

**TECHNICAL MATHEMATICS SYLLABUS**

**MTB 2321C, CRN 14636**

[Valencia College Website](http://www.valenciacollege.edu) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **SESSION: FALL 2021**

# PROFESSOR:

Name: Henry Regis

Office: N/A (Adjunct professor)

E-mail: hregis@valenciacollege.edu

Phone number: 407-421-7774 (cel)

Office hours (also by Appointment): by appointment

# COURSE:

Name and Catalog description: Technical Mathematics, MTB 2321C

Fundamental arithmetic, geometry, and algebra operations including algebraic expressions, exponents,

Factoring and linear and curvilinear equations, graphs of functions and equations, various coordinate

Systems, solution of right triangles and oblique triangles by means of trigonometric functions, word

Problems and engineering/surveying/construction applications. Use of scientific calculator.

CRN: 14636

Credit: 3 credits

# Prerequisite(s) and Co-requisite(s): Engineering Graphics with CAD

# Meeting places and times: Online (Refer to Home tab in Canvas)

COURSE OUTCOMES:

Student shall study basic Pre-Algebra topics including numbers, symbols and operations

Student will demonstrate ability to use calculator functions to include angle and trigonometric calculations

Student will acquire an understanding of basic Algebraic Notations and Operations.

Student will demonstrate the ability to apply mathematical concepts to practical Engineering, Surveying and Building Construction problems

Student will learn how to perform operations with fractions

Student will learn how to perform operations related to the basic laws of exponents and radicals

Student will be exposed to basic quantities and Units of Measurements used in Engineering, Surveying and Construction applications

Students will develop an understanding of techniques employed to solve equations

Student will learn how to utilize the Cartesian Coordinate System in two dimensions

Student will learn how to solve a System of Linear Equations

Student will develop an understanding of measurements of shapes according to their size and position

Student will develop an understanding of practical Trigonometry used in Engineering, Surveying, Building Construction and similar technical work

# EDUCATIONAL MATERIALS:

*College Mathematics for Trades and Technologies , 10th Edition, by Cheryl Cleaves and Margie Hobbs Published by Pearson, Prentice Hall. There is a bundle available if you prefer (at your own risk, I am not familiar with bundle details at this time), You will need a basic scientific calculator with trigonometric functions.*

Additional supplies: Scientific Calculator with Trigonometric Functions is reuired..

# ASSESSMENT METHODS AND EVALUATION:

*Lecture, drawing sessions, quizzes, on-line homework, and the final exam for this hybrid course will determine your course grade. Your final average will be evaluated according to the following grade:*

**Grading Scale:** 90 – 100% = A **Grading Procedure:** Quizzes 25%

 80 – 89% = B Homework 20%

 70 – 79% = C Midterm 20%

 60 – 69% = D Final 25%

 Attendance 10%

 0 – 59% = F Total 100%

**\*NOTE**: The Final examination in this hybrid course is worth 35 points. Any student not completing the Final examination or any other coursework assigned will receive a grade of 0 for any work not submitted, including on-line homework and this will impact the final course grade earned, unless the professor elects to assign the student a grade of “I”.

# IMPORTANT CALENDAR DATES:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Full Term | H1 | H2 | TWJ | TWK |
| Classes Begin | August 23, 2021 | August 23, 2021 | October 15, 2021 | August 23, 2021 | September 27, 2021 |
| Drop/Refund | August 30, 2021 | August 30, 2021 | October 22, 2021 | August 30, 2021 | October 4. 2021 |
| No Show Deadline | August 30, 2021 | August 30, 2021 | October 22, 2021 | August 30, 2021 | October 4, 2021 |
| Graduation Application Deadline | September 10, 2021  | September 10, 2021 | September 10, 2021 | September 10, 2021 | September 10, 2021  |
| Withdrawal Deadline | October 29, 2021 | September 24, 2021 | November 19, 2021 | October 8, 2021 | November 12, 2021 |
| Day/EveningClasses End | December 12, 2021  | October 14, 2021 | December 12, 2021 | October 31, 2021 | December 12, 2021 |
| Final Exams | December 14, 2021  | Last Class Meeting | Last Class Meeting | Last Class Meeting | Last Class Meeting |
| Term Ends | December 12, 2021  | October 14, 2021 | December 12, 2021 | October 31, 2021 | December 12, 2021 |
|  Thursday October 14 , 2021 Spirit Day (there will be classes)Campus closed Monday September 6, 2021 Labor DayThursday November 11, 2021 (Meeting Day for Faculty)Wednesday November 24, 2021 thru Sunday November 28, 2021 Thanksgiving |

For calendars, see [Important Dates](http://www.valenciacollege.edu/calendar) .

# NO-SHOW PROCEDURE:

Any student who does not attend class by the drop/refund deadline for this part of term will be withdrawn by the professor as a no-show.  This will count as an attempt in the class, and students will be liable for tuition.  If your plans have changed and you will not be attending this class, please drop yourself through your Atlas account by the drop deadline. You need to submit the first week online assignment and/or initiate contact with professor to count as attendance before the No Show Drop Deadline.

# CLASSROOM POLICIES ATTENDANCE:

 Attendance is 10% of your overall grade. I expect my students to complete assignments and attend class.

Note: Leaving class early before class is over for the session will be counted as an absence unless prior approval by the instructor. E-mail me if you know you will miss class.

Failure to attend class for extended period of time may cause you to be withdrawn.

# WITHDRAWAL:

Per Valencia Policy 4-07 (Academic Progress, Course Attendance and Grades, and Withdrawals), a student who withdraws from class before the established deadline for a particular term will receive a grade of “W. A student is not permitted to withdraw after the withdrawal deadline. **See Important Dates for the Withdrawal Deadline for the part of term of this course.**  A student who is withdrawn by faculty for violation of the class attendance policy will receive a grade of “W”. Any student who withdraws or is withdrawn from a class during a third or subsequent attempt in the same course will be assigned a grade of “F”. For a complete policy and procedure overview on Valencia Policy 6Hx28:4-07, please go to: [College Policies](http://valenciacollege.edu/generalcounsel/) .

**NOTE:  Before choosing to withdraw, students should speak first with your professor regarding your progress in the course and with an Academic Advisor to discuss the impact of the W on your academic progress, future fees, and financial aid.**

# NOTE TO INTERNATIONAL STUDENTS (F-1 OR J-1 VISA):

Please be advised that withdrawal from this course due to attendance may result in the termination of your visa status if you fall below the full-time enrollment requirement of 12 credit hours. Consult the International Student Services office for more information.

# MAKE-UP POLICY:

I will drop your lowest quiz grade if you have taken all quizzes. If you miss one quiz, I will drop that quiz.

Missing 2 quizzes will cause you to be dropped from the class (rare exceptions may be made by the instructor at my discretion for exceptional circumstances).

If you miss the mid-term exam, the final will count 20 % more.

. For student emergencies, please contact me by e mail to keep me informed, especially if you miss more than one class.

# STANDARDS OF CLASSROOM CONDUCT:

Valencia College is dedicated to the advancement of knowledge and learning and to the development of responsible personal and social conduct. By enrolling at Valencia College, a student assumes the responsibility for becoming familiar with and abiding by the general rules of conduct as listed in 6Hx28: 8-03 and the Student Handbook. Even though Faculty manage the classroom environment, the primary responsibility for maintaining a respectful and civil learning environment rests with the students. Students who violate the Student Code of Conduct may be referred to the Dean of Student's Office for disciplinary action, which may result in a sanction up to and including expulsion. [College Policies](http://valenciacollege.edu/generalcounsel/policy)

# ACADEMIC HONESTY:

Each student is required to follow Valencia policy regarding academic honesty. All work submitted by students is expected to be the result of the student’s individual thoughts, research, and self-expression unless the assignment specifically states “group project.” Any act of academic dishonesty will be handled in accordance with Valencia policy as set forth in the Student Handbook and Catalog.

# COLLEGE POLICIES:

A full description of all College policies can be found in [College Catalog](http://valenciacollege.edu/catalog/) and at [College Policies](http://www.valenciacollege.edu/generalcounsel/) .

# STUDENT ASSISTANCE PROGRAM:

Valencia College is interested in making sure all our students have a rewarding and successful college experience.  To that purpose, Valencia students can get immediate help with issues dealing with stress, anxiety, depression, adjustment difficulties, substance abuse, time management as well as relationship problems dealing with school, home or work.  BayCare Behavioral Health Student Assistance Program (SAP) services are free to all Valencia students and available 24 hours a day by calling (800) 878-5470. Free face-to-face counseling is also available.

*Any student who has difficulty accessing sufficient food to eat, or who lacks a safe and stable place to live, and believes this may affect his or her performance in the course, is urged to meet with a Counselor in the Advising Center for information about resources that may be available from the college or community.*

# OFFICE OF STUDENTS WITH DISABILITIES INFORMATION:

Students with disabilities who qualify for academic accommodations must provide a Notification to Instructor (NTI) form from the Office for Students with Disabilities (OSD) and discuss specific needs with the professor, preferably during the first two weeks of class. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities.

East Campus Bldg. 5, Rm. 216 Ph: 407-582-2229 Fax: 407-582-8908 TTY: 407-582-1222

West Campus SSB, Rm. 102 Ph: 407-582-1523 Fax: 407-582-1326 TTY: 407-582-1222

Osceola Campus Bldg. 1, Rm. 140A Ph: 407-582-4167 Fax: 407-582-4804 TTY: 407-582-1222

Winter Park Campus Bldg. 1, Rm. 212 Ph: 407-582-6887 Fax: 407-582-6841 TTY: 407-582-1222

# DISCLAIMER:

Changes may be made at the discretion of the instructor.

# SCHEDULE OF CLASSES AND/OR LABS:

# DATE TOPIC CHAPTER

08/24 Review of Basic Concepts 1

08/24 Review of Fractions 2

08/24 Percent 3

08/31 Measurement 4

09/07 Signed numbers and powers of 10 5

09/14 Statistics 6

09/21 Linear equations and Inequalities 7

09/21 Formulas, Proportion, and variation 8

09/28 Linear Equations, Functions, and Inequalities in Two Variables 9

09/28 Systems of Linear equations and Inequalities 10

**10/05 MID TERM**

10/12 Powers and polynomials 11

10/19 Roots and radicals 12

10/26 Factoring 13

11/02 Rational expressions, Equations, and Inequalities 14

11/09 Quadratic and Other Nonlinear Equations and Inequalities 15

11/16 Exponential and logarithmic equations 16

11/16 Geometry 17

11/23 Triangles 18

11/30 Right-triangle trigonometry 19

11/30 Trigonometry with any angle 20

**12/06 FINAL EXAM WEEK**

The final examination for FALL 2021 semester is scheduled for December 14th, 2021.