MA 341 Foundations of Analysis (Spring 2018)

Instructor: **Dr. Moongyu Park**

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Office Hour: Wed, 3:30 pm – 5:00 pm, Thu 4:30 pm – 6:00 pm or by appointment

Course web page: http://www.math.purdue.edu/~park633/MA341.html

　　　　　　　All homework assignments and exam information will be available in this page.

Class Schedule: MA 341 – 051: MWF 2:30 pm – 3:20 pm in REC 309

Textbook: Introduction to REAL ANALYSIS (4th Edition) by R.G. Bartle & D.R. Sherbert

Course Description   (Credit Hours: 3.00)

MA341 is an introductory course in rigorous analysis. It covers real numbers, sequences, series, continuous functions, differentiation, and integration.

Topics: chapter 1 – 8: Real numbers, Sequences, Series, Limits, Continuous functions, Differentiation, Riemann integral, Sequences of functions.

Course Grade: HW (70) + Quiz (30) + Midterm exams (2*100) + Final (150) = 450

Homework (70):   Homework must be **readable and must be stapled**. Illegible scribblings will receive no credit from the grader. You are encouraged to attempt all the questions and discuss with your classmates. However, the write-up must be of your own. Homework problems and due dates will be posted at the course website. Each homework will be collected **every Friday in class**.   **No late assignments will be accepted.** But you can submit homework **earlier than the due date.**

Quizzes (30):   Quizzes will be given **every Friday**.   Most questions of quizzes will come from **problems of previous HW and/or their variations**. If you have a University-approved excuse, you can take a **make-up quiz**. You have to take the make-up quiz within 7 days.

Midterm Exams (200):   There will be two mid-term exams on the date to be announced. If I am given a **University-approved excuse** you may take a make-up exam.   The problems in the make-up exam will be **different** from the original problems. They could be **harder**. All work must be shown.

Final Exam: The Final Exam will be a two-hour comprehensive multiple choice exam given during the Final Exam Week (Apr 30 – May 5). The time and place will be announced in class.

Class policies: Class attendance is expected in every class. Reading the sections in the textbook ahead of time is strongly recommended. Check the course webpage frequently. It contains important course-wide announcement, instructor contact information, Assignment Sheet. You are expected to observe academic honesty to the highest standard. Any form of cheating automatically leads to an F grade, plus other disciplinary action deemed appropriate.

Accommodations for students with disabilities: If you have been certified by the Disability Resource Center (DRC) as eligible for academic adjustments on exams or quizzes see **www.math.purdue.edu/ada** for exam and quiz procedures for your mathematics course or go to **MATH 242** for paper copies.

Campus Emergency Notice: www.math.purdue.edu/MA266 or the course web-page

Homework problems for sections covered by Exam 1

Homework #1: Due Friday 01-19-2018
pages 10-11: #2, #5a, #14, #16, #24
pages 15-16: #1, #6, #10, #15, #18

Homework #2: Due Friday 01-26-2018
page 22: #5, #10, #11c
pages 30-31: #2, #6, #9, #15, #18
pages 35-36: #1, #6, #9a, #18a

Homework #3: Due Friday 02-02-2018
pages 39-40: #1, #3, #4, #5a, #5b, #7
pages 44-46: #1,#3, #4, #14, #18, #19

Homework #4: Due Friday 02-09-2018
pages 52-53: #7, #8, #16, #17
page 62: #6c, #6d, #8, #12, #16, #18
pages 69-70: #4, #6b, #6d, #7, #12

Homework #5: Due Friday 02-16-2018
page 77: #1, #3, #7, #11, #12
page 84: #7b, #7d, #9, #12
page 91: #5, #8, #9

Homework problems for sections covered by Exam 2

Homework #6: Due Friday
pages 93-94: #1, #3, #4c, #4d, #10
page 101: #6, #11, #12, #13
page 110: #7, #11, #15
page 116: #3, #5, #9, #10

Homework #7: Due Friday
page 116: #3, #5, #9, #10
page 123: #5g, #5h, #9, #11
page 129: #6, #7, #11, #12

Homework #8: Due Friday
pages 133-134: #3, #4, #7, #8, #15
pages 140-141: #1, #4, #13, #17, #19

Homework #9: Due Friday
pages 148-149: #2, #3, #5, #9, #11
page 160: #1, #4, #5, #12
page 171: #2, #4, #7, #9, #16

Final set of homework problems

Homework #10: Due Friday
pages 179-180: #6, #11, #13, #15, #17
pages 187-188: #3, #6, #7, #8b, #8c

Homework #11: Due Friday
pages 187-188: #10c, #10d, #11a, #11b, #12
pages 196-197: #1, #2, #6, #8, #12, #17, #19

Homework #12: Due Friday
page 233: #3, #4, #13, #15
pages 215-216: #2, #10
page 224: #7, #9, #11, #14

Homework #13: Due
pages 246-247: #4, #10, #14, #19