

MATH 0701—Basic Math for Today’s World - Spring 2023

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Office Hours	TTh 19:30 to 20:00 (by appointment)

Course Title	Basic Math for Today’s World
Course Number	MATH 0701
Section Number	801
CRN	49497
Class Schedule	TTh 17:30 to 19:30
Classroom	Zoom room at the Course page in Canvas

Textbook	<p>* The following textbooks will be used just as references. The course is meant to be self-contained.</p> <p>1) Marecek, L. & Anthony-Smith, M. (2015). Pre-algebra 2e. Link: https://openstax.org/</p> <p>2) Maxie Inigo, Jennifer Jameson, Kathryn Kozak, Maya Lanzetta, Kim Sonier, College Mathematics for Everyday Life, 2nd Edition. Link: http://solr.bccampus.ca:8001/bcc/items/c2fe86af-49b8-4927-b870-c6a805a436d3/1/</p>
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I. Course Description

This course surveys a variety of mathematical topics useful in the workplace and everyday life. The study of these topics also aims to prepare students for success in future quantitative and math related courses. Topics include: numeracy with an emphasis on estimation, fluency with different ways to represent quantities and to evaluate expressions; rates, ratios, and proportions; percentages; basic algebra, solution of equations; applied geometry, data interpretation using graphs, tables and statistics.

** Please note that MATH 0701 is no longer a prerequisite for MATH 1021, College Algebra, or STAT 1001, Quantitative Methods for Business I. Students whose program of studies requires one of these two courses must complete MATH 0702, Intermediate Algebra, instead.*

II. Course Goals

This course is a quantitative reasoning course. This means that students will learn to use, understand, and communicate about quantitative information. After taking this course a student should be able to:

- Describe the relationship between the U.S. units and metric units of length, area, weight/mass, and volume;
- Make reasonable estimates for whole number and decimal problems and explain how such estimates were made;
- Represent a number in different ways and solve problems involving percentages, ratios, rates, or proportions;
- Write expressions and equations using mathematical notations and symbols and evaluate expressions and formulas;
- Use different representations for functions, to translate from one representation to another, and to use such representations to solve problems;
- Interpret and make decisions in basic financial problems often presented to consumers.
- Organize data, express them using graphs; use basics statistics to answer questions, draw conclusions, and make predictions.
- Understand and apply basic geometry to characterize objects in 2 and 3 dimensions.

III. Topics and Concepts

- 1 Working with numbers;
- 2 Evaluating mathematical expressions and solving equations
- 3 Rates, ratios and proportions
- 4 Properties of numbers, Operations, and Measurement Systems
- 5 Geometry
- 6 Verbal, algebraic, graphical and numerical representation of functions
- 7 Data interpretation
- 8 Basic finance.

IV. Semester Schedule *

Week	Class	Content	Assignment
Week 1: Jan 17,19	1	Introduction, Working with Whole Numbers	
	2	Large Numbers, Arithmetic, Place Value	Homework of Week 1
Week 2: Jan 24,26	3	Evaluating Expressions, Factoring Numbers	
	4	Prime Factoring and Integers	Homework of Week 2
Week 3:	5	Fractions and Mixed numbers I	

Jan 31, Feb 2	6	Fractions II and Decimals I	Homework of Week 3
Week 4: Feb 7,9	7	Decimals II and Averages I	
	8	First Midterm Examination on February 9th	Homework of Week 4
Week 5: Feb 14,16	9	Averages II, Ratios and Rates I	
	10	Rates II and Square Roots	Homework of Week 5
Week 6: Feb 21	11	Percents and Applications	Homework of Week 6
Week 7: Feb 28, Mar 2	12	Percents Applications and Real Numbers	
	13	Real Numbers II and Measurement Systems I	Homework of Week 7
Week 8: Mar 7,9	14	Measurement Systems II and Solving Word Problems I	
	15	Solving Word Problems II and Geometry (Angles)	Homework of Week 8
Week 9: Mar 14,16	16	Second Midterm Examination on March 14th	
	17	Geometry (Angles, Triangles), Length, Area and Volume of Rectangles, Triangles, Trapezoids	Homework of Week 9
Week 10: Mar 23	18	Circles and Geometry Applications	Homework of Week 10
Week 11: Mar 28,30	19	Scientific Notation and Graphs	
	20	Introduction to Functions and their Graphs	Homework of Week 11
Week 12: Apr 4,6	21	Functions II and Data Analysis I	
	22	Data Analysis II	Homework of Week 12
Week 13: Apr 11,13	23	Basic Finance: Budgeting and Interest Applications	
	24	Third Midterm Examination on April 13th	Homework of Week 13
Week 14		Final Examinations' Period from April 20th to 26th April 25th 16:30 to 18:30	-

* The schedule is subject to change. Please check email and Canvas regularly for updates.

V. Course's Policies

Supporting devices and technologies: A calculator will be necessary in this class. This course will be carried out in person.

Lectures: The lectures will be given in person. To succeed in this course, students should attend classes, to study the material after classes, and to solve as many exercises as possible. Except for a calculator, it is not acceptable to use any other electronic device in this class.

Textbook: In this course, most of the topics covered are available in the two reference textbooks. Whenever a topic is not in the reference, extra material will be provided. Please, keep in mind that to succeed in this class it is very important to:

- a) study continuously with the reference textbooks and with the material provided;
- b) take notes in class, actively participate in class, and solve the weekly homework;
- c) make an active effort to understand the topics of the course, and reach out to the tutors* or the instructor when struggling with a topic.

* *Tutoring*: The Teaching and Learning Center (TLC) offers free tutoring. It is strongly advised to the students to study with the tutors. Check the TLC homepage for details: <https://www.tuj.ac.jp/services/tlc>

Office hours: Office hours will be given twice a week in the schedule described in the beginning of this Syllabus. Important notes:

- a) any student interested must make an appointment beforehand by email or during the classes.
- b) Office hours are provided for clarifications/advice/help regarding the topics studied. As such, a student asking for office hours is expected to have attended the class and/or to have studied beforehand the material for which he/she is requiring clarification.

Assignments: Series of exercises will be assigned as graded homework every week in Canvas. They must be solved and submitted until their corresponding deadlines. The purpose of the homework is to practice the application of the concepts covered in lectures. It is imperative to work and to understand the homework problems to successfully complete the course successfully.

* *Late submission policy*: If a student misses submitting a homework until its deadline, he or she might be able to submit it up to 2 days later, as long as an extension is requested before the deadline. Please, note that in such case there will be a penalty of 20% of the corresponding grade due to tardiness; there will be no further extension for the same homework.

Examinations: There will be **three midterm** examinations and **one comprehensive final examination** (check the schedule). The examinations will check the students' ability to apply the techniques discussed in class. All examinations must be taken individually and without the use of any math software or external help. The students must take each and all examinations at the scheduled time. This class has a policy of no make up examinations for absent students. However, as it is explained in the grading system, the final examination is used to recover one low or missing grade. The final examination will be held on April 25th from 16:30 to 18:30.

If a student is absent on the day of an examination or assignment, then the corresponding score for it will be recorded as zero (such student can still recover a low exam grade by taking the final exam). Only in the case of absence due to illness, an opportunity to recover the missing grade might be considered. In this case, a student in this situation must present an official medical certificate (診断書, shindansho in Japanese) showing he or she was not able to come to class in the day of the assessment due to illness.

* Still regarding the examinations, at all times, all final answers must be provided with their corresponding calculations when such calculations are required. Final answers without calculations will not be graded, resulting in a score of zero.

Attendance: Please note carefully the dates for classes and examinations as listed in this syllabus. It is the student’s responsibility to inform the instructor of your absence BEFORE each class and to check the topics studied in each missed class. The instructor can be contacted by e-mail. Attendance and participation are very important to succeed in this class. Regular attendance is expected and it will be checked in the beginning of each class. Missing half of a class or arriving late for it will be regarded as absence. A student with unjustified absences adding to 25% or more of all classes (**6 classes**) will automatically receive an “F” as final course grade.

Canvas: The course will make extensive use of Canvas, with space for questions, announcements, etc. Furthermore, useful material and the weekly homework will be also be made available on Canvas; further details will be announced in class.

VI. Evaluation

The final grade will be calculated as follows:

→ During the semester there will be **5** evaluations: 3 midterm examinations, 1 final examination, and the weekly homework grade. All 5 evaluations will have the same weight, the lowest grade will be dropped, and the 4 best scores will be used in the calculation of the final score. The conversion of the final score to a letter grade will follow the scale below:

General Grading Scale

Score*	[0, 60)	[60, 63)	[63, 67)	[67, 70)	[70, 73)	[73, 77)	[77, 80)	[80, 83)	[83, 87)	[87, 90)	[90, 93)	[93, 100]
Letter Grade	F	D-	D	D+	C-	C	C+	B-	B	B+	A-	A

* The scores ranges are expressed in Interval Notation. Thus, a bracket indicates that an endpoint is included in the interval and a parenthesis indicates that an endpoint is not included in the interval.

VII. University Policies

TEMPLE AND COVID-19

Temple University’s motto is Perseverance Conquers, and we will meet the challenges of the COVID pandemic with flexibility and resilience. The university has made plans for multiple eventualities. Working together as a community to deliver a meaningful learning experience is a responsibility we all share: we’re in this together, so we can be together.

Statement about Netiquette

Netiquette refers to the correct or acceptable way to communicate online. In order to include all students in our diverse community of learners, it is important to foster a respectful and productive online learning environment. Our differences, some of which are outlined in the University's nondiscrimination statement, will add richness to this learning experience. Therefore, all opinions and experiences, no matter how different or controversial they may be perceived, must be respected in the tolerant spirit of academic discourse. Treat your classmates and instructor with respect in all communication, class activities, and meetings. You are encouraged to comment, question, or critique an idea but you are not to attack an individual. Please, consider that sarcasm, humor and slang can be

misconstrued in online interactions and generate unintended disruptions. Profanity will not be tolerated and must be avoided as should the use of all capital letters when composing responses in discussion threads, which can be construed as “shouting” online. Remember to be careful with your own and others’ privacy. In general, have your behavior mirror how you would like to be treated by others.

Accessibility Statement (Please bear in mind that COVID-19 may result in a need for new or additional accommodations): Temple University is committed to the inclusion of students with disabilities and provides accessible instruction, including accessible technology and instructional materials. If you have a disability for which you are or may be requesting an academic accommodation, you are encouraged to contact TUJ’s DRS Coordinator (at tujdrs@tuj.temple.edu) as early as possible, before or at any point in the semester. Disability Resources and Services will verify your disability and determine reasonable accommodations for this course. You are also encouraged to communicate directly with your professor at any point in this process. For more information, visit: <http://disabilityresources.temple.edu/>

Pronouns and chosen names: Please let your professors know the preferred name and pronouns by which you'd like to be referred. A student's chosen name and pronouns should be respected at all times.

Statement on Academic Freedom: Freedom to teach and freedom to learn are inseparable facets of academic freedom. The University has adopted a policy on Student and Faculty Academic Rights and Responsibilities (Policy # 03.70.02) which can be accessed through the following link: http://policies.temple.edu/getdoc.asp?policy_no=03.70.02.

Taping and Recording of Classes: Recording and distribution of this class and its materials is NOT permitted. However, each Zoom meeting will be automatically recorded and posted on Canvas for the student’s personal educational use only. Students are NOT permitted to copy, publish, or redistribute any file, audio or video recordings of any portion of the class session to individuals who are not enrolled in this course without the express permission of the faculty member and of any students who are recorded. Distribution without permission may be a violation of educational privacy law, known as FERPA, as well as certain copyright laws.

Academic Honesty

Temple University believes strongly in academic honesty and integrity. Plagiarism and academic cheating are, therefore, prohibited and will not be tolerated. Plagiarism is the unacknowledged use of another person's labor, another person's ideas, another person's words, or another person's assistance. Academic cheating is, generally, the thwarting or breaking of the general rules of academic work or the specific rules of the individual courses. It includes falsifying data; submitting, without the instructor's approval, work in one course which was done for another; helping others to plagiarize or cheat from one's own or another person's work; or actually doing the work of another person. The penalty for academic dishonesty can vary from receiving a reprimand and a failing grade for a particular assignment, to a failing grade in the course, to suspension or expulsion from the university. The penalty varies with the nature of the offense, the individual instructor, the department, and the school or college.

Refer to the following link for the full TU policy on plagiarism and academic cheating:
<http://bulletin.temple.edu/undergraduate/about-temple-university/student-responsibilities/#academichonesty>

Students must assume that all graded assignments, quizzes, and tests are to be completed individually. The instructor reserves the right to refer any cases of suspected plagiarism or cheating to the University Disciplinary Committee; He also reserves the right, in these cases, to assign a grade of "F" for the given paper, quiz, test or examination. If you have any doubt, please feel free to contact the instructor.

Academic Calendar and Important Date

<https://www.tuj.ac.jp/ug/academics/semester-info/calendar/2023-spring-calendar>