Collin College Mathematics Department
2018 Spring Faculty Instructor's Syllabus

Professor's Website: http://iws.collin.edu/vantohe   **Campus:** Spring Creek, Plano (SCC)

Professor's Name: Dr. Valeria Antohe   **Office Loc**: I-222   **Phone:** (972) 578-5515   **Semester: 16-week**

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Course: Math-2414 **Sec:**S05 **CRN:** 28522   **Course Meeting Times:** TR 10 am-12:45 pm

Course Title: Calculus II   **Office Hours:** TR 9:15 am-9:45 am, 1:00 pm-2:00 pm

Course Description:
Differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals. Lab included.

Textbook and WebAssign Student Access Code:
Calculus – Early Transcendentals, 8th ed., by James Stewart, © 2016 Cengage Learning with Enhanced WebAssign Access Code; WebAssign is required for homework credit. The WebAssign access code includes the text as an eBook.
Required Graphing Calculator: TI-83, TI-84, or non-CAS TI-Nspire; **Supplies**: Straightedge

Prerequisite: Math 2413

Census Date: January 29, 2018   **Withdrawal Date:** March 9, 2018   **Final Exam Date:** May 8, 2018

College Syllabus Link: http://www.collin.edu/math/math_syllabi.htm

Course Repeat Policy: Please see the "Repeating Courses" section of the Registration Guide for more information.

Course Delivery Method: Lecture, lab and guided practice

Credit Hours: 4   **Lecture Hours:** 3   **Lab Hours:** 3

Course Requirements:
Completion of exams, labs and online homework, participate in classroom discussions and group activities, and attending classes.

WebAssign Registration Requirements
You must register in the **WebAssign course** (at https://www.webassign.net/login.html) by the **second day** of the semester. There are **no exceptions** from the Class Policies regarding assignment due dates if you registered later than the second day of classes. **Class Key: collin 1135 3500**; detailed instructions to enroll in the course can be found at: http://iws.collin.edu/vantohe/Math2414S.html

College Wide Email System for Students: CougarMail
If you wish to communicate with me concerning grades, you need to use CougarMail. I cannot, for reasons of confidentiality and privacy, respond to messages on grades sent from e-mail accounts other than your CougarMail account. The e-mail messages that you send me must have the following subject line: **MATH 2414.S05/ Last Name.** Messages without this information will not be responded to.

Classroom Policies:
- Do NOT distract class by texting, reading or sending e-mail, or doing any unrelated web surfing during class time.
It is a violation of the Student Code of Conduct (Section 7-2.4, Other Offenses, item S) to engage "in the use of media or telecommunication devices during class, Collin College labs or other learning environments." This includes social networking activities such as texting, talking on the phone, and Web browsing from laptops, smart phones, or any other relevant electronic devices.
- Any disruptive behavior will be referred to the Dean of Students. If you cannot participate positively in class, you will be asked to leave.
- There are NO restroom breaks during a test.

Student Learning Outcomes: (*Upon completion of this course, the students should be able to do the following*)

1. Use the concepts of definite integrals to solve problems involving area, volume, work, and other physical applications. (Critical Thinking and Communication)
2. Use substitution, integration by parts, trigonometric substitution, partial fractions, and tables of anti-derivatives to evaluate definite and indefinite integrals.
3. Define an improper integral. (Communication)
4. Apply the concepts of limits, convergence, and divergence to evaluate some classes of improper integrals.
5. Determine convergence or divergence of sequences and series. (Critical Thinking)

6. Use Taylor and Maclaurin series to represent functions.
7. Use Taylor or Maclaurin series to integrate functions not integrable by conventional methods.
8. Use the concept of polar coordinates to find areas, lengths of curves, and representations of conic sections.
9. Approximate definite integrals using the Trapezoidal, Midpoint, and Simpson's Rules. (Empirical/Quantitative)

Method of Evaluation

ASSESSMENT	+2 %	credit applied only if assessment is completed as shown in WebAssign
HOMEWORK	10 %	Done in WebAssign (see Homework Policy below)
LAB	8 %	On paper, done <u>only</u> in class, turned in same day
EXAM 1	19 %	covering chapter 7-for details see Course Calendar
EXAM 2	19 %	covering chapter 6, sections 8.1- 8.3, 10.2, 10.4- see Course Calendar
EXAM 3	19 %	covering Sections 9.1-9.4, Sections 11.1-11.7- see Course Calendar
FINAL	25 %	comprehensive, covering chapters 6,7, sections 8.1-8.3, 10.2, 10.4, 9.1-9.4 chapter 11

The formula to compute the final grade is:
0.57×(Exam average) + 0.1×(HW average) + 0.08×(Lab average) + 0.25×(Final exam) + 0.02x(Assessment)
The resulting number will be rounded to the closest whole number to get the grade.
Grading Scale: A=90-100   B=80-89   C=70-79   D=60-69   F=0-59

Attendance Policy:
Regular and punctual attendance is expected at every class meeting. You will receive a tardy mark if you leave early or come in later than 5 minutes after the class starts. **Three tardy marks are equivalent to an absence**. If you miss one or more classes, you are responsible for the material covered in class. You are still responsible for any information, announcements, or assignments given that day. Missing a class is not an excuse to be unprepared or not knowing the material. If you do miss it is recommended that you:
1. read the textbook and work through the examples, then attempt the homework exercises;
2. bring any specific course material questions you have to me during my office hours or go to the Math Labs.
Students who do not attend class regularly and who do not take all exams typically earn a grade of F.

Homework Policy:
Each homework assignment will consist of problems in WebAssign. You are expected to complete homework assignments for each section after the corresponding lecture and are due as indicated in WebAssign. You are responsible for solving the problems and knowing the concepts before the next class. The lowest six homework grades are dropped to account for illness or other personal reasons. Students are welcome to use the Math Lab resources when working on homework assignments. Each assignment score (max. 100) is recorded on its due date in the gradebook and cannot be turned in late nor made up for credit. It is the student's responsibility to open and submit all the course assignments. The homework assignments will not be extended for any reasons. The homework assignment solutions will be available and visible to the students immediately after the due date/time.

Lab Policy:
The labs are group projects. Each student must turn in his/her own lab at the end of class period for credit. Due to the fact that labs are meant to be an in-class group activity learning experience, no late remissions will be accepted. The Lab Instructions form should be read, signed and returned to the class instructor. The lowest lab grade is dropped to account for illness or other personal reasons.

Exam Policy:
Exams 1-3 will be given in the classroom on the dates listed in class calendar; no notes may be utilized for any of these exams. For all exams, the memory of your graphing calculator will be cleared before and after the exam. The Final exam will be given in class according to the Collin College schedule for final exams.

Make-up Policy:
Make-up exams will not be given under any circumstances and a zero grade will be assigned to every missed exam. Your final exam grade will substitute the grade of <u>one</u> missed exam. If you did not miss any exams and your final exam is higher than one of the three exams, the lowest grade exam will be replaced by the final exam grade.

Student Conduct:
Students are expected to conduct themselves in a manner that is appropriate for college classroom. Cell phones are to be turned off before entering the classroom. Text messaging and the use of the laptops are not allowed during lectures. **A penalty of 5 points will be deducted from your exam grade if your cell phone is ringing during the class.**

Resource Material:
Any student enrolled in this class has access to the Math Lab (locations given below). The Lab is staffed with faculty and tutors; in addition, it offers free tutorial help, videotapes, graphing calculators, and computer assistance. Collin students may arrange for tutoring with the ACCESS office (SCC D-140). Please call 972-881-5898 for scheduling and availability.

Math Lab:
Please note that tutors can answer only specific questions. Student solution manuals are available, if you do not want to purchase one. TI calculators are available for use in the lab.

Spring Creek Campus	Math Lab	D203	972-881-5921
Preston Ridge Campus	Math Lab	F148	972-377-1639
Central Park Campus	Math Lab	C220	972-548-6896

Study Tips:
Schedule at least **12 hours** a week to solve the assigned practice problems. Make the effort to complete all the assignments by their due dates. More study tips can be found at http://iws.collin.edu/vantohe/StudySkills.html

Withdrawal Policy:
Under section 51.907 of the Texas Education Code, students may not withdraw from more than six courses including any course a transfer student has withdrawn from at another Texas institute of higher education. For exemptions, visit http://www.collin.edu/gettingstarted/register/withdrawal.html. Please see your instructor before you withdraw and the current Collin Registration Guide for the last day to withdrawal.

Course Withdrawal:
To withdraw from this class, you need to do the following:
1. Attain a Drop/Add form from the office of Admission and Records, 972-881-5710,
2. Turn in the completed Drop/Add form to the office of Admission and Records on or prior the withdrawal deadline,
3. Make sure your course withdrawal satisfies the college withdrawal policy,
4. You may receive an F if they do not finish this class and do not withdraw on or prior to the withdrawal deadline.

Religious Holy Days:
In accordance with section 51.911 of the Texas Education Code, the college will allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within a reasonable time. Please refer to the current *Collin Student Handbook*.

Evaluation of Instructions:
Collin College seeks to improve the learning experience of all students. To assist in evaluating courses, students will be requested to complete an evaluation of instruction form near the end of the semester.

Americans with Disabilities Act Statement:
Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-D140 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current Collin Student Handbook for additional information.

Collin College Academic Policies:
See the current Collin Student Handbook.
Any incidence of scholastic dishonesty will be reported to the Dean of Student Development Office. Students who commit scholastic dishonesty—cheating on a test, plagiarism, collusion, or any other form of dishonesty—will receive a penalty ranging from a zero grade on the assignment to an F in the course, at the discretion of the instructor.

Disclaimer:
The instructor reserves the right to make changes to this syllabus during the semester in writing and during class hours.

Tentative Course Calendar for MATH 2414.S05

Week	Date	Day	Material
1	1/16	T	Class Policies, 7.1 Integration by parts
	1/18	Th	7.2. Trigonometric integrals 7.3. Trigonometric substitution
2	1/23	T	7.4 Integration of rational functions by partial fractions 7.5. Strategy for integration
	1/25	Th	7.6. Integral using tables 7.7 Approximate integration
3	1/30	T	7.7 Approximate integration Lab 1
	2/1	Th	7.8. Improper integrals 6.1 Areas between curves
4	2/6	T	**Exam 1**
	2/8	Th	6.2. Volumes
5	2/13	T	6.3. Volumes by cylindrical shells
	2/15	Th	6.4 Work Lab 2
6	2/20	T	6.5. Average value of a function 8.1 Arc length
	2/22	Th	8.2. Areas of a surface of revolution 8.3. Aplications to Physics and Engineering
7	2/27	T	10.2 Calculus with parametric curves
	3/1	Th	10.4. Areas and lengths in polar coordinates Lab 3
8	3/13	T	9.1. Modeling with differential equations
	3/15	Th	**Exam 2**
			SPRING BREAK 3/10 - 3/18
9	3/20	T	9.2. Direction fields and Euler's method 9.3. Separable equations
	3/22	Th	9.4. Models for population growth Lab 4
10	3/27	T	11.1. Sequences
	3/29	Th	11.2. Series Lab 5
11	4/3	T	11.3. The integral test and estimates of sums 11.4. The Comparison tests
	4/5	Th	11.5. Alternating series Lab 6
12	4/10	T	11.6. Absolute convergence and the ratio and root tests
	4/12	Th	11.7. Strategy for testing series
13	4/17	T	**Exam 3**
	4/19	Th	11.8. Power series
14	4/24	T	11.9. Representations of functions as power series
	4/26	Th	11.10. Taylor and Maclaurin series
15	5/1	T	11.11. Applications of Taylor polynomials
	5/3	Th	Review
16	**5/8**	**T**	**Final Exam (10 a.m. - 12 p.m.)**