17-06

August 10, 2017

# Master of Science in Information Systems (MSIS)

This policy statement was recommended by the Academic Senate on May 4, 2017

and approved by the President on June 6, 2017.

The Master of Science in Information Systems (MSIS) is designed to provide students with an advanced and highly sought-after expertise necessary in the field of information systems. The program provides training in advanced technical, managerial, and analytical techniques with a focus on digital transformation, data analytics, and cyber security, which will advance student career prospects and prepare them for lifelong learning in a global economy. Students can choose one of two tracks (accelerated/fulltime or professional/part-time) to accommodate their work schedule and their career goals.

## Degree Requirements

The program’s requirements comprise of a 30-unit, cohort based, lock-step sequence of courses covering three core components: i) developing an advanced understanding of information systems management, IT application development, business intelligence, cyber security and assurance and e-business in the digital economy, ii) acquiring data analytics, business application programming, and systems analysis and design skills to tackle real world business and information challenges, and iii) demonstrating competency through a culminating project in which students interact with local industry leaders to identify improvement opportunities and develop information systems-based solutions. Each cohort will have four electives which will be selected from a list of elective courses.

## Program Prerequisites

Admission decisions are based on consideration of the applicant’s previous academic record, statement of purpose, resume, letters of recommendation, and performance on admission and English proficiency exams:

* A bachelor’s degree from a regionally accredited university (e.g. WASC)
* Minimum GPA of 2.75 in the last 60-semester units attempted and good standing at the last college attended
* A statement of purpose
* A recent resume
* Two letters of recommendation
* Admission and English Proficiency Exams
  + A satisfactory score is required on either the Graduate Management Admission Test (GMAT) or the Graduate Record Exam (GRE) that demonstrates balance between verbal and quantitative skills.
  + International applicants must take TOEFL and score a minimum of (i) 80 on the online version or (ii) 550 on the paper version of this examination. A score of 4.0 or higher on the writing portion of the GMAT or GRE may be used to waive the TOEFL requirement for international applicants.
* A score of 4.0 or higher on the analytical writing portion of GMAT/GRE is required of all applicants to fulfill the Graduate Writing Assessment Requirement (GWAR).

## University Graduation Requirements

* Satisfactory completion of 30 units of approved graduate courses with a GPA of 3.0 or higher.
* Applicants who are admitted to the program will be subject to the university’s Graduation Writing Assessment Requirement (GWAR). All entering students are required to take the GWAR Placement Exam (GPE), except students who have previously (1) received degrees from accredited colleges and universities in the United States; or (2) received degrees from an accredited non-US institution located in a country where English is a primary language of communication; or (3) achieved a score of 4.0 or higher on the writing portion of the GMAT or GRE.
* Completion of the IS 699 culminating activity with a grade of “B” or better.
* Compliance with all other university graduation requirements.

Course Requirements (15 units)

IS 601 Quantitative Methods for Managerial Decision Making (3)

Prerequisites: Graduate business standing

IS 602 Management of Information Systems (3)

Prerequisites: Graduate business standing

IS 640 Business Application Programming (3)

Prerequisites: Graduate standing

IS 680 Database Management Systems (3)

Prerequisites: Graduate standing

IS 685 System Analysis and Design (3)

Prerequisites: Graduate standing

ADVANCED STUDY COURSES (12 units)

Choose 4 courses from the following list:

IS 620 Spreadsheet Modeling for Business and Management (3)

Prerequisites: Graduate standing, IS 601.

IS 635 Technology and Start-ups: Developing and Sustaining Business Models (3)

Prerequisites: Graduate standing.

IS 645 Internet Applications in Business (3)

Prerequisites: Graduate standing, IS 540.

IS 656 Information Systems Security and Assurance (3)

Prerequisites: Graduate standing.

IS 657 Mobile Systems and Business Applications (3)

Prerequisites: Graduate standing, IS 640.

IS 670 Business Intelligence (3)

Prerequisites: Graduate standing, IS 601.

IS 684 Electronic Business (3)

Prerequisite: Graduate business standing, IS 602

CULMINATING EXPERIENCE - REQUIRED (3 units)

IS 699 Information Systems Project (3)

Prerequisites: Graduate standing, IS 602.

Or

IS 699A Information Systems Culminating Project (2 units)

Prerequisites: Graduate standing, IS 602.

IS 699B Information Systems Culminating Project (1 unit)

Prerequisites: Graduate standing, IS 602.

## Description of Culminating Project

The proposed master program requires an integrated course project, IS 699 Information Systems Project, which satisfies the culminating experience of California Code of Regulations Title 5. The course requires each student to demonstrate a comprehensive understanding of managing and developing an actual information system. This requires expertise in the area of technology, people, process, and organization. IS 699 will enable students to learn hands-on and field-test approaches to planning, executing, and managing information systems projects. Opportunities will be provided for acquiring and practicing software project management, requirements analysis, system design, and prototype construction. Students will practice both inside and outside of the class demonstrating positive workplace behaviors and supportive teamwork values. A hands-on, semester-long comprehensive project and oral presentation is required by this course.

Each project will require students to work with faculty and practitioners to demonstrate mastery by developing an information system for a sponsoring company. Relevant research on technology, process, people, and organization will be conducted. The resulting proposal will require approval from the supervising faculty. The completion of a final project and follow-up communications with the project sponsors will also be required. A student team will be responsible for a project report to fulfill the requirement with each student taking responsibility for a part of the project. Each student will be evaluated individually on his or her part of the integrated project. The project will conclude with the presentation of overall results in a comprehensive report and a professional-quality oral presentation to the faculty members and the project-sponsoring organization.

A grade of “B” or better is required to pass this course. Failure to achieve at least a “B” grade will necessitate retaking the course with the subsequent cohort. This requirement operates independently of the student’s overall GPA.

EFFECTIVE: Fall 2018

Campus Code: IS\_\_MS03E1

College: 41

Career: GRAD

CIP Code: 11.0103

CSU Code: 07021

PS 17-06