Math 148 Calculus II (Advanced section) W 2015

Professor: Kenneth Davidson  
Office: MC 5324  
Email: krdavids@uwaterloo.ca  
Office hour: M 2:30–3:30, or by appointment.

TA: Ehsaan Hossain  
Office: MC 5434  
Office hours: T 1:30–2:30 and Θ 1:30–3:30

Tutorial: W 3:30–4:20 in MC 2038  
Website: www.math.uwaterloo.ca/~krdavids/M147.html for assignments and handouts  
Learn site: grades and assignments will be available here.

Textbook: An introduction to analysis by W. Wade.  
Other books: Calculus by M. Spivak  
Aspects of Calculus by G. Klambauer  
Introduction to Analysis by A. Mattuck

Course Outline
1. Riemann integrals and Riemann sums  
2. Fundamental theorem of calculus  
3. Techniques of integration  
4. Applications of integration  
5. Series and tests for convergence  
6. Sequences and series of functions  
7. Power series and radius of convergence  
8. Taylor series  
9. Differential equations (as time permits)

Grading
<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>20%</td>
</tr>
<tr>
<td>Midterm</td>
<td>30%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>50%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Midterm: Monday February 23, 7:00–9:00 p.m. in MC 2034/2038.  
Do not miss the midterm unless it is a medical emergency (documentation may be required).

Homework: There will be regular assignments. You are expected to hand in all assignments. There will be many opportunities to pick up extra points. Assignments should be put in the Math148 drop box near the tutorial centre by 2:00 p.m. on the due date.  
Late assignments will not be graded.

Solutions will be posted on my website and on the Learn website.

Missed final exam: An incomplete is only an option if there is a legitimate reason for missing the exam (generally a medical emergency) and the term work is satisfactory.

Enrolling in Math 148: If you have not taken Math 147, you need to make an appointment to discuss it with me before being admitted to the course.
The University Senate mandates that every course outline must contain the following text.

**Academic Integrity:** In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. Check www.uwaterloo.ca/academicintegrity/ for more information.

**Grievance:** A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70, Student Petitions and Grievances, Section 4, http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm. When in doubt please be certain to contact the department’s administrative assistant who will provide further assistance.

**Discipline:** A student is expected to know what constitutes academic integrity to avoid committing academic offenses and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the undergraduate associate dean. For information on categories of offenses and types of penalties, students should refer to Policy 71, Student Discipline, http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm. For typical penalties check Guidelines for the Assessment of Penalties, http://www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm.

**Appeals:** A decision made or penalty imposed under Policy 70, Student Petitions and Grievances (other than a petition) or Policy 71, Student Discipline may be appealed if there is a ground. A student who believes he/she has grounds for an appeal should refer to Policy 72, Student Appeals, http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm.

**Students with disabilities:** The Access Ability Services, located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the Access Ability Services at the beginning of each academic term.