The final exam is scheduled by the College for

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| **Friday morning** | **May 5, 2017** | **10:30 AM - 12:30 PM** |

Please check your room assignment the day of the exam at

<http://www.math.wustl.edu/seatlookup/>. Since the exam is morning rather than evening, there is a chance that your exam room may differ from the rooms used for previous exams.

The final exam will (directly) cover only material in the syllabus from Section 5.5 (integration by substitution), Chapter 7 (Techniques of Integration), Chapter 8.1 (arc length), and Chapter 11 (Sequences and Series). Check the Daily Assignments page in the syllabus for any additional handouts, comments about any topics omitted along the way during the semester, etc. Of course, you may need other tools from the course in the process of solving a problem, but the other topics will not be the focus of questions.

As always, you can have a single hand-written 3x5 card (2-sided (with any notes you like). No other notes and no electronic devices are permitted during the exam. I will ask the TA proctors at the exam to be especially alert for violations: NO CELL PHONE OR OTHER DEVICES SHOULD EVEN BE VISIBILE DURING THE TEST. TURN THEM OFF OR SILENCE THEM AND LEAVE THEM IN YOUR BACKPACK AT THE FRONT OF THE EXAM ROOM. YOU SHOULD NOT HAVE A CELL PHONE WITH YOU IF YOU VISIT A REST ROOM DURING THE EXAM.

Since the College has a rapid turn-around period for submitting final grades, and there are a lot of numbers to crunch, there will be no hand-graded section in the exam: only multiple choice (18 questions, 5 pts each) and true/false (10 questions, 1 point each). The questions will be approximately equally divided between Chapter 11 material and the other material.

Since the special Q/A help sessions before the last few exams were very poorly attended, there won’t be one for the final. The Calculus Help Room in Lopata 323 will be open until 2 p.m. on May 4 (see schedule at <http://www.math.wustl.edu/~blake/calculus/> ). Also watch for announcements posted via BB about walk-in help sessions held by RPMs.

My office hours next week:

 Monday 1:30-3:30

 Tuesday 12-2

 Wednesday 2-4

 Thursday 9:30-12

For practice, if you wish, you can

1. Use the Final Exam from Fall 2016 (but OMIT Questions 13, 14, 15, 18, 19, 20 – these are all questions you should be able to do, but are about topics I’m not putting on the final exam).

(*Note: as the textbook points out, “Maclaurin series” is just an common alternative name for “Taylor series centered as a = 0.”*)

<http://www.dehn.wustl.edu/~blake/courses/WU-132-2016-Fall/handouts/Exam4.pdf>

<http://www.dehn.wustl.edu/~blake/courses/WU-132-2016-Fall/handouts/Exam4-Sols.pdf>

1. Use the Fall 2014 final from
<http://wumath.wustl.edu/math-exam-archives>

Here you would want to omit problems 5, 6, 9, 10, 19

1. If you want more practice on techniques of integration, look at some of the problems/solutions at
2. Integration by substitution:
<http://archives.math.utk.edu/visual.calculus/4/substitutions.1/>
3. integration by parts: [https://www.math.ucdavis.edu/%7Ekouba/CalcTwoDIRECTORY/intbypartsdirectory/IntByParts.html](https://www.math.ucdavis.edu/~kouba/CalcTwoDIRECTORY/intbypartsdirectory/IntByParts.html)
4. trig integrals:
[https://www.math.ucdavis.edu/%7Ekouba/CalcTwoDIRECTORY/trigintdirectory/TrigInt.html](https://www.math.ucdavis.edu/~kouba/CalcTwoDIRECTORY/trigintdirectory/TrigInt.html)
5. trig substitutions:
<http://archives.math.utk.edu/visual.calculus/4/substitutions.2/>
6. partial fractions:
<http://archives.math.utk.edu/visual.calculus//4/partial_fractions.1/index.html>
7. improper integrals Type I:
<http://archives.math.utk.edu/visual.calculus/4/improper.1/>
8. improper integrals Type 2:
<http://tutorial.math.lamar.edu/Problems/CalcII/ImproperIntegrals.aspx>