

COMPUTER INFORMATION SYSTEMS: BEGINNING (CISB)

CISB 10 Office Skills

3 Units (Degree Applicable)

Lecture: 54

Skills necessary to work in an office setting including: alpha and numeric keyboarding, email etiquette and standards, electronic calendaring, ten-key, composing, formatting and storing business documents, and telephone techniques.

CISB 11 Computer Information Systems

3.5 Units (Degree Applicable, CSU, UC, C-ID #: BUS 140, ITIS 120)

UC Credit Limitation

Lecture: 54 Lab: 27

Overview of computer information systems including computer hardware, software, networking, programming, databases, Internet, security, systems analysis, ethics, and problem solving using business applications.

CISB 15 Microcomputer Applications

3.5 Units (Degree Applicable, CSU, UC)

Lecture: 54 Lab: 27

Windows operating system (OS) and applications, simple business examples using up-to-date browser, word processing, spreadsheet, database management and presentation software, and integration of software applications.

CISB 16 Macintosh Applications

2 Units (Degree Applicable, CSU)

Lecture: 27 Lab: 27

Macintosh operating system and related tools; creating files using office applications; storing and sharing files using iCloud.

CISB 21 Microsoft Excel

3 Units (Degree Applicable, CSU)

Lecture: 54

Spreadsheet concepts using Microsoft Excel including formatting, formulas and functions, charts, linked worksheets, pivot tables, business intelligence, macros, and Visual Basic for Applications (VBA) code.

CISB 31 Microsoft Word

3 Units (Degree Applicable)

(May be taken for option of letter grade or Pass/No Pass)

Lecture: 54

Word processing with Microsoft Word and its editing, formatting, and language tools to create, edit, and format business and publication documents. Includes creating flyers, newsletters, and other publication documents using advanced formatting techniques and tools.

CISB 51 Microsoft PowerPoint

3 Units (Degree Applicable, CSU)

Lecture: 54

Using PowerPoint to plan, design, and produce effective presentations. Includes creating charts, diagrams, and storyboards; developing appropriate text content; and adding sound, animation, and movies.

CISB 60 Machine Learning in Business

3.5 Units (Degree Applicable)

Lecture: 54 Lab: 27

Advisory: *CISP 21 or CISP 71 or CISP 31 or CISP 41*

A broad introduction to machine learning and its implementation to solve real-world business problems. Includes end-to-end process of investigating data through a machine learning lens and how to extract and identify useful features that best represent data and evaluate the performance of different machine learning algorithms. Topics include: supervised learning (linear regression, logistic regression, support vector machines, k-nearest neighbors, decision trees, random forest, and gradient boosted tree); unsupervised learning (clustering, dimensionality reduction, kernel methods); reinforcement learning and adaptive control.

CISB 62 Deep Learning in Business

3.5 Units (Degree Applicable)

Lecture: 54 Lab: 27

Prerequisite: *CISB 60*

To learn the most cutting-edge deep learning algorithms and technique. Covers building deep learning prediction models of different complexities, from simple linear logistic regression to major categories of neural networks including convolutional neural networks (CNNs), recurrent neural networks (RNNs), long short-term memory (LSTMs), gated recurrent units (GRUs), and more. Structured around special coding blueprint approaches not mathematical complexities. Valuable hands-on experience with real-world business challenges.

CISB 63 Natural Language Processing in Business

3.5 Units (Degree Applicable)

Lecture: 54 Lab: 27

Prerequisite: *CISB 60*

To learn natural language processing and its application in business. Regular expressions. Tokenization and text normalization. Part of speech tagging and grammar parsing. Extracting named entities from text. Feature engineering for text using count vector and term frequency-inverse document frequency (TF-IDF) representations of text. Mastering the art of text cleaning. Semantics and sentiment analysis. Interpreting patterns from text using latent Dirichlet allocation (LDA) and non-negative matrix factorization (NMF) topic models. Text generation with long short term memory algorithm. Creating chatbots.

CISB 81 Work Experience in Office Technology

0 Units (Degree Applicable)

(May be taken for Pass/No Pass only)

Provides students with actual on-the-job experience in an approved worksite, which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 nonpaid clock hours per semester of supervised work is required for each one unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided.