Syllabus, Calculus Math 1B, Spring 2021- N. Reshetikhin

#### Basic information

email: reshetik@math.berkeley.edu

Lectures: MWF 11:00am-12:00pm, zoom link will be sent via announcements

Office Hours: Wednesday 2:00pm-3:00pm

**Exams:** M1 on Feb. 12, and M2 on March 31, during normal class hours. Final on May 11, 7-10pm (the exam group 8).

**Enrollment Questions.** During the first week of classes you should register with your GSI, otherwise your place in the section will be cancelled.

**Grading Policy.** The grade for the course will be computed according to the following formula:

5% for turning in homework + 20% for 12 quizzes (held in discussion sessions on Mondays) based rather closely on the h/w problem sets (with two worst quizzes being dropped) + 25% for each of the two midterms and for the final exam.

Sections vary by the number and by the quality of students. If some sections will have better average grades for quizzes this should not be surprising. The grading policy will be uniform.

**Incompletes.** Official University policy states that an incomplete can be given only for valid medical excuses with a doctor's certificate and only if, at the point the grade is given, the student has a passing grade (a C or better). If you are behind in the course, an incomplete is not an option!

**Textbook.** The official textbook is Single Variable Calculus: Early Transcendentals by James Stewart, 8th edition, Cengage Learning Custom Publishing.

Alternative textbooks: Single Variable Calculus: Early Transcendentals 7E for UC Berkeley by James Stewart. 7th edition, Cengage Learning Custom Publishing. Or same thing, 6th edition.

The difference between these editions is minimal. Mostly it is in the enumeration of pages and in the price. If you choose an edition which differs from the official one, or any other textbook, make sure you have correct set of homework problems.

You are requested to do the assigned reading before each lecture. Note that mathematical texts are not meant to be read like novels: very often you will come across passages that must be read many times before they make sense to you.

**Homework Assignments.** Never fall behind in this course, either in the reading assignments or in the homework assignments.

Problem sets get rather heavy at times. This is intentional. Sometimes there is simply no substitute for repetitive drills. Problem (and reading) assignments are subject to change.

It is normal when a student is trying to solve at home some extra, more complicated, problems from the textbook which were not assigned for homework.

Problem sets will be collected on Mondays through the Gradescope.

It is very effective when you do a part of your homework together with your fellow students in a discussion group. I encourage this, but you must write your solutions on your own.

The homework is assigned for 8th edition of Stewart.

When you will be working on practice problems for exams, I recommend to time yourself, allowing only 10 min per problem.

#### Week 1

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Jan 20, Introduction, 7.1 , 476 : 1,5,7,13,18,19,21,27,33,47 Jan 22, 7.2, 484 : 1,3,4,7,9,17,20,21,39,68
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#### Week 2

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Jan 25, 7.3, 491 : 1,5,7,10,11,13,27,30
Jan 27, 7.4, 501: 1,3,7,9,19,21,22,23,35
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 $\operatorname{Jan}\ 29,\ 7.4,\ 501:\ 45,46,51,52,60;\ 7.5,\ 507:\ 5,13,16,50,72$ 

### Week 3

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Feb 1, 7.7, 524: 1,19,20,21,22
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Feb 3, 7.8, 534: 1,5,6,7,9,13,19,22,23,49,53,55,58,77

Feb 5, 8.1, 548: 1,2,11,12;

#### Week 4

```
Feb 8, 8.2, 555: 1,3,4,9,10
Feb 10, Review, 537-539
Feb 12, Midterm 1
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#### Week 5

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Feb 15, Holiday
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 $\label{eq:feb 17, 11.1, 704: 4,5,8,9,14,15,18,25,26,29,49} \text{Feb 17, 11.1, 704: } 4,5,8,9,14,15,18,25,26,29,49$ 

Feb 19, 11.2, 715: 3,16,21,23,27,36,38,43,44,48,53,54

### Week 6

```
\begin{array}{l} {\rm Feb}\ 22,\ 11.3\ ,\ 725:\ 3,5,7,12,15,25,27\\ {\rm Feb}\ 24,\ 11.4:\ 731:\ 1,2,3,5,7,11,18,21\\ {\rm Feb}\ 26,\ 11.4,\ 731:\ 31,37,42,43,44\\ \end{array}
```

### Week 7

```
\begin{array}{l} \text{March 1, } 11.5,\, 736:\, 4,10,13,15,17,27,32 \\ \text{March 3, } 11.6,\, 742:\, 1,2,3,4,9,10,22,25 \\ \text{March 5, } 11.6,\, 742:\, 27,29,31,33,39,41 \end{array}
```

#### Week 8

```
\mathbf{March}\ 8,\ 11.7,\ 746:\ 1,2,3,7,9,11,13,15,17,18,21,25,29,33,35,37
```

March 10, 11.8, 751 : 3,4,8,11,15,23,24,27,30 March 12, 11.8, 11.9, 757 : 1,2,3,6,9,11,

#### Week 9

March 15 11.9, 757: 17,27,29,37

March 17, 11.10 771: 3,5,8,9,11,14,15,18,20,23,25,28,35,37,53,55,58

March 19, Review 784: 1-12, 784: true-false quiz

### Week 10

March 22, Spring break

March 24 Spring break March 26, Spring break

### Week 11

 $\label{eq:march-29} \text{March 29, Review 785-786}: \ 3,4,7,11,15,16,17,18,26,40\text{-}43,49,51$ 

March 31, Midterm 2

April 2, 9.1, 590:1,2,3,4,6(a),7

## Week 12

 $\begin{array}{l} {\rm Apr}\ 5,\ 9.2,\ 597;\ 1,2,3-6,7,11,13,21,23 \\ {\rm Apr}\ 7,\ 9.3,\ 605:\ 1,3,6,7,11,14,19,22,40,43 \\ {\rm Apr}\ 9,\ 9.4,\ 617:\ 3,\ 11,\ 15,\ 17 \end{array}$ 

### Week 13

Apr 12, 9.5, 625 :1,3,4,5,7,9,12,14,15,16,17,23,24,26

 $\mathrm{Apr}\ 14,\ 9.6,\ 632:\ 8{,}10{,}11$ 

 ${\rm Apr}\ 16,\ 17.1,\ 1160;\ 1,3,5,7,9,13,17,19,20,22,24,29,33$ 

## Week 14

Apr 19, 17.2, 1167: 1-10, Apr 21, 17.2, 1167: 13-26, Apr 23, 17.3 1175: 1-4, 9-12

### Week 15

Apr 26, 17. 4 1181: 1-10 Apr 28, Review 1181: 1-16, Apr 30, Review

# Week 16

May 3-7, RRR week

### Week 17

Final Exam is on May 11, 7-10pm (the exam group 8).