

## Columbus State Community College Mathematics Department Syllabus

**Course and Number:** MATH 1113–Technical Mathematics **Credits:** 5 **Class Hours Per Week:** 6

**Prerequisites:** MATH 1030 or MATH 1050 with a “C” or higher, or placement by MATH 1099 or COMPASS score

**COURSE DESCRIPTION:** This is a technical mathematics course which includes rules for measurement; the study of rational expression arithmetic and simplification; operations on radical expressions and expressions containing rational exponents; the complex number system; solving rational, radical, and quadratic equations; solving polynomial inequalities in one variable; solving compound inequalities in one and two variables; analysis and graphs of functions including quadratic and trigonometric functions. Emphasis is on technically oriented applications and activities to build skills in applied problem solving.

**SPECIAL COURSE REQUIREMENTS:** None

**COURSE GOALS:** To improve the student’s algebra and technical problem solving abilities. To prepare students for College Algebra (Math1148) or further study in mathematics

**GENERAL EDUCATION GOALS:** This course addresses the following Columbus State general education goals:

- Critical Thinking
- Quantitative Literacy

**TEXTBOOK, MANUALS, REFERENCES, AND OTHER READINGS:**

- Columbus State Custom Edition: Hatfield, edition 1, ISBN: 9781269783330 taken from Basic Technical Mathematics, 10<sup>th</sup> edition, Allyn J Washington; Pearson
- My Math Lab/Course Compass – (included with purchase of a new text).
- A graphing calculator is REQUIRED. The Texas Instruments' TI-84 (regular, Plus, Silver, etc.) graphing calculator is fully supported and approved for use during proctored assessments.
  - *Calculator Alternatives:* Some students may prefer to use a CASIO-FX-9750GII or a TI-83. These are less expensive options that are similar to the TI-84, and that are approved for use during proctored assessments. However, note that your instructor will primarily use the TI-84 when teaching, meaning that you will need to learn how to perform any necessary operations using these other calculators without your instructor’s help.
  - Other graphing calculators may be permitted. If you own a different calculator, please check with your instructors to see if your calculator will be allowed during their proctored assessments.
  - The TI-89 and TI-92 (or other calculators that perform symbolic manipulations) are never allowed during proctored assessments.

**UNITS OF INSTRUCTION\*\*\*:**

- Measurement: Precision and Accuracy (Section 1.3)
- Rational Expressions and Equations with Applications (Sections 6.5-6.7)

- Functions and Graphs (Chapter 3)
- Non-linear and Compound Inequalities with Linear Programming (Sections 17.3 – 17.6)
- Rational Exponents and Radicals and Radical Equations (Chapter 11 and Section 14.4)
- Quadratic Equations (Chapter 7)
- Fundamentals of Trigonometry (Chapter 4)
- Graphs of the Trigonometric Functions (Chapter 10)

**GENERAL INSTRUCTIONAL METHODS:** Lecture, discussion, demonstration, exploration and discovery exercises with the use of visual aids, calculators, and/or computer resources.

**STANDARDS AND METHODS FOR EVALUATION:**

Final Exam = 30% of course grade (final exam is 100% departmental).

The remaining 70% of the course grade will be determined by the instructor.

No more than 15% of the course grade may be determined using non-proctored assessments.

**GRADING SCALE:**

Letter grades for the course will be awarded using the following scale:

≥ 90% - A      80-89% - B      70-79% - C      60-69% - D      < 60% - E

Grades will not be curved, skewed, or otherwise inflated.

**STUDENT CODE OF CONDUCT**

As an enrolled student at Columbus State Community College, you have agreed to abide by the Student Code of Conduct as outlined in the Student Handbook. You should familiarize yourself with the student code. The Columbus State Community College expects you to exhibit high standards of academic integrity, respect and responsibility. Any confirmed incidence of misconduct, including plagiarism and other forms of cheating, will be treated seriously and in accordance with College Policy and Procedure 7-10.

**AMERICANS WITH DISABILITIES ACT (ADA) POLICY**

It is Columbus State policy to provide reasonable accommodations to students with disabilities as stated in the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act. If you would like to request such accommodations for access, please contact Disability Services: 101 Eibling Hall, (614) 287-2570. Email or give your instructor a copy of your accommodations letter from Disability Services as soon as possible. Accommodations do not start until your instructor receives the letter, and accommodations are not retroactive.

Delaware Campus students may contact an advisor in the Student Services Center on the first floor of Moeller Hall, (740) 203-8000.

**AUDIO/VIDEO RECORDING OF CLASS**

Audio-and video-recording, transmission, or distribution of class content (e.g., lectures, discussions, demonstrations, etc.) is strictly prohibited unless the course instructor has provided written permission via the syllabus or a signed form. Authorization to record extends solely to students in that particular course.

Transmitting, sharing, or distributing course content onto public, commercial, or social media sites is strictly prohibited.

**TITLE IX**

Columbus State Community College is committed to creating a learning and working environment that is free of bias, discrimination, and harassment by providing open communication and mutual respect. If you have encountered sexual harassment, sexual misconduct, sexual assault, or discrimination based on race, color, religion, age, national origin, ancestry, sex, sexual orientation, gender identity and expression, genetic information (GINA), military status or disability, please contact one of the following people:

1/7/16

**Renee Fambro**  
Director of Equity &  
Compliance  
Human Resources  
Rhodes Hall 115  
[rfambro@cscce.edu](mailto:rfambro@cscce.edu)  
Phone: 614.287.5519

**Danette Vance**  
Title IX Deputy  
Coordinator  
Human Resources  
Rhodes Hall 115  
[dvance1@cscce.edu](mailto:dvance1@cscce.edu)  
Phone: 614.287.2433

**Joan Cook**  
Title IX Deputy  
Coordinator  
Human Resources  
Rhodes Hall 115  
[jcook60@cscce.edu](mailto:jcook60@cscce.edu)  
Phone: 614.287.2636

**Darla Van Horn**  
Title IX Deputy  
Coordinator  
Student Life  
Eibling Hall 203(D)  
[dvanhorn@cscce.edu](mailto:dvanhorn@cscce.edu)  
Phone: 614.287.2856

**For additional information about your options at Columbus State Community College or to file a complaint online, please visit our webpage at: <http://www.cscce.edu/services/title-ix/>**

### **TOBACCO FREE COLUMBUS STATE 2015**

As a result of a proposal by the Ohio Board of Regents in 2012, Columbus State became a tobacco-free institution, as have colleges and universities across the nation, including The Ohio State University, which made the change in 2014. In an effort to support the health and well-being of all students, faculty, and staff, the College has adopted a tobacco free policy which prohibits the use of all tobacco-related products on College property. The primary emphasis of this approach is to focus on the elimination of tobacco use on all College property with cessation left as a choice for the individual. The effective date for the tobacco free policy was July 1, 2015.

### **INCLEMENT WEATHER OR OTHER EMERGENCIES (*optional wording*)**

In the event of severe weather or other emergencies that could force the college to close or to cancel classes, such information will be broadcast on radio stations and television stations. Students who reside in areas that fall under a Level III emergency should not attempt to drive to the college even if the college remains open.

Assignments due on a day the college is closed will be due the next scheduled class period. If an examination is scheduled for a day the campus is closed, the examination will be given on the next class day. If a laboratory is scheduled on the day the campus is closed, it will be made up at the next scheduled laboratory class. If necessary, laboratory make-up may be held on a Saturday. If a clinical is missed because of weather conditions: (*insert department policy*).

Students who miss a class because of weather-related problems with the class is held as scheduled are responsible for reading and other assignments as indicated in the syllabus. If a laboratory or examination is missed, contact me as soon as possible to determine how to make up the missed exam or lab. Remember! It is the student's responsibility to keep up with reading and other assignments when a scheduled class does not meet, whatever the reason.

In the event the college is forced to close during Final Examination Week, exams scheduled for the first missed date will be rescheduled for (date), in the same location at the same time scheduled. Exams scheduled for a second missed date will be rescheduled for \_\_\_\_\_. Thus, our final exam is scheduled for (date) at \_\_\_\_\_ o'clock. If the college is closed that day, the exam will be held on (date) at \_\_\_\_\_ o'clock. If our exam is the second day the college has been closed, the exam will be held on (date) at \_\_\_\_\_ o'clock.

### **FINANCIAL AID ATTENDANCE REPORTING**

Columbus State is required by federal law to verify the enrollment of students who participate in Federal Title IV student aid programs and/or who receive educational benefits through the Department of Veterans Affairs. It is the responsibility of the College to identify students who do not commence attendance or who stop attendance in any course for which they are registered and paid. Non-attendance is reported quarterly by each instructor, and results in a student being administratively withdrawn from the class section. Please contact the Financial Aid Office for information regarding the impact of course withdrawals on financial aid eligibility.

For the purposes of financial aid reporting, a student meets the participation and attendance criteria if s/he has actively engaged in the class and demonstrated a meaningful attempt toward completion of the course. Examples of active engagement may include, but are not limited to: completing a graded course assignment (e.g., homework, quiz, essay, project, or lab); actively participating in studio or practicum sessions; making

1/7/16

content-related contributions to an online discussion forum (including responses both to prompts and to student/instructor posts).