

**Information for Online Homework Math10550 Fall 2023** (hyperlinks are in blue)

Homework will be assigned and collected electronically through Webassign.

- To enroll in your course, choose the correct class key from the list below and follow the instructions on the following link;

<https://startstrong.cengage.com/webassign-not-integrated-ia-yes/>.

Please use your name as listed in your class and your Notre Dame e-mail for registration. You can check the name of your instructor and your section number in Canvas or on our website.

Instructor	Section Number	Class Key
Han Lu	01	nd 2729 8660
Yufei Zhang	02	nd 3093 7700
Jiahong Wu	03	nd 9576 7269
Eric Riedl	04	nd 5138 2860
Phillip Marmarino	05	nd 5436 2037
Kathryn Mulholland	06	nd 9977 3745
Lorenzo Riva	07	nd 9859 6728
Annette Pilkington	08	nd 7970 1859

If you switch sections at some point in the future, take a screen shot of your homework scores to date before you switch, then send an e-mail to Pilkington.4@nd.edu with the screenshot, details of the section you are switching from, and the one you are switching to.

You have about 10 days after Aug. 22 to purchase an access code and enter it in the system before it terminates your access(see below).

Your tutors will walk you through the process in the first tutorial, **If you need further help** for technical problems regarding online homework, please attend the Cengage Office hours listed on our help page on our website.

**Purchasing Book/Homework Access** For this class, I ask that you purchase the **Cengage Unlimited \$124.99** (4 month option) option. This option will allow access to online homework and e-book for all three semesters (Calc 1-3). It will also allow access a precalculus book for review and all cengage materials for this semester. If you are purchasing Cengage Unlimited for another class, you do not need to purchase it for this class. For more details click on this link: <https://www.webassign.com/instructors/purchasing/cengage-unlimited/>. Be sure to read the [Book/Access Code Information](#) on our website before purchasing a book or access code.

**Getting Started** Your course home page may not become visible until after midnight on your day of purchase. To expedite visibility, you should clear the cache of your browser. When you are able to view your Home Page, which will give you a list of Current assignments, in particular, you can start work on your homework. Instructions on getting started are given on the Cengage website under the link <https://help.cengage.com/student/webassign/index.html>.

Your Home Page also offers a link to the e-book with various media files attached.

**Homework Policy:** The homework for each class is available at 2am on the day of the class prior to the one in which the relevant material is scheduled to be covered. **It is due at the end of the next class day (in fact 2a.m. the following morning)**. A complete list of due dates is attached.

Late Homework will not be accepted. In the case of extenuating circumstances, you should consult your instructor. A prearranged trip off campus, for any event will not be considered as extenuating circumstances. Your Homework will count for 50 points out of a total of 600 points for the course, approximately 8.3% of your final grade.

**Extras:** In addition to homework assignments, there are two assignments which are not for credit (see the attached homework schedule).

- The “Entering math answers in WebAssign” assignment should be completed by all students who have not used WebAssign before.
- “Practice Exam 1” will appear in webassign before exam 1. The other practice exams have not yet been added to the system.

Your assignments classified as **Homework** are labelled by section number and topic. These homeworks will be used to calculate your final grades and will contribute to your scores in the gradebook. At the end of the semester, the lowest three homework scores will be dropped.

**Homeworks may contain a few review questions from the relevant precalculus topics and some old exam questions.** To access the relevant section of the book for the precalculus questions, click on **read it**. Please review the solutions to the old exam questions after the due date and try to develop your skills in presenting your answer in writing using logical steps and reasoning. This is an important skill for problem solving and will be tested in the partial credit portion of your exams. It is important to develop this skill for future courses, research requiring problem solving and especially for writing up future research.

For each homework question part (except multiple choice), you are allowed 5 submissions for the answer. You can submit question parts individually. When you wish to make a submission, click **Submit Answers**. You do not need to complete your homework or a question in one sitting. You may click **Save Work** if you wish to return to your work later.

The first chart below shows the proper syntax for entering answers and the next chart shows the most common errors when entering answers. There is also a menu called “Calcpad” available when working on a problem which can be opened and used to help you enter your answers.

WebAssign Symbolic Formatting

This question requires that you enter your response in symbolic format.

To do this, type your answer into the answer box using standard calculator notation. You will be given credit for any formula that is evaluated to be equivalent to the answer formula.

For example,  $4x+12$  would be equivalent to  $(x+3)^4$ .

Use pi to represent the symbol  $\pi$ , 3.14 is a numerical approximation of the symbol  $\pi$  and these are not equivalent.

Do not worry about italics. For example, if a variable  $g$  is used in the question, just type  $g$ .

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Available operators	Example	Available operators	Example
+ for addition	$x+1$	sin, cos, tan, sec, csc, cot, asin, acos, atan functions (angle x expressed in radians)	$\sin(2*x)$
- for subtraction or the negative sign	$x-1$ , or $-x$	sqrt() for square root of a number	$\sqrt{x/5}$
* for multiplication	$4*x$	pi for 3.14159...	$2*\pi*x$
/ for division	$x/4$	e for scientific notation	$1e3 = 1000$
** or ^ for exponential	$x**3$ or $x^3$	ln() for natural log	$\ln(x)$
( ) where necessary to group terms	$4/(x+1)$ , or $3*(x+1)$	exp() for "e to the power of"	$\exp(x) = e^x$
abs() to take the absolute value of a variable or expression.	$\text{abs}(-5) = 5$		

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Question Mode	Problem	Incorrect Notation	Correct Notation
Any	Incorrect grouping operator.	$4\{x+3\}$	$4(x+3)$
Any	Missing operand.	$50^*$	$50*3$
Any	Too many consecutive operators.	$x++++2$	$x+2$
Any	Unrecognized symbol.	$\$4.00$ $4\&6$	$4.00$ $4+6$
Numerical	Misspelled unit.	$3456 \text{ met/sec}$	$3456 \text{ m/s}$
Numerical	Response cannot contain variables.	$2*x+3$	$2*10+3$
Numerical	Response cannot use implicit multiplication.	$3(14)$	$3*14$
Symbolic or Algebraic	Comma in number.	$5,000$	$5000$

**HELP** : The [MATH Help Room](#) is located in the basement of Hayes-Healy. The hours are listed on the help page (the above link). The help room is staffed by graduate tutors (including your tutors for the tutorials for 10550) and you can walk in and get help on homework, old exam questions or difficulties understanding the material at any of the times listed.

Help is also available in the form of **instructor office hours and from First Year of Studies**. More details on help available appear in the [Help Available](#) section on our website. Your instructor will also let you know their office hours as soon as they have sorted out their schedule.

Webassign offers technical support and tutoring facilities. For **technical support**, click on the students support button at the upper right hand corner of the Webassign home page.

For **homework help** the Enhanced Webassign system gives a number of help options with each question.

- **Read it** : Brings you to the relevant section of the book.(This will bring you to the relevant section of the precalculus book for review questions on precalculus).
- **Watch it** : Shows a video tutorial where someone works through a similar question.
- **Master it** : Helps you through a similar question in steps outlining the ideas involves in each step.
- **Chat about it** : Offers help through live online tutorials.

### Homework Schedule Math 10550 Fall 2023

Note all deadlines are at 2:00 A.M., meaning that homework due on thurs. at 2:00 a.m. is essentially due on wed. night with a two hour extension.

Class Date	Topic covered in class	HW Appears	HW Due
	Entering Math Answers in Webassign (not for credit)	Tue. 08/22	Thurs. 08/28 2:00 a.m.
08/23 W	1.1-1.3. Review of Functions	Tue. 08/22	Mon. 08/28 2:00 a.m.
08/25 F	1.4. Ave., Tangent and Velocity	Wed. 08/23	Tue. 08/29 2:00 a.m.
08/28 Mon.	1.5. Limit of a Function	Fri. 08/25	Thurs. 08/31 2:00 a.m.
08/30 Wed.	1.6. Calculating limits using the limit laws	Mon. 08/28	Mon. 09/04 2:00 a.m.
09/01 Fri.	1.8. Continuity	Wed. 08/30	Tue. 09/05 2:00 a.m.
09/04 Mon.	2.1. Derivatives and rates of change	Fri. 09/01	Thurs. 09/07 2:00 a.m.
09/06 Wed.	2.2. The derivative as a function	Mon. 09/04	Mon. 09/11 2:00 a.m.
09/08 Fri.	2.3. Differentiation formulas	Wed. 09/06	Tue. 09/12 2:00 a.m.
09/11 Mon.	2.4. Derivatives of trigonometric functions	Fri. 09/08	Thurs. 09/14 2:00 a.m.
09/13 Wed.	2.5. The Chain Rule	Mon. 09/11	Mon. 09/18 2:00 a.m.
	Prac. Ex 1(not for credit)	Thurs. 09/15	Mon. 09/19 2:00 a.m.
09/15 Fri.	2.6. Implicit differentiation	Wed. 09/13	Thurs. 09/21 2:00 a.m.
09/18 Mon.	Review for Exam 1		
09/20 Wed.	Return of Exam 1		
09/22 Fri.	2.7. Rate of change in the natural and social sciences	Wed. 09/20	Tue. 09/26 2:00 a.m.
09/25 Mon.	2.8. Related Rates	Fri. 09/22	Thurs. 09/28 2:00 a.m.
09/27 Wed.	2.9. Linear approximation and differentials	Mon. 09/25	Mon. 10/02 2:00 a.m.
09/29 Fri.	3.1. Maximum and minimum values	Wed. 09/27	Tue. 10/03 2:00 a.m.
10/02 Mon.	3.2. The Mean Value Theorem	Fri. 09/29	Thurs. 10/05 2:00 a.m.
10/04-06 W/F	3.3. How derivatives affect the shape of a graph	Mon. 10/02	Tue. 10/10 2:00 a.m.
10/09 Mon.	3.4. Limits at infinity; horizontal asymptotes	Fri. 10/06	Fri. 10/13 2:00 a.m.
10/11 Wed.	Review for Exam 2		
10/13 Fri.	Return of Exam 2		
	<b>Fall Break</b>		
10/23 Mon.	3.5. Summary of curve sketching	Fri. 10/13	Thurs. 10/26 2:00 a.m.
10/25 Wed.	3.7. Optimization problems	Mon. 10/23	Mon. 10/30 2:00 a.m.
10/27 Fri.	3.8. Newton's Method	Wed. 10/25	Tue. 10/31 2:00 a.m.
10/30 Mon.	3.9. Antiderivatives	Fri. 10/27	Thurs. 11/02 2:00 a.m.
11/01 Wed.	4.1. Areas and distances	Mon. 10/30	Mon. 11/06 2:00 a.m.
11/03 Fri.	4.2. The definite integral	Wed. 11/01	Tue. 11/07 2:00 a.m.
11/06 Mon.	4.3. The Fundamental Theorem of Calculus	Fri. 11/03	Thurs. 11/09 2:00 a.m.
11/08 Wed.	4.4. Indefinite integrals and the Net Change Theorem	Mon. 11/06	Mon. 11/13 2:00 a.m.
11/10 Fri.	4.5. The Substitution Rule	Wed. 11/08	Tue. 11/14 2:00 a.m.
11/13 Mon.	5.1. Area between curves	Fri. 11/10	Fri. 11/17 2:00 a.m.
11/15 Wed.	Review for Exam 3		
11/17 Fri.	Return of Exam 3		
11/20 Mon.	5.2. Volumes	Fri. 11/17	Mon. 11/27 2:00 a.m.
11/22-24 W/F	<b>Thanksgiving Break</b>		
11/27 Mon.	5.3. Volumes by cylindrical shells	Fri. 11/24	Thurs. 11/30 2:00 a.m.
11/29 Wed.	5.4. Work	Mon. 11/27	Mon. 12/04 2:00 a.m.
12/01 Fri.	5.5. Average value of a function	Wed. 11/29	Tue. 12/05 2:00 a.m.
12/09-11 M/W.	Review for Final		