

Lectures

Mark Schumaker MWF 9:10-10:00 Todd 276
 email: schumaker@wsu.edu
 Office: Neill 209 (509) 335-7273
 Office Hours: MWF 10:30am—11:30am or by appointment.

Sergey Lapin MWF 1:10-2:00 CUE 203
 email: slapin@wsu.edu
 Office: Neill 327 (509) 335-3141
 Office Hours: MWF 10am—11am or by appointment.

Tutorial Sections

Section	TA	Time	Room	Email
2-1975	Ryan Christopherson	TU 9.10-10.25	CUE 209	ryan.christopherson@wsu.edu
	Ryan Christopherson	TH 9.10-10.25	NEIL 101W	
3-1976	Trong Huynh	W 14.10-15.25	CUE 207	trong.h.huynh@wsu.edu
	Trong Huynh	F 14.10-15.25	NEIL 101W	
4-1977	Harrison Conner	W 12.45-14	TODD 226	harrison.conner@wsu.edu
	Harrison Conner	F 12.45-14	NEIL 101W	
5-1978	Kacie Salmon	W 15.45-17	CUE 207	kacie.salmon@wsu.edu
	Kacie Salmon	F 15.45-17	NEIL 101W	
6-5663	Serena Peterson	TU 13:25-14:40	CUE 207	serena.peterson@wsu.edu
	Serena Peterson	TH 13:25-14:40	NEIL 101W	
7-1979	Ryan Whitehead	TU 10:35-11:50	CUE 209	ryan.j.whitehead@wsu.edu
	Ryan Whitehead	TH 10:35:11:50	NEIL 101W	
8-1980	Mostafa Rezapour	TU 12-13:15	CUE 207	mrezapour@math.wsu.edu
	Mostafa Rezapour	TH 12:13:15	NEIL 101W	

Prerequisites: Math 171 (or its equivalent) with a C or better.

Text: *Calculus: Early Transcendentals 2nd Edition*, by Briggs, Cochran, and Gillett, ISBN 0321947347. You also need to have or purchase access to the MyMathLab homework system (discussed below). At our campus bookstores, there should be an option to purchase access to MyMathLab bundled with either the e-text alone or including a hard-copy text. You can also buy access to the electronic text and MyMathLab via the course blackboard site. Either option will suffice for this course.

Course topics: will include (from chapters 6-11) applications of integration, integration techniques, sequences and infinite series, convergence tests, power series, parametric and polar curves, and vectors (two- and three-dimensional), dot products, cross products, and lines and curves in space.

Exams: The three midterm exams are scheduled for Tuesday, Sept. 11, from 6:00-7:00pm, Tuesday, Oct. 9, from 6:00 to 7:00 pm and Tuesday, Nov. 6, from 6:00-7:00pm. Exam rooms TBA. The final exam is Tuesday, Dec. 11, from 7:00-10:00 pm, rooms TBA. The final can NOT be taken early. All four exams are closed book, no calculator. You must contact your lecturer if an emergency situation arises. **Bring photo ID to each exam.**

Grading

MyMathLab* Homeworks (28 @ 5 pts each)	140 pts
Written Assignments (best 10 @ 5 pts each)	50 pts
Quizzes (best 5 @ 8 pts each)	40 pts
Labs (5 at 10 pts each)	50 pts
Attendance (via Learning Catalytics**)	30 pts
3 midterm exams (100 pts each)	300 pts
Final Exam	150 pts
Total	760 pts

*MyMathLab is an on-line homework system that is designed for our text book. You must purchase access to MyMathLab in order to use it. MyMathLab will give you instant feedback and unbiased grading on your homework.

**Learning Catalytics is an in-lecture response system accessible through MyMathLab or through learningcatalytics.com. Any smart device that can access the web via WiFi, such as a laptop or a smartphone, is sufficient in order to use Learning Catalytics.

Your TA will keep and manage your grades. You should assume that a standard 60-70-80-90 grading scale will be used for the course.

Final Grades. These will be determined based the total number of points earned in the class. We guarantee that 93% of the possible points or better receives an A; 90% or better receives at least A-; 87% or better at receives at least B+; 83% or better receives at least B; 80% or better receives at least B-; 77% or better receives at least C+; 73% or better receives at least C; 70% or better receives at least C-; 67% or better receives at least D+; 60% or better receives at least D.

Passing Grades	Letter	Points	Grades Requiring a Course Repeat	Letter	Points
93.0%-100%	A	707-760	70%-72.9%	C-	532-554
90%-92.9%	A-	684-706	67%-69.9%	D+	509-531
87%-89.9%	B+	661-683	60%-66.9%	D	456-508
83%-86.9%	B	631-660	0%-59.9%	F	0-455
80%-82.9%	B-	608-630			
77%-79.9%	C+	585-607			
73%-76.9%	C	555-584			

Homework: The online MyMathLab (MML) homework will be “due” most Mondays and Thursdays. See the schedule of due dates on page 6. These due dates are strongly recommended in order to keep up with course material, however you will be allowed to complete your MML homework up through Friday of final exam week without penalty.

To enroll in MyMathLab, log onto our Blackboard website (this uses your MyWSU credentials). Instructions for accessing the online homework will be given on the first day of lecture and posted on the course websites (given above).

Labs and Activities: You will be doing Activities or Labs during the second tutorial of the week. Activities introduce or review topics that may be covered on exams. Labs are graded projects; there will be five during the semester. These will be written up neatly and turned in at the end of the tutorial. See the schedule on page 5.

Quizzes: You will be given a graded quiz during the second section of the week when you are also scheduled to do an Activity (and not a graded Lab).

Course Objectives and Learning Outcomes: Students who successfully complete the course will:

- Have a broader understanding of mathematics that is used in engineering, physical sciences and other quantitative disciplines, gaining new skills that will be of value for careers in those areas.
- Have an increased ability to understand and evaluate information that is presented in mathematical formats, such as formulas and graphs.
- Have many opportunities to explore applications of calculus, especially as related to integration and power series.
- Have an increased ability to convert problems described by words into quantitative formats.
- Be able to clearly communicate reasoning and findings.

Expectation of Student Effort: In addition to attending lecture and lab sections, the online homework will require several hours of independent effort per hour of lecture. For a 4-credit course, a standard expectation is that you will work at least 12 hours per week (4 hours per lecture) on homework.

Academic Integrity: Academic integrity is the cornerstone of higher education. As such, all members of the university community share responsibility for maintaining and promoting the principles of integrity in all activities, including academic integrity and honest scholarship. Academic integrity will be strongly enforced in this course. Students who violate WSU's Academic Integrity Policy (identified in Washington Administrative Code (WAC) 504-26-010(3) and -404) will receive a zero grade on the assignment or exam in question, will not have the option to withdraw from the course pending an appeal, and will be reported to the Office of Student Conduct. Cheating includes, but is not limited to, plagiarism and unauthorized collaboration as defined in the Standards of Conduct for Students, WAC 504-26-010(3). You need to read and understand all of the definitions of cheating:

<http://app.leg.wa.gov/WAC/default.aspx?cite=504-26-010>. If you have any questions about what is and is not allowed in this course, you should ask course instructors before proceeding. If you wish to appeal a faculty member's decision relating to academic integrity, please use the form available at <http://conduct.wsu.edu>.

Students with Disabilities: Reasonable accommodations are available for students with a documented disability. If you have a disability and may need accommodations to fully participate in this class, please visit the Access Center. All accommodations MUST be approved through the Access Center (Washington Bldg, Room 217). Please stop by or call 509-335-3417 to make an appointment with an Access Advisor.

WSU Classroom Safety: Classroom and campus safety are of paramount importance at Washington State University and are the shared responsibility of the entire campus population. WSU urges students to follow the "Alert, Assess, Act," protocol for all types of emergencies and the "Run, Hide, Fight" response for an active shooter incident. Remain ALERT (through direct observation or emergency notification), ASSESS your specific situation, and ACT in the most appropriate way to assure your own safety (and the safety of others if you are able). Please sign up for emergency alerts on your account at MyWSU. For more information on this subject, campus safety, and related topics, please view the FBI's Run, Hide, Fight video and visit the WSU safety portal. Find links at: <https://faculty.wsu.edu/classroom-safety/>.

Some Advice: Attend lectures and tutorials regularly. Always show work and/or explanation, unless you're told that you don't have to. Take advantage of office hours, and **do not** get behind. **Do not** plan to leave town before the final exam. University regulations prohibit us from giving you the exam early.

GETTING HELP: Why struggle? Successful students make use of available resources, so don't struggle when help is just a few steps away! We want you to succeed, we're here for you, and we have FREE tutoring available in the Math Learning Center (Cleveland 130) and the computing lab in Thompson Hall (Room 1). Check it out! Tutoring begins on August XX. For further information on the Math Learning Center and computing lab please go to: <http://www.math.wsu.edu/studyhalls/welcome.php>

Tentative Schedule of Lectures and Activities/Labs for Math 172 (Fall 2018)

Week (date of Sunday)	Monday	Tuesday First Tutorial (Tu or W)	Wednesday	Thursday Second Tutorial (Th or F)	Friday
1 Aug 19	Administration / Review Integration	WA* on prerequisites	Regions between curves (6.2)	Quiz on prerequisites	Volumes by slicing (6.3)
2 Aug 26	More on slicing	WA 1	Volumes by shells (6.4)	LAB: Work	Arc length (6.5)
3 Sep 2	Labor Day	WA 2	Exponentials and logs (6.8)	Practice with Logs and Exponentials	Hyperbolic functions (6.10)
4 Sep 9	Review for exam 1	Exam 1 6:00-7:00pm	Integration by parts (7.2)	LAB: Numerical Integration	Integration by parts (7.2)
5 Sep 16	Trigonometric Integrals (7.3)	WA 3	Trig. Substitution (7.4)	Differential Equations	Trig substitution (7.4)
6 Sep 23	Partial fractions (7.5)	WA 4	Improper integrals (7.8)	Practice with integrals	Improper integrals (7.8)
7 Sep 30	Intro to sequences and series	WA 5	Monotone sequences (8.2)	LAB: series & sequences	Geometric sums and series (8.3)
8 Oct 7	Review for exam 2	Exam 2 6:00-7:00pm	Divergence and Integral Tests (8.4)	Telescoping & Geom. Series	Properties of Conv. Series (8.4)
9 Oct 14	Ratio and root tests (8.5)	WA 6	Comparison tests (8.5)	Practice with series	Alternating series & remainders (8.6)
10 Oct 21	Abs. and cond. convergence. (8.6)	WA 7	Taylor polynomials (9.1)	LAB: Alternating Series	Taylor remainders (9.1)
11 Oct 28	Power series properties (9.2)	WA 8	Power series manipulations (9.2)	Taylor polynomials	Taylor series (9.3 and 9.4)
12 Nov 4	Review exam 3	Exam 3 6:00-7:00pm	Parametric Equations (10.1)		Polar coordinates (10.2)
13 Nov 11	Veteran's Day	WA 9	Calculus with polar coordinates (10.3)	LAB: Param. and polar plots	Vectors in the plane (11.1)
14 Nov 25	Vectors in 3D (11.2)	WA 10	Dot Products	Chapter 11 problems.	Cross Products
15 Dec 2	Lines and Curves in Space (11.5)	WA 11	Review	Review	Review
Finals Week Dec 9		Final Exam 7:00-10:00pm			

*WA: Written Assignment

Tentative Schedule of MyMathLab Due Dates

Week (Sunday)	Monday	Tuesday First Tutorial (T or W)	Wednesday	Thursday Second Tutorial (Th or F)	Friday
1 Aug 19				MML 1a	
2 Aug 26	MML 1b			MML 2a	
3 Sep 2	MML 2b				
4 Sep 9	MML 3a	Exam 1		MML 3b	
5 Sep 16	MML 4a			MML 4b	
6 Sep 23	MML 5a			MML 5b	
7 Sep 30	MML 6a			MML 6b	
8 Oct 7	MML 7a	Exam 2		MML 7b	
9 Oct 14	MML 8a			MML 8b	
10 Oct 21	MML 9a			MML 9b	
11 Oct 28	MML 10a			MML 10b	
12 Nov 4	MML 11a	Exam 3		MML 11b	
13 Nov 11	MML 12a			MML 12b	
14 Nov 25	MML 13a			MML 13b	
15 Dec 2	MML 14a			MML 14b	
Finals Week Dec 9		Final Exam			