## Course Calendar for MATH 102

Academic years 2023-2024 and 2024-2025

In spring 2023, the ad hoc MATH 102 Standardization Committee (Emily, Paul, Nathan, Patty, Derek, and Barton (chair)) selected a new MATH 102 textbook and constructed a course calendar for the new textbook. The course calendar is a modified calendar written by Paul.

The textbook and the course calendar was approved by the department on 11 April 2023. The calendars for terms following fall 2023 were appended after approval, but these calendars differ only in starting dates and such. Notes:

- Our aim is to build a reasonably paced course calendar that be followed without rushing through last handful of sections.
- Some sections are marked for two class periods. We might be mistaken about which sections need more time, but at least those sections that span two class periods provide the schedule with buffers.
- Course instructors should meet toward the end of each term and to make needed tweaks to the calendar.
- The textbook is *College Algebra*, Version  $\lfloor \pi \rfloor$ , Corrected Edition, by Carl Stitz and Jeff Zeager.
- The plan is to use this textbook and course calendar (possibly tweaked) for AY 2023–2024 and AY 2024–2025.
- This calendar has four midterm examinations and weekly homework assignments, but instructors are free to modify the course assessments both in number and type.
- Each week of the calendar is spread over three rows, making the calendar natural for a MWF class and a bit less natural for a TTh section.
- These calendars were made using automatic date arithmetic in LaT<sub>E</sub>X. There is also a feature that given the course time, it automatically looks up the correct final exam day.
- If you are a LaT<sub>F</sub>X user and would like to modify the class calendar, Barton will try to answer your questions.

Fall 2023

Week	Week of	Sections	Topics	Assessments
1	21 Aug	1.1	Sets of Real Numbers and the Cartesian Coordinate Plane	
		1.2	Relations	
		1.3	Introduction to Functions	HW 1
2	28 Aug	1.4	Function Notation	
		1.5	Function Arithmetic	
		1.6	Graphs of Functions	HW 2
3	4 Sept		No class (Labor Day)	
		1.7	Transformations	
		2.1	Linear Functions	HW 3
4	11 Sept	2.2	Absolute Value Functions	
		1.1—2.2	Exam review or catch up	
			Exam Day (15 Sept)	Exam 1
5	18 Sept	2.3	Quadratic Functions	
		2.4	Inequalities with Absolute Value and Quadratic Functions	
		2.4	Inequalities with Absolute Value and Quadratic Functions	HW 4
6	25 Sept	3.1	Graphs of Polynomials	
		3.2	The Factor Theorem and the Remainder Theorem	
		3.3	Real Zeros of Polynomials	HW 5
7	2 Oct	4.1	Introduction to Rational Functions	
		4.2	Graphs of Rational Functions	
		4.3	Rational Inequalities and Applications	HW 6
8	9 Oct	4.3	Rational Inequalities and Applications	
		2.3—4.3	Exam review or catch up	
			Exam Day (13 Oct)	Exam 2
9	16 Oct		No class (Fall Break)	
		5.1	Function Composition	
		5.2	Inverse Functions	HW 7
10	23 Oct	6.1	Introduction to Exponential and Logarithmic Functions	
		6.1	Introduction to Exponential and Logarithmic Functions	
		6.2	Properties of Logarithms	HW 8
11	30 Oct	6.2	Properties of Logarithms	
		6.3	Exponential Equations and Inequalities	
		6.4	Logarithmic Equations and Inequalities	HW 9
12	6 Nov	5.1—6.4	Exam review or catch up	
			Exam Day (8 Nov)	Exam 3
		6.5	Applications of Exponential and Logarithmic Functions	
13	13 Nov	6.5	Applications of Exponential and Logarithmic Functions	
		8.1	Systems of Linear Equations: Gaussian Elimination	
		8.1	Systems of Linear Equations: Gaussian Elimination	HW 10
14	20 Nov	8.2	Systems of Linear Equations: Augmented Matrices	HW 11
			No class (Thanksgiving)	
			No class (Thanksgiving)	
15	27 Nov	9.1	Sequences	
		6.5—9.1	Exam review or catch up	
			Exam Day (1 Dec)	Exam 4
16	4 Dec	9.2	Summation Notation	
		9.2	Summation Notation	
		1.1—9.2	Final Exam review or catch up	
17	11 Dec		Final Exam Monday 8:00 a.m.—10:00 a.m.	Final Exam

Fall 2024

Week	Week of	Sections	Topics	Assessments
1	26 Aug	1.1	Sets of Real Numbers and the Cartesian Coordinate Plane	
		1.2	Relations	
		1.3	Introduction to Functions	HW 1
2	2 Sept	1.4	Function Notation	
		1.5	Function Arithmetic	
		1.6	Graphs of Functions	HW 2
3	9 Sept		No class (Labor Day)	
		1.7	Transformations	
		2.1	Linear Functions	HW 3
4	16 Sept	2.2	Absolute Value Functions	
		1.1—2.2	Exam review or catch up	
			Exam Day (20 Sept)	Exam 1
5	23 Sept	2.3	Quadratic Functions	
		2.4	Inequalities with Absolute Value and Quadratic Functions	
		2.4	Inequalities with Absolute Value and Quadratic Functions	HW 4
6	30 Sept	3.1	Graphs of Polynomials	
		3.2	The Factor Theorem and the Remainder Theorem	
		3.3	Real Zeros of Polynomials	HW 5
7	7 Oct	4.1	Introduction to Rational Functions	
		4.2	Graphs of Rational Functions	
		4.3	Rational Inequalities and Applications	HW 6
8	14 Oct	4.3	Rational Inequalities and Applications	
		2.3—4.3	Exam review or catch up	
			Exam Day (18 Oct)	Exam 2
9	21 Oct		No class (Fall Break)	
		5.1	Function Composition	
		5.2	Inverse Functions	HW 7
10	28 Oct	6.1	Introduction to Exponential and Logarithmic Functions	
		6.1	Introduction to Exponential and Logarithmic Functions	
		6.2	Properties of Logarithms	HW 8
11	4 Nov	6.2	Properties of Logarithms	
		6.3	Exponential Equations and Inequalities	
		6.4	Logarithmic Equations and Inequalities	HW 9
12	11 Nov	5.1—6.4	Exam review or catch up	
			Exam Day (13 Nov)	Exam 3
		6.5	Applications of Exponential and Logarithmic Functions	
13	18 Nov	6.5	Applications of Exponential and Logarithmic Functions	
		8.1	Systems of Linear Equations: Gaussian Elimination	
		8.1	Systems of Linear Equations: Gaussian Elimination	HW 10
14	25 Nov	8.2	Systems of Linear Equations: Augmented Matrices	HW 11
			No class (Thanksgiving)	
			No class (Thanksgiving)	
15	2 Dec	9.1	Sequences	
		6.5—9.1	Exam review or catch up	
			Exam Day (6 Dec)	Exam 4
16	9 Dec	9.2	Summation Notation	
		9.2	Summation Notation	
		1.1—9.2	Final Exam review or catch up	
17	16 Dec		Final Exam Monday 8:00 a.m.—10:00 a.m.	Final Exam

Spring 2024

Week	Week of	Sections	Topics	Assessments
1	22 Jan	1.1	Sets of Real Numbers and the Cartesian Coordinate Plane	
		1.2	Relations	
		1.3	Introduction to Functions	HW 1
2	29 Jan	1.4	Function Notation	
		1.5	Function Arithmetic	
		1.6	Graphs of Functions	HW 2
3	5 Feb	1.7	Transformations	
		2.1	Linear Functions	
		2.2	Absolute Value Functions	HW 3
4	12 Feb	1.1—2.2	Exam review or catch up	
			Exam Day (14 Feb)	Exam 1
		2.3	Quadratic Functions	
5	19 Feb	2.4	Inequalities with Absolute Value and Quadratic Functions	
		2.4	Inequalities with Absolute Value and Quadratic Functions	
		3.1	Graphs of Polynomials	HW 4
6	26 Feb	3.2	The Factor Theorem and the Remainder Theorem	
		3.3	Real Zeros of Polynomials	
		4.1	Introduction to Rational Functions	HW 5
7	4 Mar	4.2	Graphs of Rational Functions	
		2.3–4.2	Exam review or catch up	
			Exam Day (8 Mar)	Exam 2
8	11 Mar		No class (Spring Break)	
			No class (Spring Break)	
			No class (Spring Break)	
9	18 Mar	4.3	Rational Inequalities and Applications	
		4.3	Rational Inequalities and Applications	
		5.1	Function Composition	HW 6
10	25 Mar	5.1	Function Composition	
		5.2	Inverse Functions	
		6.1	Introduction to Exponential and Logarithmic Functions	HW 7
11	1 Apr	6.1	Introduction to Exponential and Logarithmic Functions	
		6.2	Properties of Logarithms	
		6.2	Properties of Logarithms	HW 8
12	8 Apr	4.3—6.2	Exam review or catch up	_
			Exam Day (10 Apr)	Exam 3
		6.3	Exponential Equations and Inequalities	HW 9
13	15 Apr	6.4	Logarithmic Equations and Inequalities	
		6.5	Applications of Exponential and Logarithmic Functions	
		6.5	Applications of Exponential and Logarithmic Functions	HW 10
14	22 Apr	8.1	Systems of Linear Equations: Gaussian Elimination	
		8.1	Systems of Linear Equations: Gaussian Elimination	*****
		8.2	Systems of Linear Equations: Augmented Matrices	HW 11
15	29 Apr	6.3—8.2	Exam review or catch up	-
		0.1	Exam Day (1 May)	Exam 4
		9.1	Sequences	
16	6 May	9.2	Summation Notation	
		9.2	Summation Notation	
	1035	1.1—9.2	Final Exam review or catch up	
17	13 May		Final Exam Monday 8:00 a.m.—10:00 a.m.	Final Exam

Spring 2025

Week	Week of	Sections	Topics	Assessments
1	21 Jan	1.1	Sets of Real Numbers and the Cartesian Coordinate Plane	
		1.2	Relations	
		1.3	Introduction to Functions	HW 1
2	28 Jan	1.4	Function Notation	
		1.5	Function Arithmetic	
		1.6	Graphs of Functions	HW 2
3	4 Feb	1.7	Transformations	
		2.1	Linear Functions	
		2.2	Absolute Value Functions	HW 3
4	11 Feb	1.1—2.2	Exam review or catch up	
			Exam Day (13 Feb)	Exam 1
		2.3	Quadratic Functions	
5	18 Feb	2.4	Inequalities with Absolute Value and Quadratic Functions	
		2.4	Inequalities with Absolute Value and Quadratic Functions	
		3.1	Graphs of Polynomials	HW 4
6	25 Feb	3.2	The Factor Theorem and the Remainder Theorem	
		3.3	Real Zeros of Polynomials	
		4.1	Introduction to Rational Functions	HW 5
7	4 Mar	4.2	Graphs of Rational Functions	
		2.3-4.2	Exam review or catch up	
			Exam Day (8 Mar)	Exam 2
8	11 Mar		No class (Spring Break)	
			No class (Spring Break)	
			No class (Spring Break)	
9	18 Mar	4.3	Rational Inequalities and Applications	
		4.3	Rational Inequalities and Applications	
		5.1	Function Composition	HW 6
10	25 Mar	5.1	Function Composition	
		5.2	Inverse Functions	
		6.1	Introduction to Exponential and Logarithmic Functions	HW 7
11	1 Apr	6.1	Introduction to Exponential and Logarithmic Functions	
		6.2	Properties of Logarithms	
		6.2	Properties of Logarithms	HW 8
12	8 Apr	4.3—6.2	Exam review or catch up	
			Exam Day (10 Apr)	Exam 3
		6.3	Exponential Equations and Inequalities	HW 9
13	15 Apr	6.4	Logarithmic Equations and Inequalities	
		6.5	Applications of Exponential and Logarithmic Functions	
		6.5	Applications of Exponential and Logarithmic Functions	HW 10
14	22 Apr	8.1	Systems of Linear Equations: Gaussian Elimination	
		8.1	Systems of Linear Equations: Gaussian Elimination	
		8.2	Systems of Linear Equations: Augmented Matrices	HW 11
15	29 Apr	6.3—8.2	Exam review or catch up	
			Exam Day (1 May)	Exam 4
		9.1	Sequences	
16	6 May	9.2	Summation Notation	
		9.2	Summation Notation	
		1.1—9.2	Final Exam review or catch up	
17	13 May		Final Exam Monday 8:00 a.m.—10:00 a.m.	Final Exam