

Course Number: MA 1020

Course Title: Foundations of Mathematics II

Course Description:

This course prepares students to take MA1025. Topics include exponents, simple roots, simplifying and solving equations and inequalities with one variable. Also included are basic operations with polynomials, roots, and radicals. Graphing lines using slope and y-intercept is also taught. Problem solving is integrated throughout and appropriate use of non-graphing scientific calculators is expected. (3 Credit Hours)

Prerequisites: MA 1005 with a C or higher, or equivalent.

Credit hours: 3

Learning Outcomes:

Upon the successful completion of this course, students will be able to:

1. Locate points on coordinate system, identify slope and y-intercept, and use to graph and solve appropriate problems.
2. Solve systems of equations by graphing and by substitution.
3. Graph linear inequalities and solve systems of linear inequalities by graphing.
4. Use addition and multiplication property of equality, simplify and isolate variable, and solve.
5. Solve linear inequalities in one variable.
6. Read, interpret and predict any trends from tables, pie charts, bar graphs and line graphs.
7. Perform basic operations with exponents - scientific notation.
8. Add, subtract and multiply polynomials.
9. Simplify, multiply, and divide rational expressions with no factoring.
10. Define roots and radicals, simplify, and perform operations involving radical expressions.



College of Professional Studies

MA 1020 Foundations of Mathematics II

Online Syllabus Course Content

Instructor Information

Please see Professor Profile at the Blackboard instructional site.

Course Schedule

Please see Course Schedule in the Course Syllabus area of the Blackboard instructional site.

Online Course Policies

All of the online courses taken by students are required to follow the policies posted online at <http://online.indianatech.edu/tech-policies/policies/>. Please review the posted policies carefully. If you are unable to abide by the policies listed, please contact the Warrior Information Network (WIN) at 888.832.4742 and request to withdraw from this course.

Textbook

This course utilizes MobiusMath by DigitalEd resources built right into the Blackboard course site. Access to all course materials is provided within the course Modules.

Grading Events & Grading Criteria

Unless otherwise specified, all assignments must be submitted via Blackboard.

Grading Events

Assignment	Points
Course Preparation Quiz	20
Module 1 Discussion: Equations and Inequalities	10
Module 1 Homework 1	20
Module 1 Homework 2	20
Module 1 Quiz	50
Module 2 Discussion: Story Problems	10
Module 2 Homework 3	20
Module 2 Homework 4	20

Module 2 Quiz	50
Module 3 Discussion: Linear Systems	10
Module 3 Homework 5	20
Module 3 Homework 6	20
Module 3 Quiz	50
Module 3 Midterm Exam	100
Module 4 Discussion: Exponent Rules	10
Module 4 Homework 7	20
Module 4 Homework 8	20
Module 4 Quiz	50
Module 5 Discussion: Rational Expressions	10
Module 5 Homework 9	20
Module 5 Homework 10	20
Module 5 Quiz	50
Module 6 Discussion: Rational Exponents and Radicals	10
Module 6 Homework 11	20
Module 6 Homework 12	20
Module 6 Quiz	50
Module 6 Final Exam	100
Total	820

Module Discussions

For each Module, we will have discussions as part of course activities. To encourage interaction, students will post an initial post by Thursday at 11:59pm, and then will post replies to at least 2 classmates by Sunday at 11:59pm. Responses to classmates should further the discussion by providing detailed feedback, asking questions, providing additional examples, etc. Students should refer to the grading rubric posted for each discussion.

Tech Live & Office Hours

Every week, your instructor will host a live session using Blackboard Collaborate. This is a great opportunity to engage with your instructor and classmates. Your instructor will be able to provide an overview of the work for the coming week, cover more difficult topics, and also share their expertise with you. The Tech Live sessions are **optional** and will be recorded so that you can watch if you are not able to attend in real-time.

Your instructor will also host a one-hour session for office hours using Collaborate. During this time, you can join Collaborate and ask questions on any weekly content or assignments. Office hours are also optional to attend, and you may still ask any questions via email or phone call.

Grading Scale

The following grading scale will be used to assign a grade at the end of the course:

Percentage Achieved	Grade
93% or above	A
90% or above	A-
87% or above	B+
83% or above	B
80% or above	B-
77% or above	C+
73% or above	C
70% or above	C-
60% or above	D
Below 60%	F

Late Assignments

All assignments and required online activities are due according to the deadline listed in the course schedule. Granting deadline extension is the course instructor's autonomy.

Incompletes

If you are unable to complete the requirements for this course due to extenuating circumstances, an Incomplete grade (I) may be granted if you meet the general guidelines stated below.

General Guidelines for submitting a course incomplete request:

- More than 50% of the course session has elapsed.
- The student has encountered an unexpected situation that is beyond his or her control.
- The student is
 - in good academic standing -- up-to-date on all of the course assignments and has at least an overall passing grade,
 - able to complete all of the remaining coursework within a session (5 weeks for an undergraduate course and 6 weeks for a graduate course) that immediately follows the session the student is currently enrolled, and
 - able to provide support documentations to substantiate the need for extra time should a session is not enough to complete the course requirements.

If an Incomplete is granted, the instructor will set a deadline for all work to be completed. **The deadline cannot go past one (1) session.** All incomplete grades and deadlines are subject to approval by the designated university authority.

Course Related Communication

Online courses are conducted in an accelerated format. Timely communication is very important. When receiving emails from your classmates or instructor, please respond as soon as you can.

Students are REQUIRED to use their Indiana Tech email account for all course related communication. The most direct, and effective, way to email your course instructor and classmates, is by using the Send Email function within the Blackboard course site. When you use the Send Email function, you automatically receive a carbon copy of the email you sent. In the event when you need to substantiate your claim that you did email your classmates or instructor, you can show that carbon copy to the person(s) who requested it.

Please note that Blackboard only permits you to send email, it does not provide you with the check email function. All of the emails your classmates and instructor send to you will be delivered to your Indiana Tech email account. You are strongly encouraged to check your Indiana Tech email account regularly, preferably several times a week, to minimize the likelihood of miscommunication.

The University policy requires each online course instructor to respond to a student's email within 24 hours. Unless there is an extraneous situation that prevents the instructor from following this rule, you can expect to hear from the instructor within 24 hours. If you don't receive a reply within 24 hours, please do not hesitate to follow up with another email or forward the carbon copy of the email you sent to OnlineSupport@IndianaTech.edu with a note "Please help. It's been 24 hours and I have not heard from my instructor" and the University support staff will act on your behalf to contact your course instructor.