

Course Number: MA 1025

Course Title: Mathematical Problem Solving

Course Description:

Topics include interpreting data to construct linear models, solving inequalities and interpreting data to define variables and constraints in terms of linear inequalities. Construct and analyze the graph of a linear function. Identify and evaluate the appropriate formula for simple interest and compound interest. Use of non-graphing scientific calculators is expected. (3 Credit Hours)

Prerequisites: MA1000 or MA1020 with a C or higher.

Credit hours: 3

Learning Outcomes:

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

1. Interpret data in various forms in order to construct a linear model.
2. Solve/manipulate inequalities with one or two variables.
3. Interpret data in order to define variables and constraints in terms of linear inequalities.
4. Graph and shade the feasible regions from previous outcome.
5. Identify the appropriate formula for simple interest, compound interest.
6. Construct and analyze the graph of a linear function.

INDIANA**TECH**

College of Professional Studies

MA 1025 – Mathematical Problem Solving

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 / Course Resources

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.

You will have a variety of ways to demonstrate what you learn in this course. Below you will find the grading events and corresponding points available in this course.

Grading Events

Week / Module	Description	Points Possible
1	Course Preparation Quiz	20
1	Module 1 Discussion: Mathematical Article	20
1	Module 1 Homework	25
1	Module 1 Quiz	40
2	Module 2 Discussion: Article, Resource, or Application of Slope	20
2	Module 2 Homework	30
2	Module 2 Quiz	40

Week / Module	Description	Points Possible
3	Module 3 Discussion: Real-World Problem and Solution	20
3	Module 3 Homework	35
3	Module 3 Assignment – Piecewise Project	30
3	Module 3 Quiz	50
3	Midterm	100
4	Module 4 Discussion: Word Problems	20
4	Module 4 Homework	35
4	Module 4 Quiz	45
5	Module 5 Discussion: Interest	20
5	Module 5 Homework	25
5	Module 5 Written Assignment: Interest and Effective Rates	15
5	Module 5 Quiz	40
6	Module 6 Discussion: Graphical Representation of Data	20
6	Module 6 Homework	30
6	Module 6 Quiz	40
6	Final Exam	100
	Total Points Possible	820

Grading Scale

The following grade 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

Grading Criteria

Discussion Board Assignments

Each module contains a discussion question for a total of six (6). These discussion boards are worth a maximum of 20 points each: up to 12 points for your initial posting and up to 8 points for your responses to two (2) classmates (2 x 4 pts each). *Please refer to the discussion grading rubric posted in each discussion.* Your initial posting is due by Thursday (not later than 11:59 p.m. EST) and your responses to two (2) classmates are due by Sunday (not later than 11:59 p.m. EST).

Quizzes

Each module contains a Mobius quiz for a total of six (6). You will access these right within Blackboard. Each of these quizzes contains 5 questions. All of the quiz questions will come from the assigned readings and Module Lessons.

Assignments

Each module contains Mobius homework assignments for a total of six (6). You will access these right within Blackboard. In addition to that, there is one word problem assignment and one written assignment. These two assignments will be submitted to Blackboard in the form of a word document. All of the assignments are designed to engage you with the course material and assess your learning.

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. Students are asked to complete a weekly reflection about the Tech Live session, and this can be completed based upon attending in person, or by viewing the recording of the Tech Live session.

Late Assignments

Every effort should be made to submit work for this course on time, according to the posted course schedule. The abbreviated nature of this course makes it difficult to “make-up” a missed assignment. 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 from 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 the emails your classmates and instructor sent 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.