

Course Number: MT 205

Course Title: Contemporary Math for Liberal Arts Professionals

Course Description:

This course presents contemporary mathematics for liberal arts students. It emphasizes the use of mathematics in the natural world using concepts such as social choice, networking, scheduling, symmetry in art and nature, fractals, growth, the Golden Ratio, music and poetry.

Prerequisite Courses:

Placement by Department

Course Outcomes:

Upon successful completion of the course, the student should be able to:

- Make informed social and political decisions with sufficient knowledge and expertise to be a responsible member of the society.
- Explain the social benefits and potential harmful uses of mathematics in society.
- Apply mathematical methods to elections, scheduling and networking.
- Apply the laws of linear, exponential, and logistic growth to populations.
- Apply principles of basic rigid motion to the geometric interpretation of symmetry in nature and art.
- Apply classic examples of fractal geometry to solve real world problems.
- Discuss the relationship between Fibonacci numbers, the Golden Ratio, mathematics, art, architecture, and music.
- Discuss connections between mathematics, music, and poetry.

Course Materials:

Required Texts:

Tannenbaum, P. (2014). *Excursions in Modern Mathematics* (8th edition). Pearson Prentice Hall: ISBN: 0-13-978-0-321-82573-5.

Course Assignments and Activities:

	Learning Topics	Activities	Reading Assignments	Assignments
1	Voting and Counting	Lab Exercises, Facilitated Discussions, and Lectures	Chapters 1, 2, and 4	My Math Lab Week 1 Assignments in Course Compass Week 1 Quiz Discussion Forum
2	Networking and Trees	Lab Exercises, Facilitated Discussions, and Lectures	Chapter 7	My Math Lab Week 2 Assignments in Course Compass Week 2 Quiz Discussion Forum
3	Scheduling and Critical Paths	Lab Exercises, Facilitated Discussions, and Lectures	Chapter 8	My Math Lab Week 3 Assignments in Course Compass Week 3 Quiz Discussion Forum
4	Population Growth Models	Lab Exercises, Facilitated Discussions, and Lectures	Chapter 9	My Math Lab Week 4 Assignments in Course Compass Midterm Exam Discussion Forum
5	Symmetry in Art and Nature	Lab Exercises, Facilitated Discussions, and Lectures	Chapter 11	My Math Lab Week 5 Assignments in Course Compass Week 5 Quiz Discussion Forum
6	Fractals	Lab Exercises, Facilitated Discussions, and Lectures	Chapter 12	My Math Lab Week 6 Assignments in Course Compass Week 6 Quiz Discussion Forum
7	Fibonacci Numbers and the Golden Ratio	Lab Exercises, Facilitated Discussions, and Lectures	Chapter 13	My Math Lab Week 7 Assignments in Course Compass Week 7 Quiz Discussion Forum

8	Mathematics, Music, Poetry, and Time	Lab Exercises, Facilitated Discussions, and Lectures	From the Expert in the Course	My Math Lab Week 8 Assignments in Course Compass Discussion Forum Final Exam
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Student Evaluation Grid:

Assignments	Weighted Percentage
Weekly Assignments	15%
Weekly Quizzes	25%
Midterm Exam	20%
Final Exam	30%
Participation	10%
TOTAL	100 %

Participation

Because of the accelerated nature of the course, class participation is very important. Class participation/effort is important because we can all learn from each other. Your participation points can make a difference in the final grade. If the student does not participate during any given week, they will lose the participation points for that week.

Participation means:

1. Present in class every session (classroom)/Present in the forum every week (on-line)
2. Effectively respond to questions from the facilitator (classroom)/Regularly check forum and post all required assignments/discussion questions/items by the deadlines (on-line)
3. Contributes to classroom/forum discussions.

Tutoring Information:

Occasionally students need additional assistance with course content. Tutorial assistance is available to students through SmartThinking, writing assistance and personal tutoring. SmartThinking provides every student with ten hours of free online tutoring in writing, math, statistics, economics and accounting each year. Writing assistance is available in the form of Roving Writing Tutors and a variety of writing workshops. Individual personal tutors are available in a variety of discipline areas with fees and arrangements made between the individual student and tutor. For access to these services, go www.regis.edu , Current Student, Services for CPS Students, Academic Tools, Tutoring/SmartThinking.

CC&IS Grading Scale

Letter Grade	Percentage	Grade Point
A	93 to 100	4.00
A–	90 to less than 93	3.67
B+	87 to less than 90	3.33
B	83 to less than 87	3.00
B–	80 to less than 83	2.67
C+	77 to less than 80	2.33
C	73 to less than 77	2.00
C–	70 to less than 73	1.67
D+	67 to less than 70	1.33
D	63 to less than 67	1.00
D-	60 to less than 63	.67
F	Less than 60	0

Additional information about grading can be found in the latest edition of the University Catalog, available at <http://www.regis.edu/Academics/Course%20Catalog.aspx>.

CC&IS Policies and Procedures

Each of the following CC&IS Policies & Procedures is incorporated here by reference. Students are expected to review this information each term, and agree to the policies and procedures as identified here and specified in the latest edition of the University Catalog, available at <http://www.regis.edu/Academics/Course%20Catalog.aspx> or at the link provided.

- The CC&IS Academic Integrity Policy.
- The Student Honor Code and Student Standards of Conduct.
- Incomplete Grade Policy, Pass / No Pass Grades, Grade Reports.
- The Information Privacy policy and FERPA. For more information regarding FERPA, visit the [U.S. Department of Education](http://www.ed.gov).
- The HIPAA policies for protected health information. The complete Regis University HIPAA Privacy & Security policy can be found here: <http://www.regis.edu/About-Regis-University/University-Offices-and-Services/Auxiliary-Business/HIPAA.aspx>.
- The Human Subjects Institutional Review Board (IRB) procedures. More information about the IRB and its processes can be found here: <http://regis.edu/Academics/Academic-Grants/Proposals/Regis-Information/IRB.aspx>.

The CC&IS Policies & Procedures Syllabus Addendum summarizes additional important policies including, Diversity, Equal Access, Disability Services, and Attendance & Participation that apply to every course offered by the College of Computer & Information Sciences at Regis University. A copy of the CC&IS Policies & Procedures Syllabus Addendum can be found here: <https://in2.regis.edu/sites/ccis/policies/Repository/CCIS%20Syllabus%20Addendum.docx>.