ABSE19 : Integrated Mathematics 1B

General Information

Author:	• Jesus Carino
Course Code (CB01) :	ABSE19
Course Title (CB02) :	Integrated Mathematics 1B
Department:	ABSE
Proposal Start:	Fall 2025
TOP Code (CB03) :	(4930.62) Secondary Education (Grades 9-12) and G.E.D.
CIP Code:	(53.0201) High School Equivalence Certificate Program.
SAM Code (CB09) :	Non-Occupational
Distance Education Approved:	No
Will this course be taught asynchronously?:	No
Course Control Number (CB00) :	CCC000604995
Curriculum Committee Approval Date:	11/27/2024
Board of Trustees Approval Date:	01/21/2025
Last Cyclical Review Date:	11/27/2024
Course Description and Course Note:	ABSE 19 is an introduction to geometric reasoning and modeling. Students learn exponential functions, equations and models; transformations and symmetry; congruence; lines and angles; triangles, quadrilaterals and coordinate proofs. This course may be used for high school credit in mathematics, and is designed for students preparing to study second semester Intermediate Mathematics 1. Laboratory 100 hours. Note: This is a self-paced course in an open-entry, open-exit lab environment. Successful completion of this course results in 5 high school credits.
Justification:	Mandatory Revision Notes for Submission: This is cyclical review with minor clarification, punctuation, capitalization and grammar corrections. Changed advisories to prerequisites.
Academic Career:	• Noncredit
Mode of Delivery:	No value
Author:	• Jesus Carino
Course Family:	No value

Academic Senate Discipline

Primary Discipline:	• Mathematics-Basic Skills: Non-Credit
Alternate Discipline:	No value
Alternate Discipline:	No value

Course Development

Basic Skill Status (CB08)

Course is a basic skills course.

☐ Allow Students to Gain Credit by Exam/Challenge

Course Special Class Status (CB13)

Course is not a special class.

Pre-Collegiate Level (CB21)

One level below transfer.

Grading Basis

- Grade Only

Course Support Course Status (CB26)

Course is not a support course

General Education and C-ID

General Education Status (CB25)

Not Applicable

Transferability

Not transferable

Transferability Status

Not transferable

Units and Hours

Summary

Minimum Credit Units (CB07)	0
Maximum Credit Units (CB06)	0
Total Course In-Class (Contact) Hours	100
Total Course Out-of-Class Hours	0
Total Student Learning Hours	100

Credit / Non-Credit Options

Course Type (CB04)

Non-Credit

Noncredit Course Category (CB22)

Elementary and Secondary Basic Skills.

Noncredit Special Characteristics

No Value

Course Classification Code (CB11)

Other Non-Credit Enhanced Funding.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	0	0
Laboratory Hours	100	0
Studio Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	54
Course In-Class (Contact) Hours	
Lecture	0

Laboratory	100
Studio	0
Total	100

Course Out-of-Class Hours

Lecture	0
Laboratory	0
Studio	0
Total	0

Time Commitment Notes for Students

This is a self-paced course in an open-entry, open-exit lab environment.

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Prerequisites, Corequisites, Recommended Corequisites, and Recommended Preparation

Advisory

ABSE18 - Integrated Mathematics 1A (in-development)

Objectives

- Interpret parts of an expression in terms of its context.
- Explain the steps to solve a one-variable equation and construct a viable argument to justify a solution method.
- Solve equations and inequalities in one-variable including using coefficients represented by letters.
- Solve absolute value equations and inequalities and graph their solutions;
- Choose and interpret the scale and the origin in graphs.
- Represent constraints by equations or inequalities and by systems of equations or inequalities.
- Solve for a specific variable in a formula.
- Write functions that describe a relationship between two quantities.
- Identify the effects on a graph by changing part of a function.
- Create equations in two or more variables to represent relationships between quantities.
- Display and analyze data statistically.

AND

Advisory

ESL30 - ENGLISH AS A SECOND LANGUAGE LEVEL 3

Objectives

- Write paragraphs at the low-intermediate level with sufficient unity.
- Develop coherence and mechanical accuracy.
- Demonstrate mastery of grammatical structures studied at a level sufficient to pass unit tests and the divisional grammar mastery test for this level.
- Converse at a functional level adequate for everyday use on the campus and in the community.

- Respond to questions about recorded and live speeches, dialogues, role plays, and lectures.
- Decode 2,500-word reading passages, respond to inference and recall questions, and utilize a monolingual English dictionary to advantage.

Entry Standards

Entry Standards	Description
No value	No value

Course Limitations

Cross Listed or Equivalent Course	Description
No value	No value

Specifications

Methods of Instruction

Methods of Instruction	
Methods of Instruction	Multimedia
Methods of Instruction	Tutorial
Methods of Instruction	Independent Study
Methods of Instruction	Collaborative Learning

Out of Class Assignments

N/A

Methods of Evaluation	Rationale
Other	Individualized contract
Exam/Quiz/Test	Assessments at the end of each chapter
Exam/Quiz/Test	Unit exams

Textbook Rationale

Publishing company has no updated version of this textbook. Hence, we are sticking with the current edition.

Textbooks

Author	Title	Publisher	Date	ISBN
Timothy D. Kanold	Integrated Mathematics 1	Houghton Mifflin Harcourt	2015	978-0-544-38976-2

Other Instructional Materials (i.e. OER, handouts)

No Value

Learning Outcomes

Course Objectives

Compare linear and exponential growth.

Interpret the parameters in a linear or exponential function in terms of a context.

Write arithmetic and geometric sequences both recursively and with an explicit formula.

Make a variety of formal geometric constructions using a variety of tools.

Experiment with transformations in the plane.

Understand congruence in terms of rigid motions.

Explain triangle congruence in terms of rigid motion.

Prove theorems about lines and angles, triangles, and parallelograms.

SLOs

Model geometric sequences both recursively and with an explicit formula. Expected Outcome Performance: 70.0

ABSE NCR AHS Diploma	Apply mathematical ways of thinking to real world issues and challenges using mathematical modeling and problem solving techniques.
ABSE NCR Adult Basic Education	Compute and solve real world problems using basic operations with whole numbers, fractions, decimals, and percents.
ILOs Core ILOs	Use quantitative and/or analytical mathematical skills to solve problems and to interpret, evaluate, and process information and data to draw logical conclusions and support claims.

Use geometric descriptions of rigid motions to transform figures and to predict the effect of a give rigid motion of a given figure. Expected Outcome Performance: 70.0

ABSE NCR AHS Diploma	Apply mathematical ways of thinking to real world issues and challenges using mathematical modeling and problem solving techniques.
ABSE NCR Adult Basic Education	Compute and solve real world problems using basic operations with whole numbers, fractions, decimals, and percents.
ILOs Core ILOs	Use quantitative and/or analytical mathematical skills to solve problems and to interpret, evaluate, and process information and data to draw logical conclusions and support claims.

Use coordinates to compute perimeters of polygons and areas of triangles and rectangles. Expected Outcome Performance: 70.0

ABSE NCR AHS Diploma	Apply mathematical ways of thinking to real world issues and challenges using mathematical modeling and problem solving techniques.
ABSE NCR Adult Basic Education	Compute and solve real world problems using basic operations with whole numbers, fractions, decimals, and percents.
ILOs Core ILOs	Use quantitative and/or analytical mathematical skills to solve problems and to interpret, evaluate, and process information and data to draw logical conclusions and support claims.

Additional SLO Information

Does this proposal include revisions that might improve student attainment of course learning outcomes?

No

Is this proposal submitted in response to learning outcomes assessment data?

No

If yes was selected in either of the above questions for learning outcomes, explain and attach evidence of discussions about learning outcomes.

No Value

SLO Evidence

No Value

Course Content

Lecture Content

No value

Laboratory/Studio Content

Geometric Sequences and Exponential Functions (9 hours)
- Understanding and constructing geometric sequences
- Constructing exponential functions
- Graphing exponential functions
- Transforming exponential functions

Exponential Equations and Models (8 hours)
- Using graphs and properties to solve equations with exponents
- Modeling exponential growth and decay
- Using exponential regression models
- Comparing linear and exponential models

Geometric Tools (8 hours)
- Segment length and midpoint
- Angle measures and angle bisectors
- Representing and describing transformations
- Reasoning and proof

Transformations and Symmetry (8 hours)
- Translations
- Reflections
- Rotations
- Symmetry

Congruent Figures (6 hours)
- Sequences of transformations
- Proving figures and congruent using rigid motions
- Congruence of corresponding parts of congruent figures

Lines and angles (10 hours)
- Angles formed by intersecting lines
- Transversals and parallel lines
- Proving lines are parallel
- Perpendicular lines
- Equations of parallel and perpendicular lines

Triangle Congruence Criteria (9 hours)
- Understanding and constructing congruent triangles
- Angle-side-angle triangle congruence
- Side-angle-side triangle congruence
- Side-side-side triangle congruence

Applications of Triangle Congruence (7 hours)
- Justifying constructions
- Angle-angle-side triangle congruence
- Hypotenuse-leg triangle congruence

Properties of Triangles (6 hours)
- Interior and exterior angles
- Isosceles and equilateral triangles
- Triangle inequalities

Special Segments in Triangles (9 hours)
- Perpendicular bisectors of triangles
- Angle bisectors of triangles
- Medians and altitudes of triangles
- Midsegments of triangles

Properties of quadrilaterals (10 hours)

- Properties and conditions for parallelograms
- Properties and conditions for rectangles, rhombuses and squares
- Properties and conditions for kites and trapezoids

Coordinate Proof Using Slope and Distance (10 hours)

- Slope and parallel lines
- Slope and perpendicular lines
- Coordinate proof using distance with segments and triangles
- Coordinate proofs using distance with quadrilaterals
- Perimeter and area on the coordinate plane

Total hours: 100

Additional Information

Repeatability

Repeatable

Justification (if repeatable was chosen above)

Non-credit courses

Is it possible this course will have a material fee?

No Value

I have contacted my library liaison (https://campusguides.glendale.edu/faculty/liaisons):

No Value

What term(s) will this course be offered?

No Value

Will any additional resources be needed for this course? (Click all that apply)

No Value

If additional resources are needed, add a brief description and cost in the box provided.

No Value

Resources

Did you contact your departmental library liaison?

No

If yes, who is your departmental library liason?

Shelley Aronoff (ESL-Noncredit, Noncredit Business & Life Skills)

Did you contact the DEIA liaison?

No

Were there any DEIA changes made to this outline?

No

If yes, in what areas were these changes made:

No Value

Will any additional resources be needed for this course? (Click all that apply)

- No

If additional resources are needed, add a brief description and cost in the box provided.

No Value