

# INFORMATION SYSTEMS – SOFTWARE TECHNOLOGY

## DEGREE REQUIREMENTS (22 UNITS)

### CATALOG YEAR 2021 - Present

IS-ST provides a focus of software development electives for positions in a career in software development for business.

**All Information Systems majors must earn a grade of "C" or higher in all IS courses**

### SOFTWARE TECHNOLOGY OPTION CORE REQUIREMENTS (15 UNITS)

\* Prerequisite of MATH 150A can be satisfied by MATH 103; permission number is needed from Computer Science ([www.csunsaps.com](http://www.csunsaps.com))

\*\* Prerequisite of PHIL 230 waived for COMP 380/L; permission number is needed from Computer Science ([www.csunsaps.com](http://www.csunsaps.com))

- COMP 122/L Computer Architecture and Assembly Language (3+1)**  
*Prerequisite: Grade of "C-" or better in COMP 110/L; Grade of "C-" or better in MATH 103, 104, 105, 150A or 255A, or a passing score on the Math Placement Test (MPT) that satisfies prerequisites for MATH 150A or 255A; Lower division writing requirement*  
*Corequisite: COMP 122L*
- COMP 182/L Data Structures and Program Design and Lab (3+1)**  
*Prerequisite: Grade of "C-" or better in COMP 110/L; Grade of "C-" or better in MATH 103, 104, 105, 150A or 255A, or a passing score on the Math Placement Test (MPT) that satisfies prerequisites for MATH 150A or 255A; Lower division writing requirement*  
*Corequisite: COMP 182L*
- COMP 222 Computer Organization (3)**  
*Prerequisites: Grade of "C-" or better in COMP 122/L and 182/L*
- COMP 282\* Advanced Data Structures (3)**  
*Prerequisites: Grade of "C-" or better in COMP 182/L and MATH 150A*
- COMP 380/L\*\* Introduction to Software Engineering and Lab (2+1)**  
*Prerequisites: Grade of "C-" or better in COMP 270/L or 282; PHIL 230\*\*, and Oral Communication GE Basic Skills section A.4. Corequisite: COMP 380L*

### SOFTWARE TECHNOLOGY ELECTIVE (5 UNITS)

- Select at least 5 units from the following courses:

- COMP 424 Computer System Security (3)**  
*Prerequisites: Grade of "C-" or better in COMP 324, or IS 435*
- COMP 467 Multimedia Systems Design (3)**  
*Prerequisites: Grade of "C-" or better in COMP 380/L*
- COMP 484/L Web Engineering, I and Lab (2/1)**  
*Prerequisites: Grade of "C-" or better in COMP 322/L or COMP 380/L or CIT 360*
- COMP 485 Human-Computer Interaction (3)**  
*Prerequisites: Grade of "C-" or better in COMP 380/L or CIT 360*
- COMP 541 Data Mining (3)**  
*Prerequisites: COMP 380/L*
- IS 498B Internship (2)**  
*Additional Prerequisites: Consent of instructor; Approval of Program Chair*
- IS 499B Independent Study (2)**  
*Additional Prerequisites: Consent of instructor; Approval of Program Chair*

# REQUIRED INFORMATION SYSTEMS CORE COURSES

## LOWER DIVISION BUSINESS CORE REQUIREMENTS (27 UNITS)

ACCT 220	<b>Intro to Financial Accounting (3)</b> <i>Prerequisites: A grade of "C" or higher in MATH 103 or higher-level mathematics course and sophomore standing</i>
ACCT 230	<b>Intro to Managerial Accounting (3)</b> <i>Prerequisite: ACCT 220</i>
ECON 160	<b>Principles of Microeconomics (3)</b> <i>Prerequisites: Multiple Measures Placement in (1) GE-level Mathematics and (2) GE-level Written Communication or completion of 113A or 114A.</i>
ECON 161	<b>Principles of Macroeconomics (3)</b> <i>Prerequisites: ECON 160</i>
IS 212	<b>Information Systems for Business Users (3)</b> <i>** Requires a minimum 'C' grade for major</i>
SOM 120*	<b>Basic Business Statistics (3)</b> <i>Prerequisite: A grade of "C" or higher in MATH 103 or higher-level math course</i> <i>*The 4-unit MATH 140 course also satisfies this requirement</i>
ENGL 205	<b>Business Communication (3)</b> <i>Prerequisite: Completion of Lower Division Writing Exam. Recommended Preparatory: AAS/AFRS/CAS/CHS/COMS 151 or equivalent; IS 212 or equivalent.</i>
BLAW 280	<b>Business Law I (3)</b> <i>Prerequisites: Completion of lower division writing requirement and sophomore standing</i>
MATH 103**	<b>Mathematical Methods for Business (3)</b> <i>Prerequisites: Eligibility for GE level mathematics</i> <i>**MATH 103 or MATH 150A or MATH 150B (Calculus) with a grade of "C" or higher</i>

## UPPER DIVISION BUSINESS CORE REQUIREMENTS (19 UNITS)

BUS 302	<b>Gateway Experience (3)</b> <i>Prerequisites*: Lower division business core ACCT 220, ACCT 230, ECON 160, ECON 161, IS 212, SOM 120 or MATH 140, ENGL 205, BLAW 280, and MATH 103</i> <i>Corequisite: BUS 302L</i>
BUS 302L	<b>Gateway Lab (1)</b> <i>Prerequisites: Junior standing and completion of all Lower Division Business Core courses</i> <i>Corequisite: BUS 302</i>
FIN 303	<b>Financial Management (3)</b> <i>Pre/Corequisite for Business Majors: BUS 302+302L</i>
MGT 360	<b>Management and Org. Behavior (3)</b> <i>Pre/Corequisite for Business Majors: BUS 302+302L</i>
MKT 304	<b>Marketing Management (3)</b> <i>Pre/Corequisite for Business Majors: BUS 302+302L</i>
SOM 306	<b>Operations Management (3)</b> <i>Pre/Corequisite for Business Majors: BUS 302+302L</i>
BUS 497	<b>Capstone: Strategic Management (3)</b> <i>Prerequisites: Senior standing; BUS 302+302L, FIN 303, MGT 360, MKT 304; Graduating senior standing</i>

## INFORMATION SYSTEMS CORE REQUIREMENTS (19 UNITS)

- All Information Systems majors must earn a "C" or higher in all IS courses
- \*\*\*All IS 400-level courses also require completion of grade of "C" or higher in BUS 302 and CR in BUS 302L

COMP 110/L	<b>Introduction to Algorithms and Programming and Lab (3+1)</b> <i>Prerequisites: Grade of "C-" or better in MATH 102, 103, 104, 105, 150A or 255A, or a passing score on the Math Placement Test (MPT) that satisfies pre-requisites for MATH 150 or 255A</i> <i>COMP 110 AND COMP 110L are co-requisites</i>
IS 312	<b>Systems and Technologies for Business Managers (3)</b> <i>Prerequisite: ACCT 220 and Grade of "C" or higher in IS 212</i>
IS 431***	<b>Systems Analysis and Design (3)</b> <i>Additional Prerequisite: Grade of "C" or higher in IS 312</i>
IS 435***	<b>Business Data Networks and Cybersecurity (3)</b> <i>Additional Prerequisite: Grade of "C" or higher in IS 312</i>
IS 441***	<b>Database Management Systems (3)</b> <i>Additional Prerequisite: Grade of "C" or higher in IS 312</i>
IS 451***	<b>Enterprise Systems and Project Management (3)</b> <i>Additional Prerequisites: A grade of "C" or higher in IS 431 and 435</i>