**COURSE OUTLINE**

1.  **Course:** MATH 253 Calculus II, Lecture 01, MWF 12:00 – 12:50, CHC 119
    Instructor: Kristine Bauer, MS 578, (403) 220 -7675, bauerk@ucalgary.ca

    Desire 2 Learn (D2L) course name: W2014MATH253 – MATH 253 (Winter 2014) – Calculus II

    Department of Mathematics and Statistics – MS476 Telephone number – 403-220-5210

2.  **Prerequisites:** Mathematics 249 or 251 or 281 or Applied Mathematics 217. See Section 3.5C of Faculty of Science www.ucalgary.ca/pubs/calendar/current/sc-3-5.html and Course Descriptions: www.ucalgary.ca/pubs/calendar/current/course-desc-main.html .

3.  **Grading:** The University policy on grading and related matters is described sections F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

    | | | |
    |---|---|---|
    | Assignments (10) | 10% | |
    | Midterm test (2) | 40% | (Oct. 16 & Nov. 12, 7:00 - 9:00 pm) |
    | Final Examination | 50% | (To be scheduled by Registrar) |

    **A passing grade in the Final Examination is essential for an overall grade of C- or better.**

    Each piece of work (assignment, laboratory report, midterm test or final examination submitted by the student will be assigned a percentage score. The student's average percentage score for the various components listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade . The conversion between course percentage and letter grade is given below:

    | Letter Grade Conversions | |
    |---|---|
    | **Letter Grade** | **% range** |
    | A+ | >96 |
    | A | 90–95.5 |
    | A- | 86–89.5 |
    | B+ | 82–85.5 |
    | B | 76–81.5 |
    | B- | 73–75.5 |
    | C+ | 70–72.5 |
    | C | 65–69.5 |
    | C- | 60–64.5 |
    | D+ | 55–59.5 |
    | D | 50–54.5 |
    | F | <50 |

4.  **Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in Section 3.6. It is the student's responsibility to familiarize himself/herself with these regulations. See also Section E.6 of the University Calendar

5.  **Scheduled out-of-class activities:** The midterm exams are scheduled for February 13 from 7-9pm and March 20 from 7-9 pm, respectively. The locations of these exams will be posted on D2L.

    **REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY.** If you have a conflict with this out-of-class-time-activity, please inform your instructor as soon as possible so that alternative arrangements may be made for you.

6. **Course Materials:** *"Single Variable Calculus: Early Trans. HYBRID (SOFT BOUND BOOK, WITH EWA ACCESS)", 7<sup>th</sup> Edition, by James Stewart, Thompson, Brooks/Cole – sold in the University Bookstore.*

   **Online Course Components: This course uses Enhanced Web Assign (EWA) for the homework component of the course.** Online homework through WebAssign is available on any computer that has internet access to those who opt to purchase the above textbook package. Those who do not purchase the textbook will be given access to just the homework component through select computer labs on campus. Either way, you are responsible for completing homework in a timely fashion. The choice is up to you if you would prefer the flexibility of working on your homework from anywhere and access to the eBook. The homework is a critical element to help prepare you for the exams and help you self assess your progress in the course.

7. **Examination Policy**: Students are not allowed the use of calculators or other devices, books, or notes during examinations. Students should also read the Calendar, Section G, on Examinations.

9. In this course, the quality of the student's writing of full length solutions on midterm exams will be a factor in the evaluation of those exams. See also Section E.2 of the University Calendar.

11. **OTHER IMPORTANT INFORMATION FOR STUDENTS:**

   (a) Academic Misconduct: (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under Section K. Student Misconduct to inform yourself of definitions, processes and penalties

   (b) **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on assembly points.

   (c) **Academic Accommodation Policy:** Students with documentable disabilities are referred to the following links: Calendar entry on students with disabilities and Student Accessibility Services. MSC452 Phone: 220-8237

   (d) **Safewalk:** Campus Security will escort individuals day or night (http://www.ucalgary.ca/security/safewalk/). Call 220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.

   (e) **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also http://www.ucalgary.ca/secretariat/privacy.

   (f) **Student Union Information:** VP Academic Phone: 220-3911 Email: suvpaca@ucalgary.ca
   SU Faculty Rep. Phone: 220-3913 Email: sciencerep@su.ucalgary.ca
   Student Ombudsman Phone: 220-6420 Email: ombuds@ucalgary.ca

   (g) **Internet and Electronic Device Information:** You can assume that in all classes that you attend, your cell phone should be turned off unless instructed otherwise. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.

   (h) At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses (www.ucalgary.ca/usri). Your responses make a difference - please participate in USRI Surveys.

**The following signature lines should be added to the course outline as appropriate**

Department Approval_____Date_____

Associate Dean's Approval for
out of regular class-time activity: _____Date:_____

Associate Dean's Approval for
Alternate final examination arrangements: _____Date:_____

Tentative schedule – for the final schedule, consult D2L and EWA.

| Week | Date | Topic | Events |
|------|------|-------|--------|
| 1 | Sept. 8 - 12 | 1.5 Exponential functions.<br>1.6 Inverse functions & Logarithms. | |
| 3 | Sept. 15 – 19 | 3.11 Hyperbolic functions.<br>7.1 Integration by parts. | HW 1 (1.5, 1.6, 3.11) due Sept. 21. |
| 3 | Sept. 22 - 26 | 7.2 Trigonometric Integrals.<br>7.3 Trigonometric substitution. | HW 2 (7.1, 7.2) due Sept. 28. |
| 4 | Sept. 29 – Oct. 3 | 7.3 Trigonometric substitution.<br>7.4 Partial fractions. | HW 3 (7.3, 7.4) due Oct. 5. |
| 5 | Oct. 6 - 10 | 7.4 Partial fractions.<br>7.5 Strategies for integration.<br>7.8 Improper integrals. | HW 4 (7.5) due Oct. 12. |
| 6 | Oct. 13 - 17 | 6.1 Areas between curves (review). | Midterm 1 – Thursday Oct. 16<br>(No lectures Monday, Oct. 13) |
| | | | |
| 7 | Oct. 20 - 24 | 6.2 Volumes.<br>6.3 Volumes by cylindrical shells. | HW 5 (7.8,6.1, 6.2) due Oct. 26. |
| 8 | Oct. 27 - 31 | 8.1 Arc length.<br>8.2 Surface area (of an area of revolution). | HW 6 (6.3, 8.1) due Nov. 2. |
| 9 | Nov. 3 - 7 | 8.2 Surface area (of an area of revolution).<br>9.1 Modelling with differential equations. | HW 7 (8.2, 9.1) due Nov. 9. |
| 10 | Nov. 10 - 14 | 9.3 Separable differential equations. | Midterm Exam Wednesday Nov. 12.<br>No lectures Mon, Nov. 10 and Tue. Nov. 11 |
| 11 | Nov. 17 - 21 | 9.5 First order linear DE's.<br>Second order linear DE's with constant coefficients. | HW 8 (9.3, 9.5) due Nov. 23. |
| 12 | Nov. 24 - 28 | Second order linear DE's with constant coefficients. | HW 9 (Second order DE's) due Nov. 30. |
| 13 | Dec. 1 - 5 | Taylor polynomials. Review. | HW 10 (Review) due Dec. 7. |
| | | | |
| | Dec. 8 - 18 | | Final Exam Period |