

SEPTEMBER

TENTATIVE PLAN

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i> Section 0.1 Sets, containment, intersection, union	<i>5</i>	<i>6</i> Section 0.1 and 0.2 Complements, indexed families of sets De Morgan's Laws, ordered pairs, Cartesian product, relations and functions	<i>7</i>
<i>8</i>	<i>9</i> Section 0.2 Converse relations, composition of relations and functions	<i>10</i>	<i>11</i> Section 0.3 Well-ordering principle and mathematical induction	<i>12</i>	<i>13</i> Section 0.3 Well-ordering and induction continued Assignment 1 due	<i>14</i>
<i>15</i>	<i>16</i> Section 0.4 Equivalent and countable sets	<i>17</i>	<i>18</i> Section 0.4 Equivalent and countable sets	<i>19</i> Quiz 1 in tutorial	<i>20</i> Section 0.5 Begin Axioms of real numbers	<i>21</i>
<i>22</i>	<i>23</i> Section 0.5 Axioms of real numbers, lower and upper bounds, Archimedean property	<i>24</i>	<i>25</i> Section 0.5 Density of rationals and irrationals, existence of square roots, triangle inequality	<i>26</i>	<i>27</i> Section 1.1 Definition of sequences and convergence, open neighbourhoods Assignment 2 due	<i>28</i>
<i>29</i>	<i>30</i> Section 1.1 Uniqueness of limits of sequences, boundedness and divergent sequences					

OCTOBER

TENTATIVE PLAN

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2 Section 1.2 Definition of Cauchy sequences, convergent sequences are Cauchy, accumulation points	3	4 Test 1	5
6	7 Section 1.2 Bolzano-Weierstrass, Cauchy sequences are convergent	8	9 Section 1.3 Arithmetic operations on sequences	10 Quiz 2 in tutorial	11 Section 1.3 Examples of sequences, inequalities of sequences (e.g. $a_n \leq b_n$ for all n)	12
13	14 Thanksgiving	15	16 Section 1.4 Subsequences Assignment 3 due	17	18 Section 1.4 Monotone sequences	19
20	21 Projects 0.1 and 1.4 Uncountability of real numbers via sequences	22	23 Section 2.1 Definition of the limit of a function	24 Quiz 3 in tutorial	25 Section 2.1 Examples of limits of functions	26
27	28 Section 2.2 Limits of functions and sequences	29	30 Section 2.2 Limits of functions and sequences	31		

NOVEMBER

TENTATIVE PLAN

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 Section 2.3 Algebra of limits, products where one function is bounded, examples	2
3	4 Test 2	5	6 Section 2.4 Definition of monotone functions, preparatory lemmas Assignment 4 due	7	8 Section 2.4 Limits of monotone functions exist everywhere except on a countable set	9
10	11 Remembrance day	12	13 Fall break (no class)	14	15 Fall break (no class)	16
17	18 Section 3.1 Continuity at a point	19	20 Section 3.2 Examples $R^2 \rightarrow R$, algebra of continuous functions	21 Quiz 4 in tutorial	22 Section 3.2 Algebra of continuous functions, compositions of continuous functions	23
24	25 Sections 3.3 Definition of uniform continuity, definition of closed, open and compact sets	26	27 Section 3.3 Continuous functions on compact sets are uniformly continuous	28	29 Section 3.4 Behaviour of continuous functions with respect to open, closed and compact sets Assignment 5 due	30

DECEMBER

TENTATIVE PLAN

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<i>1</i>	<div style="text-align: right; font-size: small;"><i>2</i></div> Section 3.4 Bolzano's Theorem	<i>3</i>	<div style="text-align: right; font-size: small;"><i>4</i></div> Section 3.5 Intermediate Value Theorem	<div style="text-align: right; font-size: small;"><i>5</i></div> Quiz 5 in tutorial	<div style="text-align: right; font-size: small;"><i>6</i></div> Sections 4.1 and 4.2 Definition of the derivative at a point, derivatives and algebra of derivatives, or possibly review.	<i>7</i>
<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>	<i>14</i>
<i>15</i>	<i>16</i>	<i>17</i>	<i>18</i>	<i>19</i>	<i>20</i>	<i>21</i>
<i>22</i>	<i>23</i>	<i>24</i>	<i>25</i>	<i>26</i>	<i>27</i>	<i>28</i>
<i>29</i>	<i>30</i>					