# Schedule

A week-by-week breakdown of the material.

## Week 1 (01/09-01/13)

- **Day 1** Review of Calc 1<sup>1</sup>
- **Day 2** Review of Calc 1 (cont)<sup>2</sup>
- **Day 3** Area between graphs  $(6.1)^3$

## Week 2 (01/16-01/20)

- **Day 1** Volumes and Mean Value Theorem for integrals (6.2)<sup>4</sup>
- **Day 2** Volumes of revolution  $(6.3)^5$

Homework 1 Due: 6.1 14, 20, 26, 34

**Day 3** Shell method  $(6.4)^6$ 

# Week 3 (01/23-01/27)

**Day 1** The exponential function  $(7.1)^7$ 

Homework 2 Due: 6.2 10, 56, 6.3 24, 40

**Day 2** The exponential function (cont)  $(7.1)^8$ 

Homework 3 Due: 6.4 8, 40, 44, 46

**Day 3** Inverse functions  $(7.2)^9$ 

# Week 4 (01/30-02/03)

### **Day 1** Inverse functions (cont) $(7.2)^{10}$

<sup>&</sup>lt;sup>1</sup>notes/calc1\_review.html

<sup>&</sup>lt;sup>2</sup>notes/calc1\_review.html

<sup>&</sup>lt;sup>3</sup>notes/area graphs.html

<sup>&</sup>lt;sup>4</sup>notes/volumes.html

<sup>&</sup>lt;sup>5</sup>notes/volumes revolution.html

<sup>&</sup>lt;sup>6</sup>notes/volumes\_shell.html

<sup>&</sup>lt;sup>7</sup>notes/exponential.html

<sup>&</sup>lt;sup>8</sup>notes/exponential.html

<sup>&</sup>lt;sup>9</sup>notes/inverse\_functions.html

<sup>&</sup>lt;sup>10</sup>notes/inverse\_functions.html

## **Day 2** Logarithms $(7.3)^{11}$

Homework 4 Due: 7.1 26, 48, 7.2 4, 40

## **Day 3** Logarithms (cont) $(7.3)^{12}$

Homework 5 Due: 7.3 22, 34, 54, 98

## Week 5 (02/06-02/10)

#### Day 1 MIDTERM 1 (study guide<sup>13</sup>)

Day 2 Sick day

**Day 3** Exponential Growth and Decay  $(7.4)^{14}$  Compound Interest  $(7.5)^{15}$ 

## Week 6 (02/13-02/17)

**Day 1** L'Hospital's Rule  $(7.7)^{16}$ Comparative growth of functions  $(7.7)^{17}$ 

**Day 2** Comparative growth of functions  $(7.7)^{18}$  Homework 6 Due: 7.4 14, 24, 7.5 6, 8

**Day 3** Inverse Trigonometric Functions (7.8)<sup>19</sup> Homework 7 Due: 7.7 26, 46, 56, 58

# Week 7 (02/20-02/24)

**Day 1** Hyperbolic Functions  $(7.9)^{20}$ Integration by parts  $(8.1)^{21}$ 

# **Day 2** Integration by parts (8.1 cont)<sup>22</sup>

<sup>&</sup>lt;sup>11</sup>notes/logarithms.html

<sup>&</sup>lt;sup>12</sup>notes/logarithms.html

<sup>&</sup>lt;sup>13</sup>notes/midterm1 study guide.html

<sup>&</sup>lt;sup>14</sup>notes/exponential\_growth.html

<sup>&</sup>lt;sup>15</sup>notes/compound interest.html

<sup>&</sup>lt;sup>16</sup>notes/lhopital.html

<sup>&</sup>lt;sup>17</sup>notes/growth.html

<sup>&</sup>lt;sup>18</sup>notes/growth.html

<sup>&</sup>lt;sup>19</sup>notes/inverse\_trig.html

<sup>&</sup>lt;sup>20</sup>notes/hyperbolic.html

<sup>&</sup>lt;sup>21</sup>notes/integration\_parts.html

<sup>&</sup>lt;sup>22</sup>notes/integration parts.html

### **Day 3** Integration by parts $(8.1 \text{ cont})^{23}$

Homework 8 Due: 7.8 22, 38, 60, 7.9 8, 44

### Week 8 (02/27-03/03)

Day 1 BREAK

Day 2 BREAK

Day 3 BREAK

## Week 9 (03/06-03/10)

**Day 1** Trigonometric Integrals (8.2)<sup>24</sup>

**Day 2** (at conference)

Day 3 (at conference)

### Week 10 (03/13-03/17)

**Day 1** Trigonometric Substitution (8.3)<sup>25</sup>

Homework 9 Due: 8.1 10, 14, 36, 38, 52

**Day 2** Trigonometric Substitution (8.3)<sup>26</sup>

Day 3 Review

Homework 10 Due: 8.2 14, 16, 8.3 6, 8

# Week 11 (03/20-03/24)

Day 1 MIDTERM (study guide<sup>27</sup>)

**Day 2** Method of Partial Fractions (8.5)<sup>28</sup>

**Day 3** Method of Partial Fractions  $(8.5)^{29}$ 

# Week 12 (03/27-03/31)

**Day 1** Improper Integrals (8.6)<sup>30</sup>

Homework 11 Due: 8.5 4, 8, 16, 30

<sup>&</sup>lt;sup>23</sup>notes/integration\_parts.html

<sup>&</sup>lt;sup>24</sup>notes/integrals\_trig.html

<sup>&</sup>lt;sup>25</sup>notes/integrals\_trig\_subst.html

<sup>&</sup>lt;sup>26</sup>notes/integrals\_trig\_subst.html

<sup>&</sup>lt;sup>27</sup>notes/midterm2 study guide.html

<sup>&</sup>lt;sup>28</sup>notes/integrals partial.html

<sup>&</sup>lt;sup>29</sup>notes/integrals\_partial.html

<sup>&</sup>lt;sup>30</sup>notes/integrals\_improper.html

**Day 2** Improper Integrals (8.6)<sup>31</sup>

**Day 3** Numerical Integration  $(8.8)^{32}$ Taylor Polynomials  $(9.4)^{33}$ 

# Week 13 (04/03-04/07)

**Day 1** Taylor Polynomials (9.4). Taylor's Theorem<sup>34</sup> 8.6 12, 16, 26, 38

**Day 2** Arc Length (9.1)<sup>35</sup>

**Day 3** Parametric Equations  $(12.1)^{36}$ 

## Week 14 (04/10-04/14)

Day 1 Arc Length and Area (12.2)

Day 2 Conic sections (12.5)

Day 3 Review

<sup>&</sup>lt;sup>31</sup>notes/integrals\_improper.html

<sup>&</sup>lt;sup>32</sup>notes/integrals\_numerical.html

<sup>&</sup>lt;sup>33</sup>notes/taylor.html

<sup>&</sup>lt;sup>34</sup>notes/taylor.html

<sup>&</sup>lt;sup>35</sup>notes/arc\_length.html

<sup>&</sup>lt;sup>36</sup>notes/parametric.html