#### **DEPARTMENTAL ASSESSMENT REPORT**

Department: Mathematics

Academic Year: 2014 Fall Semester:

Course Assessed: Math 099 MOD Fundamentals of Intermediate Algebra and Geometry

No of Students Assessed: Type of Assessmer A 25-problem final exam.

Course Coordinator: Jose Hernandez

### **ANALYSIS OF OVERALL RESULTS**

Expected competency level:	40%
2. How many students met the competency level?	151
3. What % of students met the competency level?	87%
4. No. of students enrolled in the course:	260
5. No. of students completing the final exam:	161
6. % of students completing the final exam:	93%
7. No. of students receiving a grade C or better:	144
8. % of students receiving a grade C or better:	83%
9. % of enrolled students passing with C or better:	55%
10. What objectives were not met by the majority of the	students:

## See the objectives below.

11. Was the assessment instrument adequate:

Yes, the assessment instrument was adequate.

12. The attainment of which objectives, if any, were not measured? Why not? Is it possible to make the instrument such that to measure all objectives?

All objectives were measured.

Objective # 1 Simplifying expressions containing rational exponents

Assessed by problem #1.

Number of correct answers: 111 % of correct answers: 64%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 2 Perform operations on and simplify radicals

Assessed by problem # 2.

Number of correct answers: 67 % of correct answers: 39%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 3 Perform operations on and simplify rational expressions

Assessed by problem # 3.

Number of correct answers: 87 % of correct answers: 50%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 4 A Solve quadratic equations with real solutions

Assessed by problem # 4.

Number of correct answers: 105 % of correct answers: 61%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 4 B Solve quadratic equations with real solutions

Assessed by problem # 5

Number of correct answers: 83 % of correct answers: 48%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 5 Solve rational equations

Assessed by problem # 6

Number of correct answers: 104 % of correct answers: 60%

Did the majority of the students meet this objective: YES

Objective # 6 Solve absolute value equations

Assessed by problem # 7

Number of correct answers: 84 % of correct answers: 49%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 7 Solve radical equations

Assessed by problem # 8

Number of correct answers: 122 % of correct answers: 71%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 8 Solve compound linear inequalities

Assessed by problem # 9

Number of correct answers: 47 % of correct answers: 27%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 9 Solve systems of linear inequalities in two variables

Assessed by problem # 10

Number of correct answers: 48 % of correct answers: 28%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 10 Solve systems of linear equations in two and three variables

Assessed by problem # 11

Number of correct answers: 99 % of correct answers: 57%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 11 Formulate and apply an equation, inequality or system of linear equations

Assessed by problem # 12.

Number of correct answers: 124 % of correct answers: 72%

Did the majority of the students meet this objective: YES

Objective # 12 Solve and evaluate literal equations, including nonlinear equations

Assessed by problem # 13.

Number of correct answers: 95 % of correct answers: 55%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 13. Formulate and apply nonlinear literal equations

Assessed by problem # 14.

Number of correct answers: 127 % of correct answers: 73%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 14 A Graph linear and quadratic equations

Assessed by problem # 15.

Number of correct answers: 47 % of correct answers: 27%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 14 B Graph linear and quadratic equations

Assessed by problem # 16

Number of correct answers: 140 % of correct answers: 81%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 15 Equations of lines, parallel and perpendicular line

Assessed by problem # 17.

Number of correct answers: 123 % of correct answers: 71%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 16 Given relationships represented in multiple forms are functions

Assessed by problem # 18.

Number of correct answers: 71 % of correct answers: 41%

Did the majority of the students meet this objective: NO

Objective # 17 Determine domain and range from the graph of a function

Assessed by problem # 19.

Number of correct answers: 123 % of correct answers: 71%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 18 Formulate and apply the concept of a function to contextual situation

Assessed by problem # 20.

Number of correct answers: 47 % of correct answers: 27%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 19 Interpret slope in a linear model as a rate of change

Assessed by problem # 21.

Number of correct answers: 144 % of correct answers: 83%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 20 A Apply formulas of perimeter, area, and volume to 2 - and 3 dimensions

Assessed by problem # 22.

Number of correct answers: 50 % of correct answers: 29%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 20 B Apply formulas of perimeter, area, and volume to 2 - and 3 dimensions

Assessed by problem # 23.

Number of correct answers: 88 % of correct answers: 51%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 21 Apply the Pythagorean Theorem

Assessed by problem # 24

Number of correct answers: 82 % of correct answers: 47%

Did the majority of the students meet this objective: NO

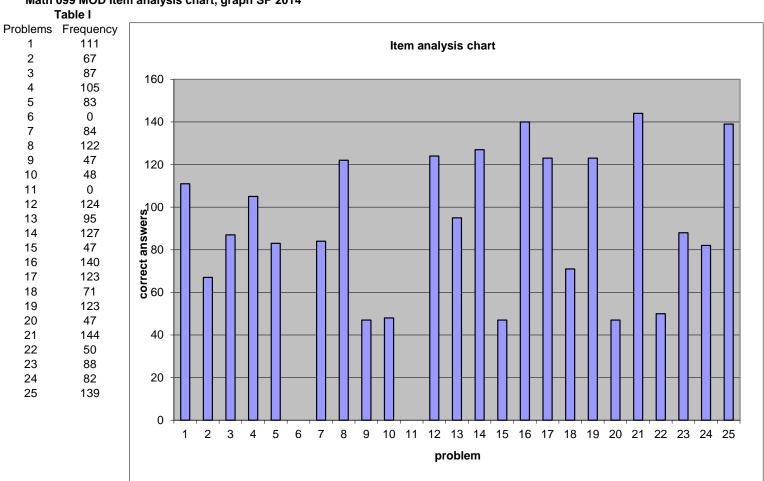
Objective # 22 Apply the concepts of similarity and congruency of triangles

Assessed by problem # 25

Number of correct answers: 139 % of correct answers: 80%

Did the majority of the students meet this objective: Comments - Recommendations: **YES** 

Math 099 MOD Item analysis chart, graph SP 2014

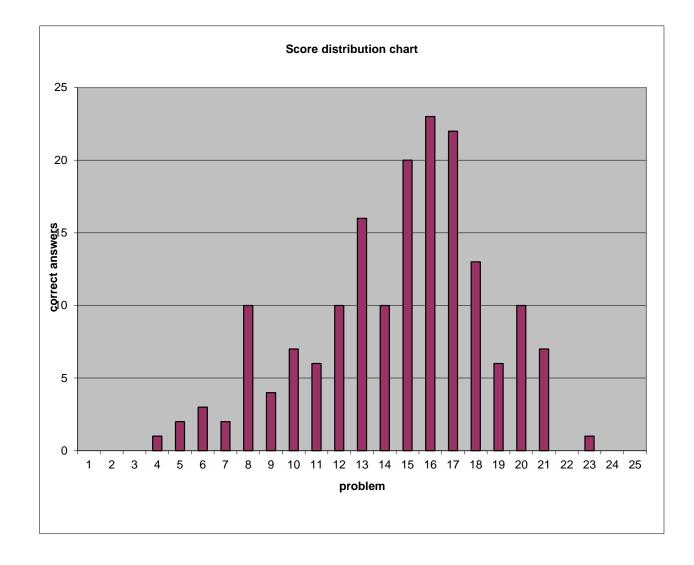


The above table indicates the number of correct answers for each problem of the assessment instrument.

SP 2014 Math 099 MOD Score Distribution graph

SF 2014	wath 099
Table	II
Problem	Score
1	0
2	0
3	0
4	1
5	2
6	3
7	2
8	10
9	4
10	7
11	6
12	10
13	16
14	10
15	20
16	23
17	22
18	13
19	6
20	10

Totals



# Table III

Math 099 MOD Grade Distribution SP 2014

Grade	Frequency			M 099 AC MD								
Α	4			M 099 BD MD								
В	5			M099 EG MD	6	5	11	2	5	4	3	36
С	5			M 099 FH MD	1	4	10	3	12	3	8	41
D	1			M O99 IK MD								
F	7			M 099 JL MD	8	17	6	1	5	1	4	42
ADW	0			M 099 OQ MD								
WTH	7			M 099 PR MD	13	8	4	1	4	3	7	40
TOTALS	0			M 099 UV MD	9	7	7	2	8	2	4	39

Section

M099 HUOQ MD 2 6

4

5

M 099 SAT MD

C D F

6 6 0

ADW WTH Totals

29

## SP 2014 Math 099 MOD - Item Analysis, correct answers for each problem

Section	# 1	# 2	#3	# 4	# 5	#6	# 7	#8	# 9	# 10	# 11	# 12	# 13	#14	#15	#16	# 17	# 18	# 19	# 20	# 21	# 22	# 23	# 24	#25	Class Size	
M 099 AC MD																											
M 099 BD MD																											
M099 EG MD	13	5	10	9	7	9	7	17	5	0	13	19	8	15	4	20	18	8	21	2	21	5	12	6	17	21	
M 099 FH MD	19	14	14	19	13	15	18	17	8	8	14	20	15	21	8	24	24	8	16	11	25	8	15	13	23	25	
M O99 IK MD																											
M 099 JL MD	23	14	16	26	21	22	13	24	8	13	21	16	19	27	12	29	23	19	19	22	17	19	15	22	26	30	
M 099 OQ MD																											
M 099 PR MD	19	10	12	13	11	19	16	20	8	5	15	20	13	18	2	23	21	8	17	5	22	6	15	8	20	24	
M 099 UV MD	11	8	10	11	9	12	9	17	8	5	15	20	19	18	12	17	19	14	21	3	26	5	14	16	23	26	
M099 HUOQ MI	11	9	11	14	11	15	10	13	2	2	9	15	10	16	4	14	5	8	14	3	16	2	9	7	14	17	
M 099 SAT MD	15	7	14	13	11	12	11	14	8	15	12	14	11	12	5	13	13	6	15	1	17	5	8	10	16	18	
TOTALS	111	67	87	105	83	104	84	122	47	48	99	124	95	127	47	140	123	71	123	47	144	50	88	82	139	161	

SP 2014 Math 09	99 MC	DD - 9	Score	e Dis	tribut	ion, n	umb	er of c	corre	ct ans	swers	per p	oroble	m												
Section	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25 T	otals
M 099 AC MD																										
M 099 BD MD																										
M099 EG MD	0	0	0	0	0	1	1	0	2	3	1	2	4	2	4	1	1	0	1	1	0	0	0	0	0	24
M 099 FH MD	0	0	0	0	0	0	0	0	0	2	1	0	1	2	4	3	2	4	1	3	2	0	0	0	0	25
M O99 IK MD																										
M 099 JL MD	0	0	0	0	0	0	0	1	0	0	1	2	2	1	7	6	6	2	2	0	1	0	0	0	0	31
M 099 OQ MD																										0
M 099 PR MD	0	0	0	0	0	0	1	0	1	0	1	3	2	3	1	2	6	2	0	1	1	0	0	0	0	24
M 099 UV MD	0	0	0	0	2	1	0	8	1	0	2	3	5	0	1	5	3	1	0	1	0	0	1	0	0	34
M099 HUOQ M[	0	0	0	0	0	0	0	1	0	1	0	0	2	2	2	4	3	1	1	0	0	0	0	0	0	17
M 099 SAT MD	0	0	0	1	0	1	0	0	0	1	0	0	0	0	1	2	1	3	1	4	3	0	0	0	0	18
TOTALS	0	0	0	1	2	3	2	10	4	7	6	10	16	10	20	23	22	13	6	10	7	0	1	0	0	173

## **DEPARTMENTAL ASSESSMENT REPORT**

Department: Mathematics

Academic Year: 2014 Semester: Fall

Course Assessed: Math 090

No of Students Assessed: 25

Type of Assessmer A 25-problem final exam.

Course Coordinator: Patricia Miceli

## **ANALYSIS OF OVERALL RESULTS**

Expected competency level:	40%
2. How many students met the competency level?	24
3. What % of students met the competency level?	96%
4. No. of students enrolled in the course:	36
5. No. of students completing the final exam:	25
6. % of students completing the final exam:	69%
7. No. of students receiving a grade C or better:	15
8. % of students receiving a grade C or better:	60%
9. % of enrolled students passing with C or better:	42%
10. What objectives were not met by the majority of the	e students:
Objectives 8, was not met by the majority of studen	ts
11. Was the assessment instrument adequate:	
Yes, the assessment instrument was adequate.	
12. The attainment of which objectives, if any, were no	ot measured?
Why not? Is it possible to make the instrument su	ch that to
measure all objectives?	
All objectives were measured.	
13. Comments - Recommendations:	

Objective # 1 Problem-solving steps and strategies to form conjectures.

Assessed by problem #1.

Number of correct answers: 21 % of correct answers: 84%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 2 Set definitions, notations, relationships, perform operations on sets.

Assessed by problem # 2.

Number of correct answers: 18 % of correct answers: 72%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 3 Define a function, an equation, a function machine, ordered pairs, graph.

Assessed by problem # 3.

Number of correct answers: 10 % of correct answers: 40%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 4 Use logic in math thinking and problem solving.

Assessed by problem # 4.

Number of correct answers: 9 % of correct answers: 36%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 5 Know properties of numeration systems, give basic structure.

Assessed by problem # 5.

Number of correct answers: 23 % of correct answers: 92%

Did the majority of the students meet this objective: YES

Objective # 6 Perform operations on whole numbers.

Assessed by problem # 6.

Number of correct answers: 21 % of correct answers: 84%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 7 Perform operations on integers.

Assessed by problem # 7.

Number of correct answers: 13 % of correct answers: 52%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 8 Use divisibility tests.

Assessed by problem # 8.

Number of correct answers: 20 % of correct answers: 80%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 9 Determine prime composite numbers and number of divisors.

Assessed by problem # 9.

Number of correct answers: 18 % of correct answers: 72%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 10 Determine greatest divisor and least multiple for more natural numbers.

Assessed by problem # 10.

Number of correct answers: 9 % of correct answers: 36%

Did the majority of the students meet this objective: **NO** 

Objective # 11 Solve problems using clocks and modular arithmetic. page 4

Assessed by problem # 11.

Number of correct answers: 19 % of correct answers: 76%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 12 Represent rational numbers and know the properties.

Assessed by problem # 12.

Number of correct answers: 19 % of correct answers: 76%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 13. Know and use the properties of exponents.

Assessed by problem # 13.

Number of correct answers: 20 % of correct answers: 80%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 14 Perform operations on decimals.

Assessed by problem # 14.

Number of correct answers: 17 % of correct answers: 68%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 15 Know properties and perform operations on real numbers.

Assessed by problem # 15.

Number of correct answers: 21 % of correct answers: 84%

Did the majority of the students meet this objective: Yes

Objective # 16 Algebraic skills writing and solving equations and inequalities in word problems

Assessed by problem # 16.

Number of correct answers: 21 % of correct answers: 84%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 17 Formulate word problems as mathematical problems.

Assessed by problem # 17.

Number of correct answers: 13 % of correct answers: 52%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 18 Use properties of decimals to solve problems.

Assessed by problem # 18.

Number of correct answers: 17 % of correct answers: 68%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

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Objective # 19 Use properties of ratios proportional to solve problems.

Assessed by problem # 19.

Number of correct answers: 19 % of correct answers: 76%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 20 Define and determine percents.

Assessed by problem # 20.

Number of correct answers: 16 % of correct answers: 64%

Did the majority of the students meet this objective: YES

Objective # 21 Use properties in percent problems

Assessed by problem # 21

Number of correct answers: 21 % of correct answers: 84%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 22 Percents in decimal form and vice versa

Assessed by problem # 22

Number of correct answers: 18 % of correct answers: 72%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 23 Solve simple interest problems

Assessed by problem # 23

Number of correct answers: 17 % of correct answers: 68%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 24 Solve compount inerest problems

Assessed by problem # 24

Number of correct answers: 20 % of correct answers: 80%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

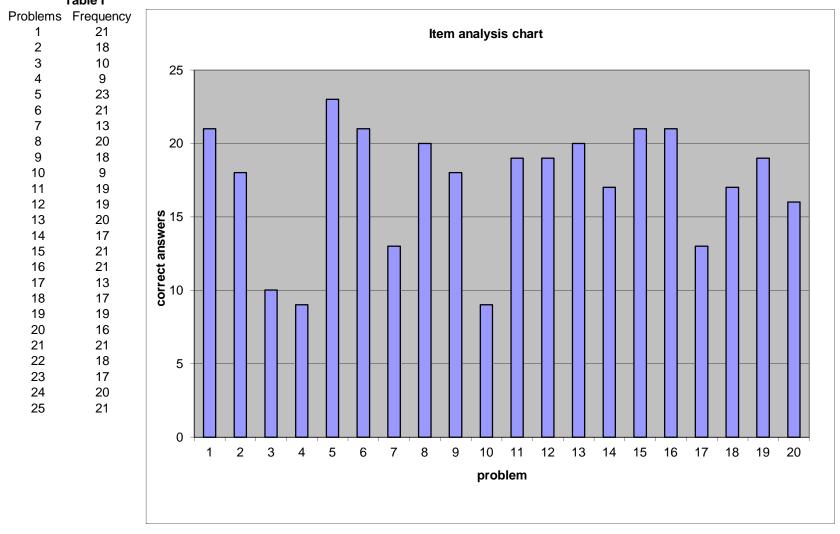
Objective # 25 Use compount interest formula to solve finance problems

Assessed by problem # 25

Number of correct answers: 20 % of correct answers: 80%

Did the majority of the students meet this objective: Yes

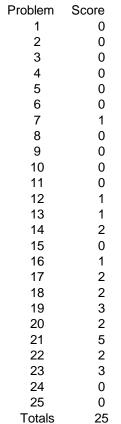
Math 090 Item analysis chart FA 2013 Table I

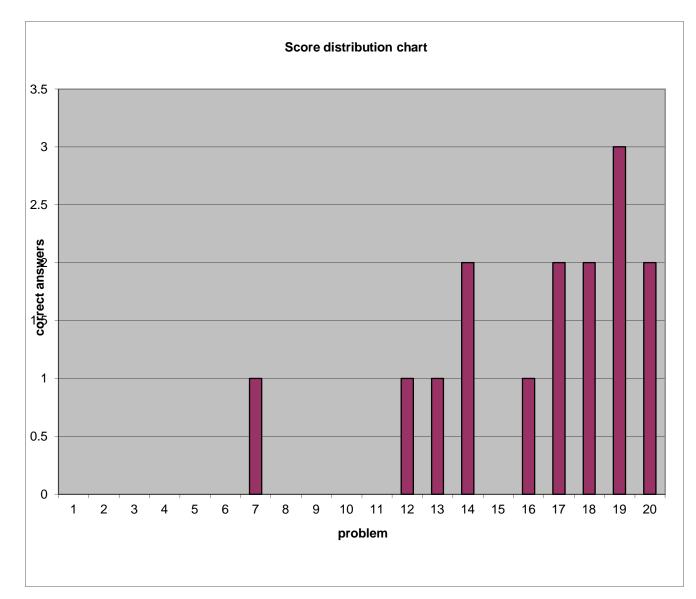


The above table indicates the number of correct answers for each problem of the assessment instrument.

FA 2013 Math 090 Score Distribution chart

Table II

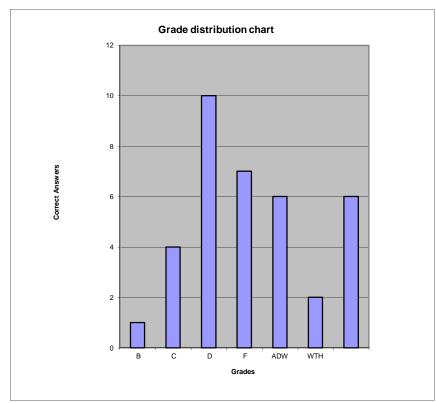




## FA 2013 Math 090 Grade Distribution chart

	Table III	
Grade	Frequency	
Α	1	
В	4	
С	10	
D	7	
F	6	
ADW	2	
WTH	6	
Totals	36	

Section M 090 AC	Α	В	С	D	F	ADW	WTH	Totals
M 090 FH	1	4	10	7	6	2	6	36
TOTALS	1	4	10	7	6	2	6	36



Section	# 1	# 2	#3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	#14	#15	#16	# 17	# 18	# 19	20	21	22	23	24	25	ΓΟΤΑ
M 090 AC	•		•							•						•										
M 090 FH	21	18	10	) (	9 2	3 2	1 1	3 20	) 18	3 9	19	9 19	20	17	21	21	13	17	19	16	21	18	17	20	21	23
TOTALS	21	18	10	) (	9 2	3 2	1 1	3 20	) 18	3 9	19	9 19	20	17	21	21	13	17	19	16	21	18	17	20	21	23

**SP 2014 2013 Math 090 Item Analysis** 

Section M 989AC	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Totals
M 090 FH	0	0	0	0	0	0	1	0	0	0	0	1	1	2	0	1	2	2	3	2	5	2	3	0-	0	25
TOTALS	0	0	0	0	0	0	1	0	0	0	0	1	1	2	0	1	2	2	3	2	5	2	3	0	0	25

FA 2013 Math 090 Score Distribution

#### **DEPARTMENTAL ASSESSMENT REPORT**

Mathematics Department:

Academic Year: 2014 Fall Semester:

Course Assessed: Math 099 **Fundamentals of Intermediate Algebra and Geometry** 

No of Students Assessed: Type of Assessment A 25-problem final exam.

Course Coordinator: Pat Miceli

#### **ANALYSIS OF OVERALL RESULTS**

1. Expected competency level: 40	%
2. How many students met the competency level?	358
3. What % of students met the competency level?	95%
4. No. of students enrolled in the course:	594
5. No. of students completing the final exam:	378
6. % of students completing the final exam:	64%
7. No. of students receiving a grade C or better:	299
8. % of students receiving a grade C or better:	79%
9. % of enrolled students passing with C or better:	50%
AC MAINTENER OF THE CONTRACT O	1 -

10. What objectives were not met by the majority of the students:

## See the objectives below.

11. Was the assessment instrument adequate:

Yes, the assessment instrument was adequate.

12. The attainment of which objectives, if any, were not measured? Why not? Is it possible to make the instrument such that to measure all objectives?

All objectives were measured.

Objective # 1 Simplifying expressions containing rational exponents

Assessed by problem #1.

Number of correct answers: 261 % of correct answers: 69%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 2 Perform operations on and simplify radicals

Assessed by problem # 2.

Number of correct answers: 183 % of correct answers: 48%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 3 Perform operations on and simplify rational expressions

Assessed by problem #3.

Number of correct answers: 262 % of correct answers: 69%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 4 A Solve quadratic equations with real solutions

Assessed by problem # 4.

Number of correct answers: 236 % of correct answers: 62%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 4 B Solve quadratic equations with real solutions

Assessed by problem # 5 197 Number of correct answers: 52%

% of correct answers:

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 5 Solve rational equations

Assessed by problem #6

Number of correct answers: 274 % of correct answers: 72%

Did the majority of the students meet this objective: YES

Objective # 6 Solve absolute value equations

Assessed by problem # 7

Number of correct answers: 257 % of correct answers: 68%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 7 Solve radical equations

Assessed by problem # 8

Number of correct answers: 319 % of correct answers: 84%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 8 Solve compound linear inequalities

Assessed by problem # 9

Number of correct answers: 112 % of correct answers: 30%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 9 Solve systems of linear inequalities in two variables

Assessed by problem # 10

Number of correct answers: 153 % of correct answers: 40%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 10 Solve systems of linear equations in two and three variables

Assessed by problem # 11

Number of correct answers: 276 % of correct answers: 73%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 11 Formulate and apply an equation, inequality or system of linear equations

Assessed by problem # 12.

Number of correct answers: 300 % of correct answers: 79%

Did the majority of the students meet this objective: YES

Objective # 12 Solve and evaluate literal equations, including nonlinear equations

Assessed by problem # 13.

Number of correct answers: 237 % of correct answers: 63%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 13. Formulate and apply nonlinear literal equations

Assessed by problem # 14.

Number of correct answers: 320 % of correct answers: 85%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 14 A Graph linear and quadratic equations

Assessed by problem # 15.

Number of correct answers: 112 % of correct answers: 30%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 14 B Graph linear and quadratic equations

Assessed by problem # 16

Number of correct answers: 325 % of correct answers: 86%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 15 Equations of lines, parallel and perpendicular line

Assessed by problem # 17.

Number of correct answers: 325 % of correct answers: 86%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 16 Given relationships represented in multiple forms are functions

Assessed by problem # 18.

Number of correct answers: 177 % of correct answers: 47%

Did the majority of the students meet this objective: NO

Objective # 17 Determine domain and range from the graph of a function

Assessed by problem # 19.

Number of correct answers: 281 % of correct answers: 74%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 18 Formulate and apply the concept of a function to contextual situation

Assessed by problem # 20.

Number of correct answers: 110 % of correct answers: 29%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 19 Interpret slope in a linear model as a rate of change

Assessed by problem # 21.

Number of correct answers: 370 % of correct answers: 98%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 20 A Apply formulas of perimeter, area, and volume to 2 - and 3 dimensions

Assessed by problem # 22.

Number of correct answers: 180 % of correct answers: 48%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 20 B Apply formulas of perimeter, area, and volume to 2 - and 3 dimensions

Assessed by problem # 23.

Number of correct answers: 231 % of correct answers: 61%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 21 Apply the Pythagorean Theorem

Assessed by problem # 24

Number of correct answers: 179 % of correct answers: 47%

Did the majority of the students meet this objective: NO

Objective # 22 Apply the concepts of similarity and congruency of triangles

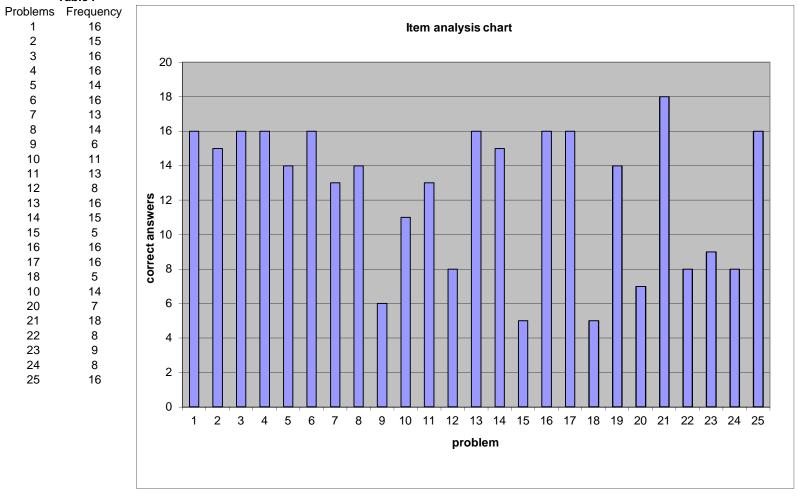
Assessed by problem # 25

Number of correct answers: 327 % of correct answers: 87%

Did the majority of the students meet this objective: YES

Math 099 Item analysis chart SP 2014

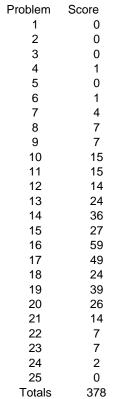


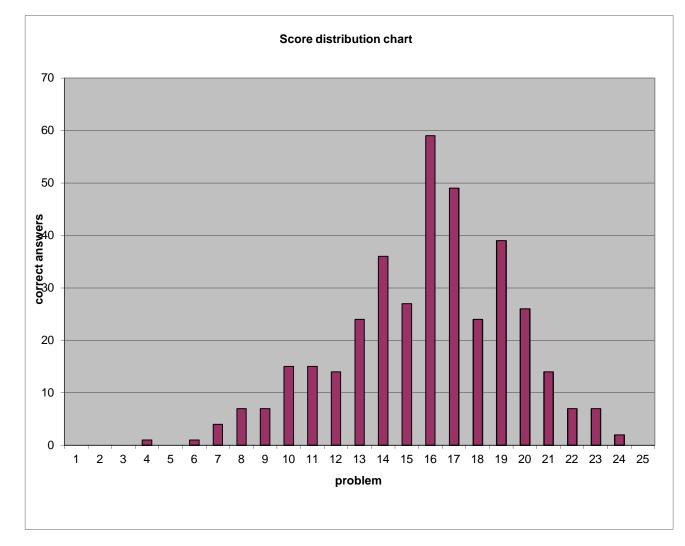


The above table indicates the number of correct answers for each problem of the assessment instrument.

SP 2014 Math 099 Score Distribution chart

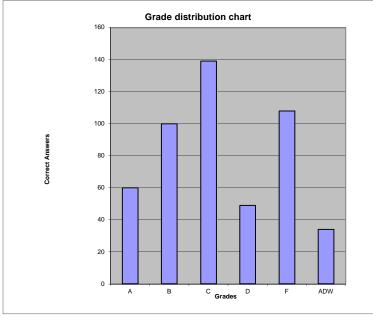
#### Table II





SP 2014 Math 099 Grade Distribution chart

	Table III
Grade	Frequency
Α	60
В	100
С	139
D	49
F	108
ADW	34
WTH	104
Totals	594



Section	Α	В	С	D	F	ADW	WTH	Totals
M 099 AC	6	14	10	1	3	1	2	37
M 099 BD	3	3	6	4	10	4	7	37
M 099 CE								0
M 099 .CBK	2	4	5	2	6	0	7	26
M 099 DBK	0	8	7	5	3	2	1	26
M 099 DF	2	5	5	4	12	4	5	37
M 099 FBK	0	0	0	2	21	3	0	26
M 099 FH	1	4	10	3	12	3	8	41
M 099 GI	4	7	14	2	3	0	12	42
M 099 GI2	4	4	14	7	5	1	2	37
M 099 HJ2	1	6	17	3	6	0	4	37
M 099 HJ3	1	10	14	1	6	1	2	35
M 099 IK	5	7	11	2	6	0	6	37
M 099 IK2	2	4	9	5	6	0	12	38
M 099 MO	16	8	4	1	0	0	6	35
M 099 NP	2	3	2	4	1	13	13	38
M 099 NP2	6	4	4	3	2	1	3	23
M 099 RT	5	9	7	0	6	1	14	42
TOTALS	60	100	139	49	108	34	104	594

# SP 2014 Math 099 - Item Analysis

Section	# 1	# 2	#3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	#14	#15	#16	# 17	# 18	# 19	# 20	# 21	# 22	# 23	# 24	#25	Class Size
M 099 AC	17	6	17	11	18	18	20	24	4	8	23	26	24	22	7	24	24	12	22	8	30	11	20	13	25	30
M 099 BD	12	4	14	19	11	16	8	16	10	11	16	15	11	18	9	19	18	10	15	11	20	10	12	8	20	20
M 099 CE																										
M 099 .CBK	12	7	8	12	2	9	9	12	4	3	8	12	7	12	1	11	12	6	12	3	12	10	10	4	11	12
M 099 DBK	19	6	14	14	9	7	15	15	2	9	15	11	9	21	6	19	20	5	15	5	20	4	10	8	16	21
M 099 DF	18	15	21	4	15	20	16	19	12	11	16	16	16	18	11	11	19	14	17	8	21	15	15	16	18	22
M 099 FBK	7	5	7	7	6	5	14	10	2	5	6	8	6	11	2	10	9	2	11	2	12	6	12	8	3	13
M 099 FH	14	6	16	16	8	17	20	22	10	10	20	23	14	22	9	24	21	8	11	9	25	15	17	12	23	25
M 099 GI	23	22	22	20	20	20	22	24	10	9	26	23	20	23	6	27	24	12	19	3	28	10	10	12	26	28
M 099 GI2	22	11	13	15	13	23	20	29	5	12	24	22	19	29	8	26	25	12	28	8	31	20	18	11	29	31
M 099 HJ2	19	18	19	13	16	20	18	21	6	7	18	21	13	15	7	21	25	16	17	9	26	13	13	9	21	27
M 099 HJ3	13	6	16	18	13	18	16	23	7	13	12	25	11	24	2	25	23	10	16	1	27	9	16	10	26	27
M 099 IK	23	14	21	18	13	23	9	21	7	3	12	21	19	22	8	21	20	18	21	5	25	10	15	16	22	25
M 099 IK2	13	10	14	15	8	16	12	17	4	8	17	16	9	17	4	19	18	10	15	7	19	12	14	5	19	20
M 099 MO	15	17	22	20	17	26	23	27	17	19	26	27	23	26	16	26	27	21	26	20	29	16	23	21	27	29
M 099 NP	6	7	9	9	6	8	8	11	4	12	11	11	6	10	6	12	8	8	11	3	12	3	8	11	10	12
M 099 NP2	12	14	13	9	8	12	14	14	2	2	13	15	14	15	5	14	16	8	11	1	15	8	9	7	15	16
M 099 RT	16	15	16	16	14	16	13	14	6	11	13	8	16	15	5	16	16	5	14	7	18	8	9	8	16	18
TOTALS	261	183	262	236	197	274	257	319	112	153	276	300	237	320	112	325	325	177	281	110	370	180	231	179	327	376

SP 2014 Ma	ath 09	99 - 9	Scoi	e Di	strik	utio	n																			
Section	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25 T	otals
M 099 AC	0	0	0	0	0	0	0	0	1	4	1	0	2	4	5	3	6	3	2	0	0	0	0	0	0	31
M 099 BD	0	0	0	0	0	1	0	0	0	0	1	1	0	2	1	2	4	1	3	1	1	0	2	0	0	20
M 099 CE																										
M 099 CBK	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	4	1	1	0	2	2	0	0	0	0	12
M 099 DBK	0	0	0	0	0	0	1	1	0	1	2	1	3	1	3	5	3	0	0	0	0	0	0	0	0	21
M 099 DF	0	0	0	1	0	0	0	0	0	1	1	1	1	3	0	5	0	3	0	5	1	0	0	0	0	22
M 099 FBK	0	0	0	0	0	0	1	1	0	2	0	1	2	0	0	4	1	0	0	0	1	0	0	0	0	13
M 099 FH	0	0	0	0	0	0	1	0	1	0	1	1	2	1	1	5	4	1	2	1	1	2	1	0	0	25
M 099 GI	0	0	0	0	0	0	0	0	0	1	0	1	0	3	1	4	7	3	3	3	0	0	0	0	0	26
M 099 GI2	0	0	0	0	0	0	0	0	0	1	1	3	6	6	3	3	3	0	1	2	0	1	1	0	0	31
M 099 HJ2	0	0	0	0	0	0	1	2	1	1	1	0	2	4	5	2	3	1	1	0	1	1	0	1	0	27
M 099 HJ3	0	0	0	0	0	0	0	2	0	2	3	1	2	2	2	5	3	2	3	0	0	0	0	0	0	27
M 099 IK	0	0	0	0	0	0	0	0	0	1	1	1	1	4	3	2	3	1	4	2	0	1	0	1	0	25
M 099 IK2	0	0	0	0	0	0	0	0	2	0	0	0	1	3	0	4	4	1	3	2	0	0	0	0	0	20
M 099 MO	0	0	0	0	0	0	0	0	1	0	2	1	1	0	2	3	2	4	7	5	1	0	0	0	0	29
M 099 NP	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	2	0	0	3	1	2	0	1	0		12
M 099 NP2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	4	0	4	1	2	1	0	0	0	16
M 099 RT	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	6	1	3	3	1	2	1	2	0	0	21

TOTALS

0 0 0 1 0 1 4 7 7 15 15 14 24 36 27 59 49 24 39 26 14 7 7 2 0 378

#### DEPARTMENTAL ASSESSMENT REPORT

Department: Mathematics

1 Expected competency level:

Academic Year: 2014 Semester: Fall

Course Assessed: Math 118 General Ed. Math

No of Students Assessed: 333

Type of Assessmer A 25-problem final exam.

Course Coordinator: Qiana Lewis

### **ANALYSIS OF OVERALL RESULTS**

**40%** 

1. Expected competency level.	40 /0
2. How many students met the competency level?	306
3. What % of students met the competency level?	92%
4. No. of students enrolled in the course:	29
5. No. of students completing the final exam:	333
6. % of students completing the final exam:	100%
7. No. of students receiving a grade C or better:	109
8. % of students receiving a grade C or better:	33%

- 10. What objectives were not met by the majority of the students: All objectives were met by the majority of the students.
- 11. Was the assessment instrument adequate:
  Yes, the assessment instrument was adequate.
- 12. The attainment of which objectives, if any, were not measured? Why not? Is it possible to make the instrument such that to measure all objectives? All objectives were measured.
- 13. Comments Recommendations:

Objective # 1 Translate symbolic statements into words and vice-versa

Assessed by problem #1.

Number of correct answers: 310 % of correct answers: 93%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 2 Determine the truth-value for compound statements

Assessed by problem # 2.

Number of correct answers: 254 % of correct answers: 76%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 3 Determine the negation statement

Assessed by problem # 3.

Number of correct answers: 140 % of correct answers: 42%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 4 Determine and relate the converse, inverse, and contra positive....

Assessed by problem # 4.

Number of correct answers: 214 % of correct answers: 64%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 5 Construct truth tables for compound statements

Assessed by problem # 5.

Number of correct answers: 231 % of correct answers: 69%

Did the majority of the students meet this objective: Yes

Objective # 6 Determine the validity of arguments using Euler diagrams and truth tables

Assessed by problem # 6.

Number of correct answers: 127 % of correct answers: 38%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 7 Develop and apply common counting method strategies.

Assessed by problem # 7.

Number of correct answers: 117 % of correct answers: 35%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 8 Apply the fundamental counting principle to application problems

Assessed by problem # 8.

Number of correct answers: 296 % of correct answers: 89%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 9 Use the factorial formula to determine the number of ways to arrange objects

Assessed by problem # 9.

Number of correct answers: 274 % of correct answers: 82%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 10 Apply permutations to application problems

Assessed by problem # 10.

Number of correct answers: 210 % of correct answers: 63%

Did the majority of the students meet this objective: Yes

Objective # 11 Apply combinations to application problems

Assessed by problem # 11.

Number of correct answers: 257 % of correct answers: 77%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 12 Use the complement and/or additive principle for counting ...

Assessed by problem # 12.

Number of correct answers: 170 % of correct answers: 51%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 13. Determine the empirical probability and theoretical probability...

Assessed by problem # 13.

Number of correct answers: 290 % of correct answers: 87%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 14 Determine the odds in favor and the odds against events

Assessed by problem # 14.

Number of correct answers: 226 % of correct answers: 68%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 15 Apply the addition rule of probability to real-life problems

Assessed by problem # 15.

Number of correct answers: 170 % of correct answers: 51%

Did the majority of the students meet this objective: Yes

Objective # 16 Apply the multiplication rule of probability to real-life problems

Assessed by problem # 16.

Number of correct answers: 196 % of correct answers: 59%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 17 Apply the binomial probability formula to application problems

Assessed by problem # 17.

Number of correct answers: 110 % of correct answers: 33%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 18 Determine expected values of random variables of real life

Assessed by problem # 18.

Number of correct answers: 176 % of correct answers: 53%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

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Objective # 19 Gather, interpret, and present data in frequency distribution tables,

histograms, and graphs

Assessed by problem # 19.

Number of correct answers: 268 % of correct answers: 80%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 20 Find and interpret measures of central tendency.

Assessed by problem # 20.

Number of correct answers: 230 % of correct answers: 69%

Did the majority of the students meet this objective: Yes

Objective # 21 Find and interpret various measures of dispersion.

Assessed by problem # 21.

Number of correct answers: 178 % of correct answers: 53%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 22 Use z-scores to compare data from different distributions.

Assessed by problem # 22

Number of correct answers: 203 % of correct answers: 61%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 23 Determine percentile and quartile for data, construct plots from results.

Assessed by problem # 23.

Number of correct answers: 201 % of correct answers: 60%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 24 Apply principles of normal distribution to real-life normally distributed.

Assessed by problem # 24.

Number of correct answers: 104 % of correct answers: 31%

Did the majority of the students meet this objective: **No** 

Comments - Recommendations:

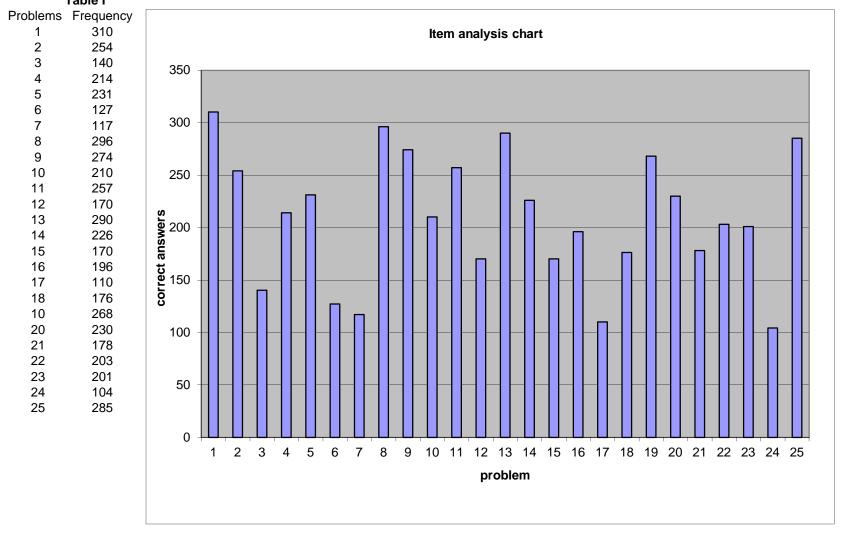
Objective # 25 Use regression analysis to formulate relationships between variables.

Assessed by problem # 25.

Number of correct answers: 285 % of correct answers: 86%

Did the majority of the students meet this objective: Yes

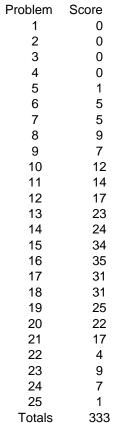
Math 118 Item analysis chart SP 2014 Table I

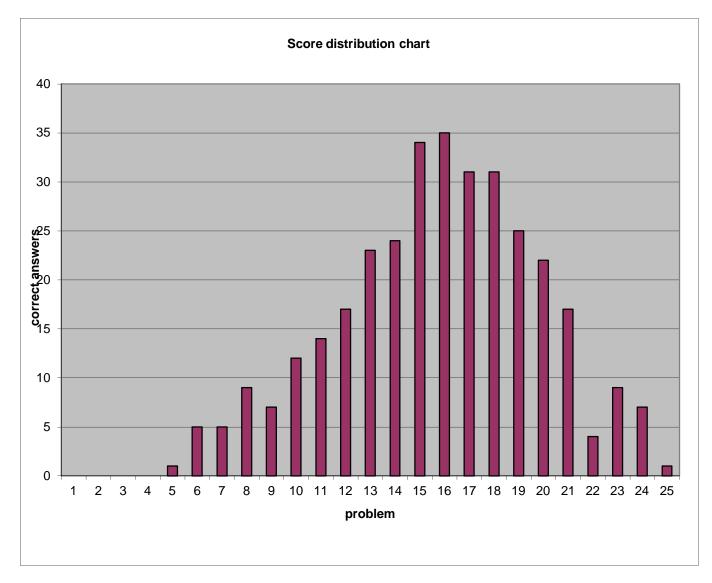


The above table indicates the number of correct answers for each problem of the assessment instrument.

SP 2014 Math 118 Score Distribution chart

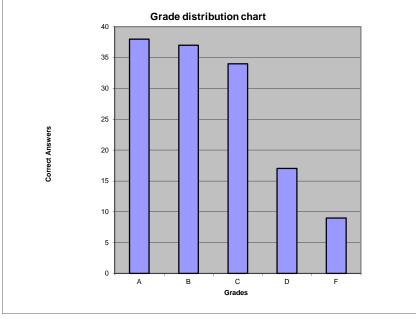
#### Table II





### SP 2014 Math 118 Grade Distribution chart

	Table III	
Grade	Frequency	
Α	38	
В	37	
С	34	
D	17	
F	9	
ADW	1	
WTH	29	
TOTALS	165	



Section	Α	В	С	D	F	ADW	WTH	Totals
M 118 AC	5	13	6	3	3	1	4	35
M 118 AC2	3	15	5	7	2	2	2	36
M 118 BD	2	11	6	3	7	2	3	34
M 118 BFYR	1	1	6	2	11	0	4	25
M 118 CE	3	9	11	0	1	2	1	27
M 118 IBK	1	2	2	1	4	1	0	11
M 118 EG	3	7	6	5	2	0	14	37
M 118 EG2	9	12	7	4	2	1	1	36
M 118 FHYR	6	6	7	1	6	0	1	27
M 118 IK								
M 118 MO	8	4	7	3	5	0	8	35
M 118 NP	2	11	4	4	0	0	6	27
M 118 NP2	6	4	4	3	2	1	3	23
M 118 HUOQ	2	5	7	0	0	0	3	17
M 118 QS	13	3	4	7	0	0	7	34
M118 SAYR	7	10	8	0	2	0	2	29
TOTALS	38	37	34	17	9	1	29	165

## **SP 2014 Math 118 - Item Analysis**Section #1 #2 #3 #4 #

Section	#1 #2	#3 #4	<b>4</b> # 5	# 6	#7	# 8	# 9	# 10	# 11	# 12	# 13	#14	#15	#16	# 17	# 18	# 19	# 20	# 21	# 22	# 23	# 24	#25	Class Size
M 118 AC	25 10	8 16	3 22	8	7	23	24	10	23	16	26	14	19	20	9	21	19	22	18	15	21	18	24	28
M 118 AC2	28 28	5 22	2 24	14	9	26	27	27	24	14	29	20	18	14	7	9	24	27	24	23	23	9	29	31
M 118 BD	19 15	9 15	5 13	5	6	20	17	13	18	10	17	10	8	16	9	14	16	15	12	7	15	11	14	23
M 118 BFYR	11 10	2 6	6	5	3	11	8	7	6	3	12	7	2	2	1	5	8	9	4	3	1	0	11	12
M 118 CE	23 7	14 15	5 16	8	8	18	22	12	21	18	19	10	7	14	8	17	23	17	10	11	8	6	18	25
M 118 IBK	9 7	5 5	5 6	3	2	9	8	3	7	5	9	7	3	6	4	2	7	6	7	7	9	5	8	9
M 118 EG	22 18	13 18	3 20	5	7	22	21	19	21	1	20	15	15	19	17	11	21	2	18	19	18	10	19	22
M 118 EG2	29 27	26 22	2 19	26	21	29	29	19	28	21	29	27	16	17	16	13		_	27	20	25	8	27	29
M 118 FHYR	23 20	2 17	7 17	6	2	19	17	12	17	15	18	13	11	11	5	12	16	15	7	13	8	5	20	23
M 118 IK																								
M 118 MO	34 33	6 13	-	16	10	32	30	21	25	15	31	22	12	12	4	17	32	_	15	20	18	8	33	37
M 118 NP	9 14	9 10	) 11	9	13	10	15	14		9	9	19	9	9	9	10	21	10	9	10	9	9	9	21
M 118 NP2	17 13	14 10	) 10	7	7	18	13		13			12	7	12	9	12	16		0	13	15	1	18	18
M 118 HUOQ	14 10	10 8		5	4	13	9	12	10	3		9	6	12	3	7	11	9	0	9	9	4	14	14
M 118 QS	27 22	11 22	2 19	7	14	27	17	17	18	15	_	25	20	19	3	17	24	25	15	_	12	3	25	27
M118 SAYR	20 20	6 15	5 12	3	4	19	17	12	17	13	20	16	17	13	6	9	14	15	12	13	10	7	16	20
TOTALS	310 254	140 214	4 231	127	117	296	274	210	257	170	290	226	170	196	110	176	268	230	178	203	201	104	285	339

SP 2014 Math 118 - Score Distribution chart Section 17 18 25 Totals M 118 AC M 118 AC2 M 118 BD M 118 BFYR M 118 CE M 118 IBK M 118 EG M 118 EG2 M 118 FHYR M 118 IK M 118 MO M 118 NP M 118 NP2 n M 118 HUOQ M 118 QS M118 SAYR TOTALS 31 31

#### **DEPARTMENTAL ASSESSMENT REPORT**

Department: Mathematics

Academic Year: **2014** Semester: **Fall** 

Course Assessed: Math 121 Math for Elementary Teachers I

No of Students Assessed: 20

Type of Assessmer A 20-problem final exam.

Course Coordinator: Panagos Papageorgiu

#### **ANALYSIS OF OVERALL RESULTS**

Expected competency level:	40%	
2. How many students met the competency level?		20
3. What % of students met the competency level?		100%
4. No. of students enrolled in the course:		20
5. No. of students completing the final exam:		20
6. % of students completing the final exam:		100%
7. No. of students receiving a grade C or better:		20
8. % of students receiving a grade C or better:		100%
9. % of enrolled students passing with C or better:		100%

- 10. What objectives were not met by the majority of the students: Objectives 8, was not met by the majority of students
- 11. Was the assessment instrument adequate:
  Yes, the assessment instrument was adequate.
- 12. The attainment of which objectives, if any, were not measured? Why not? Is it possible to make the instrument such that to measure all objectives? All objectives were measured.
- 13. Comments Recommendations:

Objective # 1 Problem-solving steps and strategies to form conjectures.

Assessed by problem #1.

Number of correct answers: 12 % of correct answers: 60%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 2 Set definitions, notations, relationships, perform operations on sets.

Assessed by problem # 2.

Number of correct answers: 13 % of correct answers: 65%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 3 Define a function, an equation, a function machine, ordered pairs, graph.

Assessed by problem # 3.

Number of correct answers: 14 % of correct answers: 70%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 4 Use logic in math thinking and problem solving.

Assessed by problem # 4.

Number of correct answers: 16 % of correct answers: 80%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 5 Know properties of numeration systems, give basic structure.

Assessed by problem # 5.

Number of correct answers: 12 % of correct answers: 60%

Did the majority of the students meet this objective: YES

Objective # 6 Perform operations on whole numbers.

Assessed by problem # 6.

Number of correct answers: 14 % of correct answers: 70%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 7 Perform operations on integers.

Assessed by problem # 7.

Number of correct answers: 10 % of correct answers: 50%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 8 Use divisibility tests.

Assessed by problem # 8.

Number of correct answers: 12 % of correct answers: 60%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 9 Determine prime composite numbers and number of divisors.

Assessed by problem # 9.

Number of correct answers: 13 % of correct answers: 65%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 10 Determine greatest divisor and least multiple for more natural numbers.

Assessed by problem # 10.

Number of correct answers: 6 % of correct answers: 30%

Did the majority of the students meet this objective: **NO** 

Objective # 11 Solve problems using clocks and modular arithmetic. page 4

Assessed by problem # 11.

Number of correct answers: 10 % of correct answers: 50%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 12 Represent rational numbers and know the properties.

Assessed by problem # 12.

Number of correct answers: 18 % of correct answers: 90%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 13. Know and use the properties of exponents.

Assessed by problem # 13.

Number of correct answers: 12 % of correct answers: 60%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 14 Perform operations on decimals.

Assessed by problem # 14.

Number of correct answers: 17 % of correct answers: 85%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 15 Know properties and perform operations on real numbers.

Assessed by problem # 15.

Number of correct answers: 15 % of correct answers: 75%

Did the majority of the students meet this objective: YES

Objective # 16 Algebraic skills writing and solving equations and inequalities in word problems

Assessed by problem # 16.

Number of correct answers: 16 % of correct answers: 80%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 17 Formulate word problems as mathematical problems.

Assessed by problem # 17.

Number of correct answers: 13 % of correct answers: 65%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 18 Use properties of decimals to solve problems.

Assessed by problem # 18.

Number of correct answers: 13 % of correct answers: 65%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

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Objective # 19 Use properties of ratios proportional to solve problems.

Assessed by problem # 19.

Number of correct answers: 9 % of correct answers: 45%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

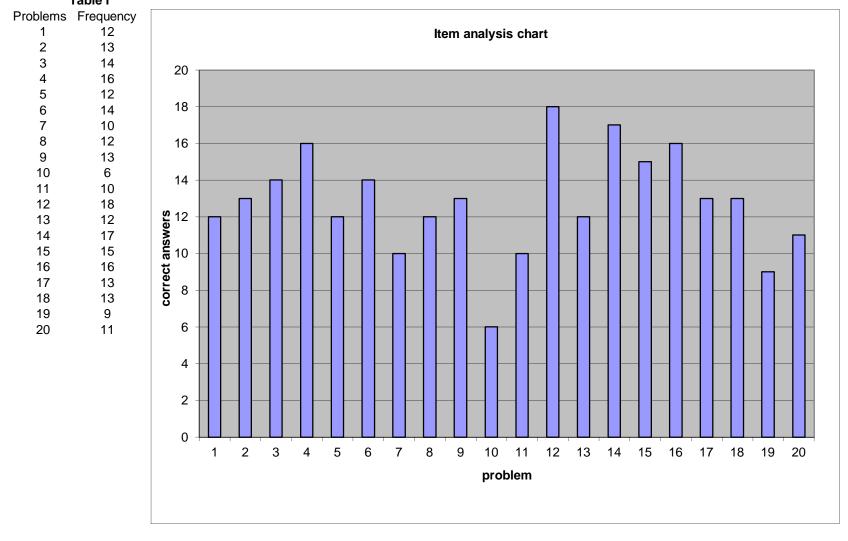
Objective # 20 Define and determine percents.

Assessed by problem # 20.

Number of correct answers: 11 % of correct answers: 55%

Did the majority of the students meet this objective: YES

Math 121 Item analysis chart SP 2014 Table I

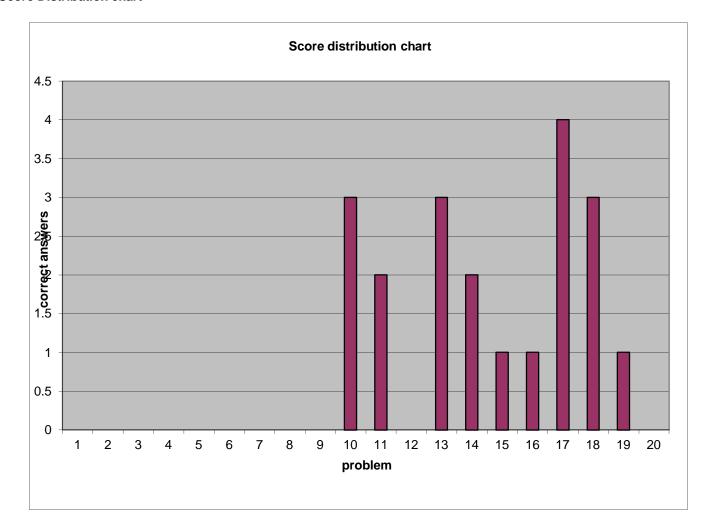


The above table indicates the number of correct answers for each problem of the assessment instrument.

SP 2014 Math 122 Score Distribution chart

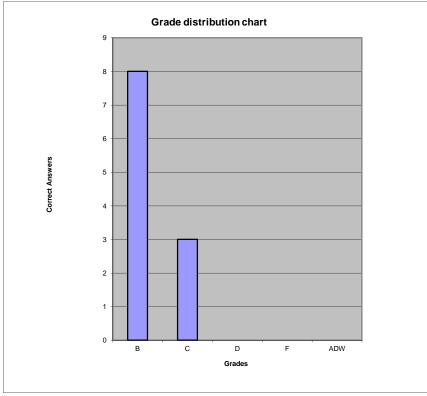
Table II

Problem	Score
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	3
11	2
12	0
13	3
14	2
15	1
16	1
17	4
18	3
19	1
20	0
Totals	20



SP 2014 Math 121 Grade Distribution chart

	Table III
Grade	Frequency
Α	9
В	8
С	3
D	0
F	0
ADW	0
WTH	0
TOTALS	20



Section	A	B	C	D	F	ADW	WTH	Totals
M 121CE	9	8	3	0	0	0	0	20
TOTALS	9	8	3	0	0	0	0	20

#### SP 2014 Math 121 - Item Analysis #1 #2 #3 #4 #5 #6 #7 #8 #9 #10 #11 #12 #13 #14 #15 #16 #17 #18 #19 20 Class Size M 121CE 16 12 14 10 12 13 6 10 18 12 17 15 16

TOTALS 6 10 18 12 17 12 13 14 16 12 14 10 12 13 15

Section	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16 1	7	18	19	20	21	Totals	
M 121CE	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	3	2	Λ	3	2	1	1	1	3	1	Λ	Λ	20	

0 0 0 0 0 0 0 0 0 3 2 0 3 2 1 1 4 3 1 0 0

TOTALS

SP 2014 Math 121 - Score Distribution

Department: Mathematics

Academic Year: 20134 Semester: Fall

Course Assessed: Math 122 Mathematics for Elementary Teachers II

No of Students Assessed: 9
Type of Assessment: **A 20-problems Test** 

Course Coordinator Panagos Papageorgiu

#### **ANALYSIS OF OVERALL RESULTS**

Expected competency level:	40%
2. How many students met the competency level?	8
3. What % of students met the competency level?	89%
4. No. of students enrolled in the course:	9
5. No. of students completing the final exam:	9
6. % of students completing the final exam:	100%
7. No. of students receiving a grade C or better:	9
8. % of students receiving a grade C or better:	100%
9. % of enrolled students passing with C or better:	100%
10. What objectives were not met by the majority of the	students:

- 10. What objectives were not met by the majority of the students:
  Objectives 3 and 18 were not met
- 11. Was the assessment instrument adequate:
  Yes, the assessment instrument was adequate.
- 12. The attainment of which objectives, if any, were not measured? Why not? Is it possible to make the instrument such that to measure all objectives? All objectives were measured.
- 13. Comments Recommendations:

Objective # 1 Determine empirical and theoretical probability of an event.

Assessed by problem #1.

Number of correct answers: 6 % of correct answers: 67%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 2 Determine odds and expected value of an event.

Assessed by problem # 2.

Number of correct answers: 5 % of correct answers: 56%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 3 Methods of counting to determine possible outcomes for situations.

Assessed by problem # 3.

Number of correct answers: 6 % of correct answers: 67%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 4 Interpret and present data in plots, graphs, and tables.

Assessed by problem # 4.

Number of correct answers: 3 % of correct answers: 33%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 5 Find and interpret measures of central tendency

Assessed by problem # 5.

Number of correct answers: 7 % of correct answers: 78%

Did the majority of the students meet this objective: YES

Objective # 6 Find and interpret measures of dispersion.

Assessed by problem # 6.

Number of correct answers: 4 % of correct answers: 44%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 7 Know basic geometric notions for points, lines, and planes.

Assessed by problem # 7.

Number of correct answers: 9 % of correct answers: 100%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 8 Know basic geometric notions for plane figures.

Assessed by problem # 8.

Number of correct answers: 8 % of correct answers: 89%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 9 Determine linear measure and distance in English and Metric system.

Assessed by problem # 9.

Number of correct answers: 9 % of correct answers: 100%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 10 Know and use theorems involving angles.

Assessed by problem # 10.

Number of correct answers: 5 % of correct answers: 56%

Did the majority of the students meet this objective: YES

Objective # 11 Know and use concepts of three-dimensional figures. page 4

Assessed by problem # 11.

Number of correct answers: 9 % of correct answers: 100%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 12 Demonstrate the concepts of similarity and congruence through construction.

Assessed by problem # 12.

Number of correct answers: 8 % of correct answers: 89%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 13. Know and use congruence properties.

Assessed by problem # 13.

Number of correct answers: 7 % of correct answers: 78%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 14 Answer questions involving similar triangles, figures, and coordinates.

Assessed by problem # 14.

Number of correct answers: 9 % of correct answers: 100%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 15 Determine area of polygons and circles in the English and Metric system.

Assessed by problem # 15.

Number of correct answers: 6 % of correct answers: 67%

Did the majority of the students meet this objective: YES

Objective # 16 Know and use the Pythagorean Theorem and distance formula.

Assessed by problem # 16.

Number of correct answers: 5 % of correct answers: 56%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 17 Determine the surface area and volume of three-dimensional figures

in the English and metric system.

Assessed by problem # 17.

Number of correct answers: 8 % of correct answers: 89%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 18 Perform and determine motions in the plane that are isometrics and/or

size transformations.

Assessed by problem # 18.

Number of correct answers: 1 % of correct answers: 11%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

\*

Objective # 19 Perform and determine line, rotational, point, and or plane symmetries.

Assessed by problem # 19.

Number of correct answers: 0 % of correct answers: 0%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 20 Use the Cartesian coordinate system to study geometry using algebra

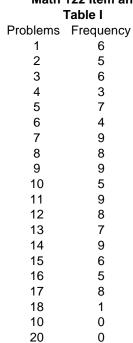
and interpret algebraic phenomena geometrically.

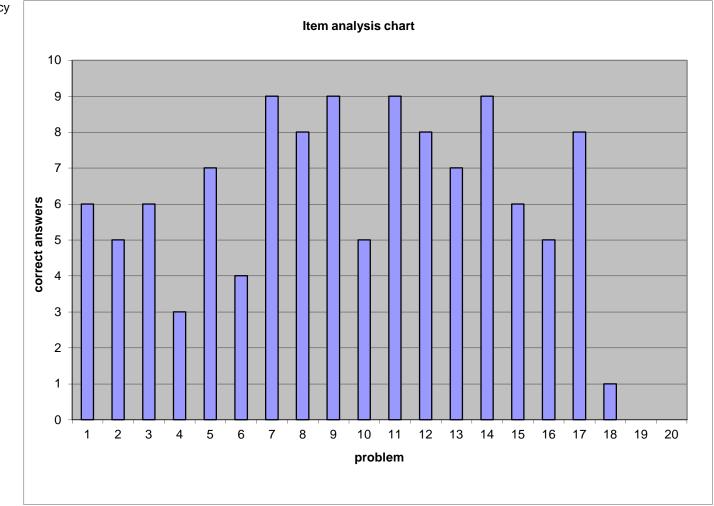
Assessed by problem # 20.

Number of correct answers: 0 % of correct answers: 0%

Did the majority of the students meet this objective: YES

Math 122 Item analysis chart SP 2014

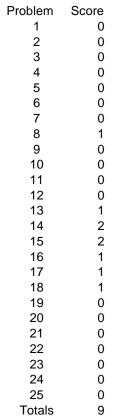


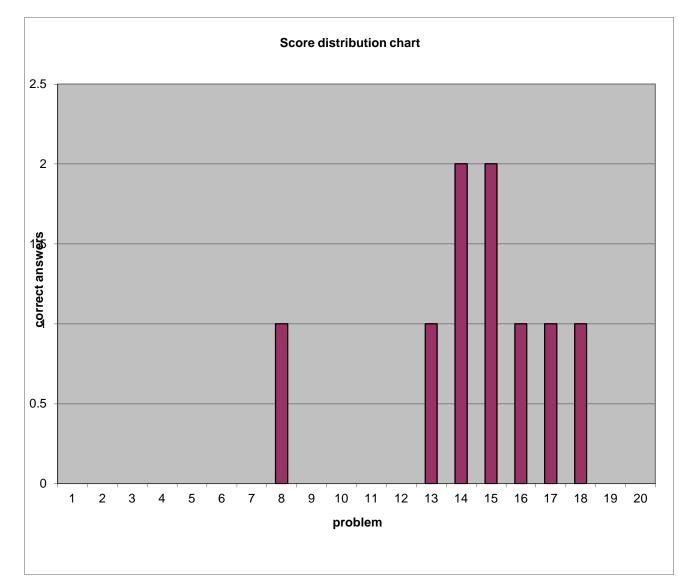


The above table indicates the number of correct answers for each problem of the assessment instrument.

SP 2014 Math 122 Score Distribution chart

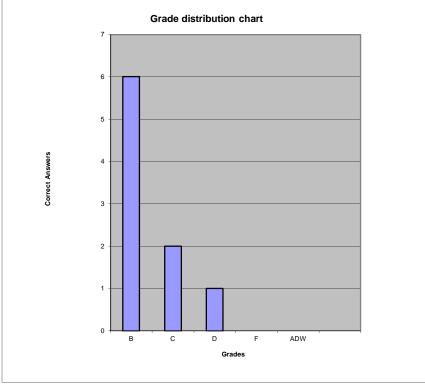






SP 2014 Math 122 Grade Distribution chart

	Table III
Grade	Frequency
Α	6
В	2
С	1
D	0
F	0
ADW	0
WTH	0
TOTALS	9



Section M 122EG	A 6	B 2	1	0			WTH 0	Totals 9
TOTALS	6	2	1	0	0	0	0	9

# SP 2014 Math 122 - Item Analysis Section #1 #2 #3 #4 #5 #6 #7 #8 #9 #10 #11 #12 #13 #14 #15 #16 #17 #18 #19 #20 #21 #22 #23 #24 #25 Class Size

M 122 EG 6 5 6 3 7 4 9 8 9 5 9 8 7 9 6 5 8 1
TOTALS 6 5 6 3 7 4 9 8 9 5 9 8 7 9 6 5 8 1 0 0

			_						-																		
Section	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Totals	
M 122EG	0	0	0	0	0	0	0	1	0	0	0	0	1	2	2	1	1	1								9	
TOTALS	Λ	Λ	Λ	Λ	Λ	Λ	Λ	1	Λ	Λ	Λ	Λ	1	2	2	1	1	1	Λ	Λ	Λ	Λ	Λ	Λ	Λ	a	

SP 2014 Math 122 - Score Distribution

#### **DEPARTMENTAL ASSESSMENT REPORT**

Department: Mathematics

Academic Year: 2014 Semester: Fall Course Assessed: Math 125 Introductory statistics

No of Students Assessed: 186
Type of Assessment: **A 20-problems Test** 

Course Coordinator Jose Hernandez

#### **ANALYSIS OF OVERALL RESULTS**

1. Expected competency level:	40%	
2. How many students met the competency lev	vel? 1	163
3. What % of students met the competency lev	/el? 88	8%
4. No. of students enrolled in the course:	2	235
5. No. of students completing the final exam:	1	163
6. % of students completing the final exam:	88	8%
7. No. of students receiving a grade C or bette	r: 1	151
8. % of students receiving a grade C or better:	8	1%
9. % of enrolled students passing with C or bet	tter: 64	4%
10. What objectives were not met by the majori	ty of the students:	
Objectives 11,13,15 and 18 were not met		
11. Was the assessment instrument adequate:		
Yes, the assessment instrument was adequ	uate.	
12. The attainment of which objectives, if any, v		
Why not? Is it possible to make the instrum	nent such that to	
measure all objectives?		
All objectives were measured.		
13. Comments - Recommendations:		

Objective # 1 Demonstrate knowledge of statistical terms such as population, sample, or (response)

variable, data types, or descriptive and inferential statistics.

Assessed by problem #1.

Number of correct answers: 88 % of correct answers: 47%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 2 Identify sampling techniques.

Assessed by problem # 2.

Number of correct answers: 94 % of correct answers: 51%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 3 Construct a frequency distribution from raw data.

Assessed by problem # 3.

Number of correct answers: 113 % of correct answers: 61%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 4 Interpret data in graphical form such as a histogram, stem-and-leaf plot

or box-and-whisker plot.

Assessed by problem # 4.

Number of correct answers: 74 % of correct answers: 40%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 5 Describe data by measures of center, variation or position.

Assessed by problem # 5.

Number of correct answers: 123 % of correct answers: 66%

Did the majority of the students meet this objective: YES

Objective # 6 Knowledge of terms related to probability. Experience, outcomes, sample space.

Assessed by problem # 6.

Number of correct answers: 61 % of correct answers: 33%

Did the majority of the students meet this objective:

Comments - Recommendations:

Objective # 7 Demonstrate proper use of the rules of probability.

Assessed by problem # 7.

Number of correct answers: 100 % of correct answers: 54%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 8 Construct a probability distribution for discrete random variables.

Assessed by problem # 8.

Number of correct answers: 123 % of correct answers: 66%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 9 Compute the mean, variance, or standard deviation of a discrete probability distribution

Assessed by problem # 9.

Number of correct answers: 124 % of correct answers: 67%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 10 Perform a computation for a special discrete probability distribution.

Assessed by problem # 10.

Number of correct answers: 80 % of correct answers: 43%

Did the majority of the students meet this objective: NO

Objective # 11 Demonstrate knowledge of the properties for a normal page 4

or standard normal distribution.

Assessed by problem # 11.

Number of correct answers: 112 % of correct answers: 60%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 12 Compute an area under the normal curve.

Assessed by problem # 12.

Number of correct answers: 99 % of correct answers: 53%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 13. Solve an application problem involving the normal distribution.

Assessed by problem # 13.

Number of correct answers: 80 % of correct answers: 43%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 14 Demonstrate knowledge of the Central Limit Theorem.

Assessed by problem # 14.

Number of correct answers: 75 % of correct answers: 40%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 15 Solve an application problem involving the Central Limit Theorem.

Assessed by problem # 15.

Number of correct answers: 95 % of correct answers: 51%

Did the majority of the students meet this objective: YES

Objective # 16 Demonstrate knowledge of terms related to interval estimation.

Assessed by problem # 16.

Number of correct answers: 108 % of correct answers: 58%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 17 Compute a confidence interval or sample size needed for the population

mean or population proportion.

Assessed by problem # 17.

Number of correct answers: 84 % of correct answers: 45%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 18 Interpret a confidence interval for the population mean or proportion.

Assessed by problem # 18.

Number of correct answers: 107 % of correct answers: 58%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

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Objective # 19 Demonstrate knowledge of terms related to hypothesis testing.

Assessed by problem # 19.

Number of correct answers: 93 % of correct answers: 50%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 20 Perform or state a hypothesis test for the population mean or proportion

Assessed by problem # 20.

Number of correct answers: 52 % of correct answers: 28%

Did the majority of the students meet this objective: NO

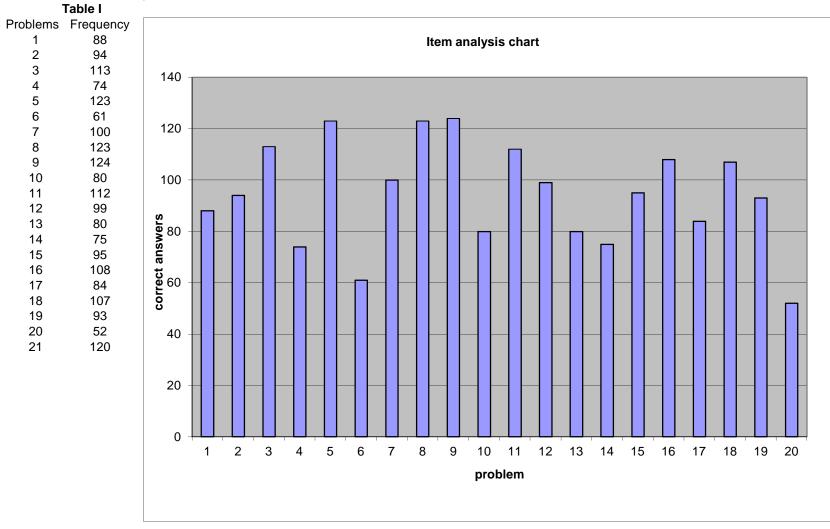
Perform or state a hypothesis test for the population mean or proportion Objective # 21

Assessed by problem # 21

Number of correct answers: 120 % of correct answers: 65%

Did the majority of the students meet this objective: Comments - Recommendations: YES

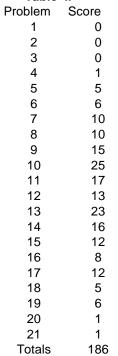
Math 125 Item analysis chart SP 2014

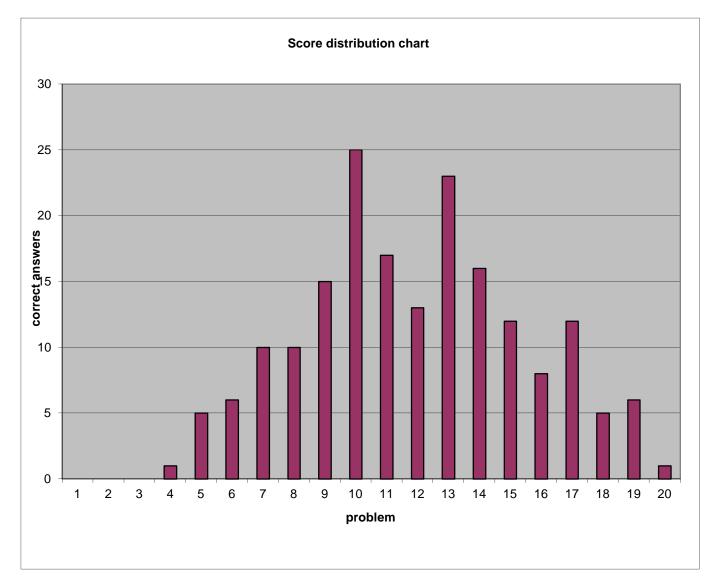


The above table indicates the number of correct answers for each problem of the assessment instrument.

SP 2014 Math 125 Score Distribution chart

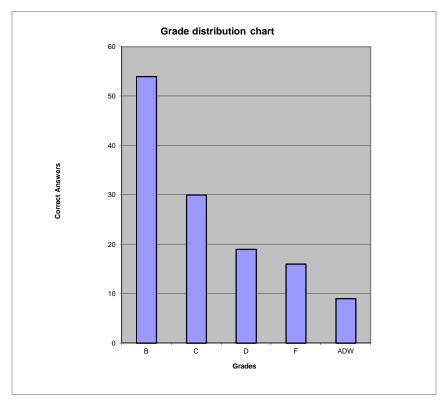
#### Table II





SP 2014 Math 125 Grade Distribution chart Table III

	Table III	
Grade	Frequency	
Α	67	
В	54	
С	30	
D	19	
F	16	
ADW	9	
WTH	40	
TOTALS	235	



Section	Α	В	С	D	F	ADW	A -W	Totals
M 125 AC	4	5	7	6	6	4	10	42
M 125 BD	13	19	7	2	2	0	1	44
M 125 EG	28	0	0	0	1	2	4	35
M 125 3LC	6	4	3	2	1	1	8	25
M 125 GBK	0	10	4	0	1	0	2	17
M 125 JL								
M 125 NP	9	8	4	1	4	1	9	36
M 125RT	7	8	5	8	1	1	6	36
TOTALS	67	54	30	19	16	9	40	235

M 125 AC M 125 BD M 125 EG M 125 3LC M 1 M 1

# 12 # 13 #14 #15 #16 # 17

SP 2014 Math 125 - Item Analysis

# 4

# 5

# 6

#7 #8

# 9

# 10

Section

M 1 M 125RT

**TOTALS** 

125 GBK	2	4	5	4	10	2	9	10	7	3	9	8	5	8	7	13	3	9	7	3 13	14
125 JL																					
125 NP	6	10	14	3	18	8	12	12	16	7	12	12	6	8	12	14	5	11	12	8 0	20

Section 20 21 Totals M 125 AC O M 125 BD M 125 EG M 125 3LC O O M 125 GBK M 125 JL M 125 NP O M 125RT 

SP 2014 Math 125 - Score Distribution

6 10

8 12

**TOTALS** 

### **DEPARTMENTAL ASSESSMENT REPORT**

Department: Mathematics

Academic Year: 2014 Semester: Fall

Course Assessed: Math 140 College Mathematics, Concepts in Algebra

No of Students Assessed: 101

Type of Assessmer A 25-problem final exam.

**Course Coordinator** 

# **ANALYSIS OF OVERALL RESULTS**

Expected competency level:	40%
2. How many students met the competency level?	94
3. What % of students met the competency level?	93%
4. No. of students enrolled in the course:	186
5. No. of students completing the final exam:	101
6. % of students completing the final exam:	54%
7. No. of students receiving a grade C or better:	89
8. % of students receiving a grade C or better:	88%
9. % of enrolled students passing with C or better:	48%
10. What objectives were not met by the majority of the	e students:

- What objectives were not met by the majority of the students:
   Objectives 11, 17, 19, and 20 were not met by the majority of the students.
- 11. Was the assessment instrument adequate:
  - Yes, the assessment instrument was adequate.
- 12. The attainment of which objectives, if any, were not measured? Why not? Is it possible to make the instrument such that to measure all objectives? All objectives were measured.
- 13. Comments Recommendations:

Objective # 1 Solving problems involving factoring polynomials or factoring rational expressions

Assessed by problem #1.

Number of correct answers: 47 % of correct answers: 47%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 2 Performing operations with rational expressions

Assessed by problem # 2.

Number of correct answers: 51 % of correct answers: 50%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 3 Solving problems involving complex fraction.

Assessed by problem # 3.

Number of correct answers: 80 % of correct answers: 79%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 4 Solving rational equations

Assessed by problem # 4.

Number of correct answers: 62 % of correct answers: 61%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 5 Computing problems using the rules of (rational) exponents

Assessed by problem # 5.

Number of correct answers: 72 % of correct answers: 71%

Did the majority of the students meet this objective: Yes

Objective # 6 Performing operations with radical terms

Assessed by problem # 6.

Number of correct answers: 70 % of correct answers: 69%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 7 Solving radical equations

Assessed by problem # 7.

Number of correct answers: 63 % of correct answers: 62%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 8 Solving application problems involving first degree and literal equations

Assessed by problem # 8.

Number of correct answers: 75 % of correct answers: 74%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 9 Solving problems involving imaginary or complex numbers

Assessed by problem # 9.

Number of correct answers: 61 % of correct answers: 60%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 10 Solving quadratic equations using factoring, completing the square or the

quadratic formula

Assessed by problem # 10.

Number of correct answers: 45 % of correct answers: 45%

Did the majority of the students meet this objective: NO

Objective # 11 Solving linear inequalities

Assessed by problem # 11.

Number of correct answers: 77 % of correct answers: 76%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 12 Solving absolute value equations or inequalities page 4

Assessed by problem # 12.

Number of correct answers: 64 % of correct answers: 63%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 13. Solving rational inequalities

Assessed by problem # 13.

Number of correct answers: 48 % of correct answers: 48%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 14 Solving problems of straight line involving slope, intercepts or parallel

and perpendicular lines

Assessed by problem # 14.

Number of correct answers: 45 % of correct answers: 45%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 15 Solving systems of linear equations

Assessed by problem # 15.

Number of correct answers: 81 % of correct answers: 80%

Did the majority of the students meet this objective: Yes

Objective # 16 Solving problems involving matrices

Assessed by problem # 16.

Number of correct answers: 83 % of correct answers: 82%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 17 Solving problems using the remainder theorem, factor theorem

Assessed by problem # 17.

Number of correct answers: 55 % of correct answers: 54%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 18 Solving problems using the theory of equations

Assessed by problem # 18.

Number of correct answers: 64 % of correct answers: 63%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

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Objective # 19 Solving problems involving exponential and logarithmic functions

Assessed by problem # 19.

Number of correct answers: 37 % of correct answers: 37%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 20 Solving logarithmic equations

Assessed by problem # 20.

Number of correct answers: 55 % of correct answers: 54%

Did the majority of the students meet this objective: Yes

Objective # 21 Solving exponential equations

Assessed by problem # 21.

Number of correct answers: 41 % of correct answers: 41%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 22 Performing basic operations with functions

Assessed by problem # 22

Number of correct answers: 71 % of correct answers: 70%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 23 Computing the inverse functions

Assessed by problem # 23.

Number of correct answers: 59 % of correct answers: 58%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 24 Solving systems of non-linear equations

Assessed by problem # 24.

Number of correct answers: 88 % of correct answers: 87%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

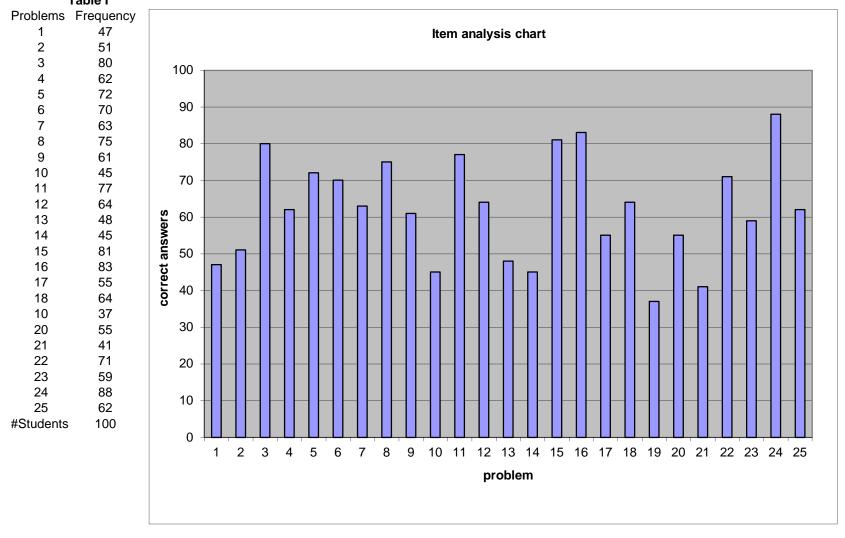
Objective # 25 Solving problems involving parabolas, circles, ellipses, hyperbolas

Assessed by problem # 25.

Number of correct answers: 62 % of correct answers: 61%

Did the majority of the students meet this objective: Yes

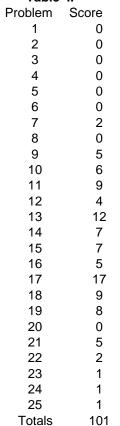
Math 140 Item analysis chart SP 2014 Table I

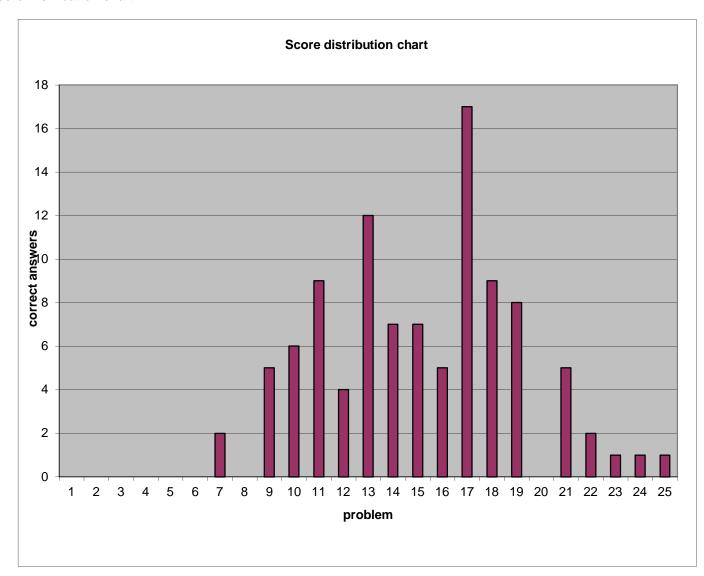


The above table indicates the number of correct answers for each problem of the assessment instrument.

SP 2014 Math 140 Score Distribution chart

### Table II

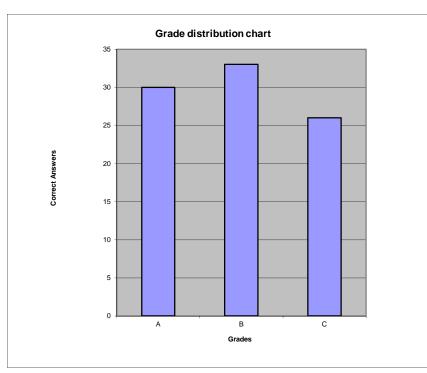




SP 2914 Math 140 Grade Distribution chart

Table III	
Frequency	
30	
33	
26	
9	
22	
19	
47	
186	
	Frequency 30 33 26 9 22 19 47

Section	Α	В	С	D	F	ADW	WTH	Totals
M 140 AC	11	7	1	0	0	4	12	35
M 140 BDYR	2	0	2	2	8	0	10	24
M 140 EG	7	9	4	3	5	2	6	36
M 140 HJ	1	5	9	0	4	0	8	27
M 140 JL	4	2	1	1	1	8	1	18
M 140 MO	1	3	1	3	4	5	7	24
M 140SA	4	7	8	0	0	0	3	22



TOTALS 30 33 26 9 22 19 47 186

SP 2014 Math	า 140 - โ	tem	Ana	lysis	i																					
Section	#1 #	#2 #	<b>#</b> 3	# 4	#5	# 6	# 7	# 8	#9#	<del>#</del> 10	# 11	# 12	# 13	#14	#15	#16	# 17	# 18	# 19	# 20	# 21	# 22	# 23	# 24	#25	Class Size
M 140 AC	1	1	11	8	13	8	11	11	6	4	11	8	3	8	14	16	8	7	1	4	3	13	6	16	8	17
M 140 BDYR	5	6	6	6	6	5	6	6	6	5	7	5	5	5	7	7	5	6	5	5	6	6	7	6	6	7
M 140 EG	3	2	15	18	13	13	14	19	15	1	15	13	5	10	15	18	10	19	2	19	7	19	14	20	15	22
M 140 HJ	10	12	11	5	14	14	11	12	8	12	10	13	8	4	14	11	9	6	9	10	4	10	9	14	11	16
M 140 JL	7	9	9	7	5	8	7	7	8	7	7	8	8	5	7	6	6	7	6	7	5	5	5	9	4	9
M 140 MO	2	2	9	7	8	8	7	7	9	2	9	5	3	4	7	9	9	7	2	5	6	5	5	8	6	10
M 140 SA	19	19	19	11	13	14	7	13	9	14	18	12	16	9	17	16	8	12	12	5	10	13	13	15	12	19
TOTALS	47	51	80	62	72	70	63	75	61	45	77	64	48	45	81	83	55	64	37	55	41	71	59	88	62	100

SP 2014 Math 140 - Score Distribution

Section	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Totals
M 140 AC	0	0	0	0	0	0	2	0	2	1	3	2	5	0	1	1	0	0	1	0	0	0	0	0	0	18
M 140 BDYR	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	3	1	0	0	0	0	0	0	0	7
M 140 EG	0	0	0	0	0	0	0	0	2	1	2	2	1	1	2	2	6	3	0	0	0	0	0	0	0	22
M 140 HJ	0	0	0	0	0	0	0	0	0	1	0	0	1	4	0	2	2	3	1	0	1	1	0	0	0	16
M 140 JL	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	1	1	0	2	0	0	0	1	9
M 140 MO	0	0	0	0	0	0	0	0	1	0	3	0	2	0	1	0	2	1	0	0	0	0	0	0	0	10
M 140 SA	0	0	0	0	0	0	0	0	0	2	0	0	3	1	2	0	1	0	5	0	2	1	1	1	0	19
TOTALS	0	0	0	0	0	0	2	0	5	6	9	4	12	7	7	5	17	9	8	0	5	2	1	1	1	101

Academic Year: 2014 Semester: Fall

Course Assessed: Math 143 Pre-Calculus

No of Students Assessed: 209 Type of Assessment: **A 24-problems Test** 

Course Coordinator Hellen Colman

# **ANALYSIS OF OVERALL RESULTS**

Expected competency level:	40%
2. How many students met the competency level?	209
3. What % of students met the competency level?	100%
4. No. of students enrolled in the course:	241
5. No. of students completing the final exam:	209
6. % of students completing the final exam:	87%
7. No. of students receiving a grade C or better:	140
8. % of students receiving a grade C or better:	67%
9. % of enrolled students passing with C or better:	58%
10. What objectives were not met by the majority of the	students:

- 10. What objectives were not met by the majority of the students: All objectives were met by the majority of the students.
- 11. Was the assessment instrument adequate: Yes, the assessment instrument was adequate.
- 12. The attainment of which objectives, if any, were not measured? Why not? Is it possible to make the instrument such that to measure all objectives?
  - All objectives were measured.
- 13. Comments Recommendations:

Objective # 1 Polynomials - Factoring.

Assessed by problem #1.

Number of correct answers: 192 % of correct answers: 92%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 2 Rational Exponents.

Assessed by problem # 2.

Number of correct answers: 117 % of correct answers: 56%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 3 Complex Numbers.

Assessed by problem # 3.

Number of correct answers: 166 % of correct answers: 79%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 4 Quadratic Equations.

Assessed by problem # 4.

Number of correct answers: 192 % of correct answers: 92%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 5 Inequalities- linear, absolute, value, quadratic, rational.

Assessed by problem # 5.

Number of correct answers: 155 % of correct answers: 74%

Did the majority of the students meet this objective: Yes

Objective # 6 Linear Functions.

Assessed by problem # 6.

Number of correct answers: 148 % of correct answers: 71%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 7 Circle, Quadratic function.

Assessed by problem # 7.

Number of correct answers: 174 % of correct answers: 83%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 8 Conic Sections.

Assessed by problem # 8.

Number of correct answers: 147 % of correct answers: 70%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 9 Remainder theorem, Factor theorem, Synthetic division.

Assessed by problem # 9.

Number of correct answers: 144 % of correct answers: 69%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 10 Fundamental theorem, Conjugate pair theorem

Assessed by problem # 10.

Number of correct answers: 174 % of correct answers: 83%

Did the majority of the students meet this objective: Yes

Objective # 11 Descartes' Rule, Rational roots theorem, Upper/lower page 4

bound theorem.

Assessed by problem # 11.

Number of correct answers: 134 % of correct answers: 64%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 12 Exponential/Logarithmic functions Graphs, Equations, and applications.

Assessed by problem # 12.

Number of correct answers: 129 % of correct answers: 62%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 13. Function - Composition, Inverse

Assessed by problem # 13.

Number of correct answers: 164 % of correct answers: 78%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 14 Systems of linear and nonlinear equations, matrices, determinants

Cramer's Rule.

Assessed by problem # 14.

Number of correct answers: 156 % of correct answers: 75%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 15 Systems of non-linear equations.

Assessed by problem # 15.

Number of correct answers: 124 % of correct answers: 59%

Did the majority of the students meet this objective: Yes

Objective # 16 Sequence - explicit/recursive definition

Assessed by problem # 16.

Number of correct answers: 103 % of correct answers: 49%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 17 Arithmetic/geometric series.

Assessed by problem # 17.

Number of correct answers: 100 % of correct answers: 48%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 18 Permutations and combinations.

Assessed by problem # 18.

Number of correct answers: 174 % of correct answers: 83%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 19 Binomial theorem

Assessed by problem # 19.

Number of correct answers: 176 % of correct answers: 84%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 20 Trigonometric functions - graphs, Pythagorean identities

Assessed by problem # 20.

Number of correct answers: 192 % of correct answers: 92%

Did the majority of the students meet this objective: Yes

Objective # 21 Associated angles

Assessed by problem # 21.

Number of correct answers: 184 % of correct answers: 88%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 22 Sum and difference formulas, double and half angle identities.

Assessed by problem # 22

Number of correct answers: 187 % of correct answers: 89%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 23 Trigonometric equations and inverse trigonometric function.

Assessed by problem # 23.

Number of correct answers: 152 % of correct answers: 73%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 24 Laws of sines, cosines and area of a triangle.

Assessed by problem # 24.

Number of correct answers: 126 % of correct answers: 60%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

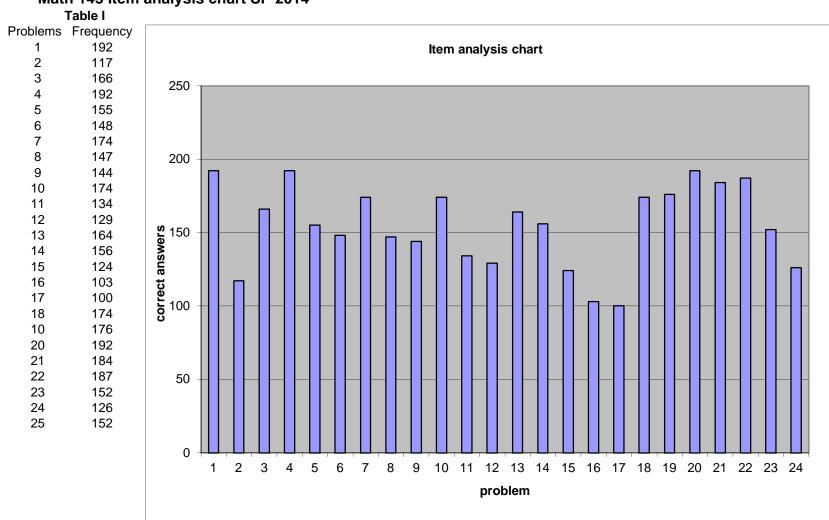
Objective # 25

Assessed by problem # 25

Number of correct answers: 152 % of correct answers: 73%

Did the majority of the students meet this objective: Yes

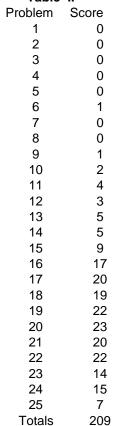
Math 143 Item analysis chart SP 2014

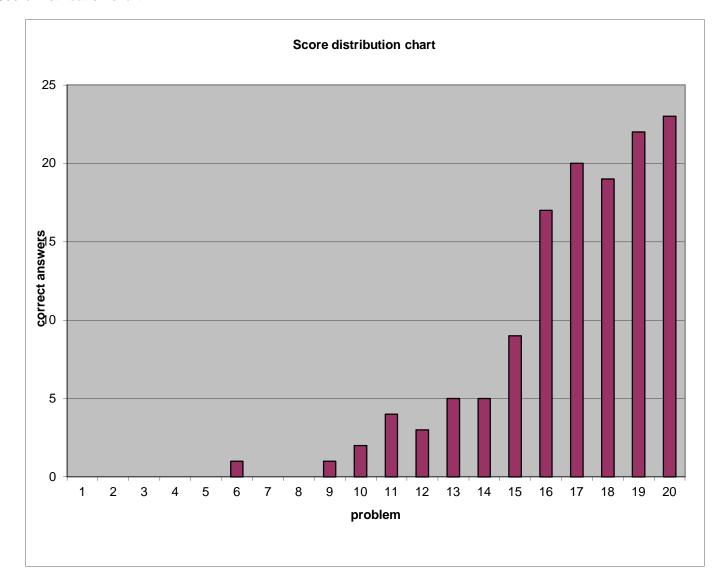


The above table indicates the number of correct answers for each problem of the assessment instrument.

SP 2014 Math 143 Score Distribution chart

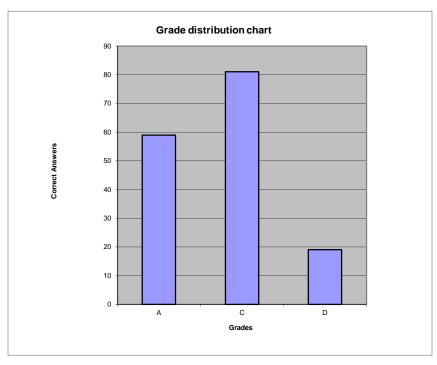
### Table II





SP 2014 Math 143 - Grade Distribution chart

	rabie III	
Grade	Frequency	
Α	59	
С	81	
D	19	
F	19	
ADW	16	
WTH	47	
Totals	241	



Section	Α	В	С	D	F	ADW	WTH	Totals
M 143 AC	6	9	8	5	1	0	7	36
M 143 BD	11	13	5	1	1	1	5	37
M 143 FH	5	3	20	2	2	0	5	37
M 143 IK	10	9	10	1	1	4	7	42
M143 JL	6	7	3	1	0	5	11	33
M 143 MO	15	12	8	2	4	0	4	45
M 143 NP	5	4	24	1	3	0	5	42
M 143 LNP	1	3	3	6	7	6	3	29
								0
TOTALS	59	60	81	19	19	16	47	301

Section M 143 AC M 143 BD M 143 FH M 143 IK M143 JL M 143 MO M 143 NP M 143 I NP 

164 156

124 103

SP 2014 Math 143 - Item Analysis

SP 2014 Math	14	3 -	Sc	ore	e Di	str	ibu	tio	n																	
Section	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Totals
M 143 AC	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	3	3	3	2	1	2	5	2	1	1	29
M 143 BD	0	0	0	0	0	1	0	0	0	0	0	1	1	0	3	5	4	1	2	2	2	3	1	5	0	31
M 143 FH	0	0	0	0	0	0	0	0	0	0	1	0	2	2	1	4	6	4	8	1	2	0	1	0	0	32
M 143 IK	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	3	2	3	2	3	4	6	4	31
M143 JL	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	3	3	1	4	1	1	16
M 143 MO	0	0	0	0	0	0	0	0	1	0	2	0	0	2	1	1	3	3	4	6	5	6	1	2	0	37
M 143 NP	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	4	5	3	7	4	4	1	0	1	33
M 143 LNP	0	0	0	0	0	0	0	0	0	1	1	2	1	1	2	1	1	1	1	3	0	1	1	1	0	18
TOTALS	0	0	0	0	0	1	0	0	1	2	4	3	5	5	9	17	20	19	22	23	20	22	14	15	7	227

### DEPARTMENTAL ASSESSMENT REPORT

Department: Mathematics

Academic Year: 2014 Semester: Fall Course Assessed: Math 144 Finite Mathematics

No of Students Assessed: 12 Type of Assessment: **A 20-problems Test** 

Course Coordinator: Sharda Gudehithlu

# **ANALYSIS OF OVERALL RESULTS**

Expected competency level:	40%	
2. How many students met the competency level?		12
3. What % of students met the competency level?	1	100%
4. No. of students enrolled in the course:		18
5. No. of students completing the final exam:		12
6. % of students completing the final exam:		67%
7. No. of students receiving a grade C or better:		12
8. % of students receiving a grade C or better:	1	100%
9. % of enrolled students passing with C or better:		67%
10. What objectives were not met by the majority of the	students:	
Objectives 4,16 and 20 were not met by the majori	ty of the students	

- 11. Was the assessment instrument adequate:
  - Yes, the assessment instrument was adequate.
- 12. The attainment of which objectives, if any, were not measured? Why not? Is it possible to make the instrument such that to measure all objectives? All objectives were measured.
- 13. Comments Recommendations:

NOTE: 4 students completed the final exam separate and passed. That is what the difference is between 43 completing and 47 receiving C or better grade.

Objective # 1 Solving or graphing linear equations or inequalities

Assessed by problem #1.

Number of correct answers: 11 % of correct answers: 92%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 2 Systems of linear equations in two and three variables.

Assessed by problem # 2.

Number of correct answers: 10 % of correct answers: 83%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 3 Operations of matrix algebra or matrix inversion.

Assessed by problem # 3.

Number of correct answers: 12 % of correct answers: 100%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 4 Solving systems of equations using matrices.

Assessed by problem # 4.

Number of correct answers: 10 % of correct answers: 83%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 5 Obtaining feasible regions for linear mathematics inequalities

Assessed by problem # 5.

Number of correct answers: 10 % of correct answers: 83%

Did the majority of the students meet this objective: Yes

Objective # 6 Setting up linear programming problems graphically

Assessed by problem # 6.

Number of correct answers: 11 % of correct answers: 92%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 7 Solving linear programming problems graphically

Assessed by problem # 7.

Number of correct answers: 6 % of correct answers: 50%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 8 Linear programming problems using the simplex method

Assessed by problem # 8.

Number of correct answers: 10 % of correct answers: 83%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 9 Problems involving simple or compound interest.

Assessed by problem # 9.

Number of correct answers: 8 % of correct answers: 67%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 10 Problems involving annuities or amortization of loans.

Assessed by problem # 10.

Number of correct answers: 10 % of correct answers: 83%

Did the majority of the students meet this objective: YES

Objective # 11 Problems involving sets and set operations. page 4

Assessed by problem # 11.

Number of correct answers: 10 % of correct answers: 83%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 12 Use the principles of counting.

Assessed by problem # 12.

Number of correct answers: 8 % of correct answers: 67%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 13. Solving problems involving permutations or combinations.

Assessed by problem # 13.

Number of correct answers: 11 % of correct answers: 92%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 14 Problems using the basic rules of probability.

Assessed by problem # 14.

Number of correct answers: 10 % of correct answers: 83%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 15 Demonstrating knowledge of the terms of probability.

Assessed by problem # 15.

Number of correct answers: 12 % of correct answers: 100%

Did the majority of the students meet this objective: Yes

Objective # 16 Problems involving the binomial distribution.

Assessed by problem # 16.

Number of correct answers: 10 % of correct answers: 83%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 17 Computing problems using a frequency or probability distribution.

Assessed by problem # 17.

Number of correct answers: 11 % of correct answers: 92%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 18 Computing the mean or variance, or standard deviation of a probability

distribution.

Assessed by problem # 18.

Number of correct answers: 2 % of correct answers: 17%

Did the majority of the students meet this objective: **No** 

Comments - Recommendations:

\*

Objective # 19 Computing problems involving the normal distribution.

Assessed by problem # 19.

Number of correct answers: 10 % of correct answers: 83%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 20 Problem solving involving logic or truth tables.

Assessed by problem # 20.

Number of correct answers: 8 % of correct answers: 67%

Did the majority of the students meet this objective: YES

Objective # 21

Assessed by problem # 21

Number of correct answers: 11 % of correct answers: 92%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 22

Assessed by problem # 22

Number of correct answers: 12 % of correct answers: 100%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 23

Assessed by problem # 23

Number of correct answers: 7 % of correct answers: 58%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 24

Assessed by problem # 24

Number of correct answers: 11 % of correct answers: 92%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

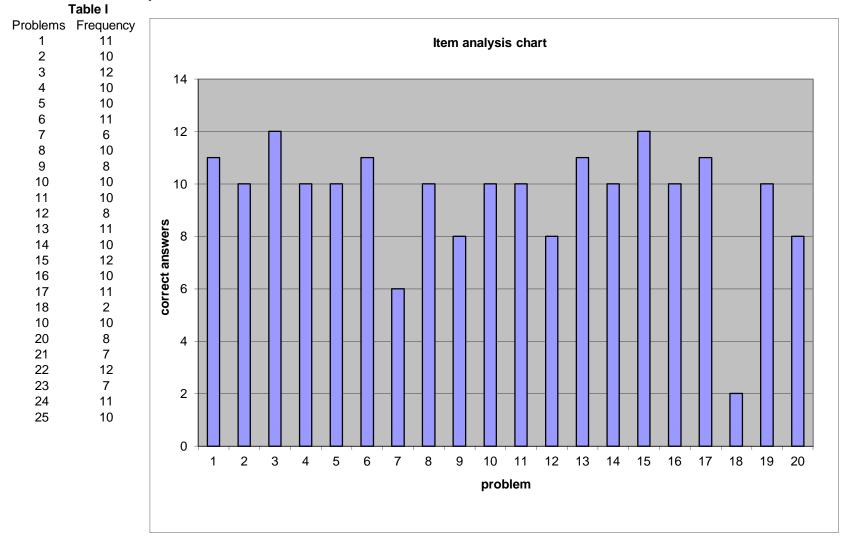
Objective # 25

Assessed by problem # 25

Number of correct answers: 10 % of correct answers: 83%

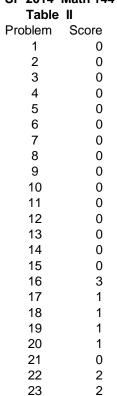
Did the majority of the students meet this objective: YES

Math 144 Item analysis chart SP 2014

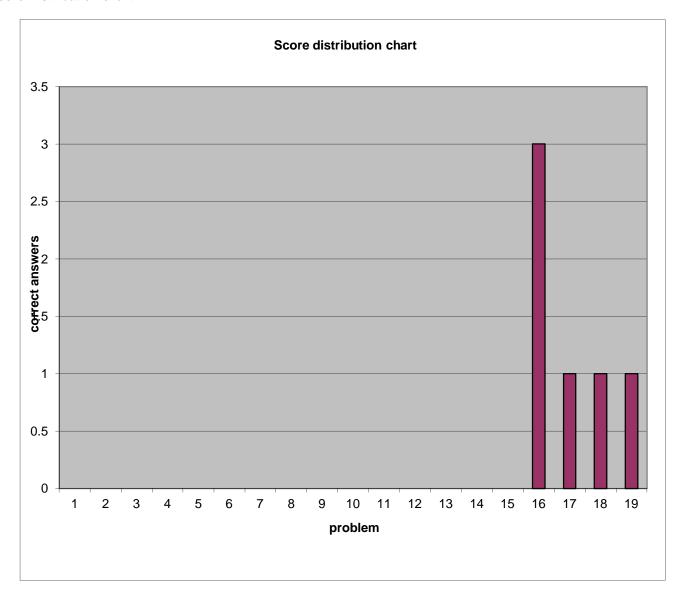


The above table indicates the number of correct answers for each problem of the assessment instrument.

SP 2014 Math 144 Score Distribution chart

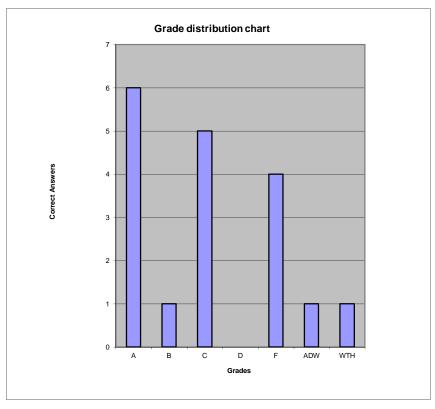


**TOTALS** 



SP 2014 Math 144 Grade Distribution chart

	Table III	
Grade	Frequency	
Α	6	
В	1	
С	5	
D	0	
F	4	
ADW	1	
WTH	1	
Totals	18	



Section M 144 GI	Α	В	С	D	F	ADW	WTH	Totals
M 144 JL M 144 MO	6	1	5	0	4	1	1	18
TOTALS	6	1	5	0	4	1	1	18

O. 20						0.0																					
Section	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25 1	otals	
M 144 GI																											
M 144 JL	11	10	12	10	10	11	6	10	8	10	10	8	11	10	12	10	11	2	10	8	7	12	7	11	10	12	
M 144 MO																											
TOTALS	11	10	12	10	10	11	6	10	8	10	10	8	11	10	12	10	11	2	10	8	7	12	7	11	10	12	

SP 2014 Math 144 - Item Analysis

Section	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19 2	20	21	22	23	24	25	Totals	
M 144 GI																											
M 144 JL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	1	1	0	2	2	1	0	12	

SP 2014 Math 144 - Score Distribution

M 144 MO TOTALS

### DEPARTMENTAL ASSESSMENT REPORT

Department: Mathematics

Academic Year: 2014 Semester: Fall

Course Assessed: Math 204 Calculus For Business and Social Sciences

No of Students Assessed: 18 Type of Assessment: **A 24-problems Test** 

Course Coordinator: Vinay Duggal NO DATA SUBMEETED

### **ANALYSIS OF OVERALL RESULTS**

Expected competency level:	40%
2. How many students met the competency level?	18
3. What % of students met the competency level?	100%
4. No. of students enrolled in the course:	34
5. No. of students completing the final exam:	18
6. % of students completing the final exam:	53%
7. No. of students receiving a grade C or better:	13
8. % of students receiving a grade C or better:	72%
9. % of enrolled students passing with C or better:	38%
10. What objectives were not met by the majority of	the students:

- 10. What objectives were not met by the majority of the students: All objectives were met by the majority of the students.
- 11. Was the assessment instrument adequate:

Yes, the assessment instrument was adequate.

- 12. The attainment of which objectives, if any, were not measured? Why not? Is it possible to make the instrument such that to measure all objectives? All objectives were measured.
- 13. Comments Recommendations:

Objective # 1 Functions, their domains and graphs

Assessed by problem #1.

Number of correct answers: 15 % of correct answers: 83%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 2 Slopes and linear functions

Assessed by problem # 2.

Number of correct answers: 17 % of correct answers: 94%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 3 Quadratic and other types of functions

Assessed by problem # 3.

Number of correct answers: 14 % of correct answers: 78%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 4 Limits and continuity

Assessed by problem # 4.

Number of correct answers: 12 % of correct answers: 67%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 5 Average rate of change

Assessed by problem # 5.

Number of correct answers: 9 % of correct answers: 50%

Did the majority of the students meet this objective: Yes

Objective # 6 Instantaneous rate of change

Assessed by problem # 6.

Number of correct answers: 18 % of correct answers: 100%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 7 Differentiation using limits

Assessed by problem # 7.

Number of correct answers: 8 % of correct answers: 44%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 8 Differentiation techniques

Assessed by problem # 8.

Number of correct answers: 11 % of correct answers: 61%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 9 The chain rule

Assessed by problem # 9.

Number of correct answers: 12 % of correct answers: 67%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 10 Higher-order derivatives

Assessed by problem # 10.

Number of correct answers: 15 % of correct answers: 83%

Did the majority of the students meet this objective: Yes

Objective # 11 First and second derivatives and the study of extreme page 4

and inflection points

Assessed by problem # 11.

Number of correct answers: 7 % of correct answers: 39%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 12 Graph sketching

Assessed by problem # 12.

Number of correct answers: 2 % of correct answers: 11%

Did the majority of the students meet this objective: NO

Comments - Recommendations:

Objective # 13. Optimization problems

Assessed by problem # 13.

Number of correct answers: 18 % of correct answers: 100%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 14 Implicit differentiation and related rates

Assessed by problem # 14.

Number of correct answers: 13 % of correct answers: 72%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 15 Exponential functions and their derivatives

Assessed by problem # 15.

Number of correct answers: 16 % of correct answers: 89%

Did the majority of the students meet this objective: **NO** 

Objective # 16 Logarithmic functions and their derivatives

Assessed by problem # 16.

Number of correct answers: 11 % of correct answers: 61%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 17 The fundamental theorem of calculus; evaluation of definite integrals

Assessed by problem # 17.

Number of correct answers: 14 % of correct answers: 78%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 18 Areas under curves

Assessed by problem # 18.

Number of correct answers: 10 % of correct answers: 56%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 19 Integration techniques: substitution, integration by parts, tables

Assessed by problem # 19.

Number of correct answers: 9 % of correct answers: 50%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 20 Improper integrals

Assessed by problem # 20.

Number of correct answers: 11 % of correct answers: 61%

Did the majority of the students meet this objective: Yes

Objective # 21 Functions of several variables and their derivatives

Assessed by problem # 21.

Number of correct answers: 2 % of correct answers: 11%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 22 Extrema of functions of several variables and Lagrange multipliers

Assessed by problem # 22

Number of correct answers: 6 % of correct answers: 33%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 23 Relative extrema

Assessed by problem # 23.

Number of correct answers: 16 % of correct answers: 89%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 24 Maximum of a function subject to a given constraint

Assessed by problem # 24.

Number of correct answers: 6 % of correct answers: 33%

Did the majority of the students meet this objective: **No** 

Comments - Recommendations:

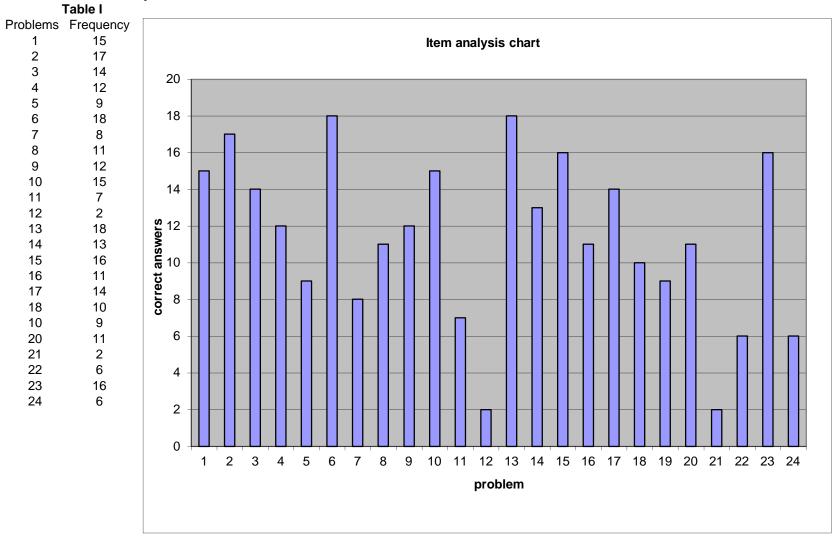
Objective # 25 Maximum of a function subject to a given constraint

Assessed by problem # 25.

Number of correct answers: 13 % of correct answers: 72%

Did the majority of the students meet this objective: Yes

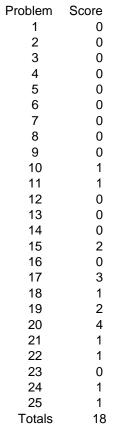
Math 204 Item analysis chart SP 2014

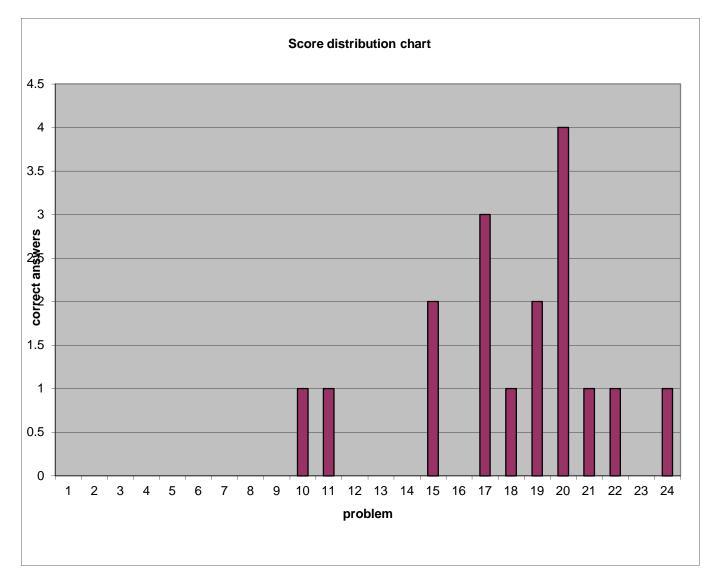


The above table indicates the number of correct answers for each problem of the assessment instrument.

SP 2014 Math 204 Score Distribution chart

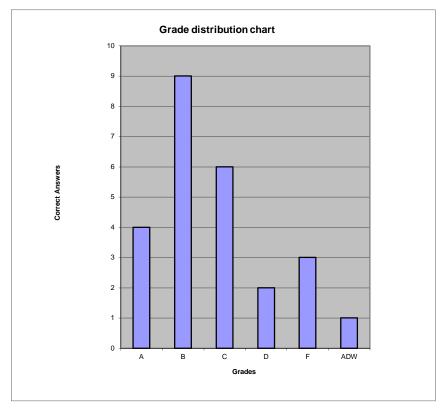






SP 2014 Math 204 Grade Distribution chart

	Table III	
Grade	Frequency	
Α	4	
В	9	
С	6	
D	2	
F	3	
ADW	1	
WTH	9	
TOTALS	34	



Section M 204AC			ADW 1	Totals 34
TOTALS			. 1	34

SP 2014 Math 204 - Item Analysis #1 #2 #3 #4 #5 #6 #7 #8 #9 #10 #11 #12 #13 #14 #15 #16 #17 #18 #19 #20 #21 #22 #23 #24 #25 Class Size

16

И 204AC	9	11	14	12	9	12	8	11	11	9	7	2	12	9	14	11	14	10	9	11	2	2	10	6	7	12
1 201 OS	6	6	Λ	Λ	Λ	6	Λ	Λ	1	6	Λ	Λ	6	1	2	Λ	Λ	Λ	Λ	Λ	Λ	1	6	Λ	6	6

18

TOTALS

Section	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Totals
M 204AC	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	3	1	1	1	1	1	0	0	0	12
M 204 QS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	1	1	6

TOTALS 0 0 0 0 0 0 0 0 0 1 1 0 0 0 2 0 3 1 2 4 1 1 0 1 1 18

SP 2014 Math 204 Score distribution

#### DEPARTMENTAL ASSESSMENT REPORT

Department: Mathematics

1 Expected competency level:

Academic Year: 2014 Semester: Fall

Course Assessed: Math 207 Calculus and Analytic Geometry I

No of Students Assessed: 118
Type of Assessment: A 22-problems Test

Course Coordinator: Lidia Dobria

# **ANALYSIS OF OVERALL RESULTS**

40%

1. Expected competency level.	TU /0
2. How many students met the competency level?	110
3. What % of students met the competency level?	93%
4. No. of students enrolled in the course:	201
5. No. of students completing the final exam:	118
6. % of students completing the final exam:	59%
7. No. of students receiving a grade C or better:	123
8. % of students receiving a grade C or better:	104%
9. % of enrolled students passing with C or better:	61%
10 What Learning Outcomes were not met by the ma	aiority of the students:

- What Learning Outcomes were not met by the majority of the students:
   Only #18. Antidifferentiation basic rules.
- 11. Was the assessment instrument adequate:

Yes, the assessment instrument was adequate.

12. The attainment of which objectives, if any, were not measured? Why not? Is it possible to make the instrument such that to measure all objectives?

All objectives were measured.

13. Comments - Recommendations:

Emphasize the basic table of differentiation/antidifferention Rules using more examples.

SLO #19: Spend a little more time explaining the substitution process

Objective # 1 Evaluation of Limits.

Assessed by problem #1.

Number of correct answers: 74 % of correct answers: 63%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 2 Vertical and Horizontal Asymptotes.

Assessed by problem # 2.

Number of correct answers: 90 % of correct answers: 76%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 3 Differentiation of Algebraic Functions.

Assessed by problem # 3.

Number of correct answers: 103 % of correct answers: 87%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 4 Differentiation of Trigonometric Functions.

Assessed by problem # 4.

Number of correct answers: 90 % of correct answers: 76%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 5 Chain Rule.

Assessed by problem # 5.

Number of correct answers: 93 % of correct answers: 79%

Did the majority of the students meet this objective: Yes

Objective # 6 Implicit Differentiation.

Assessed by problem # 6.

Number of correct answers: 100 % of correct answers: 85%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 7 Differentiation of Logarithmic and Exponential Functions.

Assessed by problem # 7.

Number of correct answers: 90 % of correct answers: 76%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 8 Differentiation of Inverse Trigonometric Functions

Assessed by problem # 8.

Number of correct answers: 89 % of correct answers: 75%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 9 Successive Differentiation

Assessed by problem #9.

Number of correct answers: 81 % of correct answers: 69%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 10 Rectilinear Motion

Assessed by problem # 10.

Number of correct answers: 101 % of correct answers: 86%

Did the majority of the students meet this objective: Yes

Objective # 11 Related Rates

Assessed by problem # 11.

Number of correct answers: 81 % of correct answers: 69%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 12 First derivative: Tangent, Increasing/decreasing functions

Assessed by problem # 12.

Number of correct answers: 62 % of correct answers: 53%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 13. Second Derivative

Assessed by problem # 13.

Number of correct answers: 92 % of correct answers: 78%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 14 Optimization problems

Assessed by problem # 14.

Number of correct answers: 80 % of correct answers: 68%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 15 Logarithmic Differentiation

Assessed by problem # 15.

Number of correct answers: 92 % of correct answers: 78%

Did the majority of the students meet this objective: Yes

Objective # 16 Differentials-Error estimation

Assessed by problem # 16.

Number of correct answers: 90 % of correct answers: 76%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 17 L'Hospital's Rule

Assessed by problem # 17.

Number of correct answers: 77 % of correct answers: 65%

Did the majority of the students meet this objective: MARGINAL

Comments - Recommendations:

Objective # 18 Antidifferentiation. Basic Rule.

Assessed by problem # 18.

Number of correct answers: 81 % of correct answers: 69%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 19 Integration by substitution

Assessed by problem # 19.

Number of correct answers: 74 % of correct answers: 63%

Did the majority of the students meet this objective: YES

Objective # 20 Integration of Trigonometric functions

Assessed by problem # 20.

Number of correct answers: 93 % of correct answers: 79%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 21 Definite integral. Fundamental theorem of calculus

Assessed by problem # 21.

Number of correct answers: 83 % of correct answers: 70%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 22 Evaluate indefinite Integral by substitution

Assessed by problem # 22

Number of correct answers: 66 % of correct answers: 56%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 23 Evaluate a definite integral

Assessed by problem # 23

Number of correct answers: 74 % of correct answers: 63%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 24 Average value of a function.

Assessed by problem # 24

Number of correct answers: 74 % of correct answers: 63%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

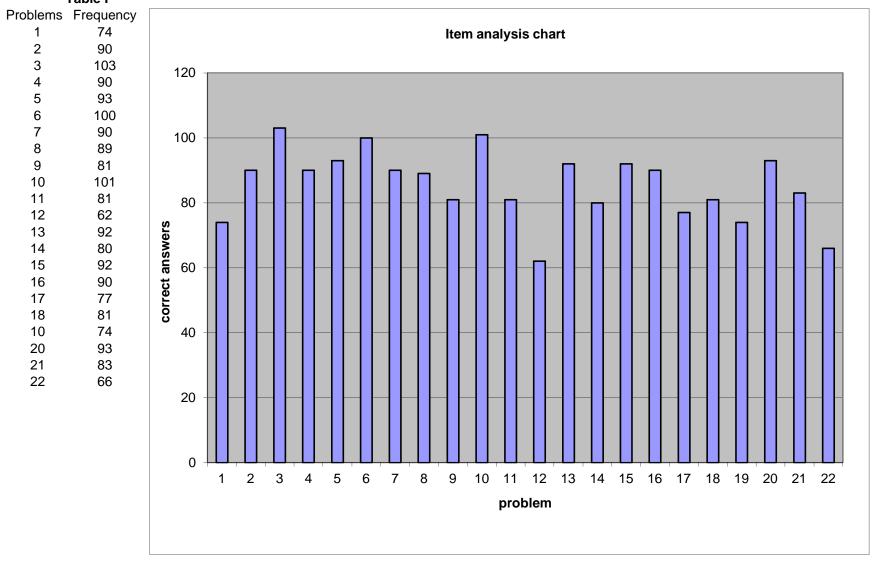
Objective # 25 Evaluate a definite integral by substitution

Assessed by problem # 25

Number of correct answers: 71 % of correct answers: 60%

Did the majority of the students meet this objective: Yes

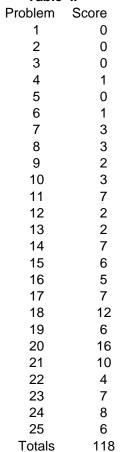
Math 207 - Item analysis chart SP 2014 Table I

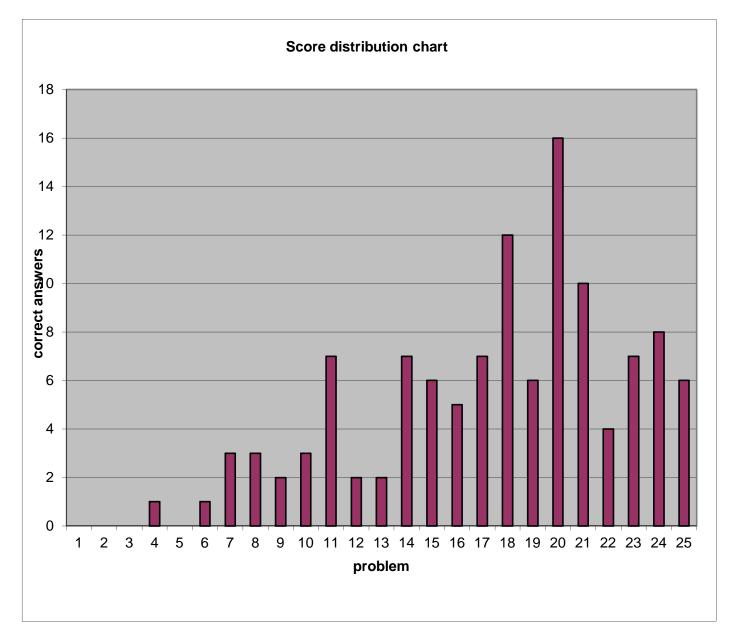


The above table indicates the number of correct answers for each problem of the assessment instrument.

SP 2014 Math 207 - Score Distribution chart

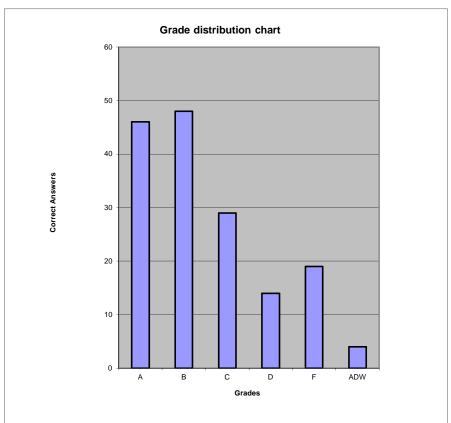
# Table II





# SP 2014 Math 207 - Grade Distribution chart Table III

	rable III	
Grade	Frequency	
Α	46	
В	48	
С	29	
D	14	
F	19	
ADW	4	
WTH	41	
Totals	201	



Section M 207AC M 207BD M 207EG M 207FH M 207 PR	A 8 16 8 10 4	B 7 11 11 14 5	C 5 7 6	D 3 1 2 2 6	F 3 4 5 4 3	3 0 0 1	WTH 12 3 5 5 16	Totals 41 40 38 42 40
TOTALS	46	48	29	14	19	4	41	201

M 207 PR

FA 2014 Math 207 - Item Analysis

**TOTALS** 

FA 2014 Math 207 - Score Distribution 22 23 Section M 207BD M 207EG M 207FH M 207 PR **TOTALS** 0 0 0 1 0 1 3 3 2 3 7 2 2 7 6 5 7 

### **DEPARTMENTAL ASSESSMENT REPORT**

Department: Mathematics

Academic Year: 2014 Semester: Spring

Course Assessed: Math 208 Calculus and Analytic Geometry II

No of Students Assessed: 76 Type of Assessment: **A 25-problems Test** 

Course Coordinator: Stan Buchcic

# **ANALYSIS OF OVERALL RESULTS**

1. Expected competency level:	40%
2. How many students met the competency level?	73
3. What % of students met the competency level?	96%
4. No. of students enrolled in the course:	98
5. No. of students completing the final exam:	76
6. % of students completing the final exam:	78%
7. No. of students receiving a grade C or better:	75
8. % of students receiving a grade C or better:	99%
9. % of enrolled students passing with C or better:	77%
10. What abjectives were not met by the majority of the s	studonto:

- 10. What objectives were not met by the majority of the students: All objectives were met by the majority of the students.
- 11. Was the assessment instrument adequate:
  Yes, the assessment instrument was adequate.
- 12. The attainment of which objectives, if any, were not measured? Why not? Is it possible to make the instrument such that to measure all objectives? All objectives were measured.
- 13. Comments Recommendations:

Objective # 1 Hyperbolic functions

Assessed by problem #1.

Number of correct answers: 59 % of correct answers: 78%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 2 Integration by parts

Assessed by problem # 2.

Number of correct answers: 45 % of correct answers: 59%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 3 Integration by partial fractions

Assessed by problem # 3.

Number of correct answers: 63 % of correct answers: 83%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 4 Improper integrals

Assessed by problem # 4.

Number of correct answers: 70 % of correct answers: 92%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 5 Trigonometric integrals

Assessed by problem # 5.

Number of correct answers: 67 % of correct answers: 88%

Did the majority of the students meet this objective: YES

Objective # 6 Trigonometric substitutions

Assessed by problem # 6.

Number of correct answers: 45 % of correct answers: 59%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 7 Area between curves

Assessed by problem # 7.

Number of correct answers: 46 % of correct answers: 61%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 8 Volume of solids of revolution

Assessed by problem # 8.

Number of correct answers: 58 % of correct answers: 76%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 9 Arc length of plane curves

Assessed by problem # 9.

Number of correct answers: 62 % of correct answers: 82%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 10 Surface area of solids of revolution

Assessed by problem # 10.

Number of correct answers: 54 % of correct answers: 71%

Did the majority of the students meet this objective: YES

Objective # 11 Work page 4

Assessed by problem # 11.

Number of correct answers: 54 % of correct answers: 71%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 12 Sequences Assessed by problem # 12.

Number of correct answers: 48 % of correct answers: 63%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 13. Geometric series, telescoping series, p series

Assessed by problem # 13.

Number of correct answers: 45 % of correct answers: 59%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 14 Convergence tests: Divergence test comparison, integral tests

Assessed by problem # 14.

Number of correct answers: 57 % of correct answers: 75%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 15 Convergence Tests- Alternating series - Absolute/conditional convergence

Assessed by problem # 15.

Number of correct answers: 56 % of correct answers: 74%

Did the majority of the students meet this objective: YES

Objective # 16 Convergence tests - Ratio/root tests

Assessed by problem # 16.

Number of correct answers: 50 % of correct answers: 66%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 17 Radius of convergence of power series

Assessed by problem # 17.

Number of correct answers: 53 % of correct answers: 70%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 18 Taylor and Maclaurin series and polynomials and the Algebra and

Calculus of power series

Assessed by problem # 18.

Number of correct answers: 51 % of correct answers: 67%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

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Objective # 19 Polar coordinates

Assessed by problem # 19.

Number of correct answers: 57 % of correct answers: 75%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 20 Equations in Polar coordinates

Assessed by problem # 20.

Number of correct answers: 59 % of correct answers: 78%

Did the majority of the students meet this objective: YES

Objective # 21 Parametric Equations

Assessed by problem # 21.

Number of correct answers: 64 % of correct answers: 84%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 22 Area in Polar coordinates

Assessed by problem # 22

Number of correct answers: 72 % of correct answers: 95%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 23 Parabola Assessed by problem # 23.

Number of correct answers: 55 % of correct answers: 72%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 24 Vertex of a parabola

Assessed by problem # 24.

Number of correct answers: 46 % of correct answers: 61%

Did the majority of the students meet this objective: YES

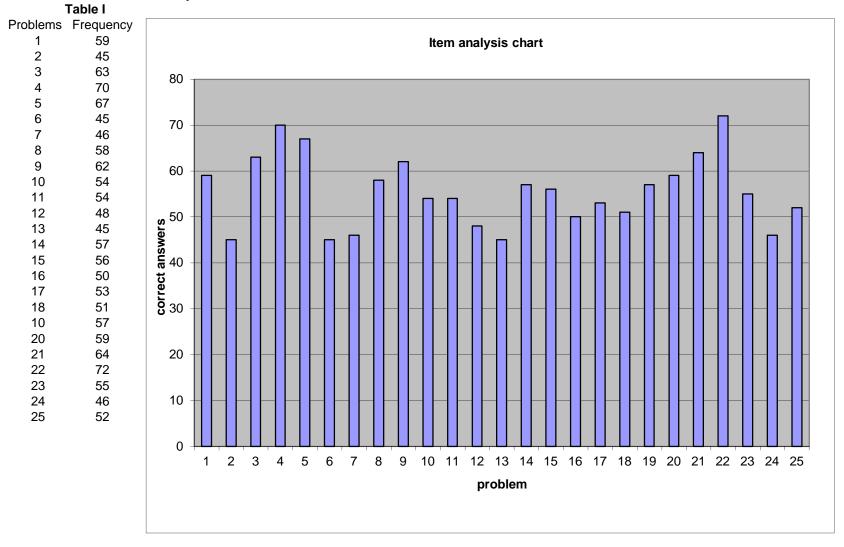
Comments - Recommendations:

Objective # 25 Ellipse Assessed by problem # 25.

Number of correct answers: 52 % of correct answers: 68%

Did the majority of the students meet this objective: Yes

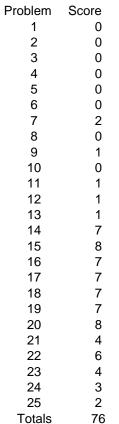
SP 2014 Math 208 - Item analysis chart

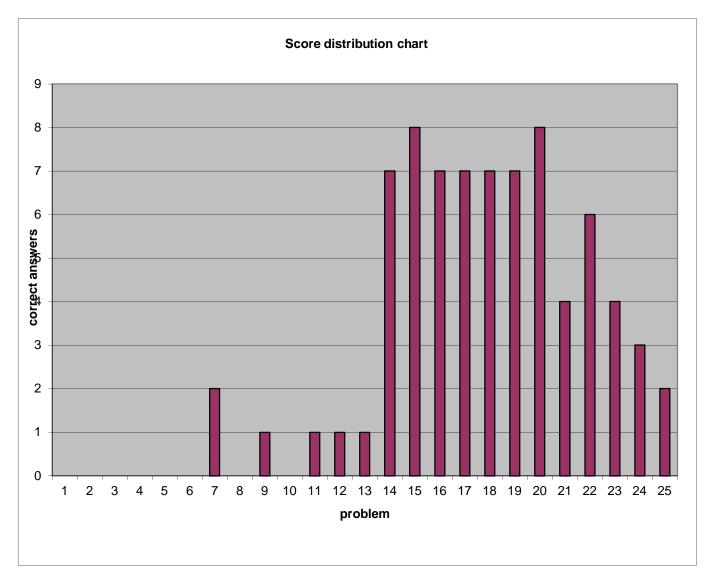


The above table indicates the number of correct answers for each problem of the assessment instrument.

SP 2014 Math 208 - Score Distribution chart

### Table II

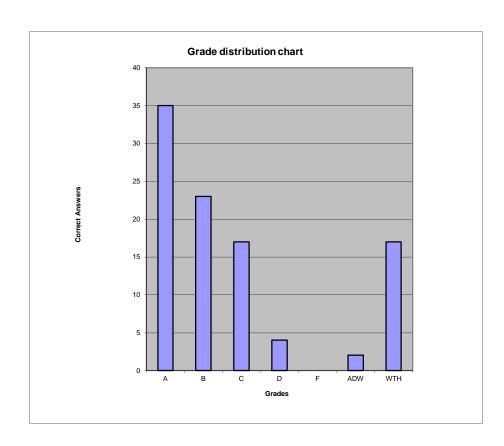




# SP 2014 Math 208 - Grade Distribution chart

	Table III
Grade	Frequency
Α	35
В	23
С	17
D	4
F	0
ADW	2
WTH	17
Totals	98

Section	Α	В	С	D	F	ADW	WTH	Totals
M 208 AC	16	10	2	1	0	1	4	34
M 208 BD	10	7	7	3	0	1	9	37
M 208 NP	9	6	8	0	0	0	4	27
TOTALS	35	23	17	4	0	2	17	98



Page 9

#1 #2 #3 #4 #5 #6 #7 #8 #9 #10 #11 #12 #13 #14 #15 #16 #17 #18 #19 #20 #21 #22 #23 #24 #25 Class Size M 208AC 26 23 M 208 BD 

FA 2014 Math 208 - Item Analysis

TOTALS

1 A 2014 Matri 200 - Ocore Distribution																											
Section	1	2	3	4	5	6	7	8	9	10 11 12		13	14	15	16	17	18	19	20	21	22	23	24	25 -	Γotals		
M 208AC	0	0	0	0	0	0	0	0	0	000		0	1	2	3	1	3	3	2	0	4	4	3	2	28		
M 208 BD	0	0	0	0	0	0	2	0	1	0	1	1	1	5	2	1	3	2	2	3	2	1	0	0	0	27	
M 208NP	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	3	3	2	2	3	2	1	0	0	0	21	

0 0 0 0 0 0 2 0 1 0 1 1 1 7 8 7 7 7 7 8 4 6 4 3 2 76

EA 2014 Math 209 Score Distribution

### DEPARTMENTAL ASSESSMENT REPORT

Department: Mathematics

Academic Year: 2014 Semester: Fall

Course Assessed: Math 209 Calculus and Analytic Geometry III

No of Students Assessed: 43

Type of Assessmer A 24-problem final exam.

Course Coordinator Stan Buchcic

# **ANALYSIS OF OVERALL RESULTS**

1. Expected competency level: 40%	
2. How many students met the competency level?	43
3. What % of students met the competency level?	100%
4. No. of students enrolled in the course:	59
5. No. of students completing the final exam:	43
6. % of students completing the final exam:	73%
7. No. of students receiving a grade C or better:	59
8. % of students receiving a grade C or better:	100%
9. % of enrolled students passing with C or better:	100%
40 Mb at abjective a ware not part by the majority of the atyrian	4

- 10. What objectives were not met by the majority of the students: All objectives were met by the majority of the students.
- 11. Was the assessment instrument adequate:
  - Yes, the assessment instrument was adequate.
- 12. The attainment of which objectives, if any, were not measured? Why not? Is it possible to make the instrument such that to measure all objectives? All objectives were measured.
- 13. Comments Recommendations:

Objective # 1 Convert the Polar equation in Cartesian form

Assessed by problem #1.

Number of correct answers: 35 % of correct answers: 81%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 2 Find the area of region in Polar coordinates

Assessed by problem # 2.

Number of correct answers: 40 % of correct answers: 93%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 3 Calculate Dot, Cross and Triple product for Vectors in 3 dimensions

Assessed by problem # 3.

Number of correct answers: 42 % of correct answers: 98%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 4 Find the parametric equations of the line in 3 dimensions

Assessed by problem # 4.

Number of correct answers: 35 % of correct answers: 81%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 5 Find the equation of the plane in 3 dimensions

Assessed by problem # 5.

Number of correct answers: 34 % of correct answers: 79%

Did the majority of the students meet this objective: Yes

Objective # 6 Identify the curve given in parametric form

Assessed by problem # 6.

Number of correct answers: 37 % of correct answers: 86%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 7 Identify the quadric surface

Assessed by problem # 7.

Number of correct answers: 34 % of correct answers: 79%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 8 Find the equation of the surface in cylindrical coordinates

Assessed by problem # 8.

Number of correct answers: 39 % of correct answers: 91%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 9 Find the arc length of the vector valued function

Assessed by problem # 9.

Number of correct answers: 13 % of correct answers: 30%

Did the majority of the students meet this objective: **NO** 

Comments - Recommendations:

Objective # 10 Find the curvature of the vector valued function

Assessed by problem # 10.

Number of correct answers: 37 % of correct answers: 86%

Did the majority of the students meet this objective: Yes

Objective # 11 Find the acceleration of a particle moving along a curve page 4

Assessed by problem # 11.

Number of correct answers: 33 % of correct answers: 77%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 12 Find the partial derivative for a given function

Assessed by problem # 12.

Number of correct answers: 35 % of correct answers: 81%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 13. Use total differential to approximate the change in F(x,y) as (x,y) varies

from P to Q

Assessed by problem # 13.

Number of correct answers: 39 % of correct answers: 91%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 14 Find the gradient of a function

Assessed by problem # 14.

Number of correct answers: 36 % of correct answers: 84%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 15 Find the equation of a tangent plane to the surface at a given point

Assessed by problem # 15.

Number of correct answers: 26 % of correct answers: 60%

Did the majority of the students meet this objective: YES

Objective # 16 Evaluate the double integral

Assessed by problem # 16.

Number of correct answers: 30 % of correct answers: 70%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 17 Evaluate the triple integral

Assessed by problem # 17.

Number of correct answers: 31 % of correct answers: 72%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 18 Find the Jacobian

Assessed by problem # 18.

Number of correct answers: 25 % of correct answers: 58%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

\*

Objective # 19 Find the divergence of the vector field

Assessed by problem # 19.

Number of correct answers: 36 % of correct answers: 84%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 20 Evaluate the line integral

Assessed by problem # 20.

Number of correct answers: 33 % of correct answers: 77%

Did the majority of the students meet this objective: Yes

Objective # 21 Find the potential function for a conservative vector field

Assessed by problem # 21.

Number of correct answers: 32 % of correct answers: 74%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 22 Find the flux integral

Assessed by problem # 22

Number of correct answers: 33 % of correct answers: 77%

Did the majority of the students meet this objective: Yes

Comments - Recommendations:

Objective # 23 Evaluate the integral using Green's Theorem

Assessed by problem # 23.

Number of correct answers: 26 % of correct answers: 60%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

Objective # 24 Use Divergence theorem to find the flux integral

Assessed by problem # 24.

Number of correct answers: 39 % of correct answers: 91%

Did the majority of the students meet this objective: YES

Comments - Recommendations:

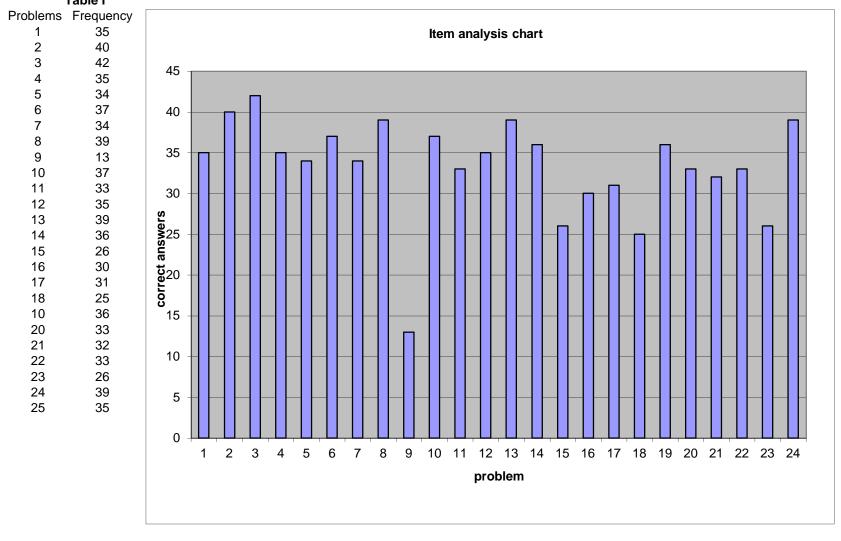
Objective # 25

Assessed by problem # 245

Number of correct answers: 35 % of correct answers: 81%

Did the majority of the students meet this objective: YES

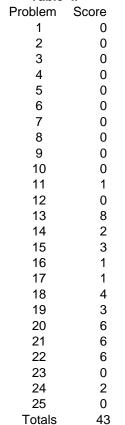
FA 2012 Math 209 - Item analysis chart Table I

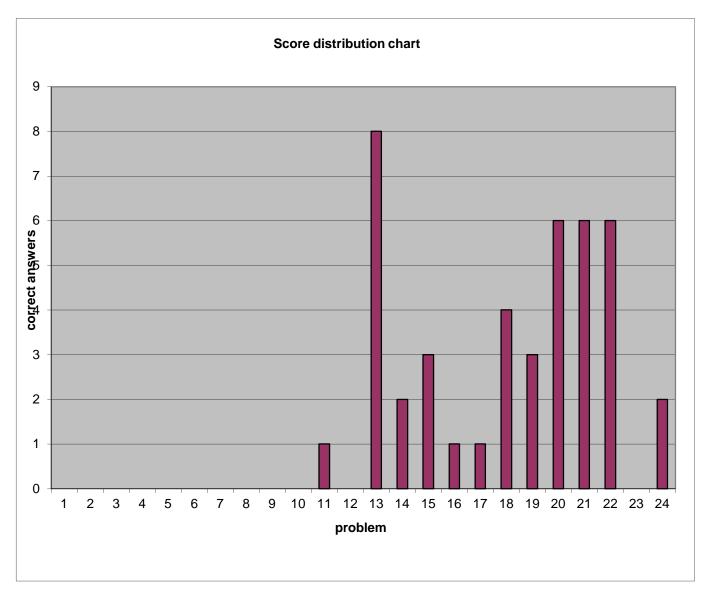


The above table indicates the number of correct answers for each problem of the assessment instrument.

FA 2012 Math 209 - Score Distribution chart

Table II

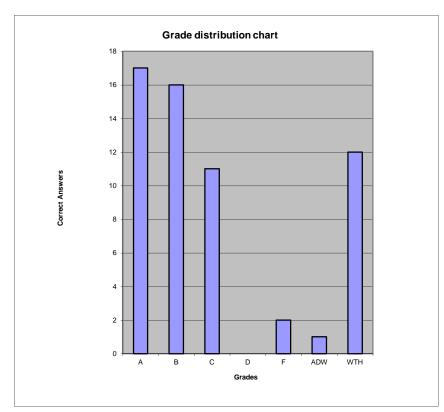




# FA 2012 Math 209 - Grade Distribution

	Table III
Grade	Frequency
Α	17
В	16
С	11
D	0
F	2
ADW	1
WTH	12
Totals	59

Section	Α	В	С	D	F	ADW	WTH	Totals
M 209BD	10	7	8	0	1	0	10	36
M 209MO	7	9	3	0	1	1	2	23
TOTALS	17	16	11	0	2	1	12	59



#1 #2 #3 #4 #5 #6 #7 #8 #9 #10 #11 #12 #13 #14 #15 #16 #17 #18 #19 #20 #21 #22 #23 #24 #25 Class Size

M 209BD	20	23	23	19	19	21	17	20	8	21	18	21	23	21	15	16	15	14	21	16	19	18	14	20	20	25	
M 209 MO	15	17	19	16	15	16	17	19	5	16	15	14	16	15	11	14	16	11	15	17	13	15	12	19	15	19	

FA 20124Math 209 - Item Analysis

TOTALS

FA 2014 Math 209 - Score Distribution																											
Section	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Totals	
M 209BD	0	0	0	0	0	0	0	0	0	0	1	0	6	1	1	1	0	3	1	3	3	4	0	1	0	25	
M 209MO	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	0	1	1	2	3	3	2	0	1	0	18	
TOTALS	0	0	0	0	0	0	0	0	0	0	1	0	8	2	3	1	1	4	3	6	6	6	0	2	0	43	