PART I. GENERAL INFORMATION

1. Classroom and Meeting Time: FEN 117; MTWF 08:00am-08:50
2. Text Book: James Stewart, Multivariable Calculus (7th ed.)
3. Instructor: Peng Lu
4. Office Hours: MWF 10:00am-10:50
5. Office and Phone Number: Deady Hall 304; 346-4727
6. Email Address: penglu@uoregon.edu
7. Web Page: http://blackboard.uoregon.edu/
   http://webwork.uoregon.edu/
8. Learning Outcome: Understand the geometry of space (cross product, dot product, projection formula, equations of lines and planes), understand the basic quadratic surfaces (paraboloids, hyperboloids of one sheet, hyperboloids of two sheets, ellipsoids, cylinders), be able to compute partial derivatives, obtain the best linear approximation, determine the tangent plane. Students should be able to compute with and apply the chain rule, compute directional derivatives, and understand Taylor and Maclaurin series. Students should understand the geometry of the gradient - the gradient points in the direction of maximal increase and minus the gradient points in the direction of maximal decrease - at a local minima or maxima the gradient vanishes (i.e. the function has a critical point). Students should be able to apply the second derivative test (Hessian) to find label a critical point as a local minima, local maxima, saddle point, etc. Students should be able to solve problems involving the methods of Lagrange multipliers to find local minima and maxima of functions subject to constraints.
9. Special Accommodation: If you are a student with a documented disability please meet with me soon to discuss your needs. If you have not already requested a notification letter from Disability Services outlining recommended accommodations, please do so soon.

PART 2. HOMEWORKS and EXAMS

1. Homeworks: About nine homework will be given through WebWork, each homework will be open for about a week.
2. Exams: Two in-class exams and one final exam
   Graphing calculators are allowed
   No makeup for tests unless there is a doctor’s note
3. Grade: Homework: 10%; Each test: 25%; Final exam: 40%

4. Important dates:
   Exam 1: Tuesday, January 28, 2014 in class;
   Exam 2: Tuesday, February 25, 2014 in class;
   Final Exam: 10:15am-12:15 Thursday, March 20, 2014
   You must bring photo ID to all the exams

PART III. OUTLINE AND ASSIGNMENTS

Week 1: January 06 to 10 (§12.1, 12.2, 12.3)
   Homework on WebWork: Week1Wint2014

Week 2: January 13 to 17 (§12.4, 12.5, 12.6)
   Homework on WebWork: Week2Wint2014

Week 3: January 20 to 24 (§12.6, 13.1)
   Homework on WebWork: Week3Wint2014

Week 4: January 27 to 31 (§13.2)
   Review on Monday; First exam on Tuesday
   Homework on WebWork: Week4Wint2014

Week 5: February 03 to 07 (§13.3, 13.4)
   Homework on WebWork: Week5Wint2014

Week 6: February 10 to 14 (§14.1, 14.2)
   Homework on WebWork: Week6Wint2014

Week 7: February 17 to 21 (§14.3, 14.4)
   Homework on WebWork: Week7Wint2014

Week 8: February 24 to 28 (§14.5, 14.6)
   Review on Monday; Second exam on Tuesday
   Homework on WebWork: Week8Wint2014

Week 9: March 03 to 07 (§14.6, 14.7, 14.8)
   Homework on WebWork: Week9Wint2014

Week 10: January 20 to 24 (§14.8)
   No homework  Review for Final Exam