GLENDALE
COMMUNITY COLLEGE

COURSE DISCIPLINE :   MATH

COURSE NUMBER :   30AB

COURSE TITLE (FULL) :   Intermediate Algebra and Pre-Statistics

COURSE TITLE (SHORT) :   Inter Alg & Pre-Stats

ACADEMIC SENATE DISCIPLINE: Mathematics

CATALOG DESCRIPTION

MATH 30AB is the first part of a three-part Intermediate Algebra course for Statistics and Liberal Arts Math (SLAM). MATH 30AB, MATH 30CD, and MATH 30E are collectively equivalent to MATH 30 Intermediate Algebra and Pre-Statistics. The MATH 30AB, MATH 30CD, and MATH 30E sequence is a three-part course leading to transfer-level SLAM courses MATH 136, MATH 133, MATH 135 and MATH 138. Topics include curve plotting, linear equations and inequalities, descriptive statistics, graphical and numerical statistics for quantitative and categorical data, and modeling bivariate data with linear functions.

CATALOG NOTES

Note: This course may not be taken for credit by students who have completed MATH 30, 30+, 130, or 131. A maximum of 6 units will be granted for the MATH 30AB, 30CD, and 30E sequence and any of the following courses: MATH 146, 246A, 246B, 30, or 30+ OR a maximum of 7 units will be granted for the MATH 30AB, 30CD, and 30E sequence and any of the following courses: MATH 101, 119, 120, 219A, 219B, 219C, 220A, 220B, 90, or 90+.

Total Lecture Units:1.50

Total Laboratory Units: 0.50

Total Course Units: 2.00

Total Lecture Hours:27.00

Total Laboratory Hours: 27.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 54.00

Total Out-of-Class Hours: 54.00

Prerequisite: Placement is based on an academic background or satisfactory completion of MATH 15.

GLENDALE
COMMUNITY COLLEGE

ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1				Add, subtract, multiply, and divide real numbers;	Yes
2				convert between percents, decimals and fractions;	Yes
3				solve introductory linear equations and inequalities;	Yes
4				simplify introductory exponential expressions;	Yes
5				add, subtract, multiply and divide polynomials;	Yes
6				graph introductory linear equations and inequalities;	Yes
7				find the equation of a line;	Yes
8				solve linear systems using 3 different methods;	Yes
9				use algebra to solve applied problems;	Yes
10				factor polynomials;	Yes
11				demonstrate knowledge of test-taking strategies and study skills.	Yes

EXIT STANDARDS

1   Solve absolute value equations and inequalities;
2   solve linear equations and inequalities;
3   find the equation of a line and interpret the slope and intercept;
4   solve applied problems;
5   graph linear functions;
6   compute basic statistics for a variable, including mean, median, mode, quartiles, range, variance, andstandard deviation;
7   describe the distribution of a quantitative variable in terms of its shape, center and spread, usinggraphical techniques;
8   graph and interpret bivariate data through the use of scatterplots, regression, and correlation.

STUDENT LEARNING OUTCOMES

1   identify different types of equations and inequalities, select the appropriate strategy to solve the equation or inequality, and check the reasonableness of the solution;
2   collect data from a population, represent data in an organized and visual manner, and graph sets of data, functions, and relations.

GLENDALE
COMMUNITY COLLEGE

COURSE CONTENT WITH INSTRUCTIONAL HOURS

	Description	Lecture	Lab	Total Hours
1	Descriptive Statistics: Basic Statistics • Simple random samples and sampling bias • Measures of center: mean, median, and mode • Measures of spread: standard deviation, variance, interquartile range, and range • Summation notation	8	8	16
2	Descriptive Statistics: Graphs of one variable • Histograms • Stem plots • Box plots • Bar chart • Pie chart	8	8	16
3	Descriptive Statistics: Graphs of two variables • Linear equations and inequalities with one and two variables, including absolute values • The rectangular coordinate system • Scatterplots • The slope of a line • Equations of lines • Regression lines • Applications using systems of equations • Correlation	8	8	16
4	Affective Domain and Metacognition • Information vs. knowledge (concept maps) • Study plans	3	3	6
				54

OUT OF CLASS ASSIGNMENTS

1   homework (e.g. problems sets related to course content);
2   project(s) using datasets and technology culminating in a written report (e.g., analyze data provided involving price and quantity of soda and construct a scatter plot and linear regression model using Excel).

METHODS OF EVALUATION

1   quizzes;
2   one examination is required;
3   a comprehensive final examination is required.

METHODS OF INSTRUCTION

☑ Lecture

☐ Laboratory

☐ Studio

☑ Discussion

☑ Multimedia

☑ Tutorial

☑ Independent Study

☑ Collaboratory Learning

☑ Demonstration

☐ Field Activities (Trips)

☑ Guest Speakers

☑ Presentations

TEXTBOOKS

Title	Type	Publisher	Edition	Medium	Author	IBSN	Date
Intermediate Algebra and Pre-Statistics, Custom Published for GCC	Required	Pearson	1	Print	Lehmann, Jay	1323942416	2019