

# MATH 150: The Mathematical Experience (WI)

3-3-0

Spring 2017

Section DA (WI): Mondays & Wednesdays from 9:40 – 11:10 am in 312 Academic Hall

**Instructor:** Matt Pascal

**Office:** 604 Academic Hall

**Email:** [mpascal@pointpark.edu](mailto:mpascal@pointpark.edu)

**Website:** <http://facstaff.pointpark.edu/mpascal>

**Office Hours:** Mon – Thur: 11:15 – 12:50

**Course Website:** <http://facstaff.pointpark.edu/mpascal/150.html>

**Pre-requisites/Co-requisites:** None.

**Course Materials:** Recommended Text: *Thinking Mathematically* (6<sup>th</sup> ed), by Robert Blitzer. (ISBN 9780321867322)

**Policy Issues:** All make-up, and other related issues should be directed to the course instructor. See contact information above. Make-ups may be granted with prior notification for legitimate reasons.

**Course Content:** This course introduces logic and mathematical thinking as a way of posing, communicating, and solving problems. It relates mathematics to other branches of knowledge. Topics of exploration include *problem solving, logic, number theory, algebra, business mathematics, statistics* and potentially others.

**Course Objectives:** Students who succeed in Math 150 will . . .

1. Apply logical reasoning and problem solving skills to solve challenges created by real-world problems
2. Investigate number theory
3. Translate mathematical problems, equations, and ideas into oral and written expressions and understand applicable math rhetoric
4. Explore connections between mathematics and other areas of study

**Methods:** Multiple forms of assessment will be used to measure your progress in understanding statistics.

- **Quizzes** will be at the end of every other unit. You will be given the chance to ask questions before quizzes.
- **Writing Projects** will be assigned and feedback will be given for the first draft. Late projects will only be accepted when pre-arranged. Assignments submitted in class should be *typed* and *stapled*.
- **Group problems**, facilitated by the instructor, will be completed and submitted in nearly every class. Groupwork cannot be made up though your four worst group activity grades will be dropped before computing your course grade. Groupwork will be available via the course website to be used for quiz practice. If groupwork is not completed in class, then each individual group member present may submit their own completed assignment in the following class for full credit.
- The **Final Writing Project** will involve several concepts and will be due during finals week.

**Policy on Academic Integrity:** Any student found guilty of a breach of ethics will be subject to a penalty ranging from a zero grade on a given assignment to dismissal from the University. A *Breach of ethics* includes, but is not limited to plagiarism (the copying of other's ideas and passing them off as one's own); copying or other forms of cheating on examinations, papers, and reports; the sale, purchase, or distribution of term papers.

**STUDENTS WITH DISABILITIES:** Students having a certifiable disability, as defined under the Americans with Disabilities Act (ADA) of 1990, and needing reasonable accommodations, should notify the Center for Student Success (CSS), West Penn (5th floor), 412-392-8153, as early in the semester as possible, preferably during the first week of class. The CSS office will provide specific information on the Point Park University ADA policy and application procedures to the student. CSS will contact individual instructors to verify a student's eligibility and to make arrangements for reasonable accommodations.

**Evaluation:** Your course grade will be computed using the following distribution:

<b>Assessment</b>	<b>Details</b>	<b>Points</b>
	Quizzes: total of 3 @ 10 points each	<b>30</b>
	Group Activities: 12 assignments @ 2 points each; two dropped	<b>20</b>
	Regular Writing Projects: total of 5 @ 7.5 points each	<b>37.5</b>
	Final Writing Project: 12.5 points	<b>12.5</b>
	<b>Total:</b>	<b>100</b>

GRADING SCALE: 89.5% is the lowest A, 79.5% the lowest B, etc.

**This section of Math 150 is a Writing Intensive course. That means that . . .**

- Writing will be used as a method of invention, discovery, research, and reflection throughout the semester.
- Feedback on your writing throughout the semester will help you to shape your writing assignments via a drafting process.
- Revision requirements will be built in to the course assignments and the course calendar.
- The grading scheme for the course puts a substantial emphasis on the quality of student writing.

**Math 150 is a University Core course in the “Investigate Mathematics” theme.**

The philosophical foundation that supports the implementation of the core curriculum stems directly from the Point Park University mission statement:

*Point Park University educates students in a diverse urban environment and prepares them to apply knowledge to achieve their goals, advance their professions and serve their communities.*

Accordingly, the core curriculum has been designed to provide each student with the opportunity to function as a problem solver, an effective researcher and an excellent communicator. The core curriculum builds the foundation of a Point Park education through courses that:

- Allow students to integrate knowledge and insights from diverse fields.
- Emphasize the development of critical thinking and written and oral communication skills.
- Emphasize interactive learning: students are encouraged to think independently and to seek creative solutions to intellectual, ethical, and practical challenges.

Thus, the core curriculum serves not only to promote understanding among an increasingly diverse student body but also prepares students to participate responsibly in a democratic society.

**Suggestions on how to succeed in this course:**

- *Read the textbook* sections in advance of class, and then again after class. Take note of anything in the text that you do not fully understand, and ask about it in class or in office hours.
- Do lots of problems. If you are experiencing difficulty with the assignments, try some book problems to get you warmed up. There are solutions for every odd problem from the section exercises, and all problems from the Chapter Reviews and Chapter Tests.
- *Make friends.* Your classmates can often explain the problem clearly since they have been working on the same concepts.
- On an average, you should expect to spend a minimum **four hours per week** outside of class time working on this class. If you are spending more, then you may need to seek help. If you need help, try contacting your instructor, either via email or in office hours. A few well asked questions may clarify the problem.
- Further help is available to you at the Center for Student Success (call 412-392-8153, or go to the 5<sup>th</sup> floor of West Penn).

\*\*\* Please note that the instructor may modify this schedule as appropriate during the semester. \*\*\*

If modifications are made then students will be notified via email and will be linked to an updated electronic version of this document

Math 150 – WI – Course Schedule – Fall 2016					
Week	Day	Concepts & Textbook Sections	Group	Quiz	Project
1/9 – 11	Mon	Introduction	G1		
	Wed	Problem Solving (1.1 – 1.3)			
1/16 – 18	Mon	<i>MLK Holiday</i>			
	Wed	Problem Solving ( <i>Continued</i> )	G2		P1 (draft)
1/23 – 25	Mon	Logic (3.1 – 3.7)	G3		
	Wed				P1 (final)
1/30 – 2/1	Mon		G4		
	Wed				
2/6 – 8	Mon			Q1	
	Wed				
2/13 – 15	Mon	Number Theory (5.1 – 5.7)	G5		P2 (draft)
	Wed		G6		
2/20 – 22	Mon	Algebraic Techniques (6.1 – 6.4)	G7		P2 (draft)
	Wed				
2/27 – 3/1	<i>Spring Break</i>				
3/6 – 8	Mon	Algebraic Techniques (Continued)	G8		
	Wed				
3/13 – 15	Mon			Q2	
	Wed				
3/20 – 22	Mon	Financial Mathematics (8.1 – 8.7)	G9		
	Wed				
3/27 – 29	Mon		G10		P3 (draft)
	Wed				
4/3 – 5	Mon	Probability & Statistics (11.1 – 12.5)	G11		P3 (final)
	Wed				
4/10 – 12	Mon				
	Wed				Q3
4/17 – 19	Mon	Writing Mathematically			P4
	Wed				P5
4/24 - 28	Mon				Final (draft)
	Fri			<b>Final Project (final, via email)</b>	

#### Elementary Education – Knowing the Content

I.D. Mathematics instruction at the elementary level in accordance with the PA Academic Standards including:

- Pre-number concepts, number sense, whole numbers, fractional numbers, measurement, algebra, geometry, estimation, probability, statistics, reasoning, and problem solving.
- Use of developmentally appropriate manipulatives, calculators, computers, and emergent technologies.