**Morehead State University**

**Department of Mathematics**

**MATH 174: Precalculus**

**1st period**

**2019-2020**

**Instructor:** Christy Bickett, NBCT

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**Office Hours:** Before School 6:50 to 7:10; After School will be available based on meeting schedule. Additional office hours available by appointment

**Course Description** MATH 174. Pre-Calculus (3-0-3);

Exponential, logarithmic and trigonometric functions; complex numbers, theory of equations. This course satisfies the required core-math reasoning for general education. Prerequisites: C or better in Math 141, minimum ACT Math Subscore of 24 or higher.

**Text** WebAssign access code for *Precalculus - Mathematics for Calculus (sixth edition)* by James Stewart, Lothar Redlin and Saleem Watson. (An electronic copy of the textbook is included with this software.You DO NOT need to buy the textbook.)Content covered in the course includes all or portions of: Chapter 1: Fundamentals; Chapter 2: Functions; Chapter 3: Polynomial and Rational Functions; Chapter 4: Exponential and Logarithmic Functions; Chapter 5: Trigonometric Functions: Unit Circle Approach; Chapter 6: Trigonometric Functions: Right Triangle Approach; Chapter 7: Analytic Trigonometry; Chapter 10: Systems of Equations and Inequalities.

**General Education Student Learning Outcomes (GESLO)**

Students will be able to:

3a. Analyze situations and/or problems using arithmetic, geometric, algebraic, and statistical methods.

3b. Use deductive reasoning in a formal, symbolic, axiomatic system.

3c. Verify answers to mathematical and scientific problems in order to determine reasonableness, identify alternative methods of solution, and select the most reliable results.

**GESLO Assessment**

Students will be assessed on each SLO through written homework assignments, oral presentations and written exams. They will be evaluated using a rubric.

**Calculators**  A calculator with exponential, logarithmic and trigonometric functions will be required, however… Except for certain exponential, logarithmic and trigonometric problems, calculators will not be allowed on exams. Cell phones will also not be allowed in exams.

**Exams** There will be three one hour exams during the course of the semester worth 100 points each. There will be a 200 point comprehensive final exam.

**Electronic Homework** Homework will be completed on the Webassign system. Assignments will be given on a regular basis in this system. You must have a Webassign account. It is initially free to sign up, but after the grace period expires you will need to provide or purchase an access code. You may purchase an access code directly from the Webassign website. If you have any questions about this, please contact your instructor. Your total homework score will be scaled to 150 points to make up the Electronic Homework component of your grade. Each student is responsible for checking online for new homework posted and submitting that homework by the due date.

**Written Homework** In addition to electronic homework, you will be assigned problems from each section covered for which you will write solutions. You will get plenty of practice “getting the right answer” on the electronic homework. The intent of the written homework is to give you practice using correct mathematical notation, organizing your work, and explaining your solutions in a manner that another student could understand. Each assignment will be worth 4 points (I will choose one problem from each section and grade it using the rubric at the end of this syllabus.) Only your best 12 scores will be used to calculate your grade.

**Presentation Problems** During the semester we will have days where students will present solutions to problems in class. (The dates are listed in the syllabus; generally before exams.) You are expected to present two problems during the semester, and each problem will be worth 25 points, 21 points for completing the presentation with up to 4 additional points possible as determined by the rubric shown on the last page of this syllabus.

**Notebook** On Presentation Days, each of you will take notes on the problems presented by your classmates. You will turn them in on exam day and will earn up to 10 points if your notes contain all of the problems that were presented.

**Late Homework** I will not accept late written homework. Note that I will only keep your 12 best homework scores, so if you miss a few, it will not hurt your grade.

**Attendance Policy** Attendance at every class is expected. If you miss a class, you are still responsible for the material covered. I will expect you to read the book and obtain lecture notes from your classmates. Make-up exams will not be given unless they are missed due to a university excused absence as described in UAR 131. If you have an excused absence on a Presentation Day, you may write up solutions to the presented problems on your own and turn them in for your 10 points.

**Final Grade** Grades will be distributed according to the following scale:

|  |  |
| --- | --- |
| *Percentage* | *Grade* |
| 90 - 100% | A |
| 80 - 89% | B |
| 70 - 79% | C |
| 60 - 69% | D |
| 0 - 59% | E |

Point distributions are as follows:

|  |  |  |
| --- | --- | --- |
| *Description* | *Points* | *≈ Percent* |
| Electronic Homework | 150 | 19 |
| Written Homework | 48 | 6 |
| Presentations | 50 | 6 |
| Notebook | 40 | 5 |
| Exam 1 | 100 | 13 |
| Exam 2 | 100 | 13 |
| Exam 3 | 100 | 13 |
| Final Exam | 200 | 25 |
| Total | 788 | 100 |

**Important Dates**

August 26: Last day to drop and get 100% credit of fees

September 2-3: Labor Day/Bullitt Day (no classes)

September 30-October 7: Fall Break (no classes)

October 28: Last day to drop a class with an automatic grade of ``W''

November 4-5: Bullitt Day/Election Day (no classes)

November 27-29: Thanksgiving Break (no classes)

December 17-20: Final Exam – TBA (one day, 2 hours)

**Campus Safety Statement** Emergency response information will be discussed in class. Students should familiarize themselves with the nearest exit routes in the even evacuation becomes necessary. You should notify your instructor at the beginning of the semester if you have special needs or will require assistance during an emergency evacuation. Students should familiarize themselves with emergency response protocols at:

[www.moreheadstate.edu/emergency](http://www.moreheadstate.edu/emergency).

**Academic honesty** All students at Morehead State University are required to abide by accepted standards of academic honesty. Academic honesty includes doing one’s own work, giving credit for the work of others, and using resources appropriately. Guidelines for dealing with acts of academic dishonesty can be found in the academic catalog.

**Department of Mathematics Ethics Code** All students will be asked to promise to adhere to the following ethics code.

I commit to uphold the ideals of ethical behavior and integrity by refusing to betray the trust bestowed upon me as a member of the Morehead State University community. Should I be tempted to break that trust, I will seek the help of my instructor instead.

**Americans with Disabilities Act (ADA)** Students with disabilities are entitled to academic accommodations and services to support their access and safety needs. The Office for Disability Services in 109-J Enrollment Services Center coordinates reasonable accommodations for students with disabilities. Although a request may be made at any time, services are best applied when they are requested at or before the start of the semester. Please contact Disability Services at 606-783-5188, [e.day@moreheadstate.edu](mailto:e.day@moreheadstate.edu), or visit their website at [www.moreheadstate.edu/disability](http://www.moreheadstate.edu/disability) for more information.

**Comments** While group work and the sharing of ideas is encouraged, academic dishonesty and plagiarism are serious offenses and may be punished by failure on the exam, paper, project or course. Precalculus can be a very difficult subject with a large amount of material covered, so you must be prepared to work hard and put in the appropriate amount of time outside of class. Precalculus can also be a very enjoyable subject, and I will do my best throughout the semester to make the class educational as well as interesting. I wish all of you the best for a successful semester. I want to help each of you achieve your academic goals, so please do not hesitate to get in contact with me if I can be of any assistance.

**Rubric for Presentation and Written Homework Problems**

You will be able to earn up to four points, one point for each of the following categories:

**Organization:** (1 point) Work is presented in an organized, logical fashion.

It appears that some thought has been put into the presentation and that it is not just scratch work or a rough draft.

**Notation:** (1 point) Proper mathematical notation is used throughout the presentation.

Some examples: using “=” between expressions that are equal and NOT using it between expressions which are not equal, using parentheses correctly to show order of operations, avoiding the use of arrows when you mean “=”, not confusing the notations for simplifying and solving, etc.

**Explanation:** (1 point) The presentation includes a full explanation, including graphs,

tables and proper English sentences when appropriate.

A typical student in the class who is unfamiliar with the problem could read and follow the solution.

**Correct Approach:** (1 point) The approach chosen for the problem will in fact determine the correct answer.