CCBC

Fall 2022

School of Mathematics and Science

Mathematics Department

Introductory Algebra, MATH 082, Section E7A, Course Reference Number (CRN) 92403

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 *Senate Policy #20-12 approved: June 2, 2020*

# **Course Description and Pre-/Co-requisites**

**Description: MATH 082 – Introductory Algebra covers first degree equations and inequalities, linear equations, systems of equations, polynomials, factoring, and descriptive statistics.**

**Prerequisite: MATH 081 or a satisfactory score on the mathematics placement test**

**Co-requisite: ACLT 052 or ESOL 044**

# Basic Course Information

* 1. Instructor’s name: Anthony J. Calise
	2. Website: [www.mrcalise.com](http://www.mrcalise.com)
	3. Instructor's office room number: E.BESS 215

Phone number: 410-307-9595

Email address: acalise@ccbcmd.edu

* 1. Instructor's office hours: 8:00-9:00am Saturdays
	2. Response time and form of preferred communication: E-mail is the best way to contact me, and I will typically respond within 24 hours (7-days a week)
	3. Department or school phone number(s): Mathematics Department
	4. Class meeting day(s), time(s), and location(s): Saturdays 9:00am – 12:05pm
	5. Statement of student out-of-class work expectations: This is a three-credit/billable hour course offered over 14 weeks. You are expected to spend at least 9 hours of work per week outside of class time including reading, course preparation, homework, studying, etc.
	6. Materials:

Textbook: Students can access the[Introductory Algebra with Statistics: MATH 082 Textbook, 3rd Edition](https://www.ccbcmd.edu/Programs-and-Courses/Schools-and-Academic-Departments/School-of-Mathematics-and-Science/Mathematics/MATH-082-Textbook.aspx) online for free through Brightspace or through CCBC’s website. A printed copy of the textbook can be purchased from CCBC’s bookstore.

Calculator: Calculator use in this course is permitted during class and assessments, but not required. Basic, scientific, and graphing calculators are suitable. Calculators with advanced capabilities, such as the TI-89 or TI-92, are not permitted during examinations. Cell-phone calculators, or other devices with internet capabilities, are also prohibited. When completing assessments, all algebraic steps must be shown to receive full credit.

# Course Goals Overall

* 1. Course objectives as listed on the official Common Course Outline

Upon completion of this course, the student will be able to:

1. interpret and calculate slopes;
2. determine equations of lines;
3. apply rules of integer exponents;
4. perform operations on polynomials;
5. factor polynomials and trinomials of the form ax2 + abx +ac, a ≠ 0;
6. solve quadratic equations by factoring;
7. graph linear equations;
8. solve systems of linear equations;
9. solve application problems using linear systems;
10. generate and interpret statistical graphs;
11. describe and summarize data with appropriate measures of center and variation;
12. interpret differences in shape, center, spread in the context of the data sets, and account for possible effects of outliers; and
13. apply appropriate statistical measures to make informed decisions.
	1. Major topics as listed on the official Common Course Outline
14. Graphs of Linear Equations
15. Use rectangular coordinate system
16. Find slope of a line
17. Graph linear equations
18. Systems of Linear Equations
19. Solve systems by the graphing method
20. Solve systems by the substitution method
21. Solve systems by the addition method
22. Solve application problems using systems of equations
23. Polynomials
24. Use product, quotient, and power rules
25. Use negative exponents
26. Use scientific notation
27. Add and subtract polynomials
28. Multiply polynomials
29. Divide by monomials
30. Factoring
31. Find greatest common factor
32. Factor trinomials of the form ax2 + abx +ac, a ≠ 0
33. Factor perfect square binomials
34. Factor perfect square trinomials
35. Solve quadratic equations by factoring
36. Organizing Data
37. Recognize types of data
38. Organize and graph categorical data
39. Organize and graph quantitative data
40. Descriptive Measures
41. Calculate and interpret measures of center
42. Calculate and interpret measures of variation
43. Calculate and interpret measures of position
	1. Rationale: Algebra is a branch of mathematics, which studies equations and the methods for solving these equations. Algebra has evolved for more than 3000 years and has emerged as a basic tool of modern science, social science, business, and technology. Algebra is a foundation for all higher mathematics, including, but not limited to, trigonometry, calculus, finite mathematics, probability and statistics. Algebra teaches not only skills, but also thought processes that will be used again and again in college level mathematics courses.
	2. Other material related to Course Goals: Replace this text with other Course Goals Information OR type ‘Not applicable’.

# Evaluation

* 1. Requirements:

Your grade will consist of THREE exams (50% total where the highest score will count as 20% and the other two scores will each make up 15% of the overall grade) Homework/Quizzes will make up 20% of the overall grade and the two lowest quiz/homework grades will be dropped. The cumulative final exam is worth the final 30% of the overall grade.

* 1. Instructor's grading policy: The course grade will be determined as follows:

| **Course Requirements** | **Weight/Points** |
| --- | --- |
| Homework/Quizzes | 20 % |
| Unit Exams | 50 % |
| Final Exam | 30 % |
| Total | 100 % |

The Final Exam Review and the Final Exam Review Answer Key can be accessed in Brightspace.

A final course grade will be assigned using the following criteria:

| **Course Average** | **Course Grade** |
| --- | --- |
| At least 90% | A |
| At least 80% and less than 90% | B |
| At least 70% and less than 80% | C |
| Less than 70% | F |

* 1. Mathematics Department attendance policy:
1. You are expected to attend all scheduled classes.
2. Attendance is critical to student success in college.
3. Satisfactory attendance is defined to be at most six hours of unexcused absences.
4. Documentation of the reason for your absence(s) may be required.
5. The instructor may count each unexcused tardy arrival as an absence and each unexcused early departure as an absence.
	1. Mathematics Department audit policy: Students may change from credit to audit only during the published 50% refund period, as indicated in the CCBC academic calendar. Students who audit are required to attend class, participate in course activities, and complete assignments (except for tests and the final exam) in accordance with instructor guidelines and due dates. For students who do not meet these requirements, the instructor may change their grade from AU to W.
	2. Other material related to Evaluation:

Late homework or quizzes will not be accepted and will just count as one of your dropped scores. Exams must be taken the day of the scheduled test unless prior arrangements have been approved.

# Course Procedures

* 1. Course-related policies and procedures:

Cell phones are expected to be turned off or on silent during class, if an emergency arises, please step into the hallway to answer/make a call.

* 1. College-wide syllabus policies: For college-wide syllabus policies, such as the Code of Conduct for Academic Integrity, Grades and Grading (including FX and progress grades), and the Audit/Withdrawal policies, please go to the Syllabus Policies link on the menu located on the [myCCBC](https://myccbc.ccbcmd.edu/) page.
	2. College-wide student services: To access information about student services, such as Academic Advising, College and Community Outreach/Success Navigators, and Disability Support Services, students may refer to the Student Support Services link on the [CCBC catalog home page](http://catalog.ccbcmd.edu/index.php).
	3. Contact information for course-related concerns:

Students should first attempt to take concerns to the faculty member. If students are unable to resolve course-related concerns with the instructor, they should contact the Mathematics Coordinator at the Essex Campus: Tejan Tingling at 443-840-2631 or ttingling@ccbcmd.edu

* 1. Course calendar/schedule: See item C.2. above (Evaluation – Instructor’s Grading Policy) for location of due dates for all major assignments.

Refer to the CCBC website for the complete [Academic Calendar and Final Exam schedule](http://www.ccbcmd.edu/Resources-for-Students/Registering-for-Classes/Academic-Calendar.aspx) for the semester.

* 1. Expected end date for access to the course via the Learning Management System:

12/17/22

* 1. Final Exam: 12/17/22 9:00am to 11:00am

This syllabus may be changed with notification to the class.

List of Full URLs used in this document**:**

[Introductory Algebra with Statistics; MATH 082 Textbook, 3rd Edition](https://www.ccbcmd.edu/Programs-and-Courses/Schools-and-Academic-Departments/School-of-Mathematics-and-Science/Mathematics/MATH-082-Textbook.aspx%22%20%5Ct%20%22_blank)

https://www.ccbcmd.edu/Programs-and-Courses/Schools-and-Academic-Departments/School-of-Mathematics-and-Science/Mathematics/MATH-082-Textbook.aspx

[CCBC Online Learning Technical Requirements](http://www.ccbcmd.edu/Programs-and-Courses/CCBC-Online/Online-Services-Resources/Online-Learning-Technical-Requirements.aspx)

http://www.ccbcmd.edu/Programs-and-Courses/CCBC-Online/Online-Services-Resources/Online-Learning-Technical-Requirements.aspx

[myCCBC page](https://myccbc.ccbcmd.edu/)

https://myccbc.ccbcmd.edu/

[CCBC Catalog](http://catalog.ccbcmd.edu/index.php)

http://catalog.ccbcmd.edu/index.php

[CCBC Academic Calendar and Final Exam Schedule](http://www.ccbcmd.edu/Resources-for-Students/Registering-for-Classes/Academic-Calendar.aspx)

http://www.ccbcmd.edu/Resources-for-Students/Registering-for-Classes/Academic-Calendar.aspx