

MATH 272 CALENDAR

SPRING 2021

Color coding:

- Reading assignments to be done before class on the scheduled day.
- Quizzes or exams set to take place on those days.
- Assignments due on these days.
- No class on this day.

MONDAY	TUESDAY	WEDNESDAY	FRIDAY
Jan 18th Martin Luther King Day.	19th First day, review. Functions in higher dimensions.	20th Curves and velocity/acceleration vectors.	22nd Scalar Fields and partial differentiation.
25th Vector fields and the directional derivative. Gradient.	26th Cont.	27th Divergence and curl of vector fields. Jacobian. Laplacian.	29th Homework 1 due. Cont.
Feb 1st Integration over curves.	2nd Cont.	3rd Potential functions and conservation.	5th Quiz 1.
8th Homework 2 due. Area and volume integrals.	9th Surfaces. Implicit and explicit parameterizations.	10th Tangent planes and normals.	12th Integration over surfaces and flux.
15th Cold day.	16th Cont.	17th Homework 3 due. Cylindrical coordinates.	19th Cont.
22nd Spherical coordinates.	23rd Open.	24th Open	26th Quiz 2 Homework 4 due.
Mar 1st Open.	2nd Open.	3rd Oral Exam 1.	5th Oral Exam 1.

MONDAY	TUESDAY	WEDNESDAY	FRIDAY
8th 28 <ul style="list-style-type: none"> Higher dimensional ODEs. Ch. 5.1, 5.2. 	9th 29 <ul style="list-style-type: none"> Continuum limit and partial differential equations. Ch. 5.2, 5.3 	10th 30 <ul style="list-style-type: none"> Continue. 	12th 31 <ul style="list-style-type: none"> Discussion due: A mathematician's lament. Understanding the <ul style="list-style-type: none"> Laplace Poisson heat wave equations.
15th 32 <ul style="list-style-type: none"> Snow day. 	16th 33 <ul style="list-style-type: none"> Homework 5 due. d'Alembert's solution to the wave equation. 	17th 34 <ul style="list-style-type: none"> Separation of variables. 	19th 35 <ul style="list-style-type: none"> Quiz 3. Discussion due: Homework 5. Discussion due: The interesting utility of geometry and topology.
22nd 36 <ul style="list-style-type: none"> Homework 6 due. Time dependent Schrödinger equation. 	23rd 37 <ul style="list-style-type: none"> Superposition states. 	24th 38 <ul style="list-style-type: none"> Continue. 	26th 39 <ul style="list-style-type: none"> Homework 6 discussion due. Discussion due: Mathematics is the sense you never knew you had. Maxwell's equations.
29th 40 <ul style="list-style-type: none"> Homework 7 due. PDEs in other coordinate systems. 	30th 41 <ul style="list-style-type: none"> Continue. 	31st 42 <ul style="list-style-type: none"> Oral Exam 2. Homework 7 discussion due. No class. 	Apr 2nd 43 <ul style="list-style-type: none"> Oral Exam 2. Discussion due: Is mathematics invented or discovered? No class.

MONDAY	TUESDAY	WEDNESDAY	FRIDAY
5th 44 <ul style="list-style-type: none"> • Complex functions and phase. 	6th 45 <ul style="list-style-type: none"> • Function spaces and inner products. 	7th 46 <ul style="list-style-type: none"> • Linear operators and adjoints. 	9th 47 <ul style="list-style-type: none"> • Discussion due: Mathematics and music. • Differential operators and domains.
12th Spring Break.	13th Spring Break.	14th Spring Break.	16th Spring Break.
19th 48 <ul style="list-style-type: none"> • Spectra of differential and Hermitian operators. 	20th 49 <ul style="list-style-type: none"> • Orthonormal bases and projection. 	21st 50 <ul style="list-style-type: none"> • Continue. 	23rd 51 <ul style="list-style-type: none"> • Homework 8 due.
26th 52 <ul style="list-style-type: none"> • Fourier series. 	27th 53 <ul style="list-style-type: none"> • Fourier transform on \mathbb{R} and \mathbb{R}^n. 	28th 54 <ul style="list-style-type: none"> • Dirac delta and fundamental solutions. 	30th 55 <ul style="list-style-type: none"> • Quiz 4. • Homework 9 due. • Homework 8 discussion due. • Continue.
May 3rd 56 <ul style="list-style-type: none"> • Homework 10 due. • Project and review. 	4th 57 <ul style="list-style-type: none"> • Project and review. 	5th 58 <ul style="list-style-type: none"> • Oral Exam 3. • Homework 10 discussion due. • No class. 	7th 59 <ul style="list-style-type: none"> • Oral Exam 3. • No class.