

Wheeling Jesuit University
Department of Mathematics
MATH 151-01 PRE-CALCULUS – 3 credit hours
Spring 2019

Instructor: Ignatius H. Sasmita, S.J. (Fr. Hadi)
Class Time: MWF 9 – 9:50 am
Classroom: ASC 212
Office: ASC 112A (on the bridge between ASC and Donahue Hall)
E-mail: ihssj@wju.edu
Phone: 304-243-2635
Office hours: MWF usually 10 – 11:30 am (any change will be announced in class)
Additional office hours are available by appointment

Catalog Course Description:

A thorough preparation for calculus with analytic geometry, including conic sections, and the transcendental functions: logarithmic, exponential and trigonometric functions.
Prerequisite: MATH 101 or equivalent.

Textbook (Recommended, not required):

Faires & DeFranza, *PreCalculus* (5th Edition or earlier)

Additional Materials:

A notebook dedicated exclusively to Pre-Calculus class
Pencils and erasers
Calculators are NOT required; no calculator is allowed in quizzes and exams

Student Learning Objectives:

The students will be able to:

1. understand the basic concepts of Pre-Calculus
2. develop a solid mathematical foundation for the subsequent courses and for further work in their academic program
3. develop problem solving, and analytical thinking and reflecting skills for lifelong learning of integrating mathematics into their lives

Evaluation Methods:

Homework (about one per week)	15%
Quizzes (about one per week)	15%
Exams 1-3 & Final	60% (15% each)
Participation	10%

Grading Scale:

93.0-100.0 %	A	83.0-86.9 %	B	70.0-76.9 %	C	55.0-63.9 %	D
90.0-92.9 %	A-	80.0-82.9 %	B-	67.0-69.9 %	C-	0.0-54.9 %	F
87.0-89.9 %	B+	77.0-79.9 %	C+	64.0-66.9 %	D+		

Homework and Quizzes:

Homework will be assigned on Fridays, discussed on Mondays and collected on Wednesdays. Quizzes will be given on Wednesdays, after collecting the homework assignments in the beginning of the class. If you miss a homework assignment or a quiz, you must turn in your missing homework or take the quiz within one week. The sooner you take care of missing assignment or quiz, the better you are in keeping up with the class. No quiz during an exam week. This rhythm may change during the semester if we need to adapt.

Exams:

Exam 1: January 30*

(Functions and New Functions from Old)

Exam 2: March 13*

(Algebraic Functions and some Trigonometric Functions)

Exam 3: April 10*

(More of Trigonometric Functions, Basic Exponential and Logarithm Functions, and possibly Basic Complex Roots and Conic Section)

Final Exam: May 1, 8 – 10:30 am

(Cumulative. If the final exam grade is higher than one of the first three exam grades, that exam grade will be dropped, and the final will count for 30% of your grade)

* The dates are subject to change with sufficient prior notice

Participation and Attendance:

The participation grade includes attending class, staying awake during class, answering questions when we work on problems together, and correcting any of your instructor's mistakes.

Every student begins with 100 points of participation grade that contributes 10% of the final grade.

The participation grade will be deducted when a student has more than one "unexcused" absence, sleeps through the class, uses cell phone or browse through the internet during class, disrupts the class and refuses to try solving any math problems in class.

Regular attendance is necessary and expected. Attendance will be taken every day after the Add/Drop deadline on January 11. An "excused" absence is either a doctor's note for illness, death or emergency in the family, participation in a Wheeling Jesuit University athletic event, or an approved absence discussed prior to absence with the instructor. An "unexcused" absence is any absence that is not "excused." If a student misses 6 or more classes, for any reason (including both "excused" AND "unexcused" absences), the student will get more deduction on participation grade with the possibility of getting "FA" (failure due to excessive absences).

Jesuit Mission and Extra Credit:

The component of Jesuit Mission will be incorporated into homework assignments, quizzes or exams. This component requires some reflection in order to integrate mathematics in each student's life.

No extra credit is planned at this point; however, this may change as the semester progresses.

Last Date to Drop the Course:

The last day of the **Add/Drop Period** for this semester is **Friday, January 11, 2019**.

The last day to **withdraw** from this course with a **grade of a W** is **Tuesday, March 26, 2019**.

Disability Statement:

Wheeling Jesuit University offers students with documented disabilities individual accommodations on a case-by case basis with confidentiality in compliance with the American with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. In order to receive academic or physical accommodations, students with disabilities must provide current (within three years) and comprehensive documentation concerning the nature and extent of the disability and communicate their needs to the Disability Services Director, located in Ignatius Hall Room G 24 or call 304-243-4484. Students are required to meet with the director to develop accommodation plans that they will present to their course instructors at the beginning of each semester. Students with disabilities that require specific housing accommodations must contact both the Director of Residence Life and the Disability Services Director.

Ultimately, all students with disabilities are responsible for their own academic achievement. They must attend classes, complete course assignments, and fulfill all university requirements for their chosen field of study. It is up to students with disabilities to seek out available assistance on campus and to utilize individualized accommodations that promote academic success.

Academic Integrity Statement:

Academic dishonesty in any form will not be tolerated. Students are advised that WJU's Academic Integrity Policy will strictly be enforced in this course (see www.wju.edu/studenthandbook). Questions regarding the policy may be directed to the Office of the Academic Vice-President.

Official E-mail: An official WJU e-mail is established for each registered student, each faculty member, and each staff member. All university communications sent via e-mail will be sent to this WJU e-mail address.

The Academic Resource Center:

The Academic Resource Center (ARC) is a totally free academic-support service available to all enrolled Wheeling Jesuit University students and staffed almost exclusively by WJU students recommended for employment by WJU faculty. The ARC is located in Bishop Hodges Library and is open five days a week:

- Sundays 6:00-8:00 p.m.
- Mondays-Thursdays 1:00-9:00 p.m.

Please visit the ARC's website (readily accessible on the Cardinal homepage under "Quick Links" or as the first listing under "Student Services") to learn about the ARC's services (emphasizing writing, math, and the sciences) and to schedule appointments.

Counseling Center:

Tina Tordella provides counseling; if you need to talk with someone, please make an appointment with her in Ignatius-G23. Her office phone number is 304-243-2081.

Title IX Statement:

Wheeling Jesuit University seeks to provide an environment that is free of bias, discrimination, and harassment. If you have been the victim of sexual harassment, misconduct, or assault we encourage you to report this. If you report this to a faculty member, she or he must notify our college's Title IX coordinator about the basic facts of the incident (you may choose whether you or anyone involved is identified by name). For more information about your options at WJU, please go to <http://wju.edu/titleix/>.

Course Outline:*

January 7 – 25:	Functions and New Functions from Old
January 28:	Review
January 30:	Exam 1
February 1 – March 1:	Algebraic and Trigonometric Functions
March 4 – 8:	Spring Break
March 11:	Review
March 13:	Exam 2
March 15 – April 5:	Trigonometric, Basic Exponential and Logarithm Functions
April 8:	Review
April 10:	Exam 3
April 12 – 17:	Extra topics: Complex Numbers and Conic Section
April 18 – 22:	Easter Break
April 24 – 26:	Review of Final Exam
May 1:	Final Exam (8 – 10:30 am)

* The dates are subject to change with sufficient prior notice

Movies for Mathematical Entertainment:

Stand and Deliver (1988): Drama of teaching Calculus in high school

Apollo 13 (1995): Drama of solving problem in Apollo 13

3 Idiots (2009): Comedy and drama in Bollywood style of engineering

The Imitation Game (2014): Drama of using mathematics to crack German Enigma code

The Man Who Knew Infinity (2015): Drama of the pioneer Indian mathematician

Spare Parts (2015): Drama of high school students in robotics club

Hidden Figures (2016): Drama of female African-American mathematicians in NASA