

Information Systems

LOWER-DIVISION TRANSFER PATTERN California State University (CSU) Statewide Pattern

The Lower-Division Transfer Pattern (LDTP) consists of the CSU statewide pattern of coursework outlined below, plus campus-specific coursework, bringing the total pattern to at least 60 but no more than 70 transferable semester units for students to complete at a California Community College (CCC).

The CSU statewide pattern of coursework for CCC students who plan to major in Information Systems at any CSU campus offering the major includes:

- Completion of most lower-division general education requirements, following either the CSU General Education Breadth or the Intersegmental General Education Transfer Curriculum (IGETC) pattern;
- Completion of the CSU graduation requirements in United States History, Constitution and American Ideals; and
- Completion of additional coursework and semester units as specified below in (3) to (6).

Please note that the information here is an academic and curricular advising tool: a roadmap that enables transfer students to efficiently and effectively progress towards the CSU baccalaureate degree in a specified discipline. California Community College students should work closely with their advisers when planning their academic program in preparation for transfer to the CSU.

This information does not represent any guarantee with regard to admission nor does it include or replace CSU campus admissions impactation criteria (see <http://www.calstate.edu/AR/impactioninfo.shtml>). These curricular guidelines are subject to change.

CSU Statewide Pattern	Semester Unit Requirement
<p>(1) Complete lower-division general education requirements.</p> <p>Obtain a certification of completion of CSU GE Breadth or IGETC by the California Community College before transferring to a CSU campus. While completing general education, follow the course pattern stated below.</p> <p><u>A course that completes CSU GE Breadth AREA B4 will be specified in the LDTP Campus-Specific Patterns.</u></p> <p><i>A minimum grade of C is required in courses used to meet CSU GE Breadth AREAS A and B4.</i></p> <p><i>A minimum grade of C is required in each course used for IGETC.</i></p>	<p>36 units for CSU GE Breadth <i>or</i> 34 units for IGETC</p>
<p>(2) Complete the graduation requirements in United States History, Constitution, and American Ideals.</p> <p>These are typically completed with one course each in American government and American history, or a sequence of courses that integrate the history and government topics.</p>	<p>0-6 units</p>
<p>(3) Complete Principles of Microeconomics [CAN ECON 4].</p>	<p>0-3 units</p>
<p>(4) Complete Financial Accounting [CAN BUS 2].</p>	<p>0-3 units</p>
<p>(5) Complete Managerial Accounting [CAN BUS 4].</p>	<p>0-3 units</p>
<p>(6) Complete Introduction to Programming Concepts.</p>	<p>0-3 units</p>
<p>Total Semester Units Required for Statewide LDTP Pattern</p>	<p>34-54 units</p>

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU Bakersfield Campus-Specific Pattern**

Information Systems is part of the Business program on this campus. Please refer to the Business LDTP pattern.

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU Channel Islands Campus-Specific Pattern**

Information Systems is part of the Business program on this campus. Please refer to the Business LDTP pattern.

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU Chico Campus-Specific Pattern**

In addition to the statewide pattern, the following is the CSU Chico campus-specific pattern:

Campus-Specific Pattern	Semester Unit Requirement
<p>(1) If not taken as part of the statewide pattern complete <u>all</u> of the following:</p> <ul style="list-style-type: none"> • A course that articulates with [CSUC ECON 102], <u>Macroeconomics</u> - An introductory survey of macroeconomic analysis, using fundamental economic concepts to analyze the over-all economy and determining gross national product, rates of unemployment, problems of inflation, recession, and the use of governmental policies. <u>And</u> • A course that articulates with [CSUC MATH 107], <u>Finite Math for Business (meets GE math requirement)</u> - A course that covers solutions to systems of linear equations, matrices, linear programming, combinatorics, probability, binomial and normal distributions. <u>And</u> • A course that articulates with [CSUC PHIL 102], <u>Logic and Critical Thinking</u> - A course that covers clear thinking and sound reasoning, which includes training in recognizing and avoiding the most commonly made mistakes in reasoning. <u>And</u> • A course that articulates with [CSUC MINS 235], <u>Database Design</u> – A course that covers fundamental database design principles and techniques, including data modeling with Entity-Relationship diagrams and normalization. A course that also covers SQL (Structured Query Language), database security mechanisms, and the application of concepts and techniques to practical business scenarios. <u>And</u> • A course that articulates with [CSUC MINS 245], <u>Data Communications and Networking</u> – A course that covers fundamental concepts of data communications including standards and protocols and the application of communications technology in a business information systems environment. <u>And</u> • A course that articulates with [CSUC ENGL 230], <u>Introduction to Technical Writing</u> – A course that covers technical writing and presentation skills in business and scientific environments, including audience analyses, writing processes, genres of technical and business discourse, visual communication, collaboration, professional responsibility, and clear and correct expression. 	<p>0-3 units</p> <p>0-3 units</p> <p>0-3 units</p> <p>0-3 units</p> <p>0-3 units</p> <p>0-3 units</p>
<p>(2) If not taken as part of the statewide pattern complete at least <u>one</u> of the following:</p> <ul style="list-style-type: none"> • A course that articulates with [CSUC MATH 108 or BADM 103], <u>Statistics of Business and Economics</u> - A course that covers descriptive statistics, sampling theory, statistical inference and tests of hypotheses, analysis of variance, chi-square tests, simple regression and correlation, and multiple regression and correlation. <u>Or</u> • A course that articulates with [CSUC MATH 105], <u>Statistics (meets GE math</u> 	<p>0-3 units</p>

requirement) - A course that covers numerical data, elementary probability, distributions, and introduction to statistical inference.	
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(3) If necessary, complete additional coursework to bring total to 60 transferable semester units.

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU Dominguez Hills Campus-Specific Pattern**

Information Systems is part of the Business program on this campus. Please refer to the Business LDTP pattern.

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU East Bay Campus-Specific Pattern**

Information Systems is part of the Business program on this campus. Please refer to the Business LDTP pattern.

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU Fresno Campus-Specific Pattern**

Information Systems is part of the Business program on this campus. Please refer to the Business LDTP pattern.

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU Fullerton Campus-Specific Pattern**

Information Systems is part of the Business program on this campus. Please refer to the Business LDTP pattern.

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
Humboldt State University Campus-Specific Pattern**

This campus does not have a major, concentration, or option in Information Systems.

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU Long Beach Campus-Specific Pattern**

Information Systems is part of the Business program on this campus. Please refer to the Business LDTP pattern.

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU Los Angeles Campus-Specific Pattern**

In addition to the statewide pattern, the following is the CSU Los Angeles campus-specific pattern:

Campus-Specific Pattern	Semester Unit Requirement
(1) If not taken as part of the statewide pattern complete <u>all</u> of the following: <ul style="list-style-type: none"> • A course that articulates with [CSULA CIS 100], Business Computer Systems - A course that covers computer system fundamentals; computer hardware and software concepts; an introduction to microcomputer software. <u>And</u> • A course that articulates with [CSULA ECON 209], Applied Business and Economic Statistics I (meets GE math requirement) - A course that covers elementary business and economics statistics with computer applications; descriptive statistics, frequency distribution, probability, sampling distribution, estimation, and significance tests. <u>And</u> • A course that articulates with [CSULA ECON 202], Macroeconomics - A course that covers concepts and tools of aggregate economic analysis; inflation, unemployment, balance of payments, national income; determinants of the level of economic activity; money and banking; the role of government. <u>And</u> • A course that articulates with [CSULA FIN 205], Legal and Regulatory Environment of Business I - An introductory course to the legal and regulatory environment of business, emphasizing the American legal system, contracts, sales, and related legal issues of international business. <u>And</u> • A course that articulates with [CSULA ENGL 102], A second semester of expository writing that emphasizes exposition, research, and critical thinking, typically called “Writing and Critical Thinking” (as opposed to “Literature and Composition”). <u>And</u> • A course that satisfies CSU GE Breadth Area B4, Quantitative Reasoning. 	0-3 units 0-3 units 0-3 units 0-3 units 0-3 units 0-3 units
(2) If necessary, complete additional coursework to bring total to 60 transferable semester units.	

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
California Maritime Academy Campus-Specific Pattern**

Information Systems is part of the Business program on this campus. Please refer to the Business LDTP pattern.

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU Monterey Bay Campus-Specific Pattern**

Information Systems is part of the Business program on this campus. Please refer to the Business LDTP pattern.

Information Systems LOWER-DIVISION TRANSFER PATTERN CSU Northridge Campus-Specific Pattern

In addition to the statewide pattern, the following is the CSU Northridge campus-specific pattern for the Business Systems Option:

Campus-Specific Pattern	Semester Unit Requirement
<p>(1) If not taken as part of the statewide pattern complete <u>all</u> of the following:</p> <ul style="list-style-type: none"> • A course that articulates with [CSUN BLAW 280], Business Law I - A course that studies the role of law in business including the study of legal institutions and their role in facilitating and regulating business, including a study of the legal system, civil litigation, torts, and the formation and performance of contracts. <u>And</u> • A course that articulates with [CSUN ECON 161], Macroeconomic Principles - An introductory course to economics as it applies to the national and international economy, with topics that include differences in standards of living across countries, the monetary system and the determinants of inflation and the factors causing growth and recessions. <u>And</u> • A course that articulates with [CSUN PHIL 230], Symbolic Logic - An introductory course to modern deductive logic; includes propositional logic and theory of quantification. <u>And</u> • A course that articulates with [CSUN COMP 105BAS], Computer Programming in BASIC - Instruction and practice in Computer Programming in BASIC. <u>And</u> • A course that articulates with [CSUN COMP 110/110L], Introduction to Algorithms and Programming and Lab - Instruction and practice in Computer Programming in JAVA and Lab. 	<p>0-3 units</p> <p>0-3 units</p> <p>0-3 units</p> <p>0-1 units</p> <p>0-4 units</p>
<p>(2) If not taken as part of the statewide pattern complete <u>one</u> of the following:</p> <ul style="list-style-type: none"> • A course that articulates with [CSUN BUS 205], Business Communications - A course that covers concepts and techniques for developing oral and written communications skills adapted to business situations across the functional areas. <u>Or</u> • A course that articulates with [CSUN ENGL 205], Business Communications in its Rhetorical Contexts - A course that covers development of critical writing, thinking, research, and technology skills in the context of business. 	<p>0-3 units</p>
<p>(3) If not taken as part of the statewide pattern complete <u>one</u> of the following:</p> <ul style="list-style-type: none"> • A course that articulates with [CSUN SOM 120], Business Statistics - A course that covers descriptive statistics, elements of probability, probability distributions, sampling distributions, statistical inference for means and proportions, simple linear regression and correlation. <u>Or</u> • A course that articulates with [CSUN MATH 140], Introductory Statistics - A course that covers methods for displaying, describing, and producing data. The normal distribution. Correlation and regression. Sampling distributions and probability. Statistical inference for means and proportions. 	<p>0-4 units</p>
<p>(4) If not taken as part of the statewide pattern complete <u>one</u> of the following:</p> <ul style="list-style-type: none"> • A course that articulates with [CSUN MATH 103], Mathematical Methods for Business - A course that covers concepts and applications of algebra and calculus to business. Topics include functions, systems of equations, matrices, the derivative and business-related topics in calculus. <u>Or</u> • A course that articulates with [CSUN MATH 150A], Calculus I - A course that covers limits, derivatives, applications of differentiation. Definite and indefinite integrals, the Fundamental Theorem of Calculus. <u>Or</u> • A course that articulates with [CSUN MATH 255A], Calculus for the Life Sciences I - A course that covers topic in calculus of functions of one variable including techniques of differentiation, applications to graphing, extreme problems, and an introduction to integration. 	<p>0-5 units</p>
<p>(5) If necessary, complete additional coursework to bring total to 60 transferable semester units.</p>	

A minimum grade of C is necessary in all coursework used to meet requirements within this pattern.

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
Cal Poly Pomona Campus-Specific Pattern**

Information Systems is part of the Business program on this campus. Please refer to the Business LDTP pattern.

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU Sacramento Campus-Specific Pattern**

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**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU San Bernardino Campus-Specific Pattern**

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**Information Systems
LOWER-DIVISION TRANSFER PATTERN
San Diego State University Campus-Specific Pattern**

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**Information Systems
LOWER-DIVISION TRANSFER PATTERN
San Francisco State University Campus-Specific Pattern**

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**Information Systems
LOWER-DIVISION TRANSFER PATTERN
San José State University Campus-Specific Pattern**

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**Information Systems
LOWER-DIVISION TRANSFER PATTERN
Cal Poly San Luis Obispo Campus-Specific Pattern**

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**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU San Marcos Campus-Specific Pattern**

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**Information Systems
LOWER-DIVISION TRANSFER PATTERN
Sonoma State University Campus-Specific Pattern**

Information Systems is part of the Business program on this campus. Please refer to the Business LDTP pattern.

**Information Systems
LOWER-DIVISION TRANSFER PATTERN
CSU Stanislaus Campus-Specific Pattern**

In addition to the statewide pattern, the following is the CSU Stanislaus campus-specific pattern:

Campus-Specific Pattern	Semester Unit Requirement
(1) If not taken as part of the statewide pattern complete <u>all</u> of the following: <ul style="list-style-type: none"> • A course that articulates with [CSUST CIS 2000], Introduction to Information Systems - An introduction to the use of computers in business, covering hardware/software concepts, components, and their integration into business applications. <u>And</u> • A course that articulates with [CSUST BUS 2060], Business Law - A course that covers law applicable to businesses; legal, ethical, political, and social environments in which businesses operate; sources of law; legal reasoning and procedure; law of contracts, agency. <u>And</u> • A course that articulates with [CSUST MATH 1500], Finite Math - A course that covers counting processes, elementary probability, systems of linear equations and inequalities, matrices, linear programming, simplex method, Markov chains, selected applications. <u>And</u> • A course that articulates with [CSUST MATH 1610], Statistics - An introductory course that covers data summarization, review of probability distributions, estimation, hypothesis testing, correlation, regression, index numbers, and time series. <u>And</u> • A course that satisfies CSU GE Breadth Area B4, Quantitative Reasoning. 	<p>0-3 units</p> <p>0-3 units</p> <p>0-3 units</p> <p>0-3 units</p> <p>0-3 units</p>
(2) If necessary, complete additional coursework to bring total to 60 transferable semester units.	