bell-Quizzes on Chapter 6

Summary of Findings:	The average of the Bell-Quizzes was 88%. 88% of the students who took the quiz had the Acceptable or exceptional level which is above 70%.
Results :	Success Criteria Achievement: Exceeded
Recommendations:	The average of the Bell-Quizzes reached the target. May use similar instructions including examples and exercises since the goal has been reached. I think the lecture videos I made and posted for each section in the textbook

	were helpful for students to achieve the goal.
Reflections/Notes:	See recommendations above.

Measure: Online-Quizzes on Chapter 6
Course level Direct - Other

Details/Description:	Online Quizzes on chapter 6 will be given to students to assess SLO 7.
Success Criteria:	At least 70% of the students who are assessed will be able to solve systems of linear equations in two variables and verify solutions to the system.
Implementation Plan (timeline):	Weeks when Chapter 6 is covered.
Key/Responsible Personnel:	Mr. Sean Pak, Faculty Member

Findings for Online-Quizzes on Chapter 6

Summary of Findings:	The average of the Online-Quizzes was 84%. 79% of the students who took the class work had the Acceptable or exceptional level which is above 70%.
Results :	Success Criteria Achievement: Exceeded
Recommendations:	The average of the Online-Quizzes reached the target. May use similar instructions including examples and exercises since the goal has been reached. I think the lecture videos I made and posted for each section in the textbook were helpful for students to achieve the goal.
Reflections/Notes:	See recommendations above.

Measure: Test Chapter 6
Course level Direct - Exam

Details/Description:	Test on chapter 6 will be given to students to assess SLO 7.
Success Criteria:	At least 70% of the students who are assessed will be able to solve systems of linear equations in two variables and verify solutions to the system.
Implementation Plan (timeline):	Culmination of Chapter 6 .

Key/Responsible Personnel:	Mr. Sean Pak, Faculty Member

Findings for Test Chapter 6

Summary of Findings:	The average of the chapter test together with chapter 6 and 7 was 87%. 94% of the students who took the test had the Acceptable or exceptional level which is above 70%.
Results :	Success Criteria Achievement: Exceeded
Recommendations:	The average of the chapter test reached the target. May use similar instructions including examples and exercises since the goal has been reached. I think the lecture videos I made and posted for each section in the textbook were helpful for students to achieve the goal.
Reflections/Notes:	See recommendations above.

Overall Recommendations

No text specified

Overall Reflection

No text specified

OPERATIONAL PLAN (THIS IS WHERE YOU CAN LINK AN OUTCOME TO AN ACTION PLAN WITH OR WITHOUT A SPECIAL BUDGET REQUEST.)

STATUS REPORT

2021-2022 Assessment Cycle

MEANS OF ASSESSMENT & CRITERIA FOR SUCCESS (ASSESSMENT PLAN OR COLUMN 3 OF THE 5-COLUMN MODEL)

SUMMARY OF DATA COLLECTED AND USE OF RESULTS (ASSESSMENT FINDINGS OR COLUMNS 4 & 5 OF THE 5-COLUMN MODEL)

OPERATIONAL PLAN (THIS IS WHERE YOU CAN LINK AN OUTCOME TO AN ACTION PLAN WITH OR WITHOUT A SPECIAL BUDGET REQUEST.)

STATUS REPORT

Pilot Programs/Practice Assessment Cycle (2009, 2016)

MEANS OF ASSESSMENT & CRITERIA FOR SUCCESS (ASSESSMENT PLAN)

ASSESSMENT FINDINGS

OPERATIONAL PLAN

STATUS REPORT (THIS SIMPLY STATES THE STATUS OF YOUR OPERATIONAL PLAN.)

2019-2020 Assessment Cycle

MEANS OF ASSESSMENT & CRITERIA FOR SUCCESS (ASSESSMENT PLAN OR COLUMN 3 OF THE 5-COLUMN MODEL)

SUMMARY OF DATA COLLECTED AND USE OF RESULTS (ASSESSMENT FINDINGS OR COLUMNS 4 & 5 OF THE 5-COLUMN MODEL)

OPERATIONAL PLAN (THIS IS WHERE YOU CAN LINK AN OUTCOME TO AN ACTION PLAN WITH OR WITHOUT A SPECIAL BUDGET REQUEST.)

STATUS REPORT (THIS SIMPLY STATES THE STATUS OF YOUR OPERATIONAL PLAN.)

Appendix

A. **GELOS & PLOs NDU Math** (Curriculum Map)