**Computer Information Systems**

The Computer Information Systems (CIS) program combines knowledge of leading edge technologies and systems methodologies with an understanding of the ever-changing, dynamic business environment. It attracts students who are interested in working with technology to find solutions to business problems and to analyze and optimize existing business processes and information systems.

**Program Educational Objectives**

The educational objectives of the CIS program are to produce graduates who: (1) meet their professional goals, (2) continue to be life-long learners and (3) meet their employer or continuing education expectations.

**Student Outcomes**

The CIS program of study enables students to achieve, by the time of graduation:

A. An ability to apply knowledge of computing and mathematics appropriate to the discipline;

B. An ability to analyze a problem and identify and define the computing requirements appropriate to its solution;

C. An ability to design, implement and evaluate a computer-based system, process, component or program to meet desired needs;

D. An ability to function effectively on teams to accomplish a common goal;

E. An understanding of professional, ethical, legal, security and social issues and responsibilities;

F. An ability to communicate effectively with a range of audiences;

G. An ability to analyze the local and global impact of computing on individuals, organizations and society;

H. Recognition of the need for, and an ability to engage in, continuing professional development;

I. An ability to use current techniques, skills and tools necessary for computing practices;

J. An understanding of processes that support the delivery and management of information systems within a specific application environment.

**Internships**

After a student completes the sophomore year, he/she is eligible to apply for a computing internship. As an intern, the student is able to put into practice their knowledge of the field in a real job situation. Internships help to prepare students for immediate employment upon graduation.

**Admission Information**

Admission to the program is open to entering freshman and transfer students. Students with an educational background related to CIS who apply for admission to the program will be evaluated on an individual basis.

**Employment Opportunities**

CIS is one of the few academic disciplines today that can prepare graduates to meet the challenges posed by the widespread outsourcing and off shoring of technical work. The demand for professionals equipped with the leadership, project management and interpersonal skills found in most computing programs is skyrocketing. Proof of this is found in the average salaries that professionals in CIS earn:

- Database Administrators: $77,080
- Network and Computer Systems Administrators: $72,560
- Information Security Analysts: $86,170
- Computer Systems Analysts: $79,680
- Computer and Information Systems Managers: $120,950


**University Resources**

CIS is housed in the Mathematics, Computer Science and Information Systems Department, where there is a close, personal involvement of dedicated faculty typical of a smaller institution, with the ever-present focus on teaching excellence, as is the tradition at Cal U. At the same time, the department offers state-of-the-art technology found at larger universities. Our high-tech classrooms and modern facilities allow many of our courses to be taught in computer laboratories. Emphasis is placed on learning technologies that are in demand in the marketplace. Wireless connection is available throughout the university, including dorm rooms and campus buildings. Many faculty members use course management packages that give students a common, cross-campus learning environment. This environment allows students to access current grades, upload homework and communicate with fellow classmates. While the faculty embraces this technology, they are also available to talk one-on-one with students outside the classroom. Students are our primary concern.

**Accreditation**

"Accredited by the Computing Accreditation Commission of ABET, [http://www.abet.org](http://www.abet.org)."

All graduates of the CIS program will receive accredited degrees.

**Curriculum**

A total of 120 credits are required for a Bachelor of Science degree in CIS. The following schedule of courses provides a recommended framework for completing this program of study in four years. To ensure that they are making satisfactory academic progress, students should consult with their faculty advisor, to ensure that they complete necessary prerequisites and required courses in sequence and complete between 12 and 18 credits each semester.
### Freshman Year – 31 credits

**First Semester** ........................................... 16 credits
- CIS 110 Intro to Information Systems ................ 3 crs.
- CIS 120 Application Programming I ................. 3 crs.
- ENG101 English Comp I (or) HON 150 Honors Comp. 3 crs.
- MAT 281 Calculus I .................................... 3 crs.
- PSY 100 General Psychology .......................... 3 crs.
- UNI 100 First Year Seminar (or) HON 100 Honors & University Orientation. 1 cr

**Second Semester** ........................................ 15 credits
- BUS 100 Intro to Business ................................ 3 crs.
- CIS 220 Application Programming II .................. 3 crs.
- ENG 217 Sci & Tech Writing (or) HON 250 Honors Composition II ......................... 3 crs.
- MAT 195 Discrete Mathematical Structures ........... 3 crs.
- ____ Any General Education Course .................... 3 crs.

### Sophomore Year – 31 credits

**Third Semester** ......................................... 16 credits
- ACC 231 FIN Any ACC or FIN Course ................ 3 crs.
- CIS 341 CISCO CCNA 1 ................................ 4 crs.
- MAT 215 Statistics (or) MAT 225 Business Statistics .... 3 crs.
- COM ____ Public Speaking Course (See Menu) ....... 3 crs.
- ____ Any General Education Course .................... 3 crs.

**Fourth Semester** ........................................ 15 credits
- CIS 299 Systems Analysis I ............................. 3 crs.
- CIS 352 Global, Economic, Ethical Issues in Computing..3 crs.
- ECO ____ Any ECO* Course ............................ 3 crs.
- ____ Any General Education Course .................... 3 crs.
- ____ Free Elective Course ................................ 3 crs.

### Junior Year – 30 credits

**Fifth Semester** .......................................... 15 credits
- CIS 321 DB Mgmt Sys & Design ......................... 3 crs.
- CIS 330 Web Programming I ............................ 3 crs.
- CIS 354 Systems Project Management .................. 3 crs.
- MGT ____ any MGT* Course ............................. 3 crs.
- ____ Any CIS Elective Course ........................... 3 crs.

**Sixth Semester** ........................................... 15 credits
- CIS 322 DB Application Development .................... 3 crs.
- CIS 332 Web Programming II ............................ 3 crs.
- MKT ____ any MKT* Course ............................. 3 crs.
- ____ Any CIS Elective Course ........................... 3 crs.
- ____ Any Related Elective Course ....................... 3 crs.

### Senior Year – 28 credits

**Seventh Semester** ...................................... 15 credits
- CIS 490 Systems Analysis II ............................ 3 crs.
- BUS ____ Any BUS* course ............................... 3 crs.
- ____ Any General Education Course .................... 3 crs.
- ____ Any CIS Elective Course ........................... 3 crs.
- ____ Free Elective Course ............................... 3 crs.

**Eighth Semester** ....................................... 13 credits
- CIS 492 Systems Development & Implementation ........ 3 crs.
- ____ Any CIS Elective Course ........................... 3 crs.
- ____ Two Free Elective Courses ......................... 7 crs.

**Notes**
- The policies and procedures described here may be reviewed and revised as the need arises. This fact sheet should be used as an information guide.
- At least one business-related elective must be 300+ level.

### Program Contact Information
Contact the Department of Mathematics, Computer Science and Information Systems by phone at 724-938-4078.

### Department Website
[www.calu.edu/academics/colleges/eberry/math-computer-science](http://www.calu.edu/academics/colleges/eberry/math-computer-science)

### Questions
**About Admissions?**
Office of Admissions
California University of Pennsylvania
250 University Ave.
California, PA 15419-1394

Phone: 724-938-4404
Toll-free: 888-412-0479
Fax: 724-938-4564
inquiry@calu.edu

**About Us**
California University of Pennsylvania is a proud member of the Pennsylvania State System of Higher Education. Located in the borough of California, just 35 miles from Pittsburgh, Cal U serves about 7,200 undergraduate and graduate students.
- Cal U's main campus houses academic buildings, dining and recreation facilities, and state-of-the-art residence halls.
- Cal U's upper campus includes the Vulcan Village apartments, athletic facilities at Rodman Park and space for student meetings and outdoor recreation at SUI Farm.
- Cal U’s Global Online is the University’s virtual campus, offering degrees and certificate programs 100% online.

**Financial Aid**
For information on student loans and undergraduate scholarships, visit [www.calu.edu](http://www.calu.edu) or call 1-888-412-0479.

### Policies and Procedures:
Note that the policies and procedures described above may be reviewed and revised at any time. This fact sheet should be used as an informational guide. For details on current policies and procedures, contact the Provost/Vice President of Academic Affairs at 724-938-4407.