# 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  $(6.3)^5$
- **Day 3** Shell method  $(6.4)^6$

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

- **Day 1** The exponential function  $(7.1)^7$
- **Day 2** The exponential function (cont)  $(7.1)^8$
- **Day 3** Inverse functions  $(7.2)^9$

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

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

Logarithms  $(7.3)^{11}$ 

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

# **Day 2** Logarithms (cont) $(7.3)^{12}$

<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

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

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

# **Day 3** Exponential Growth and Decay $(7.4)^{13}$ Compound Interest $(7.5)^{14}$

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

- **Day 1 MIDTERM 1** (study guide<sup>15</sup>)
- **Day 2** L'Hospital's Rule  $(7.7)^{16}$
- **Day 3** Comparative growth of functions  $(7.7)^{17}$

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

- **Day 1** Comparative growth of functions  $(7.7)^{18}$
- **Day 2** Inverse Trigonometric Functions (7.8)<sup>19</sup>
- **Day 3** Hyperbolic Functions  $(7.9)^{20}$

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

- **Day 1** Integration by parts  $(8.1)^{21}$
- **Day 2** Integration by parts  $(8.1 \text{ cont})^{22}$
- **Day 3** Trigonometric Integrals  $(8.2)^{23}$

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

- Day 1 BREAK
- Day 2 BREAK
- Day 3 BREAK

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

- **Day 1** Trigonometric Substitution (8.3)<sup>24</sup>
- **Day 2** (at conference)
- Day 3 (at conference)

<sup>&</sup>lt;sup>13</sup>notes/exponential\_growth.html

<sup>&</sup>lt;sup>14</sup>notes/compound\_interest.html

<sup>&</sup>lt;sup>15</sup>notes/midterm1\_study\_guide.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

<sup>&</sup>lt;sup>23</sup>notes/integrals\_trig.html

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

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

**Day 1** Trigonometric Substitution (8.3) cont<sup>25</sup> Day 2 Method of Partial Fractions (8.5)<sup>26</sup>

**Day 3** Method of Partial Fractions (8.5)<sup>27</sup>

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

- **Day 1 MIDTERM** (study guide<sup>28</sup>)
- **Day 2** Method of Partial Fractions (8.5)<sup>29</sup>
- **Day 3** Improper Integrals (8.6)<sup>30</sup>

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

- **Day 1** Improper Integrals (8.6)<sup>31</sup>
- **Day 2** Numerical Integration (8.8)<sup>32</sup>
- **Day 3** Taylor Polynomials  $(9.4)^{33}$

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

- **Day 1** Taylor Polynomials (9.4). Taylor's Theorem<sup>34</sup>
- **Day 2** Arc Length  $(9.1)^{35}$
- **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>25</sup>notes/integrals\_trig\_subst.html

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

<sup>&</sup>lt;sup>27</sup>notes/integrals\_partial.html

<sup>&</sup>lt;sup>28</sup>notes/midterm2\_study\_guide.html

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

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

<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