

# ***EXHIBIT B***



**BOARD OF TRUSTEES**

**Bylaw, Policy, and Curriculum Committee Agenda Items**

**To:** Board of Trustees  
**From:** Office of the President  
**Date:** April 18, 2024

The following Bylaw, Policy, and Curriculum Committee items are recommended to the Ocean County College Board of Trustees for approval at its meeting on **Thursday, April 25, 2024**:

1. Recommend approval of the following items as accepted by the College Senate at its meetings on April 4, and 18, 2024:
  - a. Revised Policy
    - 1) Policy #5156, Students, Academic Standards, Unsatisfactory Academic Progress (**Exhibit B-1**)
  - b. Revised Courses
    - 1) MATH 191, Precalculus I (**Exhibit B-2**)
    - 2) MATH 192, Precalculus II (**Exhibit B-3**)

***EXHIBIT B-1***

**POLICY**

1. Academic Warning Notices Progress

~~Professor~~The instructor may send a notice of unsatisfactory <sup>[CM1]</sup>progress to a student at any time during the semester in order to advise the student of ~~his or her~~their academic standing in the class. Students are responsible for monitoring their academic progress. Students may consult with their instructor about their academic progress at any point throughout the term/semester.

2. Academic Standings

Degree seeking students with a cumulative Grade Point Average (GPA) of 2.0 or higher at the end of each fall and spring semester will maintain a designation of Good Standing. Students in good standing are limited to 18 credits in a semester absent special permission for course overload.

Students failing to maintain satisfactory academic progress are assigned a standing of Academic Warning, Academic Probation, Continued Probation, or Academic Suspension. ~~These standings will be imposed on students who~~ if they fail to maintain a cumulative GPA of at least 2.0<sup>[KH2]</sup>. Any student who attempts at least 12 credits in a fall or spring semester with a cumulative GPA below 2.00 ("C" average) will have an academic standing imposed in accordance with the criteria below.

A student wishing to return from Academic Suspension will be assigned the designation of Academic Reinstatement until the completion of one semester, at which time the student will receive the appropriate standing based on the cumulative GPA.

**Academic Standing Calculation\***

Academic Performance	Academic Standing	Academic Consequence
Cumulative GPA at or above 2.0	Good Standing	Students may register for up to 18 credits in a semester
Cumulative GPA below 2.0 for one semester	Academic Warning	Can enroll for no more than <del>16</del> <sup>[VM3]</sup> credits in a semester
Cumulative GPA below 2.0 for two consecutive semesters	Academic Probation	Can enroll for no more than 13 credits in a semester
Cumulative GPA below 2.0 for three consecutive semesters	Continued Probation	Can enroll for no more than 7 credits in a semester
Cumulative GPA below 2.0 for four consecutive semesters	Academic Suspension	One year suspension from taking credit courses
Returning after Academic Suspension	Academic Reinstatement	Can enroll for no more than 7 credits in a semester

\*A semester is defined as any enrolled fall or spring term. Regular semesters and accelerated terms are combined for consideration of an enrolled semester. A semester of complete withdrawals will push the penalty to the next term.

3. Developmental Probation/Restriction/Suspension

A. Developmental Probation

~~Students who fail to receive a grade of "C" or better in a developmental mathematics course (MATH 011 or MATH 012 or MATH 023) will be placed on developmental probation.~~

- ~~i. Full-time students placed on developmental probation will be limited to 12 credits (four courses) and must re-enroll immediately in the developmental mathematics course.~~
- ~~ii. Part-time students placed on developmental probation must include the developmental mathematics course as part of their course load in the next semester in which they enroll.~~

B. Developmental Restriction

~~Students who fail to receive a grade of "C" or better in a developmental English course (ENGL 091 or ENGL 095) will be placed on developmental restriction:~~

- ~~i. Students placed on developmental restriction are limited to a maximum credit load of 12-13 semester hours. The credit load must include the needed developmental English course. The remainder of the credit load must be selected from the approved Limited Load Course List in Procedure #5165, Attachment B.~~
- ~~ii. Students placed on developmental restriction who fail to pass a developmental English course on their second attempt are limited to a maximum credit load of 6-7 semester hours. The credit load must include the needed developmental English course. The remainder of the credit load must be selected from the approved Limited Load Course List in Procedure #5165, College Skills Assessment Program, Attachment B.~~
- ~~iii. Students failing to attain a grade of "C" or better in a developmental English course on their third attempt will be limited to enrolling only in that course until it is completed with a grade of "C" or better.~~

C. Withdrawal "W" Grade

~~Withdrawals from developmental courses will be handled as follows:~~

- ~~i. Students receiving a grade of "W" for the first time in a specific course:
 
  - ~~a) Must enroll in the developmental course in the next semester for which they register;~~
  - ~~b) Will not have the developmental restriction applied;~~
  - ~~c) Will be limited to a total of 14 semester hours.~~~~
- ~~ii. Students receiving a grade of "W" more than once in a specific developmental course will have the "W" grade treated as a "non-passing" grade and be subject to the actions prescribed under the developmental restriction section.~~

4.3. Student Appeals

Students placed on Academic Sanction or Academic Suspension may appeal the action, via our centralized reporting and recordkeeping system to the Academic Standards Committee. Appeals are placed on the Academic Standards Committee's agenda for review and decision, See Procedures under the specific Academic Penalty for information regarding the appeal process.

5.4. Academic New Beginning (Academic Forgiveness)<sup>[CM4]</sup>

Students who have exhibited poor academic performance prior to an extended period of absence from the College may, under certain conditions, appeal for ~~an Academic~~ ~~Forgiveness New Beginning~~ to have the previously earned grades disregarded in calculating the Grade Point Average.

~~Academic Forgiveness New Beginning~~ Appeals must be submitted to the Academic Affairs Office within two semesters of the student's return to OCC. Academic Affairs will submit the appeals to the Academic Standards Committee for review and decision. Students seeking ~~Academic Forgiveness New Beginning~~ Appeals should consult with the Financial Aid Office about the impact the appeal may have on their financial aid and/or veteran's benefits. Students transferring to other colleges will be bound by the transfer schools' terms and conditions for acceptance of transfer credits.

The following conditions apply for ~~New Beginning~~~~Academic Forgiveness~~ Appeals:

- A. A minimum of ~~five~~ ~~three~~ years' absence of enrollment in credit courses must have elapsed prior to the student's re-enrollment.
- B. The student's cumulative GPA prior to the ~~five~~~~three~~-year period of absence from the College must be below 2.00.<sup>[VM5]</sup>
- C. No credits or grades earned prior to the period of absence will be counted in the calculation of the new GPA or towards graduation.
- D. All previous coursework will continue to appear on the student's transcript. However, it will not be included in the cumulative GPA. Requests to remove courses and grades of previous courses from the student's OCC transcript will be denied.
- E. Credits excluded as a result of ~~New Beginning Appeals~~ ~~Academic Forgiveness~~ cannot be used to meet program requirements or course prerequisites.
- F. ~~An New Beginning Appeal~~~~Academic Forgiveness Appeal~~ can be approved only once for any individual student and is irrevocable. When approved, a notation will appear on the student's transcript and prior courses will no longer be included in the calculation of the GPA.

6.5. Nursing ProgramA. Non-Passing Grades

In order to fulfill program requirements, students enrolled in the Nursing Program must obtain at least a "C" in all courses listed in the Nursing Program curriculum guide, including NURS and BIOL courses and courses satisfying the OCC and general education requirements. A "D" in these courses (like an "F") is a non-passing grade.

Students who receive a non-passing grade in a BIOL course or in courses satisfying the OCC or general education requirements may repeat the course(s) in an attempt to attain a "C" grade.

Students receiving a non-passing grade in a NURS course (clinical or non-clinical) may repeat the course only once. If unsuccessful on the second attempt, the students are dismissed from the Nursing Program.

Students achieving a second non-passing grade in a subsequent clinical NURS course (NURS 175, 176, 273, 274) will fail out of the Nursing Program.

Students who have failed out of the Nursing Program due to academic (as opposed to clinical) performance may automatically apply for readmission.

Students who have failed out of the Nursing Program due to clinical performance in at least one NURS course cannot automatically reapply to the program but may contact the Nursing Program administrator for consideration on a case-by-case basis.

Students may apply for readmission one time only, and do so via the regular nursing application process. Readmission requires a student to start the Nursing Program over again. Applicants for readmission to the Nursing Program must satisfy all new and/or additional admission requirements prior to acceptance, including achieving the minimum grade point average. Upon acceptance into the program, students must repeat all NURS courses, regardless of any prior successful grades. Applicants have two options for readmission:

Option I

Retake Anatomy & Physiology I (BIOL 130), Anatomy & Physiology II (BIOL 131), and a student success course, all as Ocean County College face-to-face courses

Option II

Successfully achieve an LPN license.

B. ~~Nursing Program~~: Re-Entry after Withdrawal/Failure

Nursing students may temporarily leave the Nursing Program and return without penalty. While not enrolled in courses, students have inactive status in the program. Students who plan to seek inactive status must notify the Nursing Office in writing. Students may have no more than a four-semester period of inactivity. The period of inactivity begins following the last successful NURS course. Students are not guaranteed seats in a particular course or semester.

If students leave for more than one semester, they must successfully achieve a passing grade on the OCC Test of Prior Nursing Knowledge and complete the required practicum before re-entering the program even if they have already successfully completed any NURS course. Students are not guaranteed seats in courses the next time they are offered.

If students exceed the four-semester limit (based on the last successful NURS course), they will be automatically dismissed from the Nursing Program; they will be required to re-apply to the program and satisfy all new and/or additional requirements prior to acceptance. All prior NURS courses must be re-taken, even if the students had been successful in the past.

7. C. Program Requirements

Students enrolled in the Nursing Program must meet all requirements in a unit/course before progressing to the next unit/course. Students failing to meet requirements may appeal this decision in writing to the Appeals Board of the Nursing Department.

8. 6. Prerequisite Requirements

Students must successfully complete all prerequisite courses before attending courses with prerequisite requirements. The offices of Academic Affairs, Student Affairs, and Registration and Records will be responsible for establishing and enforcing the mechanisms, including waivers, for prerequisite compliance. See Policy 5160.

Adopted: August 26, 1968  
Revised: May 20, 1974  
Revised: March 28, 1977  
Revised: August 25, 1980  
Revised: January 26, 1981  
Revised: March 23, 1981  
Revised: August 24, 1981  
Revised: December 12, 1983  
Revised: December 9, 1985  
Revised: June 22, 1987  
Revised: June 27, 1988  
Revised: January 22, 1990  
Revised: April 22, 1991

Revised: June 28, 1993  
Revised: September 24, 1996  
Revised: March 24, 1997  
Revised: February 28, 2000  
Revised: November 20, 2000  
Revised: May 27, 2003  
Revised: December 10, 2007  
Revised: January 25, 2010  
Revised: June 28, 2010  
Revised: July 25, 2011  
Revised: May 27, 2014  
Revised: November 2, 2015  
Revised: December 7, 2015

Revised: June 1, 2017  
Revised: June 28, 2018  
Revised: March 25, 2021



***EXHIBIT B-2***

Date Submitted: 02/23/23 1:21 pm

Viewing: **MATH 191 : Precalculus I**

Last approved: 07/19/21 11:24 pm

Last edit: 02/23/23 1:47 pm

Changes proposed by: Susan O'Connor (soconnor)

Catalog Pages  
referencing this  
course

[Approved General Education Courses  
Mathematics \(MATH\)](#)

Programs  
referencing this  
course

[AS.BA.ACCT: Business Administration - Option in Accounting, Associate  
in Science](#)  
[CT.FS: Fire Science, Certificate of Proficiency](#)  
[AS.BA: Business Administration, Associate in Science](#)  
[AS.BA.DA: Business Administration - Option in Data Analytics,  
Associate in Science](#)  
[CC.DATA: Data Analytics, Certificate of Completion](#)  
[AS.ACCT: Accounting, Associate in Science](#)  
[AS.BA.HR: Business Administration, Associate in Science](#)

Other Courses  
referencing this  
course

In The Catalog Description:

[MATH 161 : College Algebra](#)  
[MATH 165 : College Algebra \(Accelerated\)](#)  
[MATH 192 : Precalculus II](#)  
[MATH 195 : Precalculus \(Accelerated\)](#)

Learning Outcomes  
Display (show only)

## In Workflow

1. **STEM Academic Administrator**
2. **STEM Dean**
3. **Executive Director of Curriculum and Program Development**
4. **Curriculum Committee Chair**
5. **Senate Chair**
6. Vice President of Academic Affairs
7. President's Leadership Team Chair
8. President
9. Board of Trustees Chair
10. STEM Academic Administrator
11. Colleague

## Approval Path

1. 02/23/23 1:21 pm  
Susan O'Connor (soconnor):  
Approved for STEM Academic Administrator
2. 02/23/23 1:21 pm  
Susan O'Connor (soconnor):  
Approved for STEM Dean
3. 02/23/23 1:21 pm  
Susan O'Connor

(soconnor):  
Approved for  
Executive Director  
of Curriculum and  
Program  
Development

4. 03/06/23 12:29 pm  
Heather Sciarappa  
(hscarappa):  
Rollback to  
Executive Director  
of Curriculum and  
Program  
Development for  
Curriculum  
Committee Chair

5. 02/16/24 11:47 am  
James Marshall  
(jmarshall): Rollback  
to STEM Academic  
Administrator for  
Executive Director  
of Curriculum and  
Program  
Development

6. 04/03/24 10:42 am  
Cynthia Fallon  
(cfallon): Approved  
for STEM Academic  
Administrator

7. 04/03/24 1:41 pm  
Sylvia Riviello  
(sriviello): Approved  
for STEM Dean

8. 04/09/24 9:20 am  
James Marshall  
(jmarshall):  
Approved for  
Executive Director  
of Curriculum and

Program  
Development  
9. 04/11/24 7:17 pm  
Caroline Brittain  
(cbrittain):  
Approved for  
Curriculum  
Committee Chair

### History

1. Jul 19, 2021 by  
Susan O'Connor  
(soconnor)

## 1. Course Information

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Subject	MATH - Mathematics
School	Science, Technology, Engineering, Mathematics
Course Title	Precalculus I

## 2. Hours

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Semester Hours	3.00000
Lecture	3
Lab	0
Practicum	0

## 3. Catalog Description

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For display in the  
online catalog

Polynomial, rational, exponential and logarithmic functions are studied from an algebraic, analytic and graphical perspective. Functions, the Fundamental Theorem of Algebra, complex numbers, mathematical modeling and other algebraic concepts are studied. Students who receive credit for Math 191 and/or Math 192 cannot also receive credit for Math 195. **Students cannot earn more than a total of six (6) graduation credits for any combination of MATH 191;**

**MATH 192 and MATH 195. Prerequisite: MATH 165 OR MATH 161 or appropriate placement score.**

## 4. Requisites

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Prerequisites

MATH 161, 165, 166, 165 or **MATH 161 or** appropriate placement score. **Placement Score**

Corequisites

None

## 5. Course Type

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Course Type for non-vocational (not approved for Perkins  
Perkins Reporting funding)

## 6. Justification

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Describe the need  
for this course

This course is the first of a two-course sequence which prepares a student for the study of calculus. It is designed to provide students with the mathematical knowledge needed to successfully integrate mathematics into their chosen area of study or career path.

## 7. General Education

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Will the college submit this course to the statewide General Education Coordinating Committee for approval as a course, which satisfies a general education requirement?

Yes

General Education

Category

Mathematics

General Education Approved

Status

## 8. Consistency with the Vision and Mission Statements, the Academic Master Plan, and the strategic initiatives of the College

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Please describe how this course is consistent with Ocean County College's current Vision Statement, Mission Statement, Academic Master Plan, and the strategic initiatives of the College:

	<a href="#">Add item</a>
1	This course helps to prepare students to become intentional learners who will be able to understand and employ quantitative analysis to solve problems, and demonstrate intellectual agility in mathematics.

## 9. Related Courses at Other Institutions

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### Comparable Courses at NJ Community Colleges

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Institution Atlantic Cape CC

Course Title College Algebra

Course Number MATH 122

Number of Credits 3

Comments

Institution Middlesex County College

Course Title College Algebra

Course Number MATH 116

Number of Credits 3

Comments

Institution Salem CC

Course Title College Algebra

Course Number MATH 137

Number of Credits 3

Comments

## Transferability of Course

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Georgian Court  
University

Course Code, Title, and Credits	Transfer Category	If non-transferable; select status
MA 109 College Algebra, 3	GE	

Kean University

Course Code, Title, and Credits	Transfer Category	If non-transferable; select status
MATH 1000, Algebra for College Students, 3	GE	

Monmouth  
University

Course Code, Title, and Credits	Transfer Category	If non-transferable; select status
MA101 College Algebra, 3	Not Specified	

Rowan University

Course Code, Title, and Credits	Transfer Category	If non-transferable; select status
MAT01123, College Algebra, 3	Elective	

Rutgers - New  
Brunswick, Mason  
Gross School of the  
Arts

Course Code, Title, and Credits	Transfer Category	If non-transferable; select status
01640115, MATH191 & 192	GE	

Stockton University

Course Code, Title, and Credits	Transfer Category	If non-transferable; select status
TRCREC	Elective	

If not transferable  
to any institution,  
explain:

## 10. Course Learning Outcomes

Learning Outcomes

	Students who successfully complete this course will be able to:
CLO1	Apply critical thinking skill to more advanced algebraic problems
CLO2	Critique different types of graphs
CLO3	Apply the function concept, including operations, graphing, inverses and applications.
CLO4	Analyze polynomial, rational, exponential and logarithmic functions.
CLO5	Display proficiency in the use of a graphing utility and/or computer software.

## 11. Topical Outline

(include as many themes/skills as needed)

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
TO1	Functions  a. Notation and operations  b. Graphs  c. Inverses  d. Mathematical Models	Homework	Quizzes/Exams	CLO1, CLO2, CLO3, CLO5



	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
TO2	Polynomial  Functions  a. Graphs  b. Complex  Numbers  c. Fundamental  Theorem of  Algebra	Homework	Quizzes/Exams	CLO1, CLO2, CLO3, CLO4, CLO5
TO3	Rational Functions  a. Graphs  b. Partial fraction  decomposition	Homework	Quizzes/Exams	CLO1, CLO2, CLO3, CLO4, CLO5
TO4	Exponential and  Logarithmic  functions  a. Evaluating  expressions  b. Solving  equations  c. Graphs	Homework	Quizzes/Exams	CLO1, CLO2, CLO3, CLO4, CLO5

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
	d. Applications,  including  growth and  decay models			

## 12. Methods of Instruction

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In the structuring of this course, what major methods of instruction will be utilized?

Lecture

Class discussion

Group discussion

Computer applications

Graphing calculator applications

## 13. General Education Goals Addressed by this Course (this section is to fulfill state requirements)

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*Information*

Communication-Written and Oral

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Quantitative Knowledge and Skills

Yes

Related Course All

Learning Outcome

4/15/24, 12:40 PM

Course Inventory Management

Related Outline      All  
Component

Assessment of General Education Goal (Recommended but not limited to)

Individual Student Exam

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Scientific Knowledge and Reasoning

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Technological Competency

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Information Literacy

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Society and Human Behavior

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Humanistic Perspective

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Historical Perspective

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Global and Cultural Awareness

---

Ethical Reasoning and Action

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Independent/Critical Thinking

## 14. Needs

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Instructional  
Materials (text  
etc.):

Appropriate textbook and online resources

Technology Needs:

Access to graphing utilities and Internet for instruction

4/15/24, 12:40 PM

Course Inventory Management

Human Resource  
Needs (Presently  
Employed vs. New  
Faculty):

Presently Employed Faculty

Facility Needs:

None

Library needs:

None

## 15. Grade Determinants

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The final grade in the course will be the cumulative grade based on the following letter grades or their numerical equivalents for the course assignments and examinations

A: Excellent

B+: Very Good

B: Good

C+: Above Average

C: Average

D: Below Average

F: Failure

I: Incomplete

R: Audit

For more detailed information on the Ocean County College grading system, please see Policy #5154.

## 16. Board Approval

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History of Board  
approval dates

Board of Trustees Approval Date: January 26, 2016

Reviewer

Comments

Heather Sciarappa (hsciarappa) (03/06/23 12:29 pm): Rollback: Further discussion needed.

**James Marshall (jmarshall) (02/16/24 11:47 am):** Rollback: Catalog description edit: students ... cannot also receive credit for MATH 195 or MATH 196.

Key: 1692

***EXHIBIT B-3***

Date Submitted: 02/23/23 1:48 pm

## Viewing: **MATH 192 : Precalculus II**

Last approved: 10/16/21 4:00 am

Last edit: 02/23/23 1:48 pm

Changes proposed by: Susan O'Connor (soconnor)

Catalog Pages  
referencing this  
course

[Approved General Education Courses](#)  
[Mathematics \(MATH\)](#)

Other Courses  
referencing this  
course

### In The Catalog Description:

[MATH 165 : College Algebra \(Accelerated\)](#)  
[MATH 191 : Precalculus I](#)  
[MATH 195 : Precalculus \(Accelerated\)](#)

Learning Outcomes  
Display (show only)

### In Workflow

1. **STEM Academic Administrator**
2. **STEM Dean**
3. **Executive Director of Curriculum and Program Development**
4. **Curriculum Committee Chair**
5. **Senate Chair**
6. Vice President of Academic Affairs
7. President's Leadership Team Chair
8. President
9. Board of Trustees Chair
10. STEM Academic Administrator
11. Colleague

### Approval Path

1. 08/15/23 10:05 am  
Cynthia Fallon (cfallon): Approved for STEM Academic Administrator
2. 08/15/23 10:06 am  
Sylvia Riviello (sriviello): Approved for STEM Dean
3. 02/16/24 11:49 am  
James Marshall (jmarshall): Rollback to STEM Academic

- Administrator for Executive Director of Curriculum and Program Development
- 4. 04/03/24 10:42 am  
Cynthia Fallon (cfallon): Approved for STEM Academic Administrator
- 5. 04/03/24 1:41 pm  
Sylvia Riviello (sriviello): Approved for STEM Dean
- 6. 04/09/24 9:20 am  
James Marshall (jmarshall): Approved for Executive Director of Curriculum and Program Development
- 7. 04/11/24 7:17 pm  
Caroline Brittain (cbrittain): Approved for Curriculum Committee Chair

### History

- 1. Oct 16, 2021 by Susan O'Connor (soconnor)

## 1. Course Information

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Subject	MATH - Mathematics
School	Science, Technology, Engineering, Mathematics



Course Title            Precalculus II

## 2. Hours

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Semester Hours	3.00000
Lecture	3
Lab	0
Practicum	0

## 3. Catalog Description

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For display in the  
online catalog

This course is a continuation of MATH 191. It includes the study of trigonometric functions and their inverses, trigonometric identities and equations and complex numbers from an algebraic, analytical, and graphical perspective. Additional topics include determinants sequences and series, analytic geometry and mathematical induction. Students who receive credit for Math 191 and/or Math 192 cannot also receive credit for Math 195.

## 4. Requisites

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Prerequisites

MATH 191 or appropriate placement score

Corequisites

None

## 5. Course Type

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Course Type for            non-vocational (not approved for Perkins  
Perkins Reporting        funding)

## 6. Justification

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Describe the need  
for this course

a. Describe the need for this course.

This course is the second of a two course sequence which prepares a student for the study of calculus. It designed to provide students with the mathematical knowledge needed to

successfully integrate mathematics into their chosen area of study or career path.

b. Relationship to courses within the College:

## 7. General Education

Will the college submit this course to the statewide General Education Coordinating Committee for approval as a course, which satisfies a general education requirement?

Yes

General Education

Category

Mathematics

General Education      Approved

Status

## 8. Consistency with the Vision and Mission Statements, the Academic Master Plan, and the strategic initiatives of the College

Please describe how this course is consistent with Ocean County College's current Vision Statement, Mission Statement, Academic Master Plan, and the strategic initiatives of the College:

	<a href="#">Add item</a>
1	This course helps to prepare students to become intentional learners who will be able to understand and employ quantitative analysis to solve problems, and demonstrate intellectual agility in mathematics.

## 9. Related Courses at Other Institutions

### Comparable Courses at NJ Community Colleges

Institution	Atlantic Cape CC
Course Title	Trigonometry
Course Number	MATH 128
Number of Credits	4

Comments

Institution Brookdale CC  
 Course Title College Algebra & Trigonometry  
 Course Number MATH 152  
 Number of Credits 4

Comments

## Transferability of Course

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Georgian Court

University

Course Code, Title, and Credits	Transfer Category	If non-transferable; select status
MA 110, Precalculus, credits not listed	GE	

Kean University

Course Code, Title, and Credits	Transfer Category	If non-transferable; select status
MATH 1054, Pre-Calculus, credits not listed	GE	

Monmouth

University

Course Code, Title, and Credits	Transfer Category	If non-transferable; select status
MA 101, College Algebra, credits not listed	not listed	

Rowan University

Course Code, Title, and Credits	Transfer Category	If non-transferable; select status
MATH 1075	GE/Elective	

Rutgers - New  
Brunswick, Mason  
Gross School of the  
Arts

Course Code, Title, and Credits	Transfer Category	If non-transferable; select status
MATH 191 & MATH192 as Precalculus College Mathematics, credits not listed	GE	

Stockton University

Course Code, Title, and Credits	Transfer Category	If non-transferable; select status
MATH 1100 Precalculus Mathematics, credits not listed	GE	

If not transferable  
to any institution,  
explain:

## 10. Course Learning Outcomes

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Learning Outcomes

	Students who successfully complete this course will be able to:
CLO1	Demonstrate an understanding of trigonometric and inverse trigonometric functions.
CLO2	Distinguish trigonometric graphs
CLO3	Solve trigonometric applications.
CLO4	Apply the trigonometric form of complex numbers.
CLO5	Perform operations on complex numbers in trigonometric form.
CLO6	Demonstrate further proficiency in the use of a graphing utility and/or computer software.
CLO7	Demonstrate an understanding of advanced algebra topics.

## 11. Topical Outline

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(include as many themes/skills as needed)

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
TO1	Trigonometric functions Trigonometric functions based on the unit circle and right triangle; applications	Textbook and/or online homework assignments	Quiz and/or exam	CLO1, CLO3
TO2	Graphs of trigonometric functions Graph the six trigonometric functions and applications	Textbook and/or online homework assignments	Quiz and/or exam	CLO2, CLO3, CLO6
TO3	Inverse trigonometric Definitions, graphs and evaluating the inverse functions and applications	Textbook and/or online homework assignments	Quiz and/or exam	CLO1, CLO3
TO4	Verifying trigonometric identities Use the fundamental trigonometric functions to simplify trigonometric expressions	Textbook and/or online homework assignments	Quiz and/or exam	CLO1
TO5	Solving trigonometric equations Methods for solving equations involving trigonometric functions and applications	Textbook and/or online homework assignments	Quiz and/or exam	CLO1, CLO3
TO6	The law of sines and law of cosines	Textbook and/or online homework assignments	Quiz and/or exam	CLO1, CLO3

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
	Solving oblique triangles and applications			
TO7	. Complex numbers in trigonometric form Operations with trigonometric form of complex numbers, DeMoivre's Theorem	Textbook and/or online homework assignments	Quiz and/or exam	CLO4, CLO5
TO8	8.The Instructor will choose at least two of these advanced algebraic topics to include in the course:  a. Systems of Equations and Inequalities: Use the substitution and graphical methods of solving systems of linear and non-linear systems; solve applications b. Determinants: Find the determinants of square matrices, find minors and cofactors of square matrices c. Sequences and Series: Notation for sequences, find sum of series, use sequences and series to model and solve problems. d. Mathematical Induction: Use mathematical induction to prove statements e. Analytic Geometry: Convert points and	Textbook and/or online homework assignments	Quiz and/or exam	CLO7

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
	equations from rectangular to polar form and vice versa, graph polar equations; graph parametric equations			

## 12. Methods of Instruction

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In the structuring of this course, what major methods of instruction will be utilized?

- o Lecture
- o Class discussion
- o Group discussion
- o Computer applications
- o Graphing calculator applications

## 13. General Education Goals Addressed by this Course (this section is to fulfill state requirements)

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*Information*

Communication-Written and Oral

Quantitative Knowledge and Skills                      Yes

Related Course                      All  
Learning Outcome

Related Outline                      All  
Component

Assessment of General Education Goal (Recommended but not limited to)

Exams

Scientific Knowledge and Reasoning

---

Technological Competency

---

Information Literacy

---

Society and Human Behavior

---

Humanistic Perspective

---

Historical Perspective

---

Global and Cultural Awareness

---

Ethical Reasoning and Action

---

Independent/Critical Thinking Yes

Related Course All

Learning Outcome

Related Outline All

Component

Assessment of General Education Goal (Recommended but not limited to)

Exams

## 14. Needs

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Instructional  
Materials (text  
etc.):

See department for current adoptions

Technology Needs:

Converge; Graphing calculator and/or emulator; Internet resources



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Course Inventory Management

Human Resource  
Needs (Presently  
Employed vs. New  
Faculty):  
Presently Employed

Facility Needs:  
None

Library needs:  
None

## 15. Grade Determinants

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The final grade in the course will be the cumulative grade based on the following letter grades or their numerical equivalents for the course assignments and examinations

A: Excellent

B+: Very Good

B: Good

C+: Above Average

C: Average

D: Below Average

F: Failure

I: Incomplete

R: Audit

For more detailed information on the Ocean County College grading system, please see Policy #5154.

## 16. Board Approval

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History of Board  
approval dates

Reviewed/Revised: December 1990; February 27, 1996; April 30, 1996; December 1998; April 2004; May 4, 2004; October 2004; November 2004; February 28, 2006; March 8, 2006; June 2006

Board of Trustees Approval Date: November 6, 2006

Board of Trustees Approval Date: August 24, 2009

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Course Inventory Management

Board of Trustees Approval Date: March 26, 2012

Board of Trustees Approval Date: January 26, 2016

Reviewer

Comments

**James Marshall (jmarshall) (02/16/24 11:49 am):** Rollback: Catalog description edit: students ... cannot also receive credit for MATH 195 or MATH 196.

Key: 1693