# ENGL100 - Freshman Composition with Integrated Support

## General Information

| | |
|---|---|
| **Author(s):** | Nidzara Pecenkovic |
| **Proposal Start:** | Fall 2020 |
| **Distance Education Approved:** | Yes |
| **TOP Code:** | 1501.00 |
| **TOP Code Name:** | English |
| **CIP Code:** | 23.0101 |
| **CIP Code Name:** | English Language and Literature, General |
| **SAM Code:** | E = Non-Occupational |
| **Course Control Number:** | CCC000595374 |
| **Curriculum Committee Approval Date :** | December 2, 2019 |
| **Board of Trustees Approval Date :** | January 13, 2020 |
| **External Review Approval Date:** | February 5, 2020 |
| **Course Description:** | This course is designed for students who want to develop competence in college-level composition through extended instruction and practice. Students read, analyze, discuss, and think critically using various sources in order to compose in a variety of academic, professional, and civic contexts, including digital environments. Additional hours in the Writing Center are required for practice in refining sentence skills, grammar, research, study habits, and reading strategies. |
| **Submission Rationale:** | |
| **Course Family:** | No Value |

## Faculty Minimum Qualification Requirements

| | |
|---|---|
| **Master Discipline Preferred:** | English |
| **Alternate Master Discipline Preferred :** | No value |
| **Bachelors or Associates Discipline Preferred :** | No value |
| **Additional Bachelors or Associates Discipline :** | No value |

## Course Development Options

| Course Basic Skill Status | Allowed Number of Retakes | Grading Criteria |
|---|---|---|
| Course is not a basic skills course. | 0 | Letter Grade methods Other: Student performance will be evaluated based on the quality of both the writing and the thought. Graded activities: Six (6) argumentative/analytical papers addressing critical issues (6,000 - 8,000 words) One (1) research paper displaying analysis, evaluation and documentation (approximately 2000 words) All essays will be evaluated based on how well they do the following: address all parts of the prompt contain an explicitly-stated thesis or a strongly implied main idea divide major ideas into paragraphs with internal logic of separate ideas connect ideas illustrated by specific examples frequently followed by effective commentary or elaboration demonstrate an awareness of rhetorical strategies/modes that goes beyond the personal and makes reasonable generalizations or conclusions utilize various sentence patterns, such as coordination and subordination display strong command of grammar and punctuation Any essay, short answer quizzes or exams will use the standard college grading scale: 90 - 100% = A80 - 89% = B70 - 79% = C60 - 69% = DBelow 60% = F |

**Allow Students to Gain Credit by Exam/Challenge**

No

| **Rationale For Credit By Exam/Challenge** | **Retake Policy Description** | **Allow Students To Audit Course** |
|---|---|---|
| No value | NR - Non-Repeatable | No |

| **Course Support Course Status** | **Course Prior to College Level** |
|---|---|
| No value | Not applicable. |

| **Available for Non-Award Study** | **Estimated Enrollment** |
|---|---|
| | No value |

## Associated Programs

| Associated Program | Award Type | Active |
|---|---|---|
| TEST Chemistry, AS-UCTP | A.S. Degree for Transfer | Fall 2021 |
| Pre-Nursing and Allied Health Science | A.S. Degree Major | Fall 2021 |

## Transferability & Gen. Ed. Options

**Course General Education Status**

No value

| **Request for Transferability** | **Transferability Status** |
|---|---|
| Transferable to both UC and CSU | Approved |

| **Local - Plan A** | **Categories** | **Transferability Status** | **Comparable Course or Shared SAC Course** |
|---|---|---|---|
| Area E1: English Composition | English Composition | Approved | No Comparable Course or Shared SAC Course defined |

| **CSU GE - Plan B** | **Categories** | **Transferability Status** | **Comparable Course or Shared SAC Course** |
|---|---|---|---|
| Area A2: Written Communication | Written Communication | Approved | No Comparable Course or Shared SAC Course defined |

| **IGETC - Plan C** | **Categories** | **Transferability** | **Comparable Course or Shared SAC** |
|---|---|---|---|

| | Status | Course |
|---|---|---|
| Area 1A: English CompositionEnglish Composition | Approved | No Comparable Course or Shared SAC Course defined |

| CSU Comparable Transfer Courses | Categories | Transferability Status | Comparable Course or Shared SAC Course |
|---|---|---|---|
| CSU Comparable Transfer Courses | CSU Comparable Transfer Courses | Approved | CSU Los Angeles ENG 1010 Accelerated College Writing |

| Course Identifier (C-ID) | Categories | Transferability Status | Comparable Course or Shared SAC Course |
|---|---|---|---|
| English | C-ID descriptor | Pending | ENGL 100 College Composition |

## Units and Hours

### Summary

| | | | |
|---|---|---|---|
| Minimum Units | 4.5 | **Total Course In-Class (Contact) Hours** | 108 |
| Minimum Units | 4.5 | **Total Course Out-of-Class Hours** | 144 |

| | |
|---|---|
| **Total Student Learning Hours** | 252 |
| **Faculty Load** | 6 |

### Detail

**Weekly Student Hours**

| | In Class | Out of Class |
|---|---|---|
| Lecture Hours | 4 | 8 |
| Lab Hours | 2 | 0 |
| Activity Hours | 0 | 0 |

**Course Student Hours**

| | |
|---|---|
| **Course Duration (Weeks)** | 18 |
| **Hours per unit divisor** | 54 |

**Course In-Class (Contact) Hours**

| | |
|---|---|
| Lecture Hours | 72 |
| Lab Hours | 36 |
| Activity Hours | 0 |
| **Total** | 108 |

**Course Out-of-Class Hours**

| | |
|---|---|
| Lecture Hours | 144 |
| Lab Hours | 0 |
| Activity Hours | 0 |
| **Total** | 144 |

## Units and Hours - Weekly Specialty Hours

| Activity Name | Type | In Class | Out of Class |
|---|---|---|---|
| No value | No value | No value | No value |

# Requisites

**Prerequisite**

ACE116 - Introduction to Academic Composition

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**Prerequisite**

ENGL099 - Introduction to Composition with Integrated Support

─────────────── OR ───────────────

**Prerequisite**

Qualifying profile from the English placement process.

# Entrance Skills

| Skill | Rational (Optional) |
| --- | --- |
| No value | No value |

# Limitations on Enrollment

| Limitation | Rationale (Optional) |
| --- | --- |
| No value | No value |

# Specifications

**Methods of Instruction**            **Rationale (Optional)**

Distance Education
Cooperative Learning
Debate
Directed Study
Discussion
Handouts
Individualized Instruction
Instructor-Prepared Materials
Journaling
Lecture
Mediated Learning
Multimedia Presentations
Projects

**Outside-of-Class Assignments Only**          No value

## Methods of Evaluation                          Rationale (Optional)

Computer Assignments
Exams/Tests
Final Exam
Oral Presentation
Papers
Portfolios
Projects
Quizzes
Research Papers/Projects
Worksheets
Class Participation
Class Performance
Class Work
Homework
Journaling

## Textbook Rationale                              No value

## Textbooks

| Author | Title | Publisher | Date | ISBN |
| --- | --- | --- | --- | --- |
| Reinking, J., R. von der Osten | Strategies for Successful Writing: A Rhetoric, Research Guide, Reader, and Handbook | Pearson | 2016 ($72) | 9780134119243 |
| Lunsford, A. | Everyone's an Author with Readings | W.W. Norton and Company | 2016 ($74) | 0393265293 |

# Learning Outcomes and Objectives

## Course Objectives

✔ Identify special needs of different audiences by focusing on cultural background, level of education, and professional concerns
✔ Anlayze rhetorical situations to create strong, audience-focused, and organized writing
✔ Comprehend and analyze literature and essays beyond literal, superficial characteristics and inferential interpretations
✔ Establish one's own informed and reasonable opinions and consider purpose, position, genre, and medium when constructing arguments
✔ Apply certain processes, models, questions, and theories that result in enhanced clarity and comprehension
✔ Generate ideas through prewriting techniques, such as freewriting, questioning, listing, and clustering
✔ Prepare drafts with strategic planning and outlining; revise, edit, proofread final drafts
✔ Focus on a topic with an appropriately limited scope; express a clear and effective purpose or position within the thesis statement; produce significant, clearly defined thesis statements

✔ Analyze thesis statements for clarity, precision, and provability, and apply certain sentence patterns to frame effective thesis statements

✔ Construct unified and coherent developmental paragraphs and employ the major rhetorical tools that ensure unity and coherence

✔ Arrange supporting points according to effective organizational strategies, such as chronological, spatial, and emphatic order

✔ Develop supporting body paragraphs by use of facts, illustrations/examples, definitions, analysis comparisons and other techniques

✔ Use simple, compound, complex, and compound-complex sentences effectively

✔ Work toward the "right" word, fresh and idiomatic

✔ Improve the essay by observing customary rules of grammar, punctuation, and spelling

✔ Use the library: computer cataloging, online databases, ebooks, and other reference works

✔ Pose an effective research question and choose an appropriate research topic

✔ Organize an outline, take notes on sources, maintain a working bibliography, assess the credibility of research materials

✔ Construct a properly documented argumentative research essay with MLA formatting, including in-text parentheticals and a Works Cited page.

✔ Develop effective questions for increased understanding of English content

✔ Interpret reading selections to gain understanding and create meaning; integrate readings and data that enhance the scope and depth of an essay

✔ Construct effective topic sentences

✔ Develop introductory and concluding paragraphs

✔ Create unified, coherent, well-developed paragraphs and essays that use appropriately-referenced sources to support arguments

✔ Collaborate with peers in the development and revision of English essays

✔ Develop original thinking through writing in a creative and coherent way

✔ Identify an issue, make an assertion regarding that issue, and maintain a focused connection to that assertion throughout the essay

✔ Construct clear paragraphs in an order that serves a thesis with increasing complexity

✔ Use observations, inferences, sources, and arguments to make assertions strong and convincing

✔ Sharpen sentence skills, refine personal style, and eliminate errors; identify and correct sentence errors

✔ Use clear and correct language with the ability to express oneself clearly, using the appropriate tone, diction, sentence structure and mechanics

✔ Strengthen study skills and strategies, learn to avoid procrastination, gain confidence in writing

✔ Identify errors in individual essay assignments; revise, edit, and proofread essays with more precision and accuracy

✔ Write timed essays in class exhibition acceptable college-level control of mechanics, organization, development, and coherence

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**CSLOs**

| | |
|---|---|
| Use the writing process to compose essays--including research papers in MLA format--that contain unity, coherence, development, logic, grammatical precision, and selection of appropriate sources and their correct use. | Expected SLO Performance: 70 |
| Analyze written and visual texts for content, structure, rhetorical strategies, visual and written techniques, and grammatical precision. | Expected SLO Performance: 70 |

## Course Outline

**Course Outline**
No value

### Lab Outline

Question and Answer Sessions to provide supplemental instruction and guidance to complement the materials presented during classroom lectures and discussions (4 hours):

- Confusing concepts leftover from class meetings
- Reading selections that require assistance with interpretation and understanding

Composition Practice (8 hours):

- Topic sentences
- Introductions and Conclusions
- Unified, coherent, well-developed paragraphs and essays
- Appropriately-referenced sources to support arguments
- Peer review

Improvement of English Essays (8 hours):

- Objectives and thesis statements for essays
- Plan of action for development and organization of essay topics
- Originality of ideas
- Support of ideas
- Research Integration

Peer and Instructor Evaluation of Drafts (5 hours):

- Peer evaluation sessions to get feedback from other students
- One-on-one conferences with the instructor to address specific problems within the writing

Study Skills for Success in English Composition (5 hours):

- Strategies for success as a college student
- Problems interfering with progress in English

Just-in-Time Remediation (6 hours):

- Review specific grammatical errors in individual essays
- Practice fixing common documentation errors in individual essays
- Brush up on common sentence skills errors, as needed: fragments, run-ons, comma mistakes, pronoun disagreement

## Distance Education Addendum

**1. Is the method of delivery 100% online or hybrid? Please select one.**

100% online
The student body is made up of a diverse population; the SCC English Department acknowledges that different learning modes can benefit students with varying lifestyles and learning preferences. The Department maintains it is essential to accommodate all students through both distance learning technology and computer-assisted, live,

on-campus courses.

**2. Title 5 (55204) states that "Any portion of a course conducted through distance education includes regular effective contact between instructor and students, through group or individual meetings, orientation and review sessions, supplemental seminar or study sessions, field trips, library workshops, telephone contact, correspondence, voice mail, e-mail, or other activities." Describe/give examples of the methods of instruction which will be used in the hybrid/online course. Please include how the methods of instruction used in the traditional classroom will be modified and/or replaced in the hybrid/online classroom. How will these methods ensure that you will maintain regular effective contact with the students?**

The online or hybrid course may offer synchronous and/or asynchronous opportunities for real time interaction that promotes immediate discourse and other meaningful student-teacher communication with a time delay which may allow for a more in-depth discussion. To achieve consistent effective student-instructor contact, the instructor will select appropriate tools such as:

- Direct messaging via Canvas or other LMS platform
- FaceTime
- Zoom
- Pronto
- Skype
- Virtual office hours
- Conferences and other face-to-face meetings
- Email
- Discussion boards
- Announcements and other posts
- Chat rooms
- FAQ pages
- Resource links
- Group meetings
- Audio and/or video lectures (as well as a read-only option to ensure accessibility)
- Individual and/or group collaboration
- Blogs
- Assignment feedback
- Coordination and referral to appropriate student services
- Writing Center and/or Library workshops

These online and hybrid classroom methods and activities will have aspects that are instructor-initiated and replace and/or modify traditional face-to-face classroom instructional formats by providing online solutions to the problem of distance inherent in distance education. They will ensure that instructors maintain regular and effective contact with students by providing multiple points of interaction between instructors and students over the course of the semester.

**3. Describe how you will promote and monitor effective student-to-student contact.**

An instructor <u>may</u> assign the following in order to promote effective student-to-student contact:

- Individual and group discussion boards
- Individual assignments shared through discussion boards
- Collaborative class assignments using Flipgrid, Google Slides, and other similar programs
- Collaborative group projects
- Chat rooms
- Blog posts
- Breakout rooms
- Live discussions

- Online study groups
- Peer reviews
- Seminars and student presentations

An instructor <u>may</u> use the following in order to monitor student-to-student contact:

- Provide guidelines and expectations for interactions using the following platforms
- Provide sample assignments
- Comment on message boards
- Ask follow-up questions
- Engage in chat rooms
- Manage and participate in breakout rooms
- Provide live feedback during student-led seminars and presentations
- Record class meetings

**4. Describe and give examples of how student learning will be evaluated.**

Evaluation of student learning should be consistent with course objectives and subject aims that develop and enhance students' skills. Grading rubrics/evaluation guidelines will be provided for these assignments so that expectations and grading criteria are clear to all participants. The following are some examples of how student learning may be evaluated:

- Essays
- Revised essays/essays reflecting revision
- Essay rough drafts
- Essay tests
- Quizzes
- Short-answer exams
- Discussion boards
- Collaborative assignments
- Projects
- Presentations
- Homework exercises
- Activities
- Peer evaluations
- E-portfolios

**5. List any special texts, equipment, or supplies needed for this course or sections of this course being offered through distance education.**

To complete this course through distance education successfully, students will need certain tools. Students are required to access and study all materials required by the instructor. Students should have regular access to a computer with a reliable Internet connection to help facilitate certain course activities, such as online conferences and student group discussions. Further, students should have access to at least two Internet browsers (e.g., Mozilla Firefox, Internet Explorer, Safari, or Google Chrome). Software such as Word, Excel, Acrobat, or PowerPoint also may be required and can be downloaded for free by following the instructions on the SCC website.

**6. Describe the college resources that will be required by you and your students (facilities, technology, student support services) for this course.**

Individual instructors and their respective students <u>may</u> require:
1. Facilities (e.g., classroom for orientation sessions, exams, etc.):
Mediated classroom for orientations and mandatory meetings of hybrid classes and availability of DSPS for testing. Library resources both in person and remote to facilitate use of materials for research or supplemental instruction. Student access to locker rooms and showers, especially to accommodate housing insecure students.
2. Technology (e.g., software, hardware, technical support, etc.):
Canvas, other programs supplied by SCC, access to word processing and presentation software (e.g., PowerPoint, Prezi, GoogleSlides), ITS help desk, Canvas support, access to *Turnitin.com*, and other technical support provided by the Distance Education Department/Office.
3. Support (e.g., student and academic services):
Online Student Services support from but not limited to the following: Writing Center, Library, DSPS, Testing Center, Health and Wellness Center, First Year Support Center, Counseling, Financial Aid, Admission and Records, Umoja, Veteran's Center, Trio, EOPS, CAMP, and CALWORKS.
Continued support for basic needs from the college, the Hawk's Nest Food Pantry, and the Office of Student Equity and Success.

**7. Section 55200 of title 5 states "In addition, instruction provided as distance education is subject to the requirements that may be imposed by the Americans with Disabilities Act (42 U.S.C. §12100 et seq.) and section 508 of the Rehabilitation Act of 1973, as amended, (29 U.S.C. §794d)." What technologies will you be using for instruction (video, flash, images, etc)? How will you ensure that instruction using these technologies is accessible to students with disabilities?**

In an online reading course, videos, flash enabled videos, still images, and recordings are heavily used. In order to ensure that instruction using these technologies is accessible to those with disabilities, the instruction can make use of verbal feedback software, closed-captioned videos, and audio software. Students with physical disabilities that do not allow them to type can then dictate almost all of their responses to an online discussion or assessment. Students who are hearing impaired would benefit from the use of captions on all videos used in the course. Likewise, students who are visually impaired would benefit from software that reads aloud all of the text on a given page. Documents (e.g., lectures, handouts, assignments, rubrics) will be provided in an accessible format as well (e.g., Word, Rich Text Format, use of proper headings, etc.). The instructor will work with DSPS to ensure accessibility of course content to students with disabilities.

# MATH080 - Intermediate Algebra

## General Information

| | |
|---|---|
| **Author(s):** | Scott Sakamoto |
| **Proposal Start:** | Spring 2020 |
| **Distance Education Approved:** | Yes |
| **TOP Code:** | 1701.00 |
| **TOP Code Name:** | Mathematics, General |
| **CIP Code:** | 27.0101 |
| **CIP Code Name:** | Mathematics, General |
| **SAM Code:** | E = Non-Occupational |
| **Course Control Number:** | CCC000181722 |
| **Curriculum Committee Approval Date :** | October 21, 2019 |
| **Board of Trustees Approval Date :** | January 13, 2020 |
| **External Review Approval Date:** | Pending |
| **Course Description:** | A second course in algebra that includes systems of equations, inequalities, graphs and functions, radicals, quadratics, polynomials, rational expressions, exponential and logarithmic functions, conics, and problem solving. This course meets the prerequisites for Math 140. |
| **Submission Rationale:** | |
| **Course Family:** | No Value |

## Faculty Minimum Qualification Requirements

| | |
|---|---|
| **Master Discipline Preferred:** | Mathematics |
| **Alternate Master Discipline Preferred :** | No value |

**Bachelors or Associates Discipline Preferred :**

No value

**Additional Bachelors or Associates Discipline :**

No value

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# Course Development Options

| **Course Basic Skill Status** | **Allowed Number of Retakes** | **Grading Criteria** |
|---|---|---|
| Course is not a basic skills course. | 0 | Letter Grade methods Other: Assignments: Homework 0-10% Quizzes 0-10% Exams/Tests 50-70% Final Exam 20-33% Grading Scale: A = 90-100% B = 80-89% C = 70-79% D = 60-69% F = 0-59% |

**Allow Students to Gain Credit by Exam/Challenge**

Yes

| **Rationale For Credit By Exam/Challenge** | **Retake Policy Description** | **Allow Students To Audit Course** |
|---|---|---|
| Students can meet prerequisites for transfer-level courses after completing this course. | NR - Non-Repeatable | No |

| **Course Support Course Status** | **Course Prior to College Level** |
|---|---|
| No value | One level below transfer. |

| **Available for Non-Award Study** | **Estimated Enrollment** |
|---|---|
| | No value |

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# Associated Programs

| Associated Program | Award Type | Active |
|---|---|---|
| Liberal Arts: Mathematics and Sciences, AA | A.A. Degree Major | Spring 2019 to Summer 2020 |
| Liberal Arts: Mathematics and Sciences, AA | A.A. Degree Major | Summer 2020 to Fall 2020 |
| Liberal Arts: Mathematics and Sciences, AA | A.A. Degree Major | Fall 2020 |
| Liberal Arts: Mathematics and Sciences, AA | A.A. Degree Major | Fall 2021 |

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# Transferability & Gen. Ed. Options

**Course General Education Status**

No value

| Request for Transferability | Transferability Status |
|---|---|
| Not transferable | Not transferable |

| Local - Plan A | Categories | Transferability Status | Comparable Course or Shared SAC Course |
|---|---|---|---|
| Area E2: Communication/Analytical Thinking | Communication/Analytical Thinking | Pending | No Comparable Course or Shared SAC Course defined |
| Area G1: Mathematics Proficiency | Area G1: Mathematics Proficiency | Pending | No Comparable Course or Shared SAC Course defined |

## Units and Hours

**Summary**

| Minimum Units | 5 | Total Course In-Class (Contact) Hours | 90 | Total Student Learning Hours | 270 |
|---|---|---|---|---|---|
| Minimum Units | 5 | Total Course Out-of-Class Hours | 180 | Faculty Load | 5 |

**Detail**

**Weekly Student Hours**

| | In Class | Out of Class |
|---|---|---|
| Lecture Hours | 5 | 10 |
| Lab Hours | 0 | 0 |
| Activity Hours | 0 | 0 |

**Course Student Hours**

| Course Duration (Weeks) | 18 |
|---|---|
| Hours per unit divisor | 54 |

**Course In-Class (Contact) Hours**

| Lecture Hours | 90 |
|---|---|
| Lab Hours | 0 |
| Activity Hours | 0 |
| **Total** | 90 |

**Course Out-of-Class Hours**

| Lecture Hours | 180 |
|---|---|
| Lab Hours | 0 |
| Activity Hours | 0 |
| **Total** | 180 |

## Units and Hours - Weekly Specialty Hours

| Activity Name | Type | In Class | Out of Class |
|---|---|---|---|
| No value | No value | No value | No value |

## Requisites

**Prerequisite**

Recommendation from qualifying profile from the Mathematics placement process

## Entrance Skills

| Skill | Rational (Optional) |
|-------|---------------------|
| No value | No value |

## Limitations on Enrollment

| Limitation | Rationale (Optional) |
|------------|----------------------|
| No value | No value |

## Specifications

**Methods of Instruction**
Cooperative Learning
Discussion
Distance Education
Handouts
Instructor-Prepared Materials
Lecture
Mediated Learning
Observation and Demonstration
Problem Solving using Graphing
Calculators

**Rationale (Optional)**

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**Outside-of-Class Assignments Only**

- Reading assignments
- Homework problems

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**Methods of Evaluation**
Final Exam

Exams/Tests
Quizzes
Worksheets

**Rationale (Optional)**
Instructors use their own final exam and include embedded questions provided by the Math 080 coordinator.

Homework

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**Textbook Rationale**          No value

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**Textbooks**

| Author | Title | Publisher | Date | ISBN |
|---|---|---|---|---|
| Sullivan, M., Struve,K.R. | Intermediate Algebra | Pearson | 2018 ($140.75) | 9780134555805 |

## Learning Outcomes and Objectives

**Course Objectives**

✔ Solve equations involving rational, absolute value, quadratic, radical, and literal equations; variation, and applications
✔ Evaluate functions using proper function notation
✔ Determine the domain and range of a function
✔ Determine whether a graph or equation is a function
✔ Perform operations on functions
✔ Solve systems of two and three linear equations in two and three variables, respectively, by substitution, elimination by addition, and graphing
✔ Solve systems of non-linear equations
✔ Solve systems of linear inequalities in two variables
✔ Construct systems for application problems and solve using the appropriate methods.
✔ Apply the laws of exponents
✔ Apply arithmetic operations on polynomials
✔ Divide polynomials by synthetic and long division
✔ Factor polynomial expressions by greatest common factor (GCF) and grouping
✔ Obtain the zeros of a polynomial
✔ Solve quadratic equations by factoring, completing the square, and substitution
✔ Evaluate quadratic and polynomial functions
✔ Graph a quadratic function by its properties, and transformations
✔ Solve quadratic equations with complex roots
✔ Solve application problems involving quadratic equations and functions
✔ Apply algebraic operations to simplify rational expressions
✔ Solve rational equations
✔ Construct rational equations for application problems and solve using the appropriate methods.
✔ Determine the domain of a rational function
✔ Graph a rational function
✔ Manipulate and simplify expressions containing radicals and exponents
✔ Apply arithmetic operations on radical expressions and expressions with rational exponents
✔ Rationalize denominators by using the conjugate
✔ Rewrite expressions with rational exponents in radical form and vice versa
✔ Determine the domain of a radical function
✔ Graph a radical function
✔ Solve applications involving radical equations and functions

✔ Compute and simplify composed functions
✔ Find the inverse function of a given one-to-one function
✔ Graph a one-to-one function and its inverse
✔ Determine the domain and range of a function and its inverse
✔ Simplify logarithmic and exponential expressions
✔ Solve logarithmic and exponential equations including equations with the natural and common logarithm, base e, and change-of-base formula
✔ Graph logarithmic and exponential functions
✔ Solve application problems involving logarithmic and exponential equations and functions
✔ Obtain the vertex and intercepts to graph a parabola
✔ Apply the distance formula to find the distance between two points
✔ Obtain the center and radius/radii to graph circles and ellipses
✔ Obtain the center, intercepts and asymptotes to graph a hyperbola
✔ Rewrite non-standard equations to the standard equations for a circle, parabola, ellipse and hyperbola

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**CSLOs**

| | |
|---|---|
| **Identify different types of equations and solve them by applying the appropriate algebraic methods.** | Expected SLO Performance: 70 |
| **Solve applications involving different types of functions and/or equations by applying the appropriate solving techniques.** | Expected SLO Performance: 70 |
| **Graph equations, functions, and conics by applying different graphing techniques and transformations.** | Expected SLO Performance: 70 |

## Course Outline

**Course Outline**
**Equations (12 hours)**

- Rational
- Absolute value
- Quadratic
- Radical
- Literal
- Variation
- Inverse
- Applications

**Functions (6 hours)**

- Definition of a function
- Function notation
- Domain and range
- Graphs of functions
- Operations on functions

**Systems of Equations and Inequalities (6 hours)**

- Systems of linear equations in two and three variables

- Graph systems in two variables
- Consistent, inconsistent and dependent systems
- Non-linear systems of equations
- Linear inequalities in two variables

**Quadratics and Polynomials (16 hours)**

- Laws of exponents
- Scientific notation
- Arithmetic operations on polynomials
- Synthetic division
- Factoring polynomials
- Zeros of a polynomial
- Complex numbers
- Graphs of quadratics
- Applications
- Quadratic and polynomial functions

**Rational Equations and Functions (6 hours)**

- Domain
- Simplify rational expressions
- Arithmetic operations
- Rational equations and functions
- Graphs of rational functions
- Applications

**Radical Equations and Functions (6 hours)**

- Domain
- Rational exponents
- Arithmetic operations on radical expressions
- Radical equations and functions
- Graphs of radical functions
- Applications

**Compositions and Inverses (6 hours)**

- Composite/Inverse function notation
- Domain and range of inverses
- Definition of an inverse function
- One-to-one functions
- Inverse of a function
- Graphs of inverse functions

**Exponential and Logarithmic Functions (16 hours)**

- Definition of

- an exponential function
- a logarithmic function

- Domain and range
- Natural and common logarithms, base e
- Properties of exponential and logarithmic functions

- Graphs of exponential and logarithmic functions
- Exponential and logarithmic equations
- Applications

**Conic Sections (6 hours)**

- Parabolas
  - Vertex
  - Intercepts
  - Graphs
- Distance formula
- Circle
  - Center
  - Radius
  - Equations
  - Graphs
  - Intercepts
- Ellipse

- Center
- Equations
- Radii
- Intercepts
- Graphs

- Hyperbola

- Center
- Equations
- Intercepts
- Asymptotes
- Graphs

## Distance Education Addendum

**1. Is the method of delivery 100% online or hybrid? Please select one.**

100% Online

**2. Title 5 (55204) states that "Any portion of a course conducted through distance education includes regular effective contact between instructor and students, through group or individual meetings, orientation and review sessions, supplemental seminar or study sessions, field trips, library workshops, telephone contact, correspondence, voice mail, e-mail, or other activities." Describe/give examples of the methods of instruction which will be used in the hybrid/online course. Please include how**

Students will use publisher-provided materials, learning management system (LMS), e.g. Canvas, MyOpenMath, WileyPlus, etc., and/or tutorial materials.

Participation is tracked by students completing weekly assignments as well as being active in the LMS, e.g., viewing lecture videos, attempting practice problems, homework, discussion boards/forums, quizzes, exams, etc.

This instructor will initiate contact with an orientation via video. The orientation will include expectations of the course and participation of the students. Interaction through out the semester is primarily conducted through weekly communication via the learning management

**the methods of instruction used in the traditional classroom will be modified and/or replaced in the hybrid/online classroom. How will these methods ensure that you will maintain regular effective contact with the students?**

system including group and individual messages from the instructor. These messages include timelines of tasks students should be working on to stay on schedule, due dates for assignments in the coming week, objectives to be mastered and any other pertinent information for the week. Students will be notified individually when their work show signs of falling behind on timelines or needing extra help. Student will also receive positive feedback when work is on-track.

Students are assigned chapter/module assessments and each assessment is assigned a due date. Additionally, students are given at least a cumulative midterm exam given midway through the semester and a cumulative final exam given at the end of the semester.

The instructor contacts students via the LMS after assessments with feedback and examples from the analytics so that students can see solutions to questions on the assessment in which the class found to be most challenging. Feedback may include areas of remediation needed, common errors found in their individual work, improvement needed and areas that show mastery.

Homework is assigned via LMS, and anytime a student has any questions regarding homework, a student can send a message to the instructor directly from the learning management system; the instructor will have access to the identical question the student received as well as all attempts of the problem. The instructor can use the mathematics tool embedded in the learning management system to show a solution or give a hint to the solution.

Other one-to-one communication occurs through discussion boards and/or forums where students are required to participate. Students will post responses to a discussion topic or question relevant to either the material previously covered or to provide a segue to material coming up. They will also reply to a set number of their peers' responses to help build a community and rapport among participants.

Students may be graded on grammar, originality and the mathematical insight or solution presented. Other formative forums, which are often non-graded (low stakes), include discussion boards where students post questions about the homework and the course in general. Both the instructor and students reply to the posts with tips and suggestions.

Furthermore, students send communication via the learning management system to the instructor with intent to clarify course content. Depending on the guidance needed, the instructor may schedule a video conference appointment to help the student one-on-one, provide feedback solely on the content question(s) via LMS, post solutions online for all the students, or create additional instructional videos as needed. Students are also encouraged to attend instructor office hours via video conference (or in-person, if provided as an option).

**3. Describe how you will promote and monitor effective student-to-student**

Students are encouraged to form on-campus or online study groups, where groups of 2-4 students meet in-person or through video

**contact.**

conferencing throughout the semester. Students are also required to complete mathematics-based forum questions in which students are required to read and/or comment on their peers' posts. For example, the first forum may be Introductions, where students post their major and one study tactic to assist students in being successful in an online/hybrid course. These student-to-student interactions are required and will be part of their homework grade.

**4. Describe and give examples of how student learning will be evaluated.**

Student learning is evaluated by online/written assessments. Homework and practice answers are submitted online. If students are required to do group presentations, they may upload a video to the LMS for assessment. Students are also required to take online quizzes and exams in which their understanding of content is tested within a reasonable time limit (unless offered as a hybrid, where students may have some assessments in-person, e.g. exams, presentations, etc.). Completed problems and solution processes will be assessed.  Students will be assessed based on their mastery of the objectives clearly stated for the course. Students will be observed, evaluated, and given feedback no less than weekly.

**5. List any special texts, equipment, or supplies needed for this course or sections of this course being offered through distance education.**

Students taking this course through distance education must have reliable Internet access to the learning management system (e.g. Canvas, MyOpenMath, WileyPlus, etc.) and a video camera. The student may need to purchase a publisher access code to access online materials such as video lectures, discussion boards, homework, class notes, quizzes, exams, eTextbook, etc.

Students may be required to use a webcam for assessments, lectures, in-class activities, discussions, and/or presentations.

**6. Describe the college resources that will be required by you and your students (facilities, technology, student support services) for this course.**

The only required resources that students need are computers with Internet access, and telephones. When needed, technical support is provided by telephone and/or email, free of charge, by the instructor, SCC's Student Help Desk, or the publisher's technical support service. There are no college resources required.

**7. Section 55200 of title 5 states "In addition, instruction provided as distance education is subject to the requirements that may be imposed by the Americans with Disabilities Act (42 U.S.C. §12100 et seq.) and section 508 of the Rehabilitation Act of 1973, as amended, (29 U.S.C. §794d)." What technologies will you be using for instruction (video, flash, images, etc)? How will you ensure that instruction using these technologies is accessible to students with disabilities?**

Alternative tags will be used for visual material (including mathematical formulas) and audio recordings will be available with closed captioning. Online lectures will be given in an audio/visual format as well as a read-only option to ensure accessibility. Closed captioning will be provided for videos. Documents (e.g., lectures, handouts, assignments, rubrics) will be provided in an accessible format as well (e.g., Word, Rich Text Format, use of proper headings, etc.). Students may use a simple equation editor provided by the LMS to input mathematical algorithms or alternatively may upload pictures of typed or handwritten work in pdf format. The syllabus will address the needs of students with disabilities. Extended test times will be provided for online assessments when they are required for individual students.