

MATH 272, TENTATIVE CALENDAR
SPRING 2020

MONDAY	TUESDAY	WEDNESDAY	FRIDAY
<div>Jan 20th</div> <p>Martin Luther King Day</p>	<p>21st 1</p> <p>First day, review. Complex functions.</p>	<p>22nd 2</p> <p>Complex functions, phase.</p>	<p>24th 3</p> <p>Homework 0 due. Function spaces and Inner products.</p>
<p>27th 4</p> <p>Hilbert spaces, symmetries.</p>	<p>28th 5</p> <p>Infinite orthonormal bases.</p>	<p>29th 6</p> <p>Series and integrals as linear combinations.</p>	<p>31st 7</p> <p>Homework 1 due. Projection with bases.</p>
<div>Feb 3rd</div> 8 <p>Linear operators and adjoints.</p>	<p>4th 9</p> <p>Hermitian and differential operators.</p>	<p>5th 10</p> <p>Spectra of differential operators.</p>	<p>7th 11</p> <p>Homework 2 due. Fourier series.</p>
<p>10th 12</p> <p>Cont.</p>	<p>11th 13</p> <p>Fourier transforms.</p>	<p>12th 14</p> <p>Special functions (distributions).</p>	<p>14th 15</p> <p>Cont.</p>
<p>17th 16</p> <p>Homework 3 due. Review.</p>	<p>18th 17</p> <p>Review.</p>	<p>19th 18</p> <p>Take home Exam 1 due. Review.</p>	<p>21st 19</p> <p>Exam 1.</p>
<p>24th 20</p> <p>Functions in higher dimensions. Curves.</p>	<p>25th 21</p> <p>Cont.</p>	<p>26th 22</p> <p>Scalar fields.</p>	<p>28th 23</p> <p>Homework 4 due. Integration of scalar fields.</p>
<div>Mar 2nd</div> 24 <p>Cont.</p>	<p>3rd 25</p> <p>Directional and partial derivatives.</p>	<p>4th 26</p> <p>Vector fields.</p>	<p>6th 27</p> <p>Homework 5 due. Gradient operator.</p>
<p>9th 28</p> <p>Curl and divergence operators.</p>	<p>10th 29</p> <p>Integration of vector fields.</p>	<p>11th 30</p> <p>Laplace operator.</p>	<p>13th 31</p> <p>Homework 6 due. Potential functions.</p>

MONDAY	TUESDAY	WEDNESDAY	FRIDAY
16th Spring Break	17th Spring Break	18th Spring Break	20th Spring Break
23rd 32 Coordinate systems, param- eterizations.	24th 33 Cylindrical coordinates.	25th 34 Spherical coordinates.	27th 35 Cont.
30th 36 Homework 7 due. Review.	31st 37 Review.	Apr 1st 38 Take home Exam 2 due. Review.	3rd 39 Exam 2.
6th 40 Higher dimensional ODEs	7th 41 Partial differential equations.	8th 42 Laplace and Poisson's equation.	10th 43 Homework 8 due. Heat and wave equation. Fourier transforms.
13th 44 Quantum harmonic oscillator.	14th 45 Cont.	15th 46 Time dependent Schödinger equation.	17th 47 Homework 9 due. Cont.
20th 48 Maxwell's equations.	21st 49 Cont.	22nd 50 PDEs in other coordinate systems.	24th 51 Cont.
27th 52 Homework 10 due. Review.	28th 53 Review.	29th 54 Take home Exam 3 due. Review.	May 1st 55 Exam 3.
4th 56 Mini-project: Hydrogen atom.	5th 57 Mini-project: Hydrogen atom.	6th 58 Mini-project: Hydrogen atom.	8th 59 Mini-project: Hydrogen atom.