Reedley College/Sanger HS   Math 5B   Spring 2019

Instructor: Stephen Schmidt, SHS, Room 606   E-Mail Address: stephen_schmidt@sanger.k12.ca.us
Phone Number: 524-7121   Teacher Availability: Monday - lunch
                                                                          Wednesdays - lunch & afterschool
                                                                          or by appointment

Text : <u>Calculus</u>, Anton 11th edition, Wiley
Prerequisite: Mathematics 5A
Basic Skills Advisories: Eligibility for English 125 and 126

Description
Introduction to calculus, analytic geometry, differentiation and integration of polynomial, exponential, logarithmic and trigonometric functions; limits; curve sketching and applications.

Expectations / Responsibilities
Instructor
- Motivate and inspire student success.
- Provide a classroom climate in which the student takes responsibility for learning.
- Provide the necessary instruction and model the quality of work to be successful in Math 5A.
- Clearly communicate progress being made in a timely fashion.

Student
- Follow the class rule – **Be Nice**.
- Be in each class on time with *full participation* from *start to finish*.
- Any electronic device (phone, ipod, etc) <u>SEEN</u> during class will be confiscated!
- Study Math daily.
- The use of a graphing calculator (TI-84, TI 84 Plus/Silver, TI-89 or an Inspire) is required for this course.
- Learn the material that is taught and *seek additional assistance* when necessary.
- All written work must be neat, complete, concise and accurate to receive full credit.
- Promptly communicate any class related issues.
- If you miss any class time it may be counted as an absence.
- If you have more than 3 absences, you may be dropped.

Grading	*Tests/Quizzes* 75%	*Homework* 25%
A 90-100%	There will be 5 Tests and a Final which may replace your lowest test score.	Written assignments will be collected as assigned.
B 80-89%		
C 70-79%		
D 60-69%	**No make-up or retake tests.**	**No late homework is accepted.**

*Test dates are subject to change

Important Dates

Feb 1, 2019	FRI	CENSUS - Last day to ADD/DROP a full-term class (to avoid a W for withdrawel)
March 8, 2019	FRI	DROP DEADLINE - Last day to drop a full-term class to avoid a grade
May 24, 2019	TH	*Final Exam*

Testing Procedure
1) Tests are to be completed in pencil.
2) NO CALCULATORS
3) NO PHONE
4) NO NOTES

Once started, each student must complete and return their test before leaving the room.

The SCCCD policy regarding Academic Dishonesty will be applied when appropriate.

Academic Dishonesty

Cheating is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, giving or receiving copies of examinations without an instructor's permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely.

Plagiarism is a specific form of cheating: the use of another's words or ideas without identifying them as such or giving credit to the source. Plagiarism may include, but is not limited to, failing to provide complete citations and references for all work that draws on the ideas, words, or work of others, failing to identify the contributors to work done in collaboration, submitting duplicate work to be evaluated in different courses without the knowledge and consent of the instructors involved, or failing to observe computer security systems and software copyrights.

Incidents of cheating and plagiarism may result in any of a variety of sanctions and penalties, which may range from a failing grade on the particular examination, paper, project, or assignment in question to a failing grade in the course, at the discretion of the instructor and depending on the severity and frequency of the incidents.

***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 or section 504 of the Rehabilitation act please contact me as soon as possible.*

Please refer to SCCCD policies for guidance on all matters relating to this course.

Course Outline

Learning Outcomes: *Upon completion of this course, students will be able to:*

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

Objectives:

In the process of completing this course, students will:

1. Evaluate definite and indefinite integrals using a variety of integration formulas and techniques;
2. Apply integration to areas and volumes, and other applications such as work or length of a curve;
3. Evaluate improper integrals;
4. Apply convergence tests to sequences and series;
5. Represent functions as power series; and
6. Graph, differentiate and integrate functions in polar and parametric form.

Lecture Content:

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;

We have read and understand the academic expectations and classroom policies.

Date _____

Student Name (printed) _____

Student Signature _____

Parent's Name (printed) _____

Parent Signature _____

Parent Contact Number(s)   Home   _____

Cell   _____

Work   _____

Parent E-Mail _____

Please circle the best way(s) for me to contact you. Thank you.

Home Phone   Cell Phone   Work Phone   E-Mail