

MAT 123

Contemporary College Mathematics

3 credit hours

3 contact hours (3 lecture hours, 0 lab hours)

Catalog Description This course provides an appreciation and understanding of the mathematics underlying several topics in contemporary society. Topics may include voting methods, apportionment problems, Euler and Hamilton circuits, population growth, and fractals.

Prerequisite MAT 102 (C or higher) or appropriate placement score

What will I learn? At the end of this course, you should be able to (depending on the topics included in your course):

1. Determine the winner of preference balloting, given the voting method.
2. Solve apportionment problems, given the determination method.
3. Solve graph theory problems dealing with Euler and Hamilton circuits.
4. Project population growth based on linear, exponential and logistic models.
5. Solve problems dealing with the Koch snowflake, the Sierpinski gasket, and the Mandelbrot set.

Textbook and Required Materials

Excursions in Modern Mathematics by Peter Tannenbaum and Robert Arnold (6th ed., Prentice Hall, 2007)

Scientific calculator such as the TI-34II.

Grading System and Policy The College-wide grading scale is

91-100 = A, 81-90 = B, 71-80 = C, 65-70 = D, below 65 = F

There will be a comprehensive departmental final exam, which everyone must take (no exemptions), and which counts 25% of the final grade. The remaining 75% will be specified by your instructor's syllabus addendum.

Attendance Common sense should tell you that you will get more out of a course if you attend class regularly, do assigned homework, and take an active part in class discussions. In the Math Department, we check attendance (we have to), but we don't penalize your grade for non-attendance or increase it if you do attend; we do try to make every class meeting include something worth knowing. Please note that if you miss a class (for any reason), you have not obligated the instructor to give you more time than other students get. In most courses, a student must attend at least 80% of the classes in order to have an opportunity to earn a passing grade.

Withdrawal We hope you won't need to or want to withdraw, but if you do, you must initiate the procedure. Instructors are not empowered to award course withdrawals (W's).

Instructor availability Your instructor is available to you outside of class for academic assistance. Full-time faculty members maintain and post regularly scheduled office hours. Part-time faculty members are accessible in a variety of ways, which may include conferences before and after class or by appointment, telephone conferences, and E-mail. The phone number for reaching your instructor is provided on your syllabus addendum.

See your syllabus addendum This is a departmental syllabus for all sections of the course. As such, it tries to address issues common to all sections. There will be issues (grading details, office hours, and the like) that are specific to your section, and these details will be covered in an addendum issued by your instructor.

For Students Enrolled in Online or Other Distance-Learning Sections

To confirm that you are actively involved in this course you need to contact the instructor at least once per week. Forms of contact can include (but are not limited to) posting/receiving emails, participating in online class discussions or chat rooms, and completing and submitting course assignments. Please see the instructor's addendum for any additional instructions.

ADA Statement The College will make reasonable accommodations for persons with documented disabilities. Students with disabilities should notify Services for Students with Disabilities (located in the Student Success Center) and their instructors of any special needs. Instructors should be notified on the first day of classes.

Textbook Portions Covered

Unit 1	The Mathematics of Social Choice	Ch. 1-4
Unit 2	Management Science	Ch. 5-8
Unit 3	Growth and Symmetry	Ch. 9-12

College Information TTC uses Campus Cruiser e-mail as the standard communication system to send information to students and uses TTC Express to post final course grades. To access your accounts go to www.tridenttech.edu.

Supplementary Help Extra help is available from The Learning Center (920 bldg, rm 211).

Department Head Elizabeth White at 574-6538

Division Admin. Asst. 574-6015 (emergencies only)

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