

MATH 1813: Preparation for Calculus Fall 2018	
Instructor:	Ali Pirhadi
Office:	MSCS 518
Office hours:	T 2:10-3:50 p.m. R 2:30-3:20 p.m. at the MLSC (5 th floor OSU Library); All office hours are in MSCS 518, unless otherwise indicated. Other times are available by appointment; please arrange by email.
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Course Description

A conceptual approach to the algebra and trigonometry needed for calculus. Topics covered include:

- Trigonometry from the perspective of the unit circle and right triangles, behavior of trigonometric functions, and basic identities
- Functions arising in calculus and the notion of an inverse function, especially in the context of trigonometric, logarithmic, and exponential functions
- Rates of change and the limiting process

Combined credit toward a degree for MATH 1513, MATH 1613, and MATH 1813 is limited to six hours. May not be used for degree credit with MATH 1715.

Prerequisite(s)

MATH 1513 with grade of “C” or better, or an acceptable placement score (see mathplacement.okstate.edu).

Required Material

- **Lecture notes:** These are available in the online classroom (Brightspace). Go to: online.okstate.edu and log in using your O-Key username and password. Find this course, then go to the “Contents” tab.
- **A scientific or graphing calculator is required (TI-83 or TI-84 recommended).** The OSU Mathematics Department (located in 401 MSCS) has a limited number of TI-83 and TI-84 calculators for students to use during the semester on a first-come, first-served basis. *The following calculators are NOT allowed: cell phones, laptops, tablets, smart watches, calculators with computer algebra systems or internet capabilities. Prohibited calculators include: TI-89, TI- 92, and all models of TI-Nspire.*

Online Homework (WileyPlus)

Online homework assignments are due in WileyPlus at 11:59 p.m. on the dates indicated in the course schedule. Each problem may be submitted up to 4 times. *After* the 2nd attempt, a 10% penalty will be imposed. At the end of the semester, the total of all WileyPlus homework points will be *scaled* to **100 points** (your *percentage correct* × 100). The maximum number of points that can be earned for the semester is 100 points. Please **keep a copy of your written work** for each problem.

Late online homework is accepted with a 25% reduction for the first *four days* after the deadline. After four days, there will be a 50% penalty for all late homework submitted until **Monday, Dec. 10, 2018, 11:59 p.m.**

You should sign up for WileyPlus right away using the same first/last names listed on your official OSU enrollment. Go to www.wileyplus.com and find your class section to register. Your bursar account will be billed \$79.25 at the end of the second week of classes. Please do NOT opt out of the automatic billing. For technical support, go to: www.wileyplus.com/support.

Textbook

It is NOT necessary to purchase a paper copy of the textbook since an e-book will be available in WileyPlus. There are loose-leaf copies available for students who wish to purchase one. The textbook is: *Functions Modeling Change: A Preparation for Calculus*, 5th edition, by Connally, Hughes-Hallett, Gleason, et al.

Group Work

Group work will be worth 10 points each. The two lowest scores from this grade category will be dropped at the end of the semester and the total will be **scaled to 100 points** (your percentage \times 100). There is **no make-up** on group work and *they are not announced in advance*.

Group work policies:

- Group members **must be present for the entire class period**, must **participate equally**, and **may not split the work**.
- Groups are flexible, but should consist of **two people**; no one-member groups
- Groups **may use their own notes**, but **may not work with other groups**
- Groups **may ask the instructor for guidance**, but should not expect a full explanation.
- Groups must **show work** on every problem.
- Groups must **submit only one paper**.
- **Calculators are allowed**, but no other electronic devices (cell phones, laptops, etc.).
- **Academic dishonesty** may be subject to sanctions according to university policy.

Written Homework

Hand-written homework assignments will each be worth an equal number of points. The ONE lowest score will be dropped at the end of the semester, then the total will be **scaled to 100 points** (your percentage \times 100).

Written homework will be turned in at the beginning of class on the day the assignment is due. You **must show work** on every problem. *It is a violation of academic integrity to turn in work that is exactly the same as, or very similar to, the work of another student, tutor, or website. Academic integrity violations may be subject to sanctions according to university policy. Late homework will not be accepted.*

Exams

All exams for this section of the course will be held in **AGH 108**. Exams are “common,” meaning that all sections of MATH 1813 will take exams on the same dates and at the same times. The exam dates and times are:

Exam 1: Wednesday, Sep. 19, 5:30-6:30 p.m.	Exam 2: Wednesday, Oct. 17, 5:30-6:30 p.m.
Exam 3: Wednesday, Nov. 14, 5:30-6:30 p.m.	Final Exam: Monday, Dec. 10, 4:00-5:50 p.m.

One calculator and one 3 inch by 5 inch hand-written, double-sided notecard will be allowed on each exam.

Make-Up Exams

Make-up exams will be given only in extreme circumstances, **if documentation for the absence can be provided and is verifiable**. Valid reasons for make-up exams include:

- University activities (e.g. field trips, research presentations, athletic teams, etc.)
- Military obligation, jury duty or other mandatory court appearance
- Serious illness or injury in student or immediate family (parent, sibling, spouse, son, daughter)

If you believe you need to take a make-up exam, contact the course coordinator (Lee Ann Brown, brownl@okstate.edu) to request a makeup exam. You should contact her **at least 3 days in advance of the exam**, if possible, to ask for permission to take a makeup exam. In circumstances where notification cannot be given prior to the exam, **arrangements must be made within 24 hours of the missed exam**. All makeup exams require documentation *before* the makeup exam will be given. The makeup exam must be taken as soon as possible after the missed exam, but no more than **one week** after the scheduled exam.

Exam Replacement Opportunity

You are allowed to replace ONE of the first three exam scores with your *percentage* score on the final exam, *after* a 20-point deduction. For instance, if your first three exam scores are 85, 78, and 63, and your final exam score is 160 out of 200 (or 80%), then you can replace the third exam score (63) with a score of 70 (calculated as follows: $160 - 20 = 140$; $140/200 = 70\%$). If this calculation results in a score *lower* than your lowest score on the first three exams, then there will be no exam replacement. The final exam is mandatory and no other exam scores may be used to replace it.

Course Evaluation

Course grades will be determined according to the following distribution.

Grade Item	Points Available	Percent of Total Grade
WileyPlus Homework (scaled)	100 points	12.5%
Group Work (scaled)	100 points	12.5%
Written Homework (scaled)	100 points	12.5%
Exams	500 points	62.5%
Total	800 points	100 %

Letter grades will be assigned according to the following scale.

Grade	Points
A: 90% or higher	720-800 pts.
B: 80-89.9%	640-719 pts.
C: 70-79.9%	560-639 pts.
D: 60-69.9%	480-559 pts.
F: 59.9% or lower	0-479 pts.

MLSC (Math Learning Success Center)

There is free tutoring available in the Math Learning Success Center (MLSC), located on the *fifth floor of the OSU Library*. Visit the MLSC website for hours: <https://mlscokstate.com/>

Attendance, Courtesy, and Electronics Usage

Common courtesy is expected. Here are a few things to remember:

- Be **on time** and be **attentive, remain in the room** the entire time (unless you are ill), and show courtesy to other students by allowing them to hear the instructor.
- **Only one calculator** may be used on quizzes, exams, or other assignments. Calculators must be approved (see graphing calculator requirements). **No other electronic devices** (cell phones, laptops, tablets) are allowed. Use of more than one calculator, or use of another

electronic device, will be considered an act of academic dishonesty/misconduct and may result in a grade of 0 on the exam/quiz, or a grade of F for the course.

- **Please do not use a cell phone** or other electronic device during class time.
- **No cell phone pictures** are allowed to be taken during class time.

Incomplete Grade

Please refer to: <https://registrar.okstate.edu/FAQ-Incomplete-Grade-Students>

Academic Integrity: <http://academicintegrity.okstate.edu>

OSU is committed to maintaining the highest standards of integrity and ethical conduct. This level of ethical behavior and integrity will be maintained in this course. Participating in a behavior that violates academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and altering academic records) will result in an official academic sanction. Violations may subject you to disciplinary action including the following: receiving a failing grade on an assignment, examination or course, receiving a notation of a violation of academic integrity on your transcript, and being suspended from the University. You have the right to appeal the charge.

Office of Student Disability Services (SDS): <http://sds.okstate.edu/>

According to the Americans with Disabilities Act, each student with a disability is responsible for notifying the University of his/her disability and requesting accommodations. If you think you have a qualified disability and need special accommodations, you should notify the instructor and request verification of eligibility for accommodations from the Office of SDS. **Please advise the instructor of your disability as soon as possible**, and contact Student Disability Services, to ensure timely implementation of appropriate accommodations. Faculty has an obligation to respond when they receive official notice of a disability but are under no obligation to provide retroactive accommodations. To receive services, you must submit appropriate documentation and complete an intake process to verify the existence of a qualified disability and identify reasonable accommodations. SDS phone: 405-744-7116.

Syllabus Attachment: See: <http://academicaffairs.okstate.edu> and choose Faculty and Staff Resources, then the Syllabus attachment.

Final Note: Any changes in this syllabus will be communicated to you in class by the instructor.

TR Class Schedule (subject to change), MATH 1813, Fall 2018

***WileyPlus Homework is due at 11:59 P.M.; 25% reduction if less than 4 days late; 50% reduction after 4 days, until 12-10-18**

Wk	Monday	Tuesday	Wednesday	Thursday	Friday
1	Aug. 20	Aug. 21	Aug. 22	Aug. 23	Aug. 24
		Syllabus, Intro 1.1 Functions		1.2 Rate of Change	
2	Aug. 27	Aug. 28	Aug. 29	Aug. 30	Aug. 31
	<i>Nonrestrictive drop/add deadline</i>	1.3/1.4 Linear Functions 2.1/2.2 Domain & Range	*1.1 due	2.1/2.2, 2.3 Piecewise-Functions	*1.2 due <i>Restrictive drop/add deadline</i>
3	Sep. 3	Sep. 4	Sep. 5	Sep. 6	Sep. 7
	Labor Day—No classes	2.4/2.5 Shifts, Comp, Inv 2.6 Concavity	*1.3/1.4 due	2.6, 3.1 Quadratics	*2.1/2.2 due
4	Sep. 10	Sep. 11	Sep. 12	Sep. 13	Sep. 14
	*2.3 due	3.2 Parabolas	*2.4/2.5 due	3.2, Review	*2.6 due
5	Sep. 17	Sep. 18	Sep. 19	Sep. 20	Sep. 21
	*3.1 due	Review, 4.1 Exponentials *3.2 due	Exam 1 5:30-6:30 pm	4.2 Linear vs. Exponential	
6	Sep. 24	Sep. 25	Sep. 26	Sep. 27	Sep. 28
	*4.1 due	4.3 Exponential Graphs 4.4/4.5 The Number e	*4.2 due	4.4/4.5, 5.1 Logarithms	*4.3 due
7	Oct. 1	Oct. 2	Oct. 3	Oct. 4	Oct. 5
	*4.4/4.5 due	5.2 Logs & Exponentials 5.3 Log Graphs	*5.1 due <i>Six-week grades due at noon</i>	5.3, 6.1 Shifts, Reflections	*5.2 due
8	Oct. 8	Oct. 9	Oct. 10	Oct. 11	Oct. 12
	*5.3 due	6.2/6.3 Stretches/Shrinks	*6.1 due	7.1 Periodicity Review	*6.2/6.3 due
9	Oct. 15	Oct. 16	Oct. 17	Oct. 18	Oct. 19
	*7.1 due	Review 7.2 Sine and Cosine	Exam 2 5:30-6:30 pm	7.3 Radians & Arc Length	FALL BREAK—No classes

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TR Schedule

10	Oct. 22 *7.2 due	Oct. 23 7.4 Sine, Cosine Graphs	Oct. 24 *7.3 due	Oct. 25 7.5 Sinusoidal Functions	Oct. 26 *7.4 due
11	Oct. 29 *7.5 due	Oct. 30 7.6 Tangent 7.7 Identities	Oct. 31 *7.6 due	Nov. 1 7.7, 7.8 Trig Inverses	Nov. 2 *7.7 due
12	Nov. 5 *7.8 due	Nov. 6 8.1 Right Triangle Trig	Nov. 7	Nov. 8 9.1 Equations Review	Nov. 9 <i>W drop/withdraw deadline</i> *8.1 due
13	Nov. 12 *9.1 due	Nov. 13 Review 10.1 Compositions	Nov. 14 Exam 3 5:30-6:30 pm	Nov. 15 10.2 Inverses 10.3 Combining Functions	Nov. 16 *10.1 due
14	Nov. 19 *10.2 due	Nov. 20 10.3, 11.1 Power Functions	Nov. 21 Thanksgiving Break— No classes	Nov. 22 Thanksgiving Break— No classes	Nov. 23 Thanksgiving Break— No classes
15	Nov. 26 *10.3 due	Nov. 27 11.2 Polynomials 11.3 Short-Run Polyn	Nov. 28 *11.1 due	Nov. 29 11.3, 11.4 Rational Functions	Nov. 30 *11.2 due <i>W/F withdraw deadline</i>
16	Dec. 3 *11.3 due	Dec. 4 11.5 Short-Run Rational Review	Dec. 5 *11.4 due	Dec. 6 Review	Dec. 7 *11.5 due
17	Dec. 10 Final Exam: Monday, Dec. 10, 4:00-5:50 p.m.	Dec. 11	Dec. 12	Dec. 13	Dec. 14

CALCULATOR CHECKOUT FALL 2018



WHEN:

August 20 - December 7, 2018

MONDAY - FRIDAY

8:00AM - 5:00PM

WHERE:

MATHEMATICS DEPARTMENT

401 MSCS

**MUST BE ENROLLED IN ONE OF THE FOLLOWING
COURSES:**

MATH • STAT • NOC-MATH • NOC-STAT

PLEASE BRING YOUR STUDENT ID.