



COURSE OUTLINE : CHLDV 159

D Credit – Degree Applicable

COURSE ID

PROPOSAL

COURSE DISCIPLINE : CHLDV

COURSE NUMBER : 159

COURSE TITLE (FULL) : Science and Math for Young Children

COURSE TITLE (SHORT) : Science and Math for Young Children

CALIFORNIA STATE UNIVERSITY SYSTEM C-ID :

CATALOG DESCRIPTION

CHLDV 159 is a survey of materials in science, nature, and mathematics suitable for teaching young children (ages 0 – 6 years). Students acquire the appropriate blend of content and pedagogical skills to increase their confidence and attitudes towards science and mathematics when working with young children. Students receive training in using appropriate materials, inquiry-based experiences, and guided discovery teaching methods to promote learning. Students gain practice in translating curriculum standards and guidelines into high quality early childhood, transitional kindergarten, and kindergarten programs.

CATALOG NOTES N/A

Total Lecture Units:3.00

Total Laboratory Units: 0.00

Total Course Units: 3.00

Total Lecture Hours:54.00

Total Laboratory Hours: 0.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 54.00

Recommended Preparation:

CHLDV - 135 - Child Growth and Development



ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1	CHLDV	135	Child Growth and Development	Analyze major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development using standard research methodologies;	Yes
2	CHLDV	135	Child Growth and Development	analyze how cultural, economic, political, historical contexts affect children’s development;	Yes
3	CHLDV	135	Child Growth and Development	compare and contrast various theoretical frameworks that relate to the study of human development, examine and evaluate the role of play and its relationship to development at various stages;	Yes
4	CHLDV	135	Child Growth and Development	apply developmental theory to the analysis of child observations, surveys, and/or interviews using investigative research methodologies;	Yes
5	CHLDV	135	Child Growth and Development	differentiate characteristics of typical and atypical development at various stages;	Yes
6	CHLDV	135	Child Growth and Development	analyze the importance of the early years and the interaction between maturational processes and social/environmental factors and the effects on various areas of development;	Yes
7	CHLDV	135	Child Growth and Development	explore contemporary social issues that impact children’s development.	Yes

EXIT STANDARDS

1. Describe a developmentally appropriate science, nature and mathematics curriculum for children between 0-6 years old;
2. define materials and experiences that will give children a strong science, nature and mathematics foundation;
3. explain the effectiveness of inquiry-based experiences;
4. identify science and mathematics curriculum standards and translate those into high-quality science and mathematics experiences for young children.



STUDENT LEARNING OUTCOMES

- 1 Engage young children in science and mathematics learning experiences;
- 2 plan and implement an integrated curriculum that includes developmentally and culturally appropriate science and math experiences that engage young children in scientific inquiry and constructivist thinking;
- 3 develop appropriate curriculum learning goals from California Pre-K Science and Math Foundations to inform hands-on and discovery-based curriculum experiences.

Course Content with Instructional Hours

	Description	Lecture	Lab	Total Hours
1	Preschool Learning Foundations: Science <ul style="list-style-type: none"> • Science inquiry strand • Physical science strand 	8	0	8
2	Preschool Learning Foundations: Math <ul style="list-style-type: none"> • Number sense • Algebra • Measurement • Geometry • Mathematical Reasoning 	8	0	8
3	Communicating with Families about Curriculum	5	0	5
4	Constructivist Approaches to Science <ul style="list-style-type: none"> • Investigations • Science experiments • Cooking solids and liquids • Inquiry-based approach • Including multiple teaching styles 	8	0	8
5	Constructivist Approaches to Math <ul style="list-style-type: none"> • Math experiments • Measurement 	8	0	8



6	<p>Nature</p> <ul style="list-style-type: none"> • Investigations in nature • Nature-based play • Open-ended materials 	6	0	6
7	<p>Block Play</p> <ul style="list-style-type: none"> • Number sense (one-to-one correspondence) • Geometry • Fractions • Research behind block play • Student investigations using materials 	6	0	6
8	<p>Inclusion</p> <ul style="list-style-type: none"> • Meeting children where they are • Supporting all developmental needs 	5	0	5
				54

OUT OF CLASS ASSIGNMENTS

- 1 Reflective essay (e.g., reflect on classroom experiences in light of their journey as an educator);
- 2 midterm project (e.g., offer a developmentally-appropriate science experience to a early childhood class);
- 3 paper (e.g., describe and justify a math experience offered in a children's classroom).

METHODS OF EVALUATION

- 1 Student presentation (e.g., facilitate a science experience with one's classmates);
- 2 Group project (e.g., make play-doh and mix colors while connecting them to science standards);
- 3 Midterm and final exam.

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	ISBN	Date
Big Ideas of Early Mathematics: What Teachers of Young Children Need to Know	Required	Pearson	1	Print	Erickson Institute	978-0132946971	2013
California Preschool Learning Foundations, Volume 1	Required	California Department of Education	1	Electronic	Abbott, Dixie (ed.)	978-0-801116810	2008
California Preschool Learning Foundations, Volume 3	Required	California Department of Education	1	Electronic; https://www.cde.ca.gov/sp/cd/re/documents/preschoolfoundationsvol3.pdf	Ong, Faye (ed.)	978-8011-1727-5	2012



COURSE OUTLINE : ECON 127

D Credit – Degree Applicable

COURSE ID

PROPOSAL

COURSE DISCIPLINE : ECON

COURSE NUMBER : 127

COURSE TITLE (FULL) : Introductory Statistics for Economics and Business

COURSE TITLE (SHORT) : Introductory Statistics for Economics and Business

CALIFORNIA STATE UNIVERSITY SYSTEM C-ID :

CATALOG DESCRIPTION

ECON 127 is a one-semester course designed for economics, business, and social sciences students whose major requires a course in statistics. Topics in this course include the nature of statistical methods, types of data, introductory probability, sampling theory, experimental design, confidence intervals, hypothesis testing, regression analysis, and decision making. Emphasis is placed on the application of statistical concepts to economic, business and social science data, the development of statistical reasoning, and the interpretation of results in an economic, business, or social science context.

CATALOG NOTES

This course may not be taken for credit by students who have successfully completed MATH 136.

Total Lecture Units:4.00

Total Laboratory Units: 0.00

Total Course Units: 4.00

Total Lecture Hours:72.00

Total Laboratory Hours: 0.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 72.00

Recommended Preparation: N/A



PRECONDITIONS FOR ENROLLMENT

And/Or	Course	Type	Req. Is Being
	MATH - 30 - Intermediate Algebra and Pre-Statistics	Prerequisite	Added
Or	MATH - 90 - Intermediate Algebra for BSTEM	Prerequisite	Added

ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1	MATH	30	Intermediate Algebra and PreStatistics	Solve equations with one radical;	Yes
2	MATH	30	Intermediate Algebra and PreStatistics	solve absolute value equations and inequalities;	Yes
3	MATH	30	Intermediate Algebra and PreStatistics	solve linear equations and inequalities;	Yes
4	MATH	30	Intermediate Algebra and PreStatistics	find the equation of a line and interpret the slope and intercept;	Yes
5	MATH	30	Intermediate Algebra and PreStatistics	solve applied problems;	Yes
6	MATH	30	Intermediate Algebra and PreStatistics	solve equations with one logarithmic or exponential expression;	Yes
7	MATH	30	Intermediate Algebra and PreStatistics	graph functions (linear, exponential, logarithmic);	Yes
8	MATH	30	Intermediate Algebra and PreStatistics	compute basic statistics for a variable, including mean, median, mode, quartiles, range, variance and standard deviation;	Yes
9	MATH	30	Intermediate Algebra and PreStatistics	describe the distribution of a quantitative variable in terms of its shape, center and spread, using graphical techniques;	Yes



COURSE OUTLINE : ECON 127

D Credit – Degree Applicable

COURSE ID

10	MATH	30	Intermediate Algebra and PreStatistics	apply addition and multiplication rules of probability in problem solving including computing expected value;	Yes
11	MATH	30	Intermediate Algebra and PreStatistics	identify probability models and compute their areas;	Yes
12	MATH	30	Intermediate Algebra and PreStatistics	graph and interpret bivariate data through the use of scatterplots, regression, and correlation;	Yes

13	MATH	90	Intermediate Algebra for BSTEM	solve absolute value equations and inequalities;	Yes
14	MATH	90	Intermediate Algebra for BSTEM	solve linear equations and compound inequalities;	Yes
15	MATH	90	Intermediate Algebra for BSTEM	perform operations with polynomials;	Yes
16	MATH	90	Intermediate Algebra for BSTEM	simplify complex fractions;	Yes
17	MATH	90	Intermediate Algebra for BSTEM	perform operations with radical expressions;	Yes
18	MATH	90	Intermediate Algebra for BSTEM	simplify expressions with rational exponents;	Yes
19	MATH	90	Intermediate Algebra for BSTEM	solve rational equations;	Yes
20	MATH	90	Intermediate Algebra for BSTEM	solve equations with radicals;	Yes
21	MATH	90	Intermediate Algebra for BSTEM	find the equation of a line parallel or perpendicular to a given line;	Yes
22	MATH	90	Intermediate Algebra for	solve a system of linear equations using elimination substitution;	Yes



			BSTEM		
23	MATH	90	Intermediate Algebra for BSTEM	solve systems of linear inequalities;	Yes
24	MATH	90	Intermediate Algebra for BSTEM	solve quadratic equations with real and complex solutions;	Yes
25	MATH	90	Intermediate Algebra for BSTEM	find the composition of two functions;	Yes
26	MATH	90	Intermediate Algebra for BSTEM	solve applied problems;	Yes
27	MATH	90	Intermediate Algebra for BSTEM	find the inverse of a function;	Yes
28	MATH	90	Intermediate Algebra for BSTEM	use the properties of logarithms to simplify and expand expressions;	Yes
29	MATH	90	Intermediate Algebra for BSTEM	solve logarithmic and exponential equations;	Yes
30	MATH	90	Intermediate Algebra for BSTEM	graph functions (linear, quadratic, exponential, logarithmic);	Yes
31	MATH	90	Intermediate Algebra for BSTEM	graph parabolas and circles centered at any point.	Yes

EXIT STANDARDS

1. Describe and analyze realistic data sets both large and small from disciplines including economics, business, psychology, and other social sciences using graphs and statistics;
2. analyze real world results from economics, business, and related fields, and interpret the output of a technology-based statistical analysis and identify flaws in statistical reasoning;
3. identify the standard methods of obtaining economics and business data and identify advantages and disadvantages of each;
4. calculate probability using the normal distribution, the t distribution and the basic laws of probability;
5. describe sampling distributions, distinguish them from population distributions and analyze the



- role played by the Central Limit Theorem;
- 6. compute confidence intervals of population means, proportions and standard deviations from economics and business data;
- 7. identify the basic concept of hypothesis testing including Type I and II errors, finding and interpreting levels of significance including p-values, selecting the appropriate techniques for testing a hypothesis from one and two populations and interpreting the result from economics and business data;
- 8. perform chi-square tests using chi-square tables and statistical software or calculator;
- 9. use linear regression and ANOVA analysis for estimation and inference, and interpret the economics and business statistics;
- 10. calculate and present results using sound statistical reasoning, accurate statistical terminology and software such as Excel, R, or Stata.

Student Learning Outcomes

- 1. perform regression analysis to make informed predictions about the relationships between quantitative variables that pertain to economic, business, and social science data;
- 2. apply confidence intervals and hypothesis testing, such as Z-test, t-test, Chi-square, ANOVA and regression, to form conclusions about economic, business, and social science data.

Course Content with Instructional Hours

	Description	Lecture	Lab	Total Hours
1	<p>Introduction to Statistics and the Organization of Data</p> <ul style="list-style-type: none"> • General nature of statistics, basic concepts and definitions, such as population, sample, census, elements, variables and observations • Economic, business, and social science data sources • Navigating economic, business, and social science data sources • Application of statistics in economics, business, and other social sciences • Randomized and natural experiments in economics, business, and other social sciences • Applications in economics, business, and other social sciences using Big Data • Introduction to statistical software programs such as Excel, R, or Stata 	6	0	6



	<ul style="list-style-type: none"> Quantitative and categorical economic, business, and social science variables 			
2	<p>Descriptive Statistics of Economic, Business, and Social Science Data</p> <ul style="list-style-type: none"> Tables and graphs Frequency distributions Measures of central tendency <ul style="list-style-type: none"> Mean, median and mode Measures of spread <ul style="list-style-type: none"> Percentiles and quartiles Range, variance and standard deviation 	6	0	6
3	<p>Comparisons of Two Variables</p> <ul style="list-style-type: none"> Cross-tabulations for categorical economic, business, and other social science variables Covariance and correlation coefficients for quantitative economic, business, and other social science variables 	2	0	2



4	<p>Discrete and Continuous Random Variables and Probability Distributions</p> <ul style="list-style-type: none"> • Expected value, variance and standard deviation • Binomial distribution • Other discrete distributions (for example, discrete uniform distribution, Poisson distribution and/or hypergeometric distribution) • Calculating probabilities for discrete probability distributions • Expected value, variance and standard deviation • Contrasts between discrete and continuous probability distributions • Probability density functions (PDFs) • Uniform distribution • Normal distribution and the normal approximation to the binomial distribution • Other continuous distributions (for example, exponential distribution) • Calculating probabilities using continuous probability distributions 	8	0	8
5	<p>Sampling Distributions and the Central Limit Theorem</p> <ul style="list-style-type: none"> • Variance, expected value and distribution of the sample mean of a quantitative variable that is random • Variance, expected value and distribution of the sample proportion of a categorical random variable 	4	0	4
6	<p>Methods of Selecting Samples, Point Estimation, and Confidence Intervals</p> <ul style="list-style-type: none"> • Simple random sampling • Other sampling methods, such as stratified random sampling, systematic sampling, cluster sampling, convenience sampling, judgment sampling and the advantages and disadvantages of each sampling method • Applications of sampling methods in economics, business, and other social sciences • Confidence intervals for the population proportion and mean 	6	0	6



7	<p>Hypothesis Testing</p> <ul style="list-style-type: none"> • Developing appropriate hypotheses pertaining to applications in economics, business, and the social sciences • Type I and Type II errors • One-tailed and two-tailed tests • Hypothesis tests for the population mean using the normal distribution and the t distribution • Hypothesis tests for the population proportion • Hypothesis tests for the difference between two population means using t-tests • Hypothesis tests for the difference between two population proportions • Chi-squared tests for non-parametric statistics • Determination and interpretation of levels of statistical significance including p-values 	6	0	6
8	<p>Simple Linear Regression using Ordinary Least Squares (OLS)</p> <ul style="list-style-type: none"> • Simple linear regression model involving variables pertaining to economics, business, and the social sciences • Independent and dependent variables • Interpretation of the regression equation • Hypothesis tests for the results of the regression analysis • Using t statistics • Using ANOVA and the F statistic • R-squared and correlation coefficients • Assumptions of the regression model • Residual analysis • Economic, business, and social science interpretation of regression results • Applying linear regression models in economics, business, and social science research 	8	0	8



9	<p>Application of Statistical Analysis for Economics, Business, and Other Social Sciences</p> <ul style="list-style-type: none"> • Correlation vs. causation • Reverse causality • Omitted variable bias • Observational and experimental studies in economics, business, and the social sciences • Interpretation of statistical results to facilitate decision-making in economics, business, and other social sciences 	12	0	12
10	<p>Computer Technology and Statistics</p> <ul style="list-style-type: none"> • Performing basic statistical analysis, such as descriptive statistics, confidence intervals, hypothesis tests and simple linear regression using statistical software such as Excel, R, or Stata • Implications of recent trends, including Big Data, on statistical analysis for economics, business, and other social sciences 	10	0	10
11	<p>Statistics and Public Policy Debates</p> <ul style="list-style-type: none"> • Review of recent statistical research on public policies pertaining to economics, business, and other social sciences • Statistical controversies in public policy debates 	4	0	4
				72

OUT OF CLASS ASSIGNMENTS

- 1 projects involving analysis of real-world data using statistical software (e.g., collect data and create a written report including graphical displays and numeric summaries);
- 2 short essays demonstrating application of concepts and critical thinking skills (e.g., analyze data sets and write a short report).

METHODS OF EVALUATION

- 1 four-to-five chapter exams
- 2 student presentations or projects (e.g., presentation of a statistical analysis using data applicable to economics, business, and social science issues);
- 3 final examination testing problem-solving.



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	ISBN	Date
Essentials of Statistics for Business and Economics	Required	Cengage	9	Print	Anderson, David R.	978-0357045435	2019



COURSE OUTLINE : MATH 136A

D Credit – Degree Applicable

COURSE ID

PROPOSAL

COURSE DISCIPLINE : MATH

COURSE NUMBER : 136A

COURSE TITLE (FULL) : Statistics A

COURSE TITLE (SHORT) : Statistics A

CALIFORNIA STATE UNIVERSITY SYSTEM C-ID :

CATALOG DESCRIPTION

MATH 136A is the first part of a two course sequence in college level Statistics. MATH 136A and MATH 136B collectively are equivalent to MATH 136 Statistics. Topics in this course include the nature of statistical methods, types of data, introductory probability, experimental design, and regression analysis. Emphasis is placed on the application of statistical concepts to real world data, development of statistical reasoning, and the interpretation of results.

CATALOG NOTES

This course may not be taken for credit by students who have completed MATH 136 or MATH 136+. This course alone will not satisfy transfer GE requirements.

Total Lecture Units:2.00

Total Laboratory Units: 0.50

Total Course Units: 2.50

Total Lecture Hours:36.00

Total Laboratory Hours: 36.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 72.00

Recommended Preparation:

ENGL - 101 - Introduction to College Reading and Composition



PRECONDITIONS FOR ENROLLMENT

And/Or	Course	Type	Req. Is Being
	MATH - 30 - Intermediate Algebra and Pre-Statistics	Prerequisite	Added
Or	MATH - 30+ - Intermediate Algebra and Pre-Statistics with Support	Prerequisite	Added
Or	MATH - 30E - Intermediate Algebra and Pre-Statistics	Prerequisite	Added
Or	MATH - 90 - Intermediate Algebra for BSTEM	Prerequisite	Added
Or	MATH - 90+ - Intermediate Algebra for BSTEM with Support	Prerequisite	Added
Or	MATH - 90EF - Intermediate Algebra for BSTEM	Prerequisite	Added
&	ENGL - 101 - Introduction to College Reading and Composition	Recommended Preparation	Added

ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1	MATH	30	Intermediate Algebra and PreStatistics	solve linear equations and inequalities;	Yes
2	MATH	30	Intermediate Algebra and PreStatistics	find the equation of a line and interpret the slope and intercept;	Yes
3	MATH	30	Intermediate Algebra and PreStatistics	solve applied problems;	Yes
4	MATH	30	Intermediate Algebra and PreStatistics	graph functions (linear, exponential, logarithmic);	Yes

5	MATH	30+	Intermediate Algebra and PreStatistics with Support	solve linear equations and inequalities;	Yes
6	MATH	30+	Intermediate Algebra and PreStatistics with Support	find the equation of a line and interpret the slope and intercept;	Yes



COURSE OUTLINE : MATH 136A

D Credit – Degree Applicable

COURSE ID

7	MATH	30+	Intermediate Algebra and PreStatistics with Support	solve applied problems;	Yes
8	MATH	30+	Intermediate Algebra and PreStatistics with Support	graph functions (linear, exponential, logarithmic);	Yes
9	MATH	30E	Intermediate Algebra and PreStatistics	solve applied problems;	Yes
10	MATH	90	Intermediate Algebra for BSTEM	solve linear equations and compound inequalities;	Yes
11	MATH	90	Intermediate Algebra for BSTEM	solve applied problems;	Yes
12	MATH	90	Intermediate Algebra for BSTEM	graph functions (linear, quadratic, exponential, logarithmic);	Yes
13	MATH	90+	Intermediate Algebra for BSTEM with Support	solve linear equations and compound inequalities;	Yes
14	MATH	90+	Intermediate Algebra for BSTEM with Support	solve applied problems;	Yes
15	MATH	90+	Intermediate Algebra for BSTEM with Support	graph functions (linear, quadratic, exponential, logarithmic);	Yes
16	MATH	90EF	Intermediate Algebra for BSTEM	solve applied problems.	Yes



17	ENGL	101	Introduction to College Reading and Composition	Read, analyze, and evaluate a variety of primarily non-fiction readings for content, context, and rhetorical merit with consideration of tone, audience, and purpose;	Yes
18	ENGL	101	Introduction to College Reading and Composition	apply a variety of rhetorical strategies in writing unified, well-organized essays directed by a well-reasoned thesis statement with persuasive support;	Yes
19	ENGL	101	Introduction to College Reading and Composition	develop varied and flexible strategies for generating, drafting, and revising essays;	Yes
20	ENGL	101	Introduction to College Reading and Composition	analyze stylistic choices in their own writing and the writing of others;	Yes
21	ENGL	101	Introduction to College Reading and Composition	write timed, in-class essays exhibiting acceptable college-level control of mechanics, organization, development, and coherence;	Yes
22	ENGL	101	Introduction to College Reading and Composition	integrate the ideas of others through paraphrasing, summarizing, and quoting without plagiarism;	Yes
23	ENGL	101	Introduction to College Reading and Composition	find, evaluate, analyze, and interpret primary and secondary sources, incorporating them into written essays using appropriate documentation format;	Yes
24	ENGL	101	Introduction to College Reading and Composition	proofread and edit essays for presentation so they exhibit no disruptive errors in English grammar, usage, or punctuation.	Yes

EXIT STANDARDS

1. Describe and analyze realistic data sets both large and small from disciplines including business, social science, psychology, life science, health science and education using graphs and statistics;
2. analyze real world results, interpret the output of a technology-based statistical analysis and identify flaws in statistical reasoning;
3. identify the standard methods of obtaining data and identify advantages and disadvantages of each;



4. calculate probability using the basic laws of probability;
5. use linear regression analysis for estimation and inference, and interpret the statistics;
6. calculate and present results using sound statistical reasoning, accurate statistical terminology and technology such as spreadsheets, graphing calculators or StatCrunch.

Student Learning Outcomes

1. analyze and describe univariate and bivariate data sets, including the computation of basic statistics as well as the performance of regression analysis.
2. employ and demonstrate an understanding of the rules of probability, including probability models such as the binomial distribution.

Course Content with Instructional Hours

	Description	Lecture	Lab	Total Hours
1	Descriptive Statistics <ul style="list-style-type: none"> • Graphical descriptions of data • Measures of center: mean, median, and mode • Measures of spread; standard deviation/variance, quartiles, and range • Density curves, including normal distributions • Linear regression, including residual analysis • Correlation • 2-Way Tables • Data set analysis using statistical software and or statistical calculators • Identification of confounding and lurking variables and other possible misinterpretations of statistical conclusions 	18	18	36
2	Producing Data <ul style="list-style-type: none"> • Design of sampling procedures • Design of experiments • Strengths and limitations of experimental designs 	3	3	6



COURSE OUTLINE : MATH 136A

D Credit – Degree Applicable

COURSE ID

3	Probability <ul style="list-style-type: none"> • Discrete probability models • Computing probabilities using the addition and multiplication rules • Expected value • Binomial distributions 	6	6	12
4	Algebra Review <ul style="list-style-type: none"> • Linear equations with one and two variables • The rectangular coordinate system • The slope of a line • Equations of lines • Exponents in the context of scientific notation • Scientific notation 	6	6	12
5	Math Study Skills Content <ul style="list-style-type: none"> • Mindset and motivation for college success in mathematics • Test taking techniques • College support resources • Math community resources 	3	3	6
				72



OUT OF CLASS ASSIGNMENTS

- 1 homework (e.g., problem 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 StatCrunch).

METHODS OF EVALUATION

- 1 quizzes;
- 2 three or more examinations are 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
Statistics, Informed Decisions Using Data	Required	Pearson	5	Print	Sullivan, Michael	0-13-413353-6	2017
Integrated Review Materials to accompany Statistics : Informed Decisions using Data	Required	Pearson	2	Print	Sullivan, Michael	9780134606675	2018



COURSE OUTLINE : MATH 136B
D Credit – Degree Applicable
COURSE ID

PROPOSAL

COURSE DISCIPLINE : MATH
COURSE NUMBER : 136B
COURSE TITLE (FULL) : Statistics B
COURSE TITLE (SHORT) : Statistics B
CALIFORNIA STATE UNIVERSITY SYSTEM C-ID : MATH 110

CATALOG DESCRIPTION

MATH 136B is the second part of a two course sequence in college level Statistics. MATH 136A and MATH 136B collectively are equivalent to MATH 136 Statistics. Topics in this course include sampling theory, confidence intervals, hypothesis testing, and decision making. Emphasis is placed on the application of statistical concepts to real world data, development of statistical reasoning, and the interpretation of results.

CATALOG NOTES

This course may not be taken for credit by students who have completed MATH 136 or MATH 136+. Transfer Credit: CSU, UC (C-ID MATH 110)

Total Lecture Units:2.00

Total Laboratory Units: 0.50

Total Course Units: 2.50

Total Lecture Hours:36.00

Total Laboratory Hours: 36.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 72.00

Recommended Preparation: N/A

PRECONDITIONS FOR ENROLLMENT

And/Or	Course	Type	Req. Is Being
	MATH - 136A - Statistics A	Prerequisite	Added



ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1	MATH	136A	Statistics A	Describe and analyze realistic data sets both large and small from disciplines including business, social science, psychology, life science, health science and education using graphs and statistics;	Yes
2	MATH	136A	Statistics A	analyze real world results, interpret the output of a technology-based statistical analysis and identify flaws in statistical reasoning;	Yes
3	MATH	136A	Statistics A	identify the standard methods of obtaining data and identify advantages and disadvantages of each;	Yes
4	MATH	136A	Statistics A	calculate probability using the basic laws of probability;	Yes
5	MATH	136A	Statistics A	use linear regression analysis for estimation and inference, and interpret the statistics;	Yes
6	MATH	136A	Statistics A	calculate and present results using sound statistical reasoning, accurate statistical terminology and technology such as spreadsheets, graphing calculators or StatCrunch.	Yes

EXIT STANDARDS

1. Describe and analyze realistic data sets both large and small from disciplines including business, social science, psychology, life science, health science and education using graphs and statistics;
2. analyze real world results, interpret the output of a technology-based statistical analysis and identify flaws in statistical reasoning;
3. identify the standard methods of obtaining data and identify advantages and disadvantages of each;
4. calculate probability using the normal distribution, the t distribution and the basic laws of probability;
5. describe sampling distributions, distinguish them from population distributions and analyze the



role played by the Central Limit Theorem ;

6. compute confidence intervals of population means, proportions and standard deviations;
7. identify the basic concept of hypothesis testing including Type I and II errors, finding and interpreting levels of significance including p-values, selecting the appropriate techniques for testing a hypothesis from one and two populations and interpreting the result;
8. perform chi-square tests using chi-square tables and statistical software or calculator;
9. use linear regression and ANOVA analysis for estimation and inference, and interpret the statistics;
10. calculate and present results using sound statistical reasoning, accurate statistical terminology and technology such as spreadsheets, graphing calculators or StatCrunch.

STUDENT LEARNING OUTCOMES

- 1 employ and demonstrate an understanding of the rules and properties of the normal distribution as well as related sampling distributions.
- 2 apply confidence intervals and hypothesis testing to form conclusions about realistic data.

COURSE CONTENT WITH INSTRUCTIONAL HOURS

	Description	Lecture	Lab	Total Hours
1	Probability and Sampling Distributions <ul style="list-style-type: none"> • Continuous probability models • The Central Limit Theorem 	3	3	6
2	Inferences Using Sample Means, Proportions, and Standard Deviations <ul style="list-style-type: none"> • Confidence intervals for the population proportion and mean • One and two-sample hypothesis tests of population proportions and means; Z-test and Student's t-test • Type I and Type II errors • Chi-square distribution • Linear regression and ANOVA analysis for estimation and inference • Accurate presentation of inferential conclusions 	27	27	54



3	Algebra Review <ul style="list-style-type: none"> • Linear inequations with one variable, including absolute values and compound inequalities • Exponents in the context of scientific notation • Solving equations with one radical 	3	3	6
4	Math Study Skills Content <ul style="list-style-type: none"> • Time management • Critical thinking skills • Goal setting Transferring/ career exploration resources 	3	3	6
				72

OUT OF CLASS ASSIGNMENTS

- 1 homework (e.g. problem 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 StatCrunch).

METHODS OF EVALUATION

- 1 quizzes;
- 2 three or more examinations are 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)



COURSE OUTLINE : MATH 136B

D Credit – Degree Applicable

COURSE ID

Guest Speakers

Presentations

TEXTBOOKS

Title	Type	Publisher	Edition	Medium	Author	IBSN	Date
Statistics, Informed Decisions Using Data	Required	Pearson	5	Print	Sullivan, Michael	0-13-413353-6	2017
Integrated Review Materials to accompany Statistics : Informed Decisions using Data	Required	Pearson	2	Print	Sullivan, Mihcael	9780134606675	2018



COURSE OUTLINE : PSYCH 170

D Credit – Degree Applicable

COURSE ID

PROPOSAL

COURSE DISCIPLINE : PSYCH
COURSE NUMBER : 170
COURSE TITLE (FULL) : Sports Psychology
COURSE TITLE (SHORT) : Sports Psychology

CALIFORNIA STATE UNIVERSITY SYSTEM C-ID :

CATALOG DESCRIPTION

PSYCH 170 is designed for students who would like to develop a proficiency in using psychological knowledge and skills to improve athletic performance and promote the well-being of athletes. Topics covered include developmental psychology, identity theory, motivation, emotion, stress, and arousal. The course also focuses on the communication dynamics needed to establish healthy relationships. Both individual and team sports are reviewed in order to apply class concepts.

CATALOG NOTES N/A

Total Lecture Units:3.00

Total Laboratory Units: 0.00

Total Course Units: 3.00

Total Lecture Hours:54.00

Total Laboratory Hours: 0.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 54.00

Recommended Preparation: N/A



PRECONDITIONS FOR ENROLLMENT

And/Or	Course	Type	Req. Is Being
	ENGL - 100 - Writing Workshop	Prerequisite	Added
Or	ENGL - 120 - Composition and Reading	Prerequisite	Added
Or	ESL - 151 - Reading And Composition V	Prerequisite	Added

ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1	ENGL	100	Writing Workshop	Read, analyze, and evaluate contemporary articles and stories to identify topic, thesis, support, transitions, conclusion, audience, and tone;	Yes
2	ENGL	100	Writing Workshop	read, analyze, and evaluate contemporary articles and stories for the comprehension of difficult content and the identification of main ideas and (topic-based) evidence;	Yes
3	ENGL	100	Writing Workshop	read, analyze, and evaluate student compositions for unity, development, use of evidence, interpretation, coherence, and variety of sentence form;	Yes
4	ENGL	100	Writing Workshop	write a summary of a contemporary article or story with correct citation techniques;	Yes
5	ENGL	100	Writing Workshop	write an argumentative essay that has an introduction, body paragraphs, and a conclusion, demonstrating a basic understanding of essay organization;	Yes
6	ENGL	100	Writing Workshop	write an argumentative essay that addresses the topic, is directed by a thesis statement, uses appropriate textual evidence, develops logical interpretations, and concludes with some compelling observations;	Yes
7	ENGL	100	Writing Workshop	write an argumentative essay that integrates the ideas of others (i.e., authors) through paraphrasing, summarizing, and quoting with correct citation techniques;	Yes
8	ENGL	100	Writing Workshop	write an argumentative essay that generates novel ideas (those that add to the conversation rather than repeating the author's ideas) related to the topic and the readings;	Yes



COURSE OUTLINE : PSYCH 170

D Credit – Degree Applicable

COURSE ID

9	ENGL	100	Writing Workshop	write compositions (e.g., summaries and argumentative essays) that are easy to read and follow, though some errors in grammar, mechanics, spelling, or diction may exist;	Yes
10	ENGL	100	Writing Workshop	proofread and edit essays for content, language, citation, and formatting problems;	Yes
11	ESL	151	Reading And Composition V	organize fully-developed essays in both expository and argumentative modes;	Yes
12	ESL	151	Reading And Composition V	compose one research paper (1,000 words) or two short research papers (500/700 words each) with citations.	Yes

EXIT STANDARDS

1. Critically evaluate psychological research;
2. analyze the psychological factors associated with optimal performance among athletes;
3. identify and discuss concepts associated with identity, motivation, emotion, stress, and arousal as they relate to sports;
4. describe the interdisciplinary nature of the study of sports and athletic performance;
5. synthesize psychological concepts to describe and improve athletic performance.

STUDENT LEARNING OUTCOMES

- 1 Identify various psychological concepts and skills that can be applied to sports and other competitive situations;
- 2 explain the psychological theories and principles used by athletes and coaches to enhance the performance and enjoyment of sports.

COURSE CONTENT WITH INSTRUCTIONAL HOURS (starts on next page)



COURSE OUTLINE : PSYCH 170

D Credit – Degree Applicable

COURSE ID

	Description	Lecture	Lab	Total Hours
1	Psychological Underpinnings <ul style="list-style-type: none"> • Development of Psychology and Sports Psychology • Research methods in Sports Psychology 	6	0	6
2	Development Factors in Sports Psychology <ul style="list-style-type: none"> • Childhood • Adolescence • Adulthood 	12	0	12
3	Motivation and Emotion <ul style="list-style-type: none"> • Biological factors • Attribution theory • Emotional intelligence 	6	0	6
4	Stress and Arousal <ul style="list-style-type: none"> • Distress vs. eustress • Stress appraisal • Coping 	6	0	6
5	Identity in Sport <ul style="list-style-type: none"> • Personal identity • Social identity theory • Racial identity theory 	9	0	9
6	Enhancing Performance <ul style="list-style-type: none"> • Goal setting • Practice • Imagery • Concentration 	9	0	9



7	Understanding Team Dynamics <ul style="list-style-type: none"> • Creating a positive team environment • Effective communication • Leadership • Character and ethics 	6	0	6
				54

OUT OF CLASS ASSIGNMENTS

- 1 homework assignments (e.g., written explanation of the role of social identity in team formation);
- 2 short essays demonstrating application of concepts and critical thinking skills (e.g., written application of a peer-reviewed journal article).

METHODS OF EVALUATION

- 1 unit examinations;
- 2 student presentations or projects (e.g., presentation of a performance improvement plan for athletes);
- 3 final examination.

METHODS OF INSTRUCTION

- Lecture
- Laboratory
- Studio
- Discussion
- Multimedia
- Tutorial
- Independent Study
- Collaboratory Learning
- Demonstration
- Field Activities (Trips)
- Guest Speakers
- Presentations



COURSE OUTLINE : PSYCH 170
D Credit – Degree Applicable
COURSE ID

TEXTBOOKS

Title	Type	Publisher	Edition	Medium	Author	IBSN	Date
Foundations of Sport and Exercise Psychology	Required	Human Kinetics	7	Print	Weinberg, Robert S.	978-1492570592	2019



COURSE OUTLINE : STV 66

N Non-Credit

COURSE ID

PROPOSAL

COURSE DISCIPLINE : STV

COURSE NUMBER : 66

COURSE TITLE (FULL) : Certified Nursing Aide

COURSE TITLE (SHORT) : Certified Nursing Aide

CALIFORNIA STATE UNIVERSITY SYSTEM C-ID :

CATALOG DESCRIPTION

STV 66 provides workforce preparation for basic nursing care in the direct care of patients in a variety of settings. Focus is on direct care of the client, promotion of comfort measures, and collection, recording and reporting of data to licensed personnel. Principles of critical thinking, team building, ethics, caring and cultural sensitivity are integrated throughout the course. Students who complete this course are qualified to take the California Certification Exam.

CATALOG NOTES

Total Lecture Units:0.00

Total Laboratory Units: 0.00

Total Course Units: 0.00

Total Lecture Hours:0.00

Total Laboratory Hours: 175.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 175.00

Recommended Preparation:

ESL - 30 - ENGLISH AS A SECOND LANGUAGE LEVEL 3



ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1	ESL	30	ENGLISH AS A SECOND LANGUAGE LEVEL 3	Converse at a functional level adequate for everyday use on the campus and in the community;	Yes
2	ESL	30	ENGLISH AS A SECOND LANGUAGE LEVEL 3	respond to questions about recorded and live speeches, dialogues, role plays, and lectures;	Yes
3	ESL	30	ENGLISH AS A SECOND LANGUAGE LEVEL 3	decode 2,500-word reading passages,, respond to inference and recall questions, and utilize a monolingual English dictionary to advantage;	Yes
4				compute problems dealing with whole numbers, fractions, decimals, and percent.	Yes

EXIT STANDARDS

1. Provide basic care to residents of nursing facilities;
2. communicate and interact therapeutically with residents and their families, with sensitivity to the physical, social, and mental needs of patients;
3. assist patients in attaining maximum functional independence;
4. protect, support and promote the rights of patients;
5. demonstrate skill in observing, reporting and documentation;
6. function effectively as a member of the health care team;
7. apply the principles of infection control specific to nursing assisting;
8. assist with restorative (rehabilitative) activities.

STUDENT LEARNING OUTCOMES

- 1 Perform nursing assistant procedures safely and effectively, including accurate measurement of vital signs, transfer techniques, bathing/grooming principles and feeding techniques;
- 2 Identify and address the needs of clients undergoing various stages of care including long term care, rehabilitative care, and the dying process.



COURSE CONTENT WITH INSTRUCTIONAL HOURS

	Description	Lecture	Lab	Total Hours
1	<p>Introduction to Certified Nursing</p> <ul style="list-style-type: none"> • Role and responsibilities of the Certified Nursing Assistant • Title 22: State Regulations pertaining to Certified Nursing Assistant Programs • Requirements for nurse assistant certification • Professionalism • Ethics and confidentiality 	0	9	9
2	<p>Patients' Rights</p> <ul style="list-style-type: none"> • Title 22 • Health and Safety Code • Code of Federal Regulations regarding Nurse Aide Training and Competency Evaluation • Ombudsman • CNA's role in monitoring patient/residents' rights • Patient/residents' rights for security, belonging, self -esteem, and privacy 	0	9	9
3	<p>Communication and Interpersonal Skills</p> <ul style="list-style-type: none"> • Communications • Defense mechanisms • Socio-cultural factors • Attitudes- illness/health care • Family interaction • Recognition and reporting of unmet needs • Barriers to communication 	0	9	9



4	<p>Prevention and Management of Catastrophe and Unusual Occurrences</p> <ul style="list-style-type: none"> • Emergency Care Procedures • General safety rules • Fire and disaster plans • Roles and procedures for C.N.A. • Patient Safety 	0	7	7
5	<p>Body Mechanics</p> <ul style="list-style-type: none"> • Basic body mechanics • Transfer techniques • Ambulation techniques • Proper body mechanics/positioning techniques 	0	7	7
6	<p>Medical and Surgical Asepsis</p> <ul style="list-style-type: none"> • Body's lines of defense • Microorganisms • Universal precautions • Principals of asepsis 	0	6	6
7	<p>Weights and Measures</p> <ul style="list-style-type: none"> • Metric system • Weight, length, and liquid volume measurements • Military time, i.e., a 24-hour clock 	0	6	6



8	<p>Patient Care Skills</p> <ul style="list-style-type: none"> • Bathing/medicinal baths • Dressing • Oral Hygiene • Hair care, shampoo, medicinal shampoo, nail care, shaving • Prosthetic devices • Skin care/decubitus ulcers • Elimination needs • Bowel and bladder retraining • Weighing/measuring the patient 	0	11	11
9	<p>Patient Care Procedures</p> <ul style="list-style-type: none"> • Collection of specimens: stool, urine, and sputum • Care of patient with tubing: gastric, oxygen, urinary, IV. This care does not include inserting, suctioning, or changing the tubes. • Intake and output • Bed making • Cleansing enemas, laxative suppositories • Admission, transfer, discharge • Bandages, non-sterile dry dressing application of non-legend topical ointments to intact skin 	0	11	11
10	<p>Vital Signs</p> <ul style="list-style-type: none"> • Purpose of vital signs • Factors affecting vital signs • Normal ranges • Methods of measurement • Temperature, pulse, respiration • Blood pressure • Abnormalities • Recording 	0	11	11



11	<p>Nutrition</p> <ul style="list-style-type: none"> • Proper nutrition • Feeding technique • Diet therapy • Modification of diet due to culture and religion • Alternative ways to administer nutrients 	0	6	6
12	<p>Emergency Procedures</p> <ul style="list-style-type: none"> • Signs and symptoms of distress • Immediate and temporary intervention • Emergency codes 	0	5	5
13	<p>Long-term Care Resident</p> <ul style="list-style-type: none"> • Needs of persons with retardation, Alzheimer's, cerebral palsy, epilepsy, dementia, mental illness • Body systems and organs • Physical and behavioral needs and changes • Community resources available • Psychological, social, and recreational needs • Common diseases/disorders, including signs and symptoms 	0	9	9
14	<p>Rehabilitative Nursing</p> <ul style="list-style-type: none"> • Promoting patient potential and goals to independence • Devices and equipment • Activities of Daily Living (ADLs) • Family interactions • Complications of inactivity • Ambulation • Range of Motion (ROM) 	0	10	10



15	Observation and Charting <ul style="list-style-type: none"> • Observation of patients and reporting responsibilities • Patient care plan • Patient care documentation • Legal issues of charting • Medical terminology and abbreviations 	0	9	9
16	Death and Dying <ul style="list-style-type: none"> • Stages of grief • Emotional and spiritual needs of patient and family • Rights of dying patient • Signs of approaching death • Monitoring the patient • Postmortem care 	0	10	10
17	Certification Preparation <ul style="list-style-type: none"> • Skills lab • Theory Review 	0	40	40
				175

OUT OF CLASS ASSIGNMENTS

1 N/A

METHODS OF EVALUATION

- 1 Completion of skills checklists
- 2 Observation and discussion of demonstrations
- 3 Cumulative course exam

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
Certified Nursing Assistant	Required	Passbooks		Print	National Learning Corporation	1731864558 9781731864550	2019
Hartman's Nursing Assistant Care: the Basics	Required	Hartman Publishing	5	Print	Jetta Lee Fuzy	9781604251005	2019
Workbook for Hartman's Nursing Assistant Care: the Basics	Required	Hartman Publishing	4	Print	Hartman Publishing	9781604250510	2014