## MATH 5B –MATH ANALYSIS II (#56189) Spring 2020

Instructor: Mr. Conrad Perez Class Time: MTWF 12:00 PM – 12:50 PM Classroom: CCI-206 Office: FEM-1H Office Hours: MWF: 11:00 AM – 12:00 PM; TTH: 9:00 AM – 10:00 AM; or by appointment Phone: 638-3641 ext. 3255 E-Mail: conrad.perez@reedleycollege.edu

**Textbook:** Calculus, Early Transcendentals (Eleventh Edition) by Anton, Bivens, and Davis

Important Dates: Drop Deadline- Fri. Mar 13, 2020.

Days Off- Mon. Jan 20; Fri. Feb 14; Mon. Feb 17; Mon.-Fri. April 6 -10. Final Exam- Mon. May 18, 2020 from 12:00 PM to 1:50 PM

Course Prerequisites: C or better grade in Math 5A or equivalent.

**Course Overview:** The course will cover all or parts of chapters 5 - 10 as time permits. The course objective is to obtain a solid understanding of the following concepts and problems that involve calculus:

- 1. Areas between curves;
- 2. Volume, volume of a solid of revolution;
- 3. Additional techniques of integration including integration by parts and trigonometric substitution;
- 4. Numerical integration; trapezoidal and Simpson's rule;
- 5. Improper integrals;
- 6. Applications of integration to areas and volumes;
- 7. Additional applications such as work, arc length, area of a surface of revolution, moments and centers of mass, separable differential equations, growth and decay;
- 8. Introduction to sequences and series;
- 9. Multiple tests for convergence of sequences and series;
- 10. Power series, radius of convergence, interval of convergence;
- 11. Differentiation and integration of power series;
- 12. Taylor series expansion of functions;
- 13. Parametric equations and calculus with parametric curves; and
- 14. Polar curves and calculus in polar coordinates;

**Attendance:** After 4 absences, students may be dropped from the class. Late arrival and leaving class early will be considered as an absence. Any canceled classes will have a note posted on the classroom door.

**Behavior**: A student may be suspended from the class if he or she engages in a classroom behavior that interferes with the learning environment. Such behavior includes, but is not limited to, disruptive conversations with fellow students, regular tardiness, sleeping, and leaving the classroom during class time. Students are expected to turn off all cell phones and other electronic devices during class time.

**Assignments:** There will be 4-6 exams (including the final) worth 100 points apiece. Homework assignments are worth 10 points and quizzes that are given will be worth 1-10 points. Some homework and/or extra credit may be assigned as group work and/or board work during the semester. No homework will be accepted after its due date nor any make-up exams given <u>without prior arrangements</u> being made before the homework's due date or before the exam. A student caught cheating will receive an F on the assignment and/or may be dropped from the course.

**Grading:** The course grade is based upon the points earned from the homework, quizzes, exams, extra credit, and the final. At any time during the course, the grade of a student is determined as follows:

<u>Points Earned</u> x 100 = grade of the student Total Points Possible

The grade will be based upon the following percentages (**NO ROUNDING**): 90-100% A 80-89% B 70-79% C 65-69% D 0-64% F

**Note:** If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.