Math 5B – Math Analysis II Syllabus (Reedley College Dual Enrollment)

"Pure mathematics is, in its way, the poetry of logical ideas." - Albert Einstein

Instructor: Mr. Joe Schuster, Dinuba High School – Dinuba, CA

Textbook: *Calculus Early Transcendentals*, by Briggs, Cochran, Gillett, Schulz, Pearson, 3rd Ed., 2019

Objectives: By the end of this course, student's will be able to:

- Evaluate definite integrals using the fundamental theorem of calculus and relate definite integrals to areas and Riemann sums.
- Apply the use of integrals to problems involving volumes of solids, arc length, surface area, and other applications from science and/or engineering.
- Find antiderivatives using a variety of techniques of integration.
- Determine the convergence or divergence of infinite series by using appropriate tests and use infinite series to find polynomial representations of transcendental functions.
- Analyze conic sections and mathematical relationships given in parametric and polar forms.

Grading

Each student's grade will be based on their relative scores in each of the weighted categories shown below on the left. Below on the right is the overall percentage breakdown.

Grades		Overall Grading Percentage
• Homework	20%	A = 90% +
• Quizzes	10%	B = 80% – 89%
• Tests	50%	C = 65% – 79%
• Final	20%	D = 50% – 64%
		F = 0% – 49%

Contact

If for any reason you need to contact me, you may:

- Call me at: (559) 595 – 7220 ext. 2536
- E-mail me at: joseph.schuster@dinuba.k12.ca.us
- Twitter: @SchusterMath

Homework: Homework is a vital part of an education in mathematics. It allows the student to practice and achieve mastery over the skill learned in class. Homework will be assigned on Friday, and due the following Friday at 11:59pm. To receive full credit for assignments, ALL work must be shown and assignments must be turned in on time.

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Quizzes: We will have one quiz each week, except for weeks where we have a test. Quizzes will be assigned on Wednesday, and due Friday of that week at 11:59pm.

Tests: We will have one culminating test per unit. These can have multiple choice and/or free response questions. Tests will be assigned on Wednesday, and due Friday of that week at 11:59pm.

Final: We will have a comprehensive final exam at the end of the semester. It will be assigned a week before it is due.

Late Work: Late work will receive a zero. Late is defined as turned in after the due date and time. You have multiple days to turn in work prior to the due date. Do not wait until the last minute.

Student Responsibilities

- Students are expected to attend class regularly and arrive on time.
- Students are expected to be prepared for class each day, with materials needed to successfully participate.
- Students are expected to participate in class. This includes taking notes during the daily lesson and keeping those notes in a place that is accessible for daily use.
- Check our Google Classroom regularly and frequently to stay aware of assignments and when those assignments are due.
- **Academic Dishonesty:** If you are suspected of cheating on **any** assignment you will receive a zero on the assignment and a referral to the assistant principal. This includes copying work of others on homework or assessments.
- Finally… **YOU ARE EXPECTED TO STUDY ON YOUR OWN TIME!!!** If you expect to do well solely off of your in-class time, you are mistaken. This is a college course, and as such it requires that you spend time outside of class studying!

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

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<u>Math 5B – Math Analysis II Outline</u>

1. Area between two curves;

2. Volumes of solids formed by revolution and perpendicular to an axis;

3. Arc Length and Surface Area;

4. Derivatives and Integrals of Logarithmic, Exponential, and Hyperbolic Functions;

5. Integration by Parts;

6. Advanced Integration Techniques;

7. Differential Equations;

8. Sequences and Series;

9. Divergence, Convergence, and Integral Tests;

10. Power Series;

11. Parametric Equations;

12. Polar Coordinates and Conic Sections