# Schedule

A week-by-week breakdown of the material.

### Week 1 (09/07-9/11)

- **Day 1** Review of Calc 1<sup>1</sup>
- **Day 2** Review of Calc 1 (cont)<sup>2</sup>
- **Day 3** Review of Calc 1 (cont 2) $^3$  Area between graphs  $(6.1)^4$
- **Day 4** Volumes and Mean Value Theorem for integrals (6.2)<sup>5</sup>

### Week 2 (09/14-09/18)

- **Day 1** Volumes and Mean Value Theorem for integrals (6.2 cont)<sup>6</sup>
- **Day 2** Volumes of revolution  $(6.3)^7$
- **Day 3** Volumes of revolution (6.3 cont)<sup>8</sup>
- **Day 4** Shell method  $(6.4)^9$

#### Week 3 (09/21-09/25)

- **Day 1** The exponential function  $(7.1)^{10}$
- **Day 2** The exponential function (cont)  $(7.1)^{11}$
- **Day 3** Inverse functions  $(7.2)^{12}$
- **Day 4** Inverse functions (cont)  $(7.2)^{13}$

## Week 4 (09/28-10/02)

## **Day 1** Logarithms $(7.3)^{14}$

```
<sup>1</sup>notes/calc1_review.html
<sup>2</sup>notes/calc1_review.html
<sup>3</sup>notes/calc1_review.html
<sup>4</sup>notes/area_graphs.html
<sup>5</sup>notes/volumes.html
<sup>6</sup>notes/volumes.html
<sup>7</sup>notes/volumes_revolution.html
<sup>8</sup>notes/volumes_revolution.html
<sup>9</sup>notes/volumes_shell.html
<sup>10</sup>notes/exponential.html
<sup>11</sup>notes/exponential.html
<sup>12</sup>notes/inverse_functions.html
<sup>13</sup>notes/inverse_functions.html
<sup>14</sup>notes/logarithms.html
```

- **Day 2** Logarithms (cont)  $(7.3)^{15}$
- **Day 3** Logarithms (cont)  $(7.3)^{16}$
- **Day 4** Exponential Growth and Decay  $(7.4)^{17}$  Compound Interest  $(7.5)^{18}$

### Week 5 (10/05-10/09)

- Day 1 Review / Catchup
- **Day 2 MIDTERM 1** (study guide<sup>19</sup>)
- **Day 3** L'Hospital's Rule  $(7.7)^{20}$
- **Day 4** L'Hospital's Rule (7.7) cont<sup>21</sup>

## Week 6 (10/12-10/16)

- **Day 1** Comparative growth of functions  $(7.7)^{22}$
- **Day 2** Comparative growth of functions  $(7.7)^{23}$
- **Day 3** Inverse Trigonometric Functions  $(7.8)^{24}$

Day 4

### Week 7 (10/19-10/23)

- Day 1 Fall Break
- **Day 2** Inverse Trigonometric Functions (7.8, cont)<sup>25</sup>
- **Day 3** Hyperbolic Functions  $(7.9)^{26}$
- **Day 4** Integration by parts  $(8.1)^{27}$

# Week 8 (10/26-10/30)

# **Day 1** Integration by parts (8.1 cont)<sup>28</sup>

```
15notes/logarithms.html
16notes/logarithms.html
17notes/exponential_growth.html
18notes/compound_interest.html
19notes/midterm1_study_guide.html
20notes/lhopital.html
21notes/lhopital.html
22notes/growth.html
23notes/growth.html
24notes/inverse_trig.html
25notes/inverse_trig.html
26notes/hyperbolic.html
27notes/integration_parts.html
28notes/integration_parts.html
```

- **Day 2** Trigonometric Integrals (8.2)<sup>29</sup>
- **Day 3** Trigonometric Integrals (8.2)<sup>30</sup>
- **Day 4** Trigonometric Substitution (8.3)<sup>31</sup>

#### Week 9 (11/02-11/06)

- **Day 1** Trigonometric Substitution (8.3) cont<sup>32</sup>
- **Day 2** Trigonometric Substitution (8.3) cont<sup>33</sup>
- **Day 3** Method of Partial Fractions (8.5)<sup>34</sup>
- **Day 4** Method of Partial Fractions (8.5)<sup>35</sup>

### Week 10 (11/09-11/13)

- Day 1 MIDTERM (study guide<sup>36</sup>)
- **Day 2** Method of Partial Fractions (8.5)<sup>37</sup>
- **Day 3** Method of Partial Fractions (8.5)<sup>38</sup>
- **Day 4** Improper Integrals (8.6)<sup>39</sup>

#### Week 11 (11/16-11/20)

- **Day 1** Improper Integrals (8.6)<sup>40</sup>
- **Day 2** Improper Integrals (8.6)<sup>41</sup>
- **Day 3** Numerical Integration (8.8)<sup>42</sup>
- **Day 4** Taylor Polynomials (9.4)<sup>43</sup>

## Week 12 (11/23-11/27)

# **Day 1** Taylor Polynomials (9.4)<sup>44</sup>

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

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

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

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

<sup>&</sup>lt;sup>33</sup>notes/integrals trig subst.html

<sup>&</sup>lt;sup>34</sup>notes/integrals\_partial.html

<sup>&</sup>lt;sup>35</sup>notes/integrals partial.html

<sup>&</sup>lt;sup>36</sup>notes/midterm2 study guide.html

<sup>&</sup>lt;sup>37</sup>notes/integrals partial.html

<sup>&</sup>lt;sup>38</sup>notes/integrals\_partial.html

<sup>&</sup>lt;sup>39</sup>notes/integrals\_improper.html

<sup>&</sup>lt;sup>40</sup>notes/integrals\_improper.html

<sup>&</sup>lt;sup>41</sup>notes/integrals improper.html

<sup>&</sup>lt;sup>42</sup>notes/integrals\_numerical.html

<sup>&</sup>lt;sup>43</sup>notes/taylor.html

<sup>44</sup> notes/taylor.html

- Day 2 THANKSGIVING
- Day 3 THANKSGIVING
- Day 4 THANKSGIVING

## Week 13 (12/01-12/04)

- **Day 1** Taylor Polynomials (9.4). Taylor's Theorem<sup>45</sup>
- **Day 2** Arc Length (9.1)<sup>46</sup>
- Day 3 Parametric Equations (12.1)
- Day 4 Arc Length and Area (12.2)

## Week 14 (12/07-12/11)

- **Day 1** Polar Coordinates (12.3)
- Day 2 Area and Arc Length in polar coordinates (12.4)
- Day 3 Conic sections (12.5)
- Day 4 Catchup

<sup>&</sup>lt;sup>45</sup>notes/taylor.html

<sup>&</sup>lt;sup>46</sup>notes/arc\_length.html