Course Syllabus

**Professor:** Dr. Christine Heitsch

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**Office Hours:** Monday 4:30 – 5:30pm and Tuesday/Thursday 1:30 – 2pm. If you need to meet at another time, send email (including availability) to set up an appointment.

**Lectures:** Tuesday and Thursday from 12:05 – 1:25 in Skiles 255.


**Course Description:** “Differentiation of functions of one real variable, Riemann-Stieltjes integral, the derivative in $\mathbb{R}^n$ and integration in $\mathbb{R}^n$.”

**Prerequisites:** Math 4317 (Analysis I) or equivalent.

**Course Topics:** Differentiation (Chapt. 5); Riemann integration (Chapt. 6); Interchange of limit operations (Chapt. 7); Method of successive approximations (Chapt. 8); Partial differentiation (Chapt. 9); Multiple integrals (Chapt. 10).

**Grading Scheme:** Grades will be calculated as the maximum of the following three schemes:

<table>
<thead>
<tr>
<th></th>
<th>Standard</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Exam</td>
<td>30%</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td>Two Midterm Exams</td>
<td>40% = 20% + 20% (both exams)</td>
<td>20% (best exam)</td>
<td>50% = 25% + 25% (both exams)</td>
</tr>
<tr>
<td>Homework</td>
<td>30%</td>
<td>30%</td>
<td>25%</td>
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Grades will be assigned on the standard scale:

- **A** 90 or higher
- **B** 80 – 89
- **C** 70 – 79
- **D** 60 – 69
- **F** Below 60

On an individual basis, significant improvement over the semester will be taken into account. The overall class distribution will also be carefully considered.

**Final Exam:** The final exam is scheduled for Tuesday, May 1st from 11:30 AM - 2:20 PM. The exam will be cumulative.

**Midterm Exams:** There will be two in-class exams. The exams will be closed book, closed notes, no calculator, individual tests. The tentative exam dates are:

- **Midterm 1** Thursday, February 9th
- **Midterm 2** Thursday, March 15th

Exam dates will be confirmed at least a week in advance.
**Homework:** Homework will be assigned most weeks, and due one week later (including “Dead Week”) at the beginning of class. **Late homework will not be accepted.**

A subset of the assigned problems will be selected for grading.

Solutions must meet the formatting requirements below. **Illegible and/or unintelligible solutions will receive no credit.**

1. Be neatly and clearly written in complete, correct sentences.
2. Be written on the front side of the page only.
3. Be stapled together if having multiple pages.

Collaboration is allowed (and even encouraged) when working on homework problems. However, solutions must adhere to the following content guidelines.

1. Be written independently in a student’s own words.
2. Clearly acknowledge any person with whom any part of the assignment was discussed.
3. Properly credit any outside resource consulted in completing the assignment.

**Any solution which violates the content guidelines will receive no credit. Flagrant or repeated violations will be dealt with as a matter of academic integrity.**

**Attendance:** Regular attendance is expected. Exceptions will be accommodated only for valid, documented reasons including (1) official representation of the Institute and (2) medical emergencies. Makeup exams will not be given.

**Exceptions:** Any student who may not be able to meet the requirements of the class as stated must speak with me individually within the first two weeks of class.

**Academic Integrity:** Students are reminded of the obligations and expectations associated with the Georgia Tech **Academic Honor Code** and **Student Code of Conduct**, available online through the Office of Student Integrity ([http://www.osi.gatech.edu/](http://www.osi.gatech.edu/)) and the Honor Advisory Council ([http://www.honor.gatech.edu](http://www.honor.gatech.edu)).

**Any violations must be reported directly to the Dean of Students.**

**Practice Problems:** Beyond the assigned homework, additional “practice problems” will be suggested. You are strongly encouraged to work these problems (and others!) on your own and/or with other students to master the course material.

**More Information:**

- Grades will be posted on T-Square — [http://t-square.gatech.edu](http://t-square.gatech.edu)
- Everything else will be posted on the course website — [http://www.math.gatech.edu/~heitsch/4318-sp12.html](http://www.math.gatech.edu/~heitsch/4318-sp12.html)

**Updates:** This syllabus is subject to modification. Any changes will be announced in class and posted on the course website.