

# Course Student Learning Outcomes Assessment

**MATH 287L Introduction to Linear Algebra and Differential Equations  
Math Lab**

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## **General Information (Course Student Learning Outcomes Assessment)**

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# Standing Requirements

## 📖 Course Description

Students in Mathematics 287L will receive individual and/or group instruction. The course is designed to review enhance and/or advance the students' mathematical knowledge based on their individual need in the introduction to linear algebra and differential equations.

## 📖 Course Student Learning Outcomes

### MATH 287L Introduction to Linear Algebra and Differential Equations Math Lab Outcome Set

Outcome	
Outcome	Mapping
Outcome 1 Students will be able to classify and identify different problem types in the introduction to linear algebra and differential equations and select suitable problem solving techniques.	<b>Institutional Student Learning Outcomes:</b> Act 1, Act 2, Communicate 1, Learn 1, Learn 2, Think 1, Think 2, Think 3
Outcome 2 Students will be able to identify and use applicable math study skills in the introduction to linear algebra and differential equations.	<b>Institutional Student Learning Outcomes:</b> Act 1, Act 2, Communicate 1, Learn 1, Learn 2, Think 1, Think 2, Think 3

## 2014-2015 Assessment Cycle

### Measurements

#### Outcomes and Measures

### MATH 287L Introduction to Linear Algebra and Differential Equations Math Lab Outcome Set

#### Outcome

##### Outcome 1

Students will be able to classify and identify different problem types in the introduction to linear algebra and differential equations and select suitable problem solving techniques.

▼ **Measure:** Math 287L - SLO1  
Course level; Indirect - Survey

**Description of Measurement Tool:** Surveyed students about experience in the Math Study Hall. The survey focused on the overall quality of instruction, study skill improvement, recognizing different types of problems due to help in MaSH, and strengthening problem solving techniques. Students answered no improvement, little improvement, or great improvement.

**Criteria for Success: Individual & Collective Student Criterion:** Individually, success was rated as little or great improvement. Collectively, success is defined as 70% of the students reporting little or great improvement.

**Cycle of Assessment:** This outcome is assessed every year.

For this report, the data was gathered in Fall 2014, collated, analyzed, reported, and discussed in Spring 2015, with recommendations implemented in Fall 2015.

**Who is Responsible for Assessment Activity?:** The Math Study Hall Coordinator.

##### Outcome 2

Students will be able to identify and use applicable math study skills in the introduction to linear algebra and differential equations.

▼ **Measure:** Math 287L - SLO2  
Course level; Indirect - Survey

**Description of Measurement Tool:** Surveyed students about experience in the Math Study Hall. The survey focused on the overall quality of instruction, study skill improvement, recognizing different types of problems due to help in MaSH, and strengthening problem solving techniques. Students answered no improvement, little improvement, or great improvement.

**Criteria for Success: Individual & Collective Student Criterion:** Individually, success was rated as little or great improvement. Collectively, success is defined as 70% of the students reporting little or great improvement.

**Cycle of Assessment:** This outcome is assessed every year.

For this report, the data was gathered in Fall 2014, collated, analyzed, reported, and discussed in Spring 2015, with recommendations implemented in Fall 2015.

**Who is Responsible for Assessment Activity?:** The Math Study Hall Coordinator.

### Findings

#### Finding per Measure

### MATH 287L Introduction to Linear Algebra and Differential Equations Math Lab Outcome Set

#### Outcome

### Outcome 1

Students will be able to classify and identify different problem types in the introduction to linear algebra and differential equations and select suitable problem solving techniques.

#### ▼ Measure: Math 287L - SLO1 Course level; Indirect - Survey

**Description of Measurement Tool:** Surveyed students about experience in the Math Study Hall. The survey focused on the overall quality of instruction, study skill improvement, recognizing different types of problems due to help in MaSH, and strengthening problem solving techniques. Students answered no improvement, little improvement, or great improvement.

**Criteria for Success: Individual & Collective Student Criterion:** Individually, success was rated as little or great improvement. Collectively, success is defined as 70% of the students reporting little or great improvement.

**Cycle of Assessment:** This outcome is assessed every year.

For this report, the data was gathered in Fall 2014, collated, analyzed, reported, and discussed in Spring 2015, with recommendations implemented in Fall 2015.

**Who is Responsible for Assessment Activity?:** The Math Study Hall Coordinator.

#### Findings for Math 287L - SLO1

**Summary of Findings:** Recognize/classify different types of problems: 95% (26% little improvement, 69% great improvement)  
Strengthen problem solving techniques: 96% (30% little improvement, 66% great improvement)

Overall: 95.5%

**Results:** Criteria for Success Achievement Status: Met

**Analysis of Findings:** Looking at the data, almost all students felt they improved their problems solving techniques and their ability to recognize different types of problems due to the help they received in MaSH. This shows the Math Study Hall is effective and a great resource for students. The number of students who took the survey was small.

**Recommendations:** These results will be sent to current and past Math 287 instructors.

Encourage instructors to advertise the Math Study Hall as a resource for students to improve their learning, understanding, and study skills in their math courses. Continue to provide faculty, instructional assistants, and student tutors to assist students in the MaSH.

### Outcome 2

Students will be able to identify and use applicable math study skills in the introduction to linear algebra and differential equations.

#### ▼ Measure: Math 287L - SLO2 Course level; Indirect - Survey

**Description of Measurement Tool:** Surveyed students about experience in the Math Study Hall. The survey focused on the overall quality of instruction, study skill improvement, recognizing different types of problems due to help in MaSH, and strengthening problem solving techniques. Students answered no improvement, little improvement, or great improvement.

**Criteria for Success: Individual & Collective Student Criterion:** Individually, success was rated as little or great improvement. Collectively, success is defined as 70% of the students reporting little or great improvement.

**Cycle of Assessment:** This outcome is assessed every year.

For this report, the data was gathered in Fall 2014, collated, analyzed, reported, and discussed in Spring 2015, with recommendations implemented in Fall 2015.

**Who is Responsible for Assessment Activity?:** The Math Study Hall Coordinator.

#### Findings for Math 287L - SLO2

**Summary of Findings:** Strengthen Math Study Skills: 89% (39% little improvement, 54% great improvement)

Overall: 89%

**Results:** Criteria for Success Achievement Status: Met

**Analysis of Findings:** Looking at the data, most students improved their study skills. This shows the Math Study Hall is effective and a great resource for students. The number of students who took the survey was small.

**Recommendations:** These results will be sent to current and past Math 287 instructors.

Encourage instructors to advertise the Math Study Hall as a resource for students to improve their learning, understanding, and study skills in their math courses. Continue to provide faculty, instructional assistants, and student tutors to assist students in the MaSH.

## Overall Recommendations

*No text specified*

📄 **Plans of Action**

📄 **Status Reports**

## 2013-2014 Assessment Cycle

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 **Measurements**

 **Findings**

 **Plans of Action**

 **Status Reports**



## 2012-2013 Assessment Cycle

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 **Measurements**

 **Findings**

 **Plans of Action**

 **Status Reports**