Math to Stats Pathway: MAT0029 + MGF 1106
Reference # 791502 & 791503
Days/Time:  M/W/F 10:00 - 11:40 a.m.

Professor: Lourdes España
Office: Room 7333
E-mail: lespana@mdc.edu

Office Hours

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:20 - 8:00 a.m.</td>
<td>7:30 - 8:25 a.m. &amp; 11:15 - 1:25 p.m.</td>
<td>7:20 - 8:00 a.m. &amp; 11:15 - 1:25 p.m.</td>
<td>7:30 - 8:25 a.m. &amp; 11:15 - 1:25 p.m.</td>
<td>7:20 - 8:50 a.m.</td>
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Reminder: Drop dates:  
Last date to drop with 100% refund: 1st 8 weeks – R Jan. 9, 2014  
2nd 8 weeks - M March 10, 2014

Last day to withdraw with grade of W: 1st 8 weeks – T Feb. 11, 2014  
2nd 8 weeks - R April 10, 2014

Course Description/ Pre-requisite: Math courses for academic pathways leading to statistics or liberal arts math. Students must score (at least) 96 in their P.E.R.T. The purpose is to provide college-level (math) content stretched out across one developmental course and one college-level course over a 16-week timeframe. Students in this pathway are choosing majors that do not require MAT1033/MAC1105 or any course that need them as prerequisites.

Text/Resources:

Thinking Mathematically - Blitzer -5th Edition

ONLINE TUTORIALS
Students must keep the Course ID Number given by the instructor & Access Code that comes with the book. These numbers allow students to gain access to their online homework (www.coursecompass.com). This site includes videos, practice material, tutoring help, and the actual textbook.

The instructor may drop (purge) any student who has not registered in Coursecompass (MyMathLab) by Tuesday, January 14, 2014 and have HW sections 5.1 done with 70% or more.

If you have taken this course before with the same textbook, you do not need to purchase a new Access Code. Otherwise, you must purchase an Access Code in order to use MyMathLab. If you cannot afford to purchase the access code right away, the website will give you the option of a free trial for the first two weeks. When the free trial expires, you must purchase the access.
Grading – You will receive two grades this semester – one for MAT 0029 & one for MGF 1106

**Your grade will be distributed as follows for MAT 0029 First 8 Weeks:**

There will be homework assigned on a weekly basis. The homework will be found and graded online; you will have an infinite amount of chances to get a perfect score on the homework during the allowed time. There will be four tests and an optional final exam.

<table>
<thead>
<tr>
<th>4 Test</th>
<th>80%</th>
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<tbody>
<tr>
<td>Homework (MyMathLab)</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Your final grade will be distributed according to the following scale:

- Average of 70 – 100 S
- Average of 60 – 69 P
- Average of 0 – 59 U

Four exams will be given in this course. In order to be able to take any exam in this class, the review that is given on MyMathLab for the exam, must be completed with a score of 70% or more before the exam or your exam will NOT be graded and you will not be allowed to take the exam. Absolutely, NO MAKE-UP EXAMS will be given under any circumstances. If a student misses an exam, a score of zero will be recorded. However, the single lowest score among the four exams will be replaced by the optional final exam score.

**Your grade will be distributed as follows for MGF 1106 Second 8 Weeks**

There will be homework assigned on a weekly basis. The homework will be found and graded online; you will have an infinite amount of chances to get a perfect score on the homework during the allowed time. There will be four tests and an optional final exam.

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</table>

Your final grade will be distributed according to the following scale:

- Average of 90 – 100 A
- Average of 80 – 89 B
- Average of 70 – 79 C
- Average of 60 – 69 D
- Average of 0 – 59 F

Four exams will be given in this course. In order to be able to take any exam in this class, the review that is given on MyMathLab for the exam, must be completed with a score of 70% or more before the exam or your exam will NOT be graded and you will not be allowed to take the exam. Absolutely, NO MAKE-UP EXAMS will be given under any circumstances. If a student misses an exam, a score of zero will be recorded. However, the single lowest score among the four exams will be replaced by the optional final exam score.
Angel Classroom Management System

This is a web-enhanced class which means that it is the student’s responsibility to check their ANGEL accounts DAILY for PowerPoint’s and updates. It is also the student’s responsibility to PRINT these PowerPoint's either at home or at the Computer Courtyard on campus.

For ANGEL, you do not need to register yourself. You are automatically registered for it, since this is a web-enhanced class. Follow the link to ANGEL from the Miami Dade College homepage or type https://mycourses.mdc.edu. To logon to ANGEL, you use your MDC userid and password. The class will appear as MAT 0029 - 791502. Once you are in the class, you will find the class files under LESSONS.

Math Lab:

The tutorial services of the Math Lab (Room 2222) are available to students registered in any math course taught on campus.

| ADA | In compliance with the Americans with Disabilities Act (ADA), all qualified students enrolled in this course are entitled to reasonable accommodations. Please notify the instructor during the first week of class of any accommodations needed for this course. |

Attendance: Attendance will be taken for all classes. Attendance will be recorded daily and unannounced quizzes may be given without warning. It is your responsibility to attend each lecture and keep records of assignments and other information delivered during class. The instructor reserves the right to drop any student who has excessive absences. It is your responsibility to ensure that you are enrolled in this course in order to receive a final grade. **Any student that misses more than 2 consecutive days of lecture without notifying the instructor may be purged (dropped).**


Classroom Etiquette

Any student, who plagiarizes or is dishonest (cheating) in any shape or form, will force me to take action according to Miami Dade College's Code of Student Conduct!! Also, students are to turn off all cellular phones and set pagers to "vibrate" before entering class. Furthermore, disrespect of any type will not be tolerated. Nothing is to be on your desk during any quizzes, tests, etc... UNLESS I have given verbal instructions to indicate otherwise! **NO** cell phones, laptops, mp3 players, books, ‘scrap’ paper, purses, etc. are allowed on your desktop during graded material sessions.

Calculators: Required to have scientific calculators.
MAT 0029/MGF 1106 (Finite Math Pathway)
Course Competencies

Competency 1: The student will demonstrate knowledge of real numbers by:

1) Performing operations with addition, subtraction, multiplication, and division with signed numbers
2) Applying the order of operations rule
3) Comparing numbers using <, >, ≥, ≤, ≠, or =
4) Determining the absolute values of numbers
5) Using Scientific Notation and Laws of Exponents
6) Simplifying Rational Numbers
7) Converting decimal to percent and percent to decimal
8) Simplifying Radicals

Competency 2: The student will demonstrate knowledge of equations by:

1) Solving linear equations in one variable
2) Solving literal equations for a given variable with applications
3) Solving applications involving linear equation in one variable (including number problems, geometry problems, and proportion problems)

Competency 3: The student will demonstrate knowledge of linear inequalities by:

1) Solving linear inequalities in one variable
2) Graphing solutions of linear inequalities on a number line
3) Solving applied problems using linear inequalities

Competency 4: The student will demonstrate knowledge of algebraic expressions by:

1) Evaluating expressions, given specific values of the variable using a calculator
2) Simplifying expressions, by applying the order of operations
3) Solving application problems involving geometry, including perimeter and area with algebraic expressions

Competency 5: The student will demonstrate knowledge of linear equations in two variables by:

1) Graphing linear equations in two variables
2) Determining the slope of a line (from slope formula, graph and equations)
3) Determining the x-and y-intercepts of a line given the graph of the line its equation
4) Calculating the slope and interpret the slope as a rate of change
5) Using the slope and y-intercept to model data
Competency 6: The student will demonstrate knowledge of linear inequalities in two variables by:

1) Identifying points that do and do not satisfy the inequality
2) Graphing linear inequalities in two variables

Competency 7: The student will demonstrate knowledge of quadratic equations by:

1) Identifying quadratic equations
2) Solving quadratic equations using the square root principle

Competency 8: The student will demonstrate knowledge of functions by:

1) Identifying functions using the definition and vertical line test
2) Using function notation to evaluate functions at a specified value
3) Analyzing the graph of a function

Competency 9: The student will demonstrate knowledge of set operations by:

1) Using set notation to write sets in both roster and set-builder notation
2) Finding complements, unions, intersections, subsets
3) Finding the cardinality of sets
4) Drawing and applying Venn diagrams

Competency 10: The student will demonstrate knowledge of logic by:

1) Analyzing/Identifying negations, disjunctions, conjunctions and various forms of conditional statements
2) Creating truth tables for statements
3) Identifying equivalent statements
4) Using De-Morgan’s Law
5) Identifying the validity of arguments, using symbolic logic and/or Euler circles

Competency 11: The student will demonstrate knowledge of combinatorics by:

1) Using The Multiplication Rule (or Fundamental Counting Principle) to solve applications
2) Using Combinations and Permutation to solve applications
**Competency 12:** The student will demonstrate knowledge of probability theory by:

1) Describing a sample space and an event.
2) Calculating probabilities of simple, compound and conditional events.

**Competency 13:** The student will demonstrate knowledge of basic statistics by:

1) Distinguishing between sampling methods.
2) Interpreting data presented in graphs, charts and tables, as well as relationships between data sets.
3) Calculating and understand relationships between measures of central tendency.
4) Calculating the variance and standard deviations of a sample
5) Using the empirical rule and normal curve to solve applications

**Competency 14.** The student will demonstrate knowledge of basic geometry by:

1) Rounding measurements; convert and determine appropriate units of measure.
2) Computing perimeters, areas and volumes of various plane and solid figures.
3) Distinguishing between the various characteristics of quadrilaterals.
4) Calculating angles in diagrams involving parallel lines.
5) Classifying different types of triangles make angle computations; apply the Pythagorean Theorem and Similar Triangles Theorem.

**Learning Outcomes:**

As graduates of Miami Dade College, students will be able to:

1. Communicate effectively using listening, speaking, reading, and writing skills.
2. Use quantitative analytical skills to evaluate and process numerical data.
3. Solve problems using critical and creative thinking and scientific reasoning.
4. Formulate strategies to locate, evaluate, and apply information.
5. Demonstrate knowledge of diverse cultures, including global and historical perspectives.
6. Create strategies that can be used to fulfill personal, civic, and social responsibilities.
7. Demonstrate knowledge of ethical thinking and its application to issues in society.
8. Use computer and emerging technologies effectively.
9. Demonstrate an appreciation for aesthetics and creative activities.
10. Describe how natural systems function and recognize the impact of humans on the environment.
### Suggested Course Outlines

**MAT 0029 – 1st 8 weeks**

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1W</td>
<td>1/08</td>
<td>Introduction to course and syllabus</td>
</tr>
<tr>
<td>2F</td>
<td>1/10</td>
<td>5.1 Number Theory, Prime and Composite Numbers</td>
</tr>
<tr>
<td>3M</td>
<td>1/13</td>
<td>5.2 The Integers; Order of Operations</td>
</tr>
</tbody>
</table>
| 4W  | 1/15 | 5.3 The Rational Numbers  
5.4 The Irrational Numbers |
| 5F  | 1/17 | 8.1 Convert Percent, Decimals, and Fractions  
HOLIDAY – Dr. Martin Luther King Birthday © |
| 6M  | 1/20 | 5.5 Real Numbers and Their Properties |
| 7F  | 1/22 | 5.6 Exponents and Scientific Notation |
| 8F  | 1/24 | Review for Test # 1 |
| 9M  | 1/27 | Test # 1 – Sections 5.1 – 5.6 & 8.1 |
| 10W | 1/29 | Test # 1 – Sections 5.1 – 5.6 & 8.1 |
| 11F | 1/31 | 6.1 Algebraic Expressions and Formulas |
| 12M | 2/03 | 6.2 Linear Equations in One Variable |
| 13W | 2/05 | 6.3 Applications of Linear Equations |
| 14F | 2/07 | 6.4 Linear Inequalities in One Variable & Review for Test # 2 |
| 15M | 2/10 | Test # 2 – Sections 6.1 – 6.4 |
| 16W | 2/12 | Solving Quadratic Equations using Square Root Method |
| 17F | 2/14 | 7.1 Graphing and Functions |
| 18M | 2/17 | HOLIDAY – PRESIDENTS DAY © |
| 19W | 2/19 | 7.2 Linear Functions and Their Graphs  
7.4 Linear Inequalities in Two Variables |
| 20F | 2/21 | Test # 3 – Sections 7.1, 7.2 & 7.4 |
| 21M | 2/24 | 12.1 Sampling, Frequency Distributions, and Graphs |
| 22W | 2/26 | 12.2 Measures of Central Tendency |
| 23F | 2/28 | 12.3 Measures of Dispersion |
| 24M | 3/03 | Test # 4 – Sections 12.1 - 12.3 |
| 25W | 3/05 | Optional Final Exam |
## MGF 1106 – 2nd 8 weeks

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>26M</td>
<td>3/10</td>
<td>11.1 The Fundamental Counting Principle</td>
</tr>
<tr>
<td>27W</td>
<td>3/12</td>
<td>12.4 The Normal Distribution</td>
</tr>
<tr>
<td>28F</td>
<td>3/14</td>
<td>12.5 Problem Solving with the Normal Distribution</td>
</tr>
</tbody>
</table>
| 29M | 3/17 | 11.2 Permutations  
 11.3 Combinations |
| 30W | 3/19 | Review for Test # 1 |
| 31F | 3/21 | Test # 1 – Sections 11.1, 12.4 & 12.5 |
| 32M | 3/24 | 11.4 Fundamentals of Probability  
 11.5 Probability w/ Permutations & Combinations |
| 33W | 3/26 | 11.6 Probability of Events involving Not and Or; Odds |
| 34F | 3/28 | 11.7 Events involving And; Conditional Probability & |
| 35M | 3/31 | Review for Test # 2 |
| 36W | 4/02 | Test # 2 – Sections 11.2 - 11.7 |
| 37F | 4/04 | 2.1 Basic Set Concepts  
 2.2 Subsets |
| 38M | 4/07 | 2.3 Venn Diagrams and Set Operations  
 2.4 Set Operations and Venn Diagrams with Three Sets |
| 39W | 4/09 | 2.5 Surveys and Cardinal numbers |
| 40F | 4/11 | 3.1 Statements, Negations, and Quantified Statements  
 3.2 Compound Statements & Connectives |
| 41M | 4/14 | 3.3 Truth Tables (Negation, Conjunction, Disjunction)  
 3.4 Truth Tables for the Conditional and Biconditional |
| 42W | 4/16 | 3.5 Equivalent Statements, Variations of Conditional Statements &  
 DeMorgan’s Laws  
 3.6 Arguments & Truth Tables |
| 43F | 4/18 | HOLIDAY – HAPPY EASTER 😊 |
| 44M | 4/21 | 3.7 Arguments & Euler Diagrams & Review for Test # 3 |
| 45W | 4/23 | Test # 3 – Sections 2.1 – 2.5 & 3.3 – 3.7 |
| 46F | 4/25 | 10.1 Points, Lines, Planes and Angles  
 10.2 Triangles (Similar Triangles) |
| 47M | 4/28 | 10.3 Polygons, Perimeter  
 10.4 Area |
| 48W | 4/30 | 10.5 Volume & Test # 4 – Sections 10.1 – 10.5 |
| 49F | 5/02 | Optional Final Exam |

**Schedule may changed be at the discretion of the instructor. It is your responsibility to verify dates and topics.**
Instructions on How to Register For MyMathLab

1. Before you start, make sure you have these 3 things:
   - A valid e-mail address
   - The MyMathLab course ID from your instructor: espana08527 - MAT 0029  espana96662 - MGF 1106
   - A student access code, which should have come packaged with your textbook.
     Sample: MMLST−TAROK−THOLE−PICON−SHRIK−PRAWN

2. Go to http://students.pearsoned.com and click the Register button.
3. Read the information, then click Next on the bottom of the screen.
4. On the screen that appears:
   - Enter the student access code that should have come packaged with your textbook or purchase one.
   - Under Do You Have an Account?, select No, I am a new user.
   - Click Next.
5. Enter the course ID and click Next.
6. Enter your name, e-mail address, and school zip code (33167) and click Next.
7. Select your school from the drop-down list and click Next.
8. On the next screen:
   - Enter a login name and password, which you will use from now on to access your MyMathLab course.
   - Select a question from the drop-down list that the system can ask you for security reasons if you ever forget your login name and password. Type in the answer to the question.
   - Under License Agreement, check the box next to I agree.
   - Click Next.
9. You have now registered and enrolled in your MyMathLab course! Print your Confirmation and Summary screen so you will have a record of your login name and password!
10. To enter your MyMathLab course, click the Log in now! button on your Confirmation and Summary screen, which will take you to http://students.pearsoned.com. (From now on, you can enter your MyMathLab course from this site, so it’s a good idea to bookmark this page. You will not have to register again for this course.)
11. Click the Log in button and log in using your login name and password.
12. You will see your MyMathLab course title under Courses you are taking. Click the course title to begin exploring MyMathLab!

Inside MyMathLab

- On the Announcements page, be sure to use the MyMathLab Installation Wizard to install the plug-ins on a home computer. This needs to be done only once.
- Click the Course Documents button to find content that is organized by chapter and Learning Units and for other resources that span across multiple chapters.
- For Technical Support, call Toll Free 1-800-677-6337, Monday through Friday 9AM – 6PM EST