

ABSE18 : Integrated Mathematics 1A

General Information

Author:	<ul style="list-style-type: none">Jesus Carino
Course Code (CB01) :	ABSE18
Course Title (CB02) :	Integrated Mathematics 1A
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) :	CCC000604994
Curriculum Committee Approval Date:	11/27/2024
Board of Trustees Approval Date:	Pending
Last Cyclical Review Date:	11/27/2024
Course Description and Course Note:	ABSE 18 is an introduction to algebraic reasoning and modeling. Students learn linear, exponential, and radical functions, systems of equations, and data analysis. This course is designed to meet the needs of students who wish to begin their study of first semester Integrated Mathematics 1 and to earn high school credit in mathematics. 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
Academic Career:	<ul style="list-style-type: none">Noncredit
Mode of Delivery:	No value
Author:	No value
Course Family:	No value

Academic Senate Discipline

Primary Discipline:	<ul style="list-style-type: none">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

ABSE22 - ARITHMETIC 1B (in-development)

Objectives

- Explain and calculate mean, median and mode in the set of numbers.
- Perform conversion factors.
- Find the perimeter and area of the geometric figures.
- Compute problems using positive and negative numbers and algebraic operations.
- Solve equations with one variable.

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

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	978-0-544-38975-5

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

No Value

Learning Outcomes

Course 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.

SLOs

Solve one-variable linear equations and inequalities.

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 linear equations and inequalities to model real-world problems and be able to interpret solutions to such in the context provided by the problems.

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.
ABSE NCR GED Preparation	Solve a variety of word problems, many with graphics, using basic computation, analytical and reasoning skills.
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.

Solve two-variable systems of linear equations and inequalities.

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

Quantitative Reasoning (6 hours)

- Solving equations
- Modeling quantities
- Reporting with precision and accuracy

Algebraic Models (11 hours)

- Modeling with expressions
- Creating and solving equations
- Solving for a variable
- Creating and solving inequalities
- Creating and solving compound inequalities

Functions and Models (9 hours)

- Graphing relationships
- Understanding relationships and functions
- Modeling with functions
- Graphing functions

Patterns and sequences (7 hours)

- Identifying and graphing sequences
- Constructing arithmetic sequences
- Modeling with arithmetic sequences

Linear Functions (7 hours)

- Understanding linear functions
- Using intercepts
- Interpreting rate of change and slope

Forms of Linear Equations (11 hours)

- Slope-intercept form
- Point-slope form
- Standard form
- Transforming linear functions
- Comparing properties of linear functions

Linear Equations and Inequalities (7 hours)

- Modeling linear relationships
- Using functions to solve one-variable equations
- Linear inequalities in two variables

Multi-Variable Categorical Data (4 hours)

- Two-way frequency tables
- Relative frequency tables

One-Variable Data Distributions (9 hours)

- Measures of center and spread
- Data distributions and outliers
- Histograms and box plots
- Normal distributions

Linear Modeling and Regression (4 hours)

- Scatter plots and trend lines
- Fitting a linear model to data

Solving Systems of Linear Equations (9 hours)

- Solving linear systems by graphing
- Solving linear systems by substitution
- Solving linear systems by adding or subtracting
- Solving linear systems by multiplying first

Modeling with Linear Systems (7 hours)

- Creating systems of linear equations
- Graphing systems of linear inequalities
- Modeling with linear systems

Piecewise-Defined Functions (9 hours)

- Understanding piecewise-defined functions
- Absolute value functions and transformations
- Solving absolute value equations
- Solving absolute value inequalities

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/liasons>):

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 liaison?

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