Introduction to Differential Geometry (MTG 5253)
Fall 2017
Class information and policies

Instructor: Dr. Ram N. Mohapatra

Office: MSB 412

Email: ram.mohapatra@ucf.edu   **Telephone:** (407) 823-5080

Class times: MW 9:00 AM to 11:50 AM

Office Hours: Saturday 10:30 AM to 11:30, TR 1:00 PM to 2:00 PM, Sat 8:00-9:00 AM or by appointment

Text Books: 1. Differential Geometry by Erwin Kreyszig, Dover publication, ISBN: 13-978-048-6667218
2. Differential Geometry of Curves and Surfaces (2nd Edition) by Thomas Banchoff and Stephen Lovett, CRC Press, ISBN: 13-978-1482247343

Prerequisites: MAC 2313, or Consent of the instructor

Catalogue Description: Curves and surfaces in 2D and 3D, covariant derivative of a vector field, Geodesics, Gauss-Bonnet Theorem.

Course Chapters from the Texts: Selected topics from the texts will be covered and all materials will be posted in the webcourses.

Homework: Homework problems will be assigned from time to time and you will be required to work on them. A part of the class time will be devoted to discuss those problems. Homework will not be graded.

Quizzess: We will have quizzes in class and we will drop the lowest quiz score.
     Quizzes will worth 20%.

Tests: There will be three Tests. We will drop the lowest test score.
     Test 1: September 30, 2017
     Test 2: October 28, 2017
     Test 3: November 25, 2017
     Tests will worth 50%.

Final Examinations: Final Examination will be held on Saturday, December 9, 2017 from 9:00 to 11:50 AM.
     Final will worth 30%.

Blue books: In accordance with the Department of Mathematics policies, 8.5" x 11" (full size) blue books totally void of writing will be required for each test and Final, for those who are appearing the test on main campus. Those who appear at the tests in testing centers away from main campus should bring plain white paper to the test site and write in pen so that the scanned copies are legible to grade.

Makeup policy for Examinations: If you are going to be away for university related work, then please give me the relevant documentation so that I can arrange for the makeup test. **Personal or family travel plan will not qualify for a makeup.** If you have to miss a test for emergencies or sickness, please provide necessary document to the instructor as soon as possible. The Final Examination can't be given on any other day than the scheduled day.

Attendance: It is my experience that those who attend classes take part in the deliberations and does their homework regularly do well in their classes.

Letter grades: Your numerical score will be converted to letter grade by using the following:
A: 90-100%, B: 80-89%, C: 70-79%, D: 60 - 69%, F: 0- 59%
If + and – grades are used to differentiate performance, your Final grade will be no less than what is mentioned above.

Emails: All pertinent emails will be answered within 24 hours on working days.

Cheating: I expect academic honesty from each of my students. Case of academic dishonesty will be referred to the student conduct board. For details on academic honesty, please see the Golden Rules available at http://www.goldenrule.sdes.ucf.edu.

Disability Accommodations: Anyone who needs accommodations for disability is requested to contact Student Disability Services, Student Resource Center, Room # 132 (Phone: (407) 823-2371. TTY/TDD only phone: (407) 823-2116). Until student disability service notifies the instructor, no special arrangement can be made.

First week activity: In accordance with the Financial aid requirements, you are required to answer Assignment zero before the end of the first week of classes or as soon as you join the class. Otherwise financial aid may be delayed.

Withdrawal deadline: Monday, October 30, 2017

Class ends on Saturday, December 2, 2017

Holidays: Labor Day: September 4, 2017

Veteran's Day: November 10, 2017

Thanks giving: November 23-to November 27, 2017

Approximation Techniques (MAP 6445)
Fall 2017
Class information and policies

Instructor: Dr. Ram N. Mohapatra

Office: MSB 412

Email: ram.mohapatra@ucf.edu   **Telephone:** (407) 823-5080

Class times: MW 9:00 AM to 10:20 AM

Office Hours: MW 10:30 AM to 11:30, TR 1:00 PM to 2:00 PM, Sat 8:00-9:00 AM or by appointment

Text Book: "Approximation Theory and Approximation Practice" by Lloyd N. Trefethen, SIAM 2013 (ISBN: 978-1-611972-39-9)

Prerequisites: MAA4227, MAA and MAA 5210, or Consent of the instructor

Catalogue Description: Normed linear spaces, Weierstrass approximation theorem, Tchebycheff approximation by polynomials, Trigonometric approximation, orthogonal expansions, and least square approximation.

Course Chapters from the Text: Selected topics from Chapters 1 through Chapter 27. We will also supplement these from materials available in other sources.

Homework: Homework problems will be assigned from time to time and you will be required to submit your solutions on or before they are due. Late submissions will not be accepted. Homework will worth 20%.

Group projects: There will be two group projects which will worth 30%

Individual Project and paper: There will be one individual project and a paper covering a technique of approximation. It will worth 30%

Final Examinations: Final Examination will be held on Wednesday, December 6, 2017 from 7:00 to 9:50 AM. It will worth 20%.

Blue books: In accordance with the Department of Mathematics policies, 8.5" x 11" (full size) blue books totally void of writing will be required for each test and Final, for those who are appearing the test on main campus. Those who appear at the tests in testing centers away from main campus should bring plain white paper to the test site and write in pen so that the scanned copies are legible to grade.

Makeup policy for Examinations: If you are going to be away for university related work, then please give me the relevant documentation so that I can arrange for the makeup test. **Personal or family travel plan will not qualify for a makeup.** If you have to miss a test for emergencies or sickness, please provide necessary document to the instructor as soon as possible. The Final Examination can't be given on any other day than the scheduled day.

Attendance: It is my experience that those who attend classes take part in the deliberations and does their homework regularly do well in their classes.

Letter grades: Your numerical score will be converted to letter grade by using the following:
A: 90-100%, B: 80-89%, C: 70-79%, D: 60 - 69%, F: 0- 59%
If + and – grades are used to differentiate performance, your Final grade will be no less than what is mentioned above.

Emails: All pertinent emails will be answered within 24 hours on working days.

Cheating: I expect academic honesty from each of my students. Case of academic dishonesty will be referred to the student conduct board. For details on academic honesty, please see the Golden Rules available at http://www.goldenrule.sdes.ucf.edu.

Disability Accommodations: Anyone who needs accommodations for disability is requested to contact Student Disability Services, Student Resource Center, Room # 132 (Phone: (407) 823-2371. TTY/TDD only phone: (407) 823-2116). Until student disability service notifies the instructor, no special arrangement can be made.

First week activity: In accordance with the Financial aid requirements, you are required to answer Assignment zero before the end of the first week of classes or as soon as you join the class. Otherwise financial aid may be delayed.

Withdrawal deadline: Monday, October 30, 2017

Class ends on Saturday, December 2, 2017

Holidays: Labor Day: September 4, 2017
               Veteran's Day: November 10, 2017
               Thanks giving: November 23-to November 27, 2017