

# American Innovation University

## 2024-2025 Catalog

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# AMERICAN INNOVATION UNIVERSITY

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## AIU 2024-2025 ACADEMIC CALENDAR

<b>FALL 2024</b>		<b>&lt; SEPTEMBER 03 – DECEMBER 14, 2024 &gt;</b>
AUGUST		
30	Fri	New Student Orientation
SEPTEMBER		
02	Mon	Labor Day (campus closed)
03	Tue	Classes begin
13	Fri	Last day to add/drop courses
OCTOBER		
NOVEMBER		
08	Fri	Last day for graduation petition
18-22	Mon-Fri	Thanksgiving Holidays (campus closed)
DECEMBER		
02	Mon	Pre-registration for Spring Trimester 2024
09-14	Mon-Sat	Final examinations
14	Sat	Last day of classes

<b>SPRING 2025</b>		<b>&lt; JANUARY 06 – APRIL 19, 2025&gt;</b>
JANUARY		
03	Fri	New Student Orientation
06	Mon	Classes begin
17	Fri	Last day to add/drop courses
FEBRUARY		
17	Mon	President's Day (campus closed)
MARCH		
14	Fri	Last day for graduation petition
APRIL		
07	Mon	Pre-registration for Summer Trimester 2025
14 - 19	Mon-Sat	Final examinations
19	Sat	Last day of classes

<b>SUMMER 2025</b>		<b>&lt; APRIL 28 – AUGUST 09, 2025 &gt;</b>
APRIL		
25	Fri	New Student Orientation
28	Mon	Classes begin
MAY		
09	Fri	Last day to add/drop courses
26	Mon	Memorial Day (campus closed)
JUNE		
JULY		
04	Fri	Independence Day (campus closed)
11	Fri	Last day for graduation petition
28	Mon	Pre-register for Fall Trimester 2025
AUGUST		
04-09	Mon-Sat	Final examinations
09	Sat	Last day of classes
16	Sat	Graduation Ceremony

<b>FALL 2025</b>		<b>&lt; AUGUST 25 – DECEMBER 13, 2025 &gt;</b>
AUGUST		
22	Fri	New Student Orientation
25	Mon	Classes begin
SEPTEMBER		
01	Mon	Labor Day (campus closed)
05	Fri	Last day to add/drop courses
OCTOBER		
NOVEMBER		
07	Fri	Last day for graduation petition
24 - 28	Mon-Fri	Thanksgiving Holidays (campus closed)
DECEMBER		
01	Mon	Pre-registration for Spring Trimester 2024
08 - 13	Mon-Sat	Final examinations
13	Sat	Last day of classes

## THE UNIVERSITY

### Mission & Goals

The primary mission of American Innovation University (AIU) is to provide excellent educational programs to equip and prepare students with the right set of knowledge and skills for careers in the high tech industry,

This mission is accomplished by leveraging Silicon Valley's expertise in technology to:

- Provide students with faculty who are experts in their field and are currently working in the high tech industry sectors;
- Provide students with a learning environment that utilizes the latest available technology in use in the work place;
- Prepare students with the practical skills necessary for performing at the highest levels in their chosen professions;
- Develop the capacity for independent and critical thinking; promote entrepreneurship by encouraging innovations and new ideas for business initiatives and product development.

### Campus Description

AIU is located in Silicon Valley (San Jose, California), the hub of the US high-tech industry and global business. The university occupies space in a Class A office building. The 35,000 square foot office space consists of large classrooms for delivery of multimedia presentations to large groups and smaller classrooms for small-group discussions. Other facilities of the university include the Learning Resource Center / Library, Computer Lab, Conference Rooms, Recreation Room, and Student's break area which are all available for students during school hours. The Student Office and other administrative offices provide needful assistance to students 5 days a week.

The university offers state-of-the-art computer equipment, access to the campus network and the internet in its labs, classrooms, and Learning Resource Center / Library. Majority of the classrooms are equipped with build-in speakers, Multimedia Projector, SONY Audio Amplifier, and DELL All-In-One PC. The lab is equipped with computer and networking equipment made available to the student. These include DELL All-In-One PCs, DELL Tower PCs, Raspberry PI SoCs, DELL LCD Monitors, DELL PowerEdge Server, TP-LINK Gigabit Ethernet Switches, NETGEAR 100/1000 Switches, and Ruckus Wireless Access Point Router. The Learning Resource Center / Library is

equipped with DELL All-In-One PCs, and Laser quality printers/copiers.

### Institutional Student Learning Outcomes

AIU graduates are expected to demonstrate the following institutional student learning outcomes:

- **Critical Thinking:** Analyze facts and information to formulate an opinion or conclusions.
- **Communication:** Clearly and effectively communicate in written and oral forms to develop connections and knowledge.
- **Quantitative Reasoning:** Employ mathematical concepts and methods to reason and solve quantitative problems.
- **Information literacy:** Identify, locate, evaluate, and effectively and responsibly use and share information for professional and personal practice.
- **Teamwork:** Work cooperatively and collaboratively as members of diverse teams to achieve a common goal.
- **Problem Solving:** Synthesize information and implement strategies to answer open-ended questions or solve problems.
- **Specialized Knowledge:** Acquire theoretical and practical knowledge and skills required for a particular discipline or profession.

### Diversity Statement

AIU does not discriminate on the basis of age, race, religion, gender, or sexual orientation in its education programs or activities. Due to AIU's location in Silicon Valley (San Jose, California), AIU shares a community rich in a multi-cultural population and in its diversity. AIU's primary mission to provide educational programs to equip and prepare students for the high tech industry will also support and respect diversity and equality for all its students, faculty, and staff. AIU works to create a campus community that will not tolerate any form of discrimination and encourage dialogue when encountering any uncomfortable situation.

### Mobile Internet Services

To support mobile internet and cloud computing, the whole digital campus is fully covered by 802.11 a/b/g/n Wi-Fi access points back-hauled to FE/GE/10-GE backbone network switch hierarchic in the 7/24 air-conditioned private data center.

Via Wi-Fi access point and backbone switch infrastructure plus internet, students, faculty, and staff can use

mobile internet devices (i.e., Apple iPad, Apple iPhone, Android Tablet, Android Phone, MacBook Air, Google Tablet, Ultrabook, or Microsoft Surface) to access cloud computing inside the whole campus. When the license is permitted through proxy servers, students can then access any software tools from anywhere at any time. Student's learning experience cannot be made easier with all these services.

## **INSTRUCTIONAL RESOURCES**

To help students obtain competitive advantages in the real working environments from classrooms and to help students to acquire the knowledge through hands-on modern methodology effectively and efficiently, AIU participates in many university programs provided by the leading companies in their industries, such as Apple, Microsoft, Oracle, SAP and Google. Students who learn the usage of the emerging tools in the real world can definitely grant themselves better job opportunities. AIU's instructional resources aim to do just that.

### **Apple iOS Developer University Program Membership**

AIU has joined the Apple iOS Developer University Program to provide a wide range of technical resources to assist students in design, development, and testing. The iOS apps include iOS Dev Center, iOS Developer Library, and Development Videos.

### **Microsoft Azure for Education Membership**

AIU has subscribed to Microsoft Azure for Education membership to make the latest Microsoft software available in labs and classrooms. The Microsoft Azure program offers Microsoft developer tools for Science, Technology, Engineering, and Math (STEM) fields, including the up-to-date Visual Studio, Windows Operating Systems, Windows Server, .NET Framework, computer cluster server, SQL server, Mobile SDK and more than 300 tools.

### **Oracle Academy Membership**

AIU is a member of Oracle Academy. AIU provides Oracle 11g Real Application Cluster (RAC) Enterprise version database to students and faculty. Oracle RAC database services is a shared cache clustered database architecture that overcomes the limitations of traditional shared-nothing and shared-disk architectures for unbeatable database performance, scalability and reliability without requiring changes to existing Oracle Database applications. Oracle RAC has been successfully deployed by thousands of Oracle customers,

allowing these customers to use clustered database servers for a simplified, efficient and successful delivery of Database Services on the Cloud.

### **Higher Education User Group and University Alliance Program of SAP Membership**

AIU has formed a membership with Higher Education User Group (HEUG) and University Alliance Program offered by SAP (Acronym of Systems, Applications, and Products in Data Processing) North America to use the tools from SAP software for faculty members and students to enhance the academic and professional learning outcomes.

### **Google G Suite**

AIU partnered with Google G Suite, a cloud productivity suite containing a collection of enterprise-based products accessible anywhere through the cloud. G Suite core set of applications include Gmail, Calendar, Drive, Docs, Sheets, Slides, Forms, Google+, Hangouts Meet, Hangouts Chat, Sites, and Groups. Students can collaborate with each other, AIU instructors, and AIU administration, while maintaining a highly secure, reliable, and compliant environment for AIU.

### **NVIDIA Deep Learning Institute (DLI)**

AIU has joined NVIDIA DLI to provide instructors access to instructional materials and online courses / labs. Instructors will be able to incorporate into their curriculum, the foundations for understanding and building hands-on experience in areas of accelerated and GPU computing, data science, deep learning, graphics, and robotics.

### **Data Communication/Telecommunication**

AIU offers a state-of-the-art network equipment such as Cisco routers, Dell switches, Linksys wireless routers, Apple Computer wireless routers, Cisco VPN remote access servers. Students can access these resources from any onsite networked workstation or remote to configure or control those equipment.

### **Linux/Unix Private Cluster Node**

The Linux/Unix system is provided to students in labs to understand the cloud computing paradigm and framework. The cloud computing infrastructure can be used for sharing, scheduling, reliability, availability, elasticity, privacy, provisioning and geographic replication.

### **Learning Resource Center / Library**

The university has an onsite library which contains publications in the fields of Computer Science and Engineering, and General Education. The university library has a collection of over 3000 volumes of technical and professional books, journals, and periodicals providing the faculty and students with the basic reading reference materials to support their teaching and learning activities. The university will allocate a certain amount of funds each year to expand the capacity of the library.

The Learning Resource Center is located in the library. The Learning Resource Center is equipped with DELL Inspiron All-In-One PCs with Internet access, and Laser quality printers/copiers for the students to use on a first-come-first-serve basis.

As part of AIU's effort to provide instruction using the latest internet technologies, the university has established a web-based Learning Resource Center. The center is a digital research facility, created to provide faculty members and students with the opportunity to make the most use of vast information resources available on the internet.

Both faculty members and students have access to AIU's web-based Learning Resource Center and AIU's e-Library, at [www.aiuca.us](http://www.aiuca.us). Users will follow the Academics link to the Library & Research link, to access major professional journals and scholarly articles through nationally acclaimed databases such as ACM, and IEEE. There are links to Reference Websites, i.e. journals, management library, programming textbooks, and U.S. Government homepage. To use AIU's e-Library to access the onsite library catalog, the user will have to login with the User ID/Password that was assigned and approved by the AIU librarian.

The university Learning Resource Center / Library serves its students and faculty free of charge. Students are expected to follow the university library policy while using these resources.

**Learning Resource Center / Library Hours:**

Monday through Friday: 11 am to 7 pm

AIU students have convenient access to a number of excellent libraries including San Jose Public Library, San Jose State University (SJSU) and Cal State University East Bay (CSUEB). The web-based Learning Resource Center has links to the San Jose Public Library and SJSU library. Students can also obtain free library cards from the Alameda County and Santa Clara County public library system and make use of the LINK+ unified catalog system as well.

**ACCREDITATION AND APPROVAL STATUS**

AIU is a private post-secondary institution and has been working on getting Institutional Approval by the Bureau for Private Postsecondary Education (BPPE). Their contact information is:

**Bureau for Private Postsecondary Education**

P.O. Box 980818

West Sacramento, CA 95798-0818

Phone: (916) 574-7720

Web site: <http://www.bppe.ca.gov>

E-mail: [bppe@dca.ca.gov](mailto:bppe@dca.ca.gov)

Following approval by BPPE, the approval to operate means compliance with state standards as set forth in the California Education Code. This does not imply that BPPE endorses AIU programs, or that BPPE approval means AIU exceeds minimum state standards.

Any questions a student may have regarding this catalog that have not been satisfactorily answered by the institution may be directed to the Bureau for Private Postsecondary Education at 2535 Capitol Oaks Drive, Suite 400, Sacramento, CA 95833, [www.bppe.ca.gov](http://www.bppe.ca.gov), (888) 370-7589, or by fax (916) 263-1897.

A student or any member of the public may file a complaint about this institution with the Bureau for Private Postsecondary Education by calling (888) 370-7589 or by completing the complaint form, which can be obtained on the bureau's internet Web site address [www.bppe.ca.gov](http://www.bppe.ca.gov).

AIU will be working on meeting the criteria for accreditation status from the Higher Learning Commission (HLC). HLC is recognized as an accrediting agency by the U.S. Department of Education and the Council for Higher Education Accreditation (CHEA).

Before the HLC accreditation activity is completed, AIU's operation as a non-accredited institution has some limitations for the graduate of AIU's degree program. Certain employers may tend to perceive the lack of accreditation differently than others. For the most part, employers tend to view accredited programs as typically being ones to prioritize more compliance with college and university-level standards. While different higher education programs will oftentimes vary in the thoroughness of their curricula, a fair amount of employers may tend to assume that accredited programs are of a higher caliber than the unaccredited program. A degree program that is non-accredited is not recognized for some employment positions, including, but not limited to, positions with the State of California. A student enrolled in a non-accredited institution is not eligible for federal financial aid programs.

**CORPORATE STATUS**

American Innovation University is organized under California Corporate Law as a nonprofit, public-benefit corporation and is deemed tax-exempt, as applies to corporations falling within the IRS 501(c) (3) ruling.

AMERICAN INNOVATION UNIVERSITY ADMINISTERS ALL ITS PROGRAMS WITHOUT REGARD TO RACE, ETHNIC ORIGIN, AGE, OR SEX. AIU DOES NOT DISCRIMINATE IN THE ADMINISTRATION OF ITS EDUCATIONAL POLICIES, ADMISSIONS POLICIES, SCHOLARSHIPS, OR OTHER SCHOOL ADMINISTERED PROGRAMS.

### **Governing Board**

AIU is governed by its Board of Trustees. The Board of Trustees consists of the following people:

#### **Dr. Jerry Shiao**

President of AIU  
San Jose, California  
Member of the Board

#### **Dr. Len-Yi Leu**

Former Deputy Director of TSMC  
Cupertino, California  
Chairman of the Board

### **UNIVERSITY PROGRAMS**

#### **Degree Programs**

Master of Science in Computer Science (MSCS)

#### **Delivery of Instruction**

AIU will offer three methods of delivery of instructions:

- Hybrid Mode of Instruction: Sometimes referred to as “Blended”, the hybrid mode of delivery combines online instructions and onsite instructions for the class.
- Fully Online Mode of Instruction: Completely online environment and no in person or onsite meetings.
- Fully Onsite Mode of Instruction: Completely onsite environment and all instructions and meetings will be onsite. Onsite class meetings will not be moved into an online meeting.

#### **Hybrid (Blended) Mode of Instruction**

The hybrid mode of delivery combines online instructions and onsite instructions for the class. Online instructions are offered via the Moodle Learning Management System (LMS), BigBlueButton conferencing application. For each class, the Academic

Dean and the instructor will determine the frequency of each required onsite session, depending on the needs of the instruction. The required onsite instruction will be at least 25% of the length of the session. The Moodle LMS will record the meetings for the students to playback.

#### **Online Instructions**

The online instructions are offered through the Moodle LMS and utilizing Moodle's BigBlueButton as the online conferencing platform. The online instructions are events where the students and instructor uses Moodle's BigBlueButton to communicate with voice, video, and a multi-user whiteboard. The instructions are recorded for the students to review. Online activities that can occur during the online instructions are in-class workshops or quizzes.

#### **Onsite Instructions**

The onsite instructions are face-to-face interactions, with the instructor in the room with the students. The onsite instructions will also be delivered through the Moodle LMS, allowing the instructions to be recorded and reviewed. Midterm and Final exams will be done onsite.

#### **Fully Online Mode of Instruction**

The online instructions are offered through the Moodle LMS and utilizing Moodle's BigBlueButton as the online conferencing platform. The online instructions are events where the students and instructor uses Moodle's BigBlueButton to communicate with voice, video, and a multi-user whiteboard. The Moodle LMS will record the meeting for the students to replay and review.

Class workshop, quizzes, and exams will use the Moodle BigBlueButton online conferencing platform. The class workshops are done through open-source software applications that can be downloaded free. The Moodle LMS offers different modes of testing, i.e., multiple choice, short answers, True/False, essays, and other types of questions that can be automatically graded. The Moodle LMS allows personalized interaction between the student and teacher with screen sharing. By switching the computer screen between student/teacher mode, the instructor can see the student's computer screen and see what problems the student is experiencing. The Moodle built-in multi-user whiteboard allows the teacher and student to collaboratively annotate the whiteboard.

Student interpersonal interactions (i.e., peer teaching) is facilitated through Moodle LMS classroom Breakout Rooms. The classroom Breakout Rooms are assigned by the instructor for group assignments and projects, and also allow the instructor to interact with the students in a smaller setting.

Plagiarism and cheating are student activities that are of concern with the Fully Online Mode of Instructions. Students will be reminded of academic integrity and the consequences for academic dishonesty when they take a Fully Online course and before exams. Each class syllabus includes an academic integrity policy statement and, in the school's academic catalog. The consequence of cheating would be to void the homework or exam and the student will be required to see the Academic Dean. The student will be placed on academic probation and subject to dismissal, for continual violation.

### **Fully Onsite Mode of Instruction**

Completely onsite environment, all instructions and meetings will be onsite. The onsite instructions are offered using the Moodle LMS for recording the meeting for the students to playback. The onsite instructions are events where the students and instructor meet together at the same time to communicate. During the class meetings, there could be online activities, i.e., in-class workshops or quizzes.

### **Learning Management System (LMS)**

AIU's Learning Management System (LMS) utilizes the Moodle LMS platform, hosted by MoodleCloud. The LMS allows AIU to track student engagement, i.e. usage, attendance, and attention. The LMS securely provides students with the means to collaborate on projects, study groups, and engage with each other through chat rooms. Students also have more effective engagement with the instructor and students would more likely use AIU services, i.e. tutoring, student advising, and career counseling services. LMS provides the capability to share all course materials, consisting of lecture slides, homework assignments, quizzes, class presentations, reading and supplementary materials, and other class assignments. The LMS will maintain a record of the dates on which lessons, projects, and dissertations were received and when responses were returned to each student, approximately within 7 days.

The online delivery using the Moodle LMS BigBlueButton conferencing application, requires the student to be familiar with the internet and use common internet applications, i.e. web browser, email, an editor, and PowerPoint. The student must be able to download files, install applications, update applications, and be aware of potential network/file viruses. The student must have access to the following system and software requirements:

- An internet connection, broadband wired or wireless.
- Speakers, microphone, and webcam.
- Operating System: Windows 10/8/7 or Mac OS or Red Hat Linux or CentOS or Fedora or OpenSUSE systems.

- Web Browser: Windows Internet Explorer or Edge or Firefox or Chrome. Mac Safari, Firefox, and Chrome. Linux Firefox or Chrome.
- PDF Viewer/Reader.
- PowerPoint Presentation Software.
- Text Editor.
- Optional Tablet and Mobile Devices: iOS and Android devices.

The student will be given a list of system and software requirements, and the student must sign to acknowledge he/she has the resources to succeed in AIU's hybrid MSCS program.

## **ADMISSION TO THE UNIVERSITY**

### **General Admission**

AIU is an equal opportunity institution. Graduation from high school or its equivalent is necessary for enrollment. AIU does not accept the ability-to-benefit test result as a replacement of a high school degree, or of a 2-year college degree or of a 4-year college degree, or of their equivalent. Students are admitted on the basis of their projected ability to meet academic standards. The university evaluates both objective and subjective data to select its students. The factors that are taken into consideration during the selection process include, but are not limited to: the potential of the candidate to successfully complete the desired program, the candidate's past academic performance record, and the amount and quality of the candidate's prior experience and training.

The university's application and selection procedures include the following requirements:

- A) Applicants must submit a completed University Application for Admission and pay a nonrefundable application fee in the form of a check or money order payable to "American Innovation University." AIU also accepts payment using [www.PayPal.com](http://www.PayPal.com), through AIU's PayPal ID.
- B) Students planning to attend AIU must submit their application material and associated documents before the deadlines posted in the academic calendar. Each trimester has a separate deadline.
- C) Submit the completed application form with attached \$75 USD application fee and mail to the Admissions Office.

### **Additional Instructions for Applicants Whose Degree is from a Non-US Institution**

Applicants must also provide:

- A) Official documentation of all courses taken and grades received (transcripts of records) from each secondary, undergraduate and postgraduate institution attended. Transcripts of records should be issued in English or must be accompanied by notarized English translations.
- B) Official certification of degrees and dates awarded, issued in the original language. Academic transcripts of records must have a seal and signature in ink from the institution's authorized official, such as a registrar.

Students holding foreign degrees must make arrangements with AIU administration to have prior credit hours evaluated for equivalency. Contact AIU for further information regarding his process.

- C) Applicants whose native language is not English must demonstrate their English proficiency by providing an official score report from the Test of English as a Foreign Language (TOEFL®), International English Language Testing System (IELTS™), or the Test of English for International Communication (TOEIC®).
- D) Applicants who have earned a degree from an institute where the language of instruction is English, (e.g. United Kingdom, Australia, Canada and New Zealand) are exempt from submitting a TOEFL®/IELTS™/TOEIC® score.

Notice: AIU does not provide visa services nor does it vouch for the status of students for purposes of a visa. The only language of instruction is English.

**Instructions for Submitting English Test Result**

Original IELTS™ scores must be submitted by mail or in person to American Innovation University. TOEFL®/TOEIC® scores may be sent directly to American Innovation University (TOEFL®/SAT institution code: 3600) or in person. Information and applications for TOEFL®, IELTS™, or TOEIC® tests may be obtained by contacting:

**TOEFL®  
Educational Testing Service  
P.O. Box 6151**

Degree	Institutional TOEFL®	Internet-based TOEFL®	IELTS™	TOEIC®
Master	525	71	6.0	680

**Princeton, NJ 08541-6151  
Website: [www.ets.org/toefl](http://www.ets.org/toefl)  
Email: [TOEFL@ets.org](mailto:TOEFL@ets.org)**

**IELTS™ INTERNATIONAL**

**825 Colorado Boulevard, Suite 112  
Los Angeles, CA 90041  
Website: [www.ielts.org](http://www.ielts.org)  
Email: [IELTS@IELTSintl.org](mailto:IELTS@IELTSintl.org)  
TOEIC®  
TOEIC Service International  
TOEIC Testing Program  
Educational Testing Service  
Rosedale Road  
Princeton, NJ 08541 USA  
Website: [www.ets.org/toeic](http://www.ets.org/toeic)  
Email: [TOEIC@ets.org](mailto:TOEIC@ets.org)**

**English Proficiency**

Applicants of American Innovation University (AIU) whose native language is not English have to demonstrate an established level of English language proficiency through one of the following tests: the TOEFL® (Test of English as a Foreign Language), the academic format of the IELTS™ (International English Language Testing System), or the TOEIC® (Test of English for International Communication), etc.

- The TOEFL® Test - Test of English as a Foreign Language. The TOEFL® test is the most widely accepted English-language test in the world.
- IELTS™ is the International English Language Testing System. It measures ability to communicate in English across all four language skills (listening, reading, writing, and speaking) for individuals who intend to study or work where English is the language of communication.
- The TOEIC® Test - Test of English for International Communication. The TOEIC® test provides reliable measurement of English proficiency and is used by hundreds of companies, government agencies, and English language learning programs.

The test must be recent; it should be within two years of the time applying. The original test scores are required to be submitted to AIU by applicants, either in person or by mail.

The following table explains the TOEFL®, IELTS™, and TOEIC® requirements at AIU. Note that there is no separate essay score on the internet-based TOEFL® as essay scores are included in the writing score. Although the internet-based TOEFL® includes a speaking component, a minimum score on the speaking section is not required.

Applicants who have not taken the TOEFL®, IELTS™, or TOEIC® test, or those who have not passed the proficiency requirements stated above, will be required

to take the TOEFL®, IELTS™, or TOEIC® at Test Centers. AIU does not provide English language services or offer an English as a Second Language (ESL) program.

The new scores must exceed the minimum required.

### **Waiving the TOEFL®/IELTS™/TOEIC® Requirements**

International applicants who have earned Bachelor's or higher degrees from English-speaking accredited institutions in the U.S., United Kingdom, Australia, Canada and New Zealand do not have to submit TOEFL®/IELTS™/TOEIC® scores.

The TOEFL®/IELTS™/TOEIC® requirement may be waived on a case-by-case basis for students who have earned a degree from a foreign institution where the language of instruction was English. Documentation that the school's language of instruction was English must be provided.

### **MSCS ADMISSION REQUIREMENTS**

All applicants must hold a Bachelor of Arts, a Bachelor of Science, or an equivalent degree from an accredited or approved college or university to be admitted to the MSCS program at AIU. All official transcript with the student's baccalaureate degree must be submitted to the university for evaluation, with a minimum GPA of 2.5/4.0.

### **Master's Transfer Requirements**

AIU will evaluate graduate academic credit for course equivalencies from institutions approved by the Bureau for Private Postsecondary Education, from institutions of higher learning accredited by agencies recognized by the United States Department of Education, and foreign institutions of higher learning. Credits earned at a foreign institution degree must be evaluated by member of National Association of Credential Evaluation Services (NACES), Association of International Credential Evaluators (AICE), or American Association of Collegiate Registrars and Admission Officers (AACRAO)'s International Education Services. Students must request that transcripts from the accredited institutions in which they have previously attended be sent to the Student Office for evaluation. The procedure for course equivalence is defined in the Evaluation of Transfer Credits. AIU will accept a maximum of 6 credits transferred for the MSCS program. All transfer course work require an overall grade point average of "B-", 2.7 on a 4.0 scale. Letter grades and GPA are not transferable.

AIU has not entered into an articulation or transfer agreement with any other college or university. AIU does not currently enroll any students pursuant to a transfer or articulation agreement with another institution, nor does it have any transfer or articulation agreements with other institutions to accept credits from AIU.

### **Evaluation of Transfer Credits**

The evaluation of academic credits will be performed by the Dean or Program Administrator. The Dean will use the syllabi from the transferring institution and the AIU syllabi to determine course equivalency. The Dean or Program Administrator will:

- Compare the course description of the syllabus of the transfer course with the course description of the syllabus of an equivalent course in AIU.
- Allow the maximum of 3 credits for a lecture course.
- Allow a lab course to be transferred only if the lab course has a lecture course that is transferred. The maximum number of credit is 1 for a lab course.
- After course equivalence is determined, only the credit is transferred. The grade from the transferred class is not used in the student's cumulative GPA.

The student has the option to petition the transfer of credits by meeting with the Dean or Program Administrator during the student's first trimester at AIU. The student must bring documentation (course syllabus) to support the challenge. After the first trimester AIU will not accept petitions for re-evaluation of the transfer of credits.

### **Award of Credit for Prior Experiential Learning**

AIU does not award credits for any prior experiential learning.

### **TUITION AND FEES**

AIU reserves the right to increase or modify any listed fees, and fees are subject to change within one trimester's notice. All AIU fees are subject to change upon approval by the Board of Trustees.

### **Tuition for Master's Programs**

Graduate Tuition	\$ 425 per credit hour
Graduate Lab Course Fee	\$ 425 per credit hour

Any lab credits earned from the 400 level courses can be counted toward the graduation requirement.

CPT Fee (equivalent to one course tuition): CPT stands for Curricular Practical Training, an optional work

experience course for current students. Credits earned from the CPT internship course cannot be counted toward the graduation requirement.

Summer Registration. It is the obligation of students to make sure that they take all the core and pre-requisite courses which are offered only during the summer trimester. Skipping a summer term might cause disruptive delays toward graduation.

**Estimated Fees**

Room/Board/Personal Living Expenses: (Approx. \$1000/month)	\$ 8,000 or more Per year
Textbooks	\$ 350 or more Per trimester
Health Insurance	\$ 200 or more Per trimester

**Other Fees and Expenses**

Registration Fee	\$ 75 per trimester
Books, Supplies, or Equipment Fee	\$ 200 per trimester
Student Association Fee	\$ 50 per trimester
Application fee (Non-refundable)	\$ 75
Deposit for Student Office Support (Non-refundable)	\$ 175
Late Registration	\$ 75
Regular Document Processing Fee	\$ 10-25
Urgent Request Fee	\$ 25
Non-Registered Student In-Out Fee	\$ 325

Official Transcript Request	
Pick Up/ Domestic Mail	\$ 15 (Each additional copy is \$10 extra.)
Priority Mail	\$ 30 (Each additional copy is \$10 extra.)
International Mail	\$ 60 (Each additional copy is \$10 extra.) (Mailing costs may be higher depending on destinations.)

An additional fee will be added for Express Delivery.

Late Payment Fee	\$ 100
Add/Drop Course Fee	\$ 25
Late Add/Drop Course Fee	\$ 50
Changing Major Fee	\$ 50
Graduation Fee	\$ 275
Student ID Card Replacement	\$ 25
Returned Check Fee (Depending on bank fees)	\$ 35 or more
Remittance in/out	\$ 50
Deferred Admission	\$ 50

STRF Fee (Non-refundable) **\$ .50**  
per every \$1,000 of institutional charges

There is a 2.75% fee for credit/debit card transactions.

Estimated Total Charges for a Period of Attendance

**Estimated Total Charges for a Period of Attendance ( Trimester )**

**MSCS Total: \$4,700**

Tuition:	\$3,825
Fees:	\$325
Textbooks:	\$350
Health Insurance:	\$200

**Estimated Total Charges for the Entire Educational Program**

**MSCS Total: \$19,050**

Tuition:	\$15,300
Fees:	\$1,550
Textbooks:	\$1,400
Health Insurance:	\$800

**Accepted Payments**

Cash, Cashier Check, Money Order, Demand Draft, VISA, Master Card, Debit Card and using [www.PayPal.com](http://www.PayPal.com) through AIU's PayPal ID, [paypal@aiuca.us](mailto:paypal@aiuca.us).

(NO PERSONAL CHECKS)

**CANCELLATION AND REFUND POLICIES**

As a prospective student, you are encouraged to review this catalog prior to signing an enrollment agreement. You are also encouraged to review the School Performance Fact Sheet, which must be provided to you prior to signing an enrollment agreement.

For detailed cancellation and refund policies, please refer to the student enrollment agreement. The following statement summarizes the policies:

**Buyer's Right to Cancel**

You have the right to cancel the enrollment agreement and obtain a refund. If the notice of cancellation is made prior to, or on, the first class session or the 7<sup>th</sup> day after enrollment, whichever is later, the institution shall issue a 100% refund less a reasonable deposit. Application fee is NON-REFUNDABLE.

Cancellation shall occur when you submit a written notice of cancellation to the university by mail, bank delivery, or telegram. The written notice of cancellation, if sent by mail, is effective when deposited in the mail properly addressed with prepaid postage.

The written notice of cancellation need not take any particular form and, however expressed, is effective if it shows that you are no longer bound by the enrollment agreement.

Refund Information: You may withdraw from a course after instruction has started and receive a pro-rata refund for the unused portion of the tuition and other refundable charges before the end of 9<sup>th</sup> week of the instruction. Starting at the 10<sup>th</sup> week of the instruction, if a student withdraws from any course, no tuition will be refunded.

**Refund Schedule**

Week of the Trimester	% of refund
1	100%
2	95%
3	90%
4	85%
5	80%
6	75%
7	70%
8	65%
9	60%
:	0%

**Student Tuition Recovery Fund**

The State of California established the Student Tuition Recovery Fund (STRF) to relieve or mitigate economic loss suffered by a student in an educational program at a qualifying institution, who is or was a California resident while enrolled, or was enrolled in a residency program, if the student enrolled in the institution, prepaid tuition, and suffered an economic loss. Unless relieved of the obligation to do so, you must pay the state-imposed assessment for the STRF, or it must be paid on your behalf, if you are a student in an educational program, who is a California resident, or are enrolled in a residency program, and prepay all or part of your tuition.

You are not eligible for protection from the STRF and you are not required to pay the STRF assessment, if you are not a California resident, or are not enrolled in a residency program.

It is important that you keep copies of your enrollment agreement, financial aid documents, receipts, or any other information that documents the amount paid to the school. Questions regarding the STRF may be directed to:

**Bureau for Private Postsecondary Education  
1747 N. Market Blvd., Suite 225  
Sacramento, CA 95834  
(916) 574-8900 or (888) 370-7589**

To be eligible for STRF, you must be a California resident or enrolled in a residency program, prepaid tuition, paid or deemed to have paid the STRF assessment, and suffered an economic loss as a result of any of the following:

1. The institution, a location of the institution, or an educational program offered by the institution was closed or discontinued, and you did not choose to participate in a teach-out plan approved by the Bureau or did not complete a chosen teach-out plan approved by the Bureau.
2. You were enrolled at an institution or a location of the institution within the 120-day period before the closure of the institution or location of the institution, or were enrolled in an educational program within the 120 day period before the program was discontinued.
3. You were enrolled at an institution or a location of the institution more than 120 days before the closure of the institution or location of the institution, in an educational program offered by the institution as to which the Bureau determined there was a significant decline in the quality or value of the program more than 120 days before closure.
4. The institution has been ordered to pay a refund by the Bureau but has failed to do so.
5. The institution has failed to pay or reimburse loan proceeds under a federal student loan program as required by law, or has failed to pay or reimburse proceeds received by the institution in excess of tuition and other costs.
6. You have been awarded restitution, a refund, or other monetary award by an arbitrator or court, based on a violation of this chapter by an institution or representative of an institution, but have been unable to collect the award from the institution.
7. You sought legal counsel that resulted in the cancellation of one or more of your student loans and have an invoice for services rendered and evidence of the cancellation of the student loan or loans.

To qualify for STRF reimbursement, the application must be received within four (4) years from the date of the action or event that made the student eligible for recovery from STRF.

A student whose loan is revived by a loan holder or debt collector after a period of non collecting may, at any

time, file a written application for recovery from STRF for the debt that would have otherwise been eligible for recovery. If it has been more than four (4) years since the action or event that made the student eligible, the student must have filed a written application for recovery within the original four (4) year period, unless the period has been extended by another act of law.

However, no claim can be paid to any student without a social security number or a taxpayer identification number.

AIU has not filed bankruptcy, is not operating as a debtor in possession, has not filed a petition within the preceding 5 years, nor has had a petition in bankruptcy filed against it within the preceding 5 years that resulted in re-organization under Chapter 11 of the United States Bankruptcy Code.

## **ACADEMIC POLICIES AND REGULATIONS**

### **Registration**

Students are required to register on the registration day specified in the University calendar. Failure to register on that day may result in loss of space in that class. Full tuition fees and all prior debts must be paid in full on or before registration day of each academic year. Matriculation is subject to the satisfactory completion of all academic requirements and the receipt of a final transcript from all undergraduate universities attended.

All onsite class sessions are held on AIU campus located at:

2010 Fortune Drive  
San Jose, CA 95131

### **Health Insurance**

A health insurance plan is mandatory for all international students. All international students must have a valid health insurance plan while enrolled at AIU. Evidence of such a plan must be provided to AIU before successfully completing enrollment.

### **Students' Academic Advising**

Students will be assigned a faculty advisor upon matriculation. Faculty advising should be considered a privilege of the academic process. This is a valuable opportunity to develop and sustain individual contacts between faculty and students on both academic and personal levels. It is the student's responsibility to meet with his/her faculty advisor at least once a trimester. If either the student or faculty member does not find the relationship helpful, either is free to seek a change. This request should be made to the Academic Dean.

## **Professional Behavior and Demeanor**

Students enrolled at AIU must demonstrate professionalism while studying at school and in their real world career. Students are expected to hold themselves to high standards of ethical conduct while they attend AIU. In particular, plagiarism and cheating are not acceptable under any circumstances. For more details, please consult the Student Handbook.

## **GRADING POLICY**

### **General**

The courses are designed to measure the students' progress by written and practical examinations. Specified objectives have been defined for each course to help the students and faculty members evaluate the degree of progress.

### **Evaluation Methods**

Overall, student performance is evaluated differently in each class using one or more of the following methods:

- A) Written examinations based on analytical or logic based inference questions, multiple choice questions, short answer questions, and essay questions.
- B) Practical or laboratory examinations including: classroom observation of laboratory projects, independent hands-on design projects, and presentation/discussion of projects.
- C) Written reports or research papers on assigned topics.

Evaluation to student's work in online classes is returned to the student within 10 days after the student's work is received by the instructor.

### **Review of Examinations**

Examinations are graded by the faculty and are usually returned to students within seven days. Questions of the examinations are kept on file for review for one year.

### **Grade Reports**

In cases when final grades are not available at grade reporting time, a grade of "I" is submitted to the Registrar in lieu of the course grade. "I" grades entered on the grade reports must be converted to student-achieved grades by the student completing the necessary requirements within two trimesters or it will be

converted to an F. An up-to-date summary of student performance is maintained in the Student Office and is available to students for review.

Final course grades are given based on the four-point letter system, as follows:

Letter Grade	Grade Points
A+	4.3
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
F	0.0
U	0.0

#### Explanation of Grading Marks:

- A:** Highest level, showing excellence
- B:** Performance is good, but not the highest level
- C:** Performance is adequate
- D:** Performance is less than adequate
- F:** Course requirements have not been met
- WF:** Withdrawal with Fail - Drop a course after the eighth week. The class credits and grade will not be used in the cumulative GPA calculation.
- I:** Incomplete - Satisfactory performance, but could not complete the course due to special circumstances. The class credits and grade will not be used in the cumulative GPA calculation.
- W:** Withdrawal - Authorization to drop a course before the end of eighth week. The class credits and grade will not be used in the cumulative GPA calculation.
- AU:** Audit – Students was enrolled on a non-credit basis. A Non-Credit course has zero credits and the grade does not count towards the cumulative GPA calculation.
- CR:** Credit by examination - Credit = grade “C” or better
- TR:** Transfer credit – Only the credits are transferred. The grade is not transferred.
- NC:** No Credit - Failure on challenge examination
- P:** Pass - Student passed the course which was offered on a pass/no-pass basis
- NP:** No pass - Performance is unsatisfactory of the course which was offered on a Pass/No pass basis.
- IP:** In progress - Performance is satisfactory, but a final grade is not yet assigned. This applies to work normally exceeding beyond one trimester

**U:** Unauthorized incomplete - The student did not withdraw from the course but failed to complete course requirements. For purposes of a grade point average, this symbol is equivalent to an “F”

**RD:** Report delayed - Indicates a grade has not yet been turned in by the instructor.

**RP:** Repeating the course; previous grade is replaced and will not count toward graduation credits or cumulative GPA.

#### Dean’s Honors

Excellence in scholastic achievement is recognized each trimester by the compilation of a Dean’s List. A MSCS student successfully completing at least 9 credit hours with grade points, with a minimum term grade point average of 3.85 or better, qualify for the Dean’s Honor List. “Dean’s Honor List” will also appear on the transcripts of students obtaining a 4.0 grade point average.

#### Incomplete Grades

In circumstances where a student is unable to complete the coursework required prior to the end of the trimester, the student may, with the instructor’s approval, file a petition to receive a grade of Incomplete. Incomplete grades will be indicated by a mark of “I” on the student’s grade report and transcript until the student either successfully completes the course requirements (at which time the “I” will be changed to a letter grade) or fails to complete the course requirements (at which time the “I” will be changed to an “F”).

An incomplete will not have class credit and grade count towards the cumulative GPA calculation in the trimester in which is given. Students have two trimesters, following the trimester for which an incomplete is given, to successfully complete any deficient coursework. The trimester extends to the last day of scheduled final examinations. Failure to complete all work within this time period will result in the student receiving a failing grade for the course.

#### Auditing Courses

Students who wish to take courses without formally enrolling in a degree program may do so on an audit basis. Students who wish to audit courses must:

- A)** File an Application for Admission and pay the admission fee (if not currently enrolled);
- B)** Demonstrate proficiency in English;
- C)** Pay applicable tuition; and
- D)** Meet attendance and other requirements as specified by the instructor.

A course which is audited will be indicated by an “AU” on the student’s transcript.

### **ACADEMIC PROGRESS**

A student’s progress through the program is based on successful completion of expected competencies.

The faculty determines if the student has demonstrated the knowledge, skills, and approach necessary to be eligible to progress to the next phase. In special instances, the faculty may convene outside of class time to consider cases relating to unusual circumstances, such as probationary or dismissal cases.

### **Attendance Policy**

Attendance in an online or onsite class is required for all students. There is a correlation between student attendance and student retention, achievement, and success. Any class or lab session missed reduces the opportunity for learning and may adversely affect a student's achievement.

If a student is absent, the student is still required to complete class assignments and the student must maintain communication with the instructor. A student failing to attend three classes is required to meet with the Academic Advisor. A student failing to attend more than four classes is required to meet with the Associate Academic Dean and the student may be withdrawn from the class, based on the decision of the Associate Academic Dean.

### **Online Attendance**

Online classes are given live, and follow the class schedule given each trimester. The LMS will record student's engagement with the course during the scheduled time for the class.

### **Onsite Attendance**

AIU takes attendance during class and requires student attendance in order for students to remain enrolled in a class. AIU requires that instructors take and report student attendance.

### **Standards of Satisfactory Academic Progress**

All students must maintain Satisfactory Academic Progress (SAP) over the course of their study at AIU. Students will undergo SAP evaluations several times during their attendance at AIU. SAP evaluations will be based upon the following criteria:

A) Every trimester, the student must maintain a cumulative GPA of 3.0 or above for graduate students.

B) After each academic year, the student’s course completion percentage must be at or above 70%. Also, the student must maintain a cumulative GPA of 3.0 for graduate students.

C) After attempting 50% of the normal program length, the student’s course completion percentage must be at or above 70%. Also, the student must maintain a cumulative GPA of 3.0 for graduate students.

Maximum program length is determined for each student at admission. Maximum program length is equal to the number of credit hours required for the student to complete the program times 1.5. The number of credits includes all transferred credits from institutions accredited by agencies recognized by the United States Department of Education.

### **Academic Warning**

The instructor of the course where a student demonstrates unacceptable performance must notify the student of such performance as soon as it becomes evident. The student will be notified that continued poor academic performance can lead to academic probation and dismissal.

Students who do not meet the Standards of Academic Progress will be placed on probation. The duration and conditions of the probationary period will be determined on an individual basis by the Academic Review Committee. The Committee may recommend remedial study and/or repetition of a unit of study.

The “D” or “U” grade and credit would have been used in the cumulative GPA calculation.

### **Academic Probation**

Should a student fail to meet the requirements set by the SAP evaluation, they will be placed on Academic Probation. Academic Probation is defined as a period of time in which a student will be kept under strict scrutiny by an academic advisor to determine if they are able to meet AIU academic requirements to remain in good standing with the university. Failure to satisfactorily complete academic probation will result in disqualification from AIU.

If a student fails to meet SAP, the following procedures must be followed:

A) Students will receive an email notice informing them that they have been placed on Academic Probation.

B) Within two weeks of receiving the email notice, students will be required to meet with an advisor to discuss their probation. Failure to do so will prevent a student from registering for classes.

C) Prior to meeting with the advisor, students must pick up the Academic Probation Letter, Academic

Probation Advising Form, and unofficial transcript from the Student Office.

- D)** At the advising session, students will be instructed on what actions they must take to clear their probation status.

The Academic Probation period is two trimesters from the trimester in which the student was placed on Academic Probation. During the probation study plan, the student will be allowed to take maximum 3 classes for the graduate programs.

After the Academic Probation period, the student must meet the SAP Evaluation criteria, or the student will be subject to dismissal.

### **Dismissal**

A student may be subject to dismissal from the program for substandard academic or professional performance, as follows:

- A)** A final grade of “F” in any course;
- B)** Any event that could result in either academic or professional probation for a student currently on academic or professional probation;
- C)** Violation of the terms of probation;
- D)** Repeated tardiness at program-scheduled activities and in meeting deadlines set by the faculty in regard to tests and/or assignments; and/or
- E)** Failing to complete the required procedures for either Voluntary Withdrawal or Leave of Absence from the university.

### **Withdraw**

Application for voluntary withdrawal from the university must be made in writing to the Academic Dean. Except in special cases, the application will be accompanied by a personal interview. Every effort should be made to assure that no misunderstanding or errors occur in the withdrawal process. Students, who leave the University without notifying the Office of the Registrar and not completing the withdrawal procedures within 30 days, will automatically be dismissed from the university. In addition, students must report to the Student Office to sign a withdrawal form before they can officially withdraw from the university. Students who do not complete this procedure will not be considered for readmission at a later date.

Readmission for students withdrawing in good standing is not assured unless it is part of the final agreement made between the Academic Dean and the withdrawing student. This final agreement must be in writing so that it is clear to all parties involved. Students who have not withdrawn in good standing may request readmission through the university’s admissions application process. The Admissions Committee will evaluate the student’s

entire academic record and make a recommendation to the Academic Dean.

### **Leave of Absence**

A student in good academic standing may request a leave of absence with the occurrence of a medical problem, serious personal problems or pregnancy.

Students requesting a leave of absence must apply in writing to the Academic Dean. In the event of a medical problem, a letter from a physician describing the condition for which the leave is requested and the estimated length of time needed for recovery must accompany the request.

After consultation with the student, the Academic Dean will decide whether or not the leave is to be granted and the conditions under which the student may return to school. A student requesting a leave of absence during, or at the end of, the academic year must complete the following:

- A)** Written request for a leave of absence;
- B)** A leave of absence form from the Registrar. After completing the student’s portion, take the form to the faculty advisor who will consult with the student, sign the form, and write a conference report for the Academic Dean’s use in considering the approval for leave;
- C)** A personal meeting with the Academic Dean to discuss the reason for the leave; and
- D)** Official exit interview with the Academic Dean, the Program Administrator, and Registrar.

When all of the above have signed the form, the Registrar will again sign the form and date it, indicating final approval. At this time, the Academic Dean or designee will send an official letter to the student indicating that the leave of absence has been approved and specifying the terms of the leave.

If the leave of absence is approved, the official date of the leave of absence will be the original date of receipt of the student’s request and any tuition charged will be in accordance with the institution’s refund policy. Leave of absence requested for a full academic year may be for one year only with expected reinstatement scheduled at registration for the following year. Leave of absence requested after registration for any given academic year may be granted for a period not to exceed the number of months remaining until the registration date for the next academic year.

It is the student’s responsibility to keep the Registrar informed of any change of address while on a leave of absence.

## **Notice Concerning Transferability of Credits and Credentials Earned at our Institution**

The transferability of credits you earn at AIU is at the complete discretion of an institution to which you may seek to transfer. Acceptance of the degree you earn in the educational program is also at the complete discretion of the institution to which you may seek to transfer. If the credits and degree that you earn at this institution are not accepted at the institution to which you seek to transfer, you may be required to repeat some or all of your coursework at that institution. For this reason, you should make certain that your attendance at this institution will meet your educational goals. This may include contacting an institution to which you may seek to transfer after attending AIU to determine if your credits and degree will transfer.

### **EDUCATIONAL RECORDS**

The Family Educational Rights Act grants students significant rights of access to their records. This Act also protects the privacy of the student records and requires the University to inform students of all their rights and safeguards. The following explains the various sections of the Act.

Students may gain access to any written records directly concerning them by asking the official (the Registrar) holding the records. Where a record contains information on more than one student, students requesting inspection must be informed about the information pertaining to them. The student does not have the right to inspect personally such records, as this would violate the privacy of another student.

There are some records to which the student has no access. These are: (1) financial records of parents; (2) confidential letters and recommendations written prior to January 1, 1975; (3) confidential letters and recommendations for which a waiver of rights to access has been assigned, provided the student is given the names of those writing letters (there are three areas in which a waiver may be signed - admissions, employment, and honors); and (4) doctors' and psychiatrists' records - which, however, may be reviewed by the students' own physicians.

Students have the right to the interpretation and explanation of all records subject to review. Furthermore, the subject matter of the files can be challenged directly with the official holding them. If students are not satisfied with the explanation or reach an impasse with the record holder, they have the right to appeal the case to the Academic Dean, who has been designated as the hearing officer.

In addition, students have the right to copies of their records. The student may, however, be charged for this

service, but the amount cannot exceed the actual cost of producing them.

The Act also entitles students to the privacy of their records. Only material classified as "directory" information can be released without student consent. Directory information, as defined by AIU, includes the student's name, address, telephone number, school of enrollment, periods of enrollment, degree awarded and honors, field of study, and date or place of birth. With reasonable notice, students can have any or all of the information withheld.

However, the Act does allow persons serving in official capacities to have access to student records. These include: (1) University officials who have a legitimate interest, i.e., those performing their official duties; (2) officials of other universities in which the student seeks enrollment, provided the student is given notice and the opportunity to review the records sought; (3) Government officials acting in their legitimate functions; (4) those persons needing them in connection with a student's application for, or receipt of, financial aid; (5) organizations conducting surveys, provided that the information will not reveal the student's name, and when the information is no longer necessary it will be destroyed; (6) accrediting organizations; and (7) those persons named in a judicial order.

Students may consent to have others review their files. To protect students, a record will be kept of those granted access, other than AIU officials. Such records will be maintained for each file reviewed.

The university will maintain student transcripts permanently for each student, whether or not the student completes the educational service.

### **RECORD KEEPING**

The Custodian of Records for the student academic records is the Registrar.

#### **1. Required Student Records**

AIU shall maintain the following records for each enrolled student:

- Student's name.
- Student's physical address.
- Student's email address.
- Student's telephone number.

AIU shall maintain, for each student granted a degree by that institution, permanent records of all of the following:

- The degree granted and the date on which that degree was granted.
- The courses and units on which the degree was based.

- The grades earned by the student in each of those courses.

## 2. Required Institutional Records

AIU shall maintain, for a period of not less than five years, at its principal place of business in this state, complete and accurate records of all of the following information:

- The educational programs offered by AIU and the curriculum for each.
- The names and addresses of the members of the institution's faculty and records of the educational qualifications of each member of the faculty.
- Any other records required to be maintained by BPPE, including, but not limited to, records maintained pursuant to Article 16 of the California Private Postsecondary Education Act of 2009.

## 3. Student Records

AIU shall maintain a file for each student who enrolls whether or not the student completes the educational service. In addition to Required Student Records information, the file shall contain all of the following pertinent student records:

- Written records and transcripts of any formal education or training, testing, or experience that are relevant to the student's qualifications for admission or the award of credit or acceptance of transfer credits including the following:
  - Verification of high school completion or equivalency or other documentation establishing the student's ability to do college level work, such as successful completion of an ability-to-benefit test.
  - Records documenting units of credit earned at other institutions that have been accepted and applied by the institution as transfer credits toward the student's completion of an educational program.
  - Grades or findings from any educational achievement used for admission or college placement purposes.
- Personal information regarding a student's age, gender, and ethnicity if that information has been voluntarily supplied by the student.
- Copies of all documents signed by the student, including contracts, instruments of indebtedness, and documents relating to financial aid.
- Records of the dates of enrollment and, if applicable, withdrawal from the institution, leaves of absence, and graduation.
- A transcript showing all of the following:

- The courses or other educational programs that were completed, or were attempted but not completed, and the dates of completion or withdrawal.
- Credit for courses earned at other institutions.
- Credit based on any educational achievement used for admission or college placement purposes.
- The name, address, website address, and telephone number of the institution.
- For independent study courses, course outlines or learning contracts signed by the faculty and administrators who approved the course.
- The dissertations, theses, and other student projects submitted by graduate students.
- A copy of documents relating to student financial aid that are required to be maintained by law or by a loan guarantee agency.
- A document showing the total amount of money received from or on behalf of the student and the date or dates on which the money was received.
- A document specifying the amount of a refund, including the amount refunded for tuition and the amount for other itemized charges, the method of calculating the refund, the date the refund was made, and the name and address of the person or entity to which the refund was sent.
- Copies of any official advisory notices or warnings regarding the student's progress.
- Complaints received from the student.

## 4. Maintenance of Records

AIU shall maintain for a period of 5 years the pertinent student records from the student's date of completion or withdrawal. A record is considered current for three years following a student's completion or withdrawal. A record may be stored on microfilm, microfiche, computer disk, or any other method of record storage only if all of the following apply:

- The record may be stored without loss of information or legibility for the period within which the record is required to be maintained.
- For a record that is current, AIU maintains functioning devices that can immediately reproduce exact, legible printed copies of stored records. The devices shall be maintained in reasonably close proximity to the stored records at AIU's primary administrative location in California. For a record that is no longer current, AIU shall be able to reproduce exact, legible printed copies within two (2) business days.
- AIU has personnel scheduled to be present at all times during normal business hours who know

how to operate the devices and can explain the operation of the devices.

AIU's records will be stored in a safe and secure manner. All information and documents in paper form that are within the retention period are kept secured in fire resistance cabinets in a combination locked records room, located in the AIU Administrative building. The records room remain closed and locked at all times. Unauthorized personnel may not enter the records room. Documents removed from the records room must be maintained in a secured manner until its prompt return.

AIU shall maintain permanently for each student, whether or not the student completes the educational service, a AIU transcript consisting of the following information:

- The degree granted, the date of admission, and the date on which the degree was granted.
- The trimester, courses within the trimester, and units in each of the courses.
- The grades earned by the student in each of the courses.

## **STUDENT SERVICES**

The university seeks to enrich the quality of student life by providing a variety of academic and non-academic counseling, referral, professional development, recreational and social opportunities through the Office of Student Affairs.

### **Academic Counseling**

For students who want additional instruction, the Student Office has established the "AIU Student Learning Center," which can help students arrange either private or small group tutorial sessions.

The Student Learning Center offers more informal counseling sessions. It is to help students do well on their class work. At the same time, it also helps students identify and pursue their career goals, providing advice and suggestions on non-classroom aspects of the academic process including realistic career recognition and selection, time and workload management, stress reduction and strategies for dealing with academic fatigue or burnout.

### **Non-Academic Counseling and Referrals**

Recognizing that life in general, and academic life in particular, is filled with complexity and confusion, the Student Office provides a wide array of counseling and referral services designed to assist students with their non-academic concerns, including conflict resolution, as well as referrals to housing services, health services and legal services.

### **Professional Development**

To assist students in locating and securing employment opportunities, the Student Office offers several workshops designed to cultivate students' professional development, including, resume reviewing, interview coaching, and an employment bulletin service.

### **Recreational and Social Opportunities**

The university seeks to foster a sense of community among the members of the university by encouraging social interactions and experiences. The university primarily pursues this goal through two university-sponsored organizations: The Student Association and the Alumni Association.

### **Student Association and Alumni Association**

The Student Association and Alumni Association seek to encourage the development of university community by organizing and providing recreational and social opportunities designed to unite students by introducing them socially to one another and to enrich their academic experience by providing access to local cultural and recreational venues.

### **Housing**

The university currently provides no housing for students. The university, through the Office of Student Affairs, can assist students in locating suitable housing in the area. The university, however, is not responsible for locating or providing housing for its students.

Housing near the university is not difficult to find. However, rent for one bedroom apartments in the vicinity of the university currently average about \$1,500 per month. Some of our students have found housing by renting rooms in private residences. Rooms typically range from \$450 to \$700 per month, and usually include full privileges for the kitchen, laundry, living room and other common areas of the residence. The Student Office can provide assistance to students interested in exploring this option for securing housing.

### **Student Financial Assistance**

American Innovation University does not participate in federal or state financial aid. A student deciding to enroll in an unaccredited institution is not eligible for federal financial aid programs. Be aware of the following information on loans:

- If a student obtains a loan to pay for an educational program, the student will have to repay the full amount of the loan plus interest, less the amount of any refund.
- If a student receives federal student financial aid funds, the student is entitled to a refund of the money not paid from federal financial aid funds.

However, there are some available positions of on-campus jobs available every trimester. Office Assistant, Teaching Assistant/Grader, Tutor, and Library Assistant positions available to qualified graduate level students. Selection will be based on academic achievements, course requirements, and prior experiences, as well as the school's current budget availability during each trimester.

### **UNIVERSITY POLICY ON ACADEMIC FREEDOM**

American Innovation University is dedicated to the pursuit of truth and acquisition of knowledge through the unfettered opportunity to engage in research and intellectual exchange. Consequently, the university considers the following academic freedoms essential to the fulfillment of its mission:

- A) The right to engage in scholarship and to form academic opinions;
- B) The right to equal treatment under university policies and to equal access to university resources;
- C) The right of access to course and degree requirements and expectations;
- D) The right to objective analysis based solely on the quality of academic performance;
- E) The right to an academic environment free of harassment and/or intimidation; and
- F) The right to engage in free expression, subject only to reasonable regulation concerning time, place and manner.

### **UNIVERSITY STATEMENT ON STUDENTS' RIGHTS**

The university considers the following rights to be inherent to the pursuit of academic excellence and intellectual enterprise. Consequently, the university endeavors to uphold and honor the following on behalf of its students:

- A) The right to academic freedom;
- B) The right to administrative integrity;
- C) The right to an environment conducive to intellectual pursuit;
- D) The right to equal access to university facilities and equal treatment under university policies;

- E) The right to petition for redress of grievances against other individuals or the university; and
- F) The right to privacy and confidentiality of personal and academic records as provided by law.

### **UNIVERSITY STATEMENT ON STUDENTS' OBLIGATIONS**

The university considers the following standards of conduct to be inherent in its mission of providing an environment of academic excellence and free academic exchange. Students violating these standards are acting in contravention to their basic obligation to maintain and uphold the university's fundamental mission and may therefore be subject to official sanction.

At all times, students are under the obligation to uphold and maintain:

#### **The Principle of Academic Integrity**

All students are expected and required to show the highest respect for the principle of academic honesty concerning all information provided to the university and in all academic performance undertaken while subject to the university's oversight. At a minimum, demonstrated respect for the principle of integrity requires the student at all times to:

- A) Act with complete candor in furnishing the university with required information; and
- B) Act with complete honesty while engaged in intellectual inquiry, refraining at all times from the commission of plagiarism, fraud, bribery or sabotage upon the university or upon any member or representative of the university community.

#### **The Principle of Academic Community**

All students are expected to act at all times with the deepest respect for the larger academic community of which he or she is a member. At a minimum, demonstrated respect for the principle of academic community requires that the student refrain at all times from engaging in:

- A) Harassment of students or other members of the university community;
- B) Hazing, belittlement, oppression or intimidation of students or other members of the university community;
- C) Misuse, destruction, sabotage or improper conversion of university property or the personal property or work product of others;
- D) Possession on campus of firearms, dangerous chemicals, explosives or other dangerous or proscribed substances or articles;

- E) Objectionable behavior, including the failure to adhere to official or reasonable requests made by authorized members of the university community or the disruption or impairment of university functions or programs or other students' rights to an intellectual environment conducive to academic performance; and
- F) Criminal conduct which affects the university or adversely affects the participation or suitability of the student as a continuing member of the university community.

### **The Principle of Academic Effort**

All students are expected to act with respect for themselves and for the academic pursuits in which they are engaged. At a minimum, demonstrated respect for the principle of academic effort requires that the student:

- A) Maintain at all times the minimum grade point average (GPA) required for successful performance in the student's particular field of study; and
- B) Maintain at all times the minimum attendance requirement and all applicable deadlines for all courses and projects in the student's particular field of study.

### **Change of Grade**

A change of grade may be made only in the case of a declared clerical or other administrative error, except as indicated below. The definition of a clerical error is an error made by the instructor or by an assistant in calculating or recording the grade.

An appeal with the Grade Examination Application form for a change of grade must be initiated by the student and must first be approved by the instructor and the Academic Dean. The instructor must also submit the Grade Change form to be approved by the Academic Dean before it can be accepted by the Student Office. An appeal for a change of grade must be initiated as soon as possible, within two trimesters following the trimester that the incorrect grade was assigned, in order to ensure that proper documentation is available. The grade will not change until the conclusion of the appeal process is finished. When new grade is issued, old grade will be removed. Only new grade will count toward GPA calculation.

### **NON-DISCRIMINATION POLICY**

American Innovation University is an equal opportunity institution of higher learning that does not discriminate on the basis of race, color, religion, national origin, age, sex, sexual orientation, disability or handicap, disabled veteran's, or Vietnam era veteran's status. This policy applies to all employment practices, admission of students, educational programs and activities.

### **UNIVERSITY POLICY ON SEXUAL AND DISCRIMINATORY HARASSMENT**

American Innovation University is committed to the fostering of an atmosphere of uncompromising academic excellence and unfettered academic inquiry. Subversion of these standards through the harassment of students is in contradiction to the university's fundamental mission and such harassment is therefore absolutely prohibited.

#### **Sexual Assault**

Assault is defined as the unprivileged, non-consensual touching of another person in any manner which would prove offensive to a reasonable person. Students and university personnel are strongly encouraged to immediately report any instances of assault to both university administration and appropriate law enforcement agencies.

#### **Sexual Harassment**

Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors and other verbal, nonverbal or physical conduct of a sexual nature directed at any member of the campus community by any other member of the community, whether student, faculty, administrator or other university employee, resulting in unreasonable interference with an individual's enjoyment of the university environment and/or with the performance of his or her academic or employment duties.

Any harassment, threat or offer by any employee of the university to condition any aspect of a student's academic performance, reputation or standing upon the provision of sexual favors is prohibited.

Any other harassment of any member of the campus community resulting in the creation of an offensive, intimidating or hostile environment is similarly prohibited.

#### **Discrimination**

Discriminatory harassment is defined as intimidation through the use of personal vilification and/or physical violence based upon an individual's race, gender, creed, religion, disability, national or ethnic origin, marital status or sexual orientation. Speech or other conduct constitutes personal vilification if it is: A) intended to intimidate or stigmatize a specific individual or group of individuals on the basis of any of the preceding categories; B) is addressed directly to the individuals whom it insults or stigmatizes; and C) makes use of "fighting" words or nonverbal symbols. Fighting words or nonverbal symbols are those which are inherently

provocative and inflammatory such that they inflict injury by their very expression or tend to incite an immediate breach of peace.

Students with questions regarding the university's policies on sexual or discriminatory harassment or with any complaints concerning possible instances of sexual or discriminatory harassment should contact the appropriate university administrator.

## **GRIEVANCE PROCEDURE FOR STUDENTS**

### **Disciplinary Action**

Investigations into allegations of misconduct or other violations of official university policy are subject to a judicial hearing presided over by a judicial board or a judicial officer as appointed by the university president. Allegations of misconduct which are deemed to be supported by a preponderance of the evidence presented during the hearing may result in the imposition of judicial sanction. Allegations of misconduct which are violations of local, state or federal statute may also result in formal criminal or civil proceedings.

### **Judicial Hearings**

Upon the credible presentation of an allegation of misconduct, the president of the university will appoint, according to his or her discretion and the dictates of fairness and justice, a judicial officer or a judicial panel consisting of interested members of the university community having the wisdom and temperament necessary for conducting a fair hearing and rendering a fair decision. Upon appointment, the judicial officer or panel will convene a judicial hearing to examine the circumstances surrounding any of the following situations:

- A) Allegations of student misconduct;
- B) Allegations of administrative misconduct;
- C) Allegations of faculty misconduct;
- D) Allegations of student-student harassment;
- E) Allegations of sexual or discriminatory harassment;
- F) Allegations of observed misconduct (third-party accuser).

Upon the conclusion of a hearing, the student or other party accused of misconduct shall possess, subject to the dictates of all relevant law and the dictates of fairness and justice, the following rights:

- A) The right to be present during the hearing;
- B) The right to confront accuser and witnesses;
- C) The right to examine and challenge evidence;
- D) The right to appoint an advocate to argue on one's behalf; and

- E) The right to present evidence and call witnesses on one's own behalf.

At the conclusion of the hearing, the judicial officer or panel will rule whether a preponderance of the evidence presented during the hearing supports the allegation of misconduct. If the evidence fails to support the allegation, the party accused of misconduct is exonerated and will not be subject to further sanctions. No record of the accusation shall be placed in the student or personnel file of the accused party. If the evidence is deemed sufficient to support the allegation, the judicial officer or panel shall choose an appropriate sanction as determined by the nature and seriousness of the offense.

Should the student or other party accused of misconduct object to:

- A) The judicial officer or the composition of the judicial panel;
- B) The preservation of his or her rights during the hearing; or
- C) The fairness of the final judgment

A petition of appeal specifically detailing the appellant's objections may be made directly to the president of the university, who shall approve or deny the petition based on the substance of the allegations. Should the petition be approved, the president may order a reconstitution of the judicial panel or a rehearing, as required by the dictates of justice and fairness.

If a student is dissatisfied with the treatment under the university's judicial system, a complaint can be made to the following organizations:

**Bureau for Private Postsecondary Education (BPPE):**  
**Mailing Address:**  
P.O. Box 980818  
West Sacramento, CA 95798-0818  
(916) 574-7720

**Physical Address:**  
1747 N. Market Blvd., Suite 225  
Sacramento, CA 95834  
(916) 574-8900  
(888) 370-7589

**Web site:** [www.bppe.ca.gov](http://www.bppe.ca.gov)  
**E-mail:** [bppe@dca.ca.gov](mailto:bppe@dca.ca.gov)

### **Judicial Sanction**

Upon the determination that an allegation of student misconduct is supported by a preponderance of submitted evidence, the judicial board or judicial officer may sanction the offending student in a manner consistent with the seriousness of the offense and consonant with the range of judicial sanctions permitted by the university:

- A) Disciplinary probation. No permanent record of the misconduct will be placed in the student file. However, a repeated violation may result in imposition of more serious sanctions.
- B) Written reprimand. A written account of the incident to be placed in the student's file and made available to others consistent with applicable law. The student thereafter is ineligible to hold office or other leadership positions in campus organizations.
- C) Educational sanction. The student is required to undertake a specified program or course of study within a determined time frame. Failure to successfully complete the program may result in the imposition of more serious sanctions.
- D) Loss of privileges. Restriction or prohibition on use of or access to selected university facilities or resources.
- E) Restitution. Repayment of monetary damages incurred by the university as a result of misconduct, or requirement of equivalent compensatory service to either the university or a university-designated community organization.
- F) Interim suspension. The student placed on interim suspension will be required, as a matter of public safety or for the good of the academic community, to leave the university pending the final judgment of a judicial hearing.
- G) Academic probation. The student placed on probation must meet specified academic requirement(s) within a determined time frame to maintain continued eligibility for and participation in university programs.
- H) Academic suspension. The student placed on suspension will be required to leave the university for a determined period of time, after which application for readmission may be made.
- I) Academic expulsion. The student placed under expulsion will be required to permanently leave the university and may not, except under exceptional circumstances to be determined by the president or his or her designees, apply for readmission.
- J) Criminal or civil complaint. Misconduct of a particularly egregious nature may result in the university seeking formal legal redress under applicable law within the court of law relevant to the offense.

## **GRADUATION REQUIREMENTS**

### **General University Requirements**

Students seeking a MSCS degree from American Innovation University must complete specific requirements as determined by the faculty, the Board of Trustees and the State of California.

The requirements for graduation include all of the following:

- A) Completion of minimum 30 credit hours, 15 credit hours of Computer Science Graduate core classes and 15 credits hours of electives.
- B) Meet the minimum cumulative GPA requirement for graduation; 3.0 out of 4.0 grading scale.
- C) Faculty approval.
- D) Filing of petition for graduation.
- E) Administrative clearance.

### **Bulletin Requirements**

A student's graduation requirements are dictated by the terms of the catalog applicable to the trimester in which the student enrolls in the university as a degree seeking student. Students who exit the university for a full trimester or longer and choose to return to AIU are subject to the terms of the catalog in effect at the time of reentry. Students may change the terms of their graduation requirements according to the catalog currently in effect by filing a petition and paying a fee. Should courses required for graduation at the time of a student's entry be discontinued, the university will designate courses to serve as effective substitutions.

### **Minimum Number of Credit Hours**

Students must complete an appropriate number and distribution of credit hours to earn a degree.

*Unit of credit per clock hour:* AIU utilizes the trimester system. Each class is assigned a specific number of credits according to the lecture or lab hours spent. For lab sessions, 1 credit hour equals 15 lecture hours, a total of 30 lab hours. One class hour of teaching or 1 unit of credit hour is 60 minutes in length for each week of a 15-week trimester. Class sessions should equal credit hours multiplied by 60 minutes each week. For example, a 3 credit hour course should meet for a period of 180 minutes each week. In addition, students are expected to have 6 hours of study workload outside the lecture per week. Students earn 3 credits after successfully completing the course work for 15 weeks.

### **Checklist of Requirements**

- A) Successful completion of all coursework listed in the study plan.
- B) GPA (Grade Point Average) of 3.0 or above for MSCS students.
- C) All tuition and fees must be paid.
- D) Application for graduation and graduation fees are paid.
- E) Satisfactory completion of English Proficiency.

### **Faculty Approval**

To graduate, students must demonstrate that they have conducted themselves in a professional and ethical

manner according to the standards of student conduct throughout their course of study at the university. Students subject to unresolved allegations or pending discipline concerning breaches of student obligation or university policy may be denied approval for graduation until such time as pending allegations or disciplinary actions against the student are resolved.

### Petition to Graduate

Upon registering for the final trimester of study, or at any time within the trimester proceeding the last trimester, a student intending to graduate upon the completion of that trimester must file a petition for graduation with the registrar and pay the required graduation fee. Upon receipt of the petition, the Registrar will prepare a deficiency declaration outlining any remaining courses and other obligations needed to successfully accomplish the student's program of study. It is important that the student successfully address any deficiencies before the end of the last trimester. The petition will be either approved or disapproved depending on the student's success in resolving any deficiencies in the last trimester.

Estimated deadlines for filing the application are:

Fall Trimester	November	1
Spring Trimester	March	1
Summer Trimester	July	1

A fee of \$275 is required. Please also check AIU website and/or announcement boards for any changes to the deadlines.

### Administrative Clearance

To obtain approval to graduate, a student must clear any outstanding debts owed to the university. Failure to do so will result in the denial of a student's petition to graduate for as long as a balance owed to the university remains outstanding.

### Definitions of Subject Acronyms

CE: Computer Engineering  
 CS: Computer Science  
 MATH: Mathematics

**Undergraduate Preparation:** classes of 100, 200, 300, and 400 series

**Graduate Division:** Graduate level classes of 500 and 600 series

**Graduate Standing:** Student has been admitted to graduate program

### MSCS PROGRAM

AIU offers a graduate program in Master of Science in Computer Science.

### Master of Science in Computer Science (MSCS)

*Program objective:* The MSCS program provides students with a strong theoretical background and practical experience in keeping current with the high tech trends and state-of-the-art technologies in Silicon Valley. Special topics are offered to introduce the latest developments and issues in both academic research and industry application areas. State-of-the-art hardware equipment and software tools currently used by most companies in Silicon Valley are used in the class.

*MSCS Program Student Learning Outcomes:*

- **Critical Thinking:** Apply critical thinking skills to analyze computing issues and problems, experiment with new approaches, and develop solutions.
- **Communication:** Clearly and effectively present the designs, progresses, and outcomes of computer hardware and software projects in written and oral forms.
- **Quantitative Reasoning:** Apply computer science methodologies and quantitative analysis to analyze quantitative computing problems and derive proper solutions.
- **Information literacy:** Explore and utilize various sources of information to research and develop hardware and software solutions.
- **Teamwork:** Work effectively and collaboratively as a leader or team member to deliver quality products at companies and institutions.
- **Problem Solving:** Analyze and utilize information to contribute to the research and development of algorithms and products in all areas subject to computerization.
- **Specialized Knowledge:** Demonstrate advanced knowledge of and critical insight into the theories, principles, and practices in the field of computer science.

### Undergraduate Preparation

Students with a Bachelor's degree in Computer Science must have taken courses in the following areas or students who do not have a Bachelor's degree in Computer Science must demonstrate competency in the following areas:

<b>Mathematics</b>		<b>15 credits</b>
MATH200	Calculus I	3 credits
MATH202	Calculus II	3 credits
MATH206	Discrete Mathematics	3 credits
MATH208	Probability Theory and Statistical Methods	3 credits
MATH214	Linear Algebra	3 credits
<b>Computer Science</b>		<b>23 credits</b>

CS200	Introduction to Computer Science	3 credits
CS300	Data Structures	3 credits
CS306	UNIX/Linux Programming	3 credits
CS400	Operating Systems	3 credits
CS420	Introduction to Database Systems	3 credits
CS430	Object-Oriented Programming	3 credits

CS596-023	Wireless Communication	3 credits
CS596-025	Theory of Computation	3 credits
CS596-026	OpenStack Cloud Architecture	3 credits
CS596-030	Internet of Things	3 credits

Electives include special topics, offered to introduce the latest developments and issues in both academic research and industry application areas.

### Graduate Level Requirements      30 credit hours

*Required credits:* All MSCS students must complete coursework in the following areas with a minimum of 30 credit hours required:

- Computer Science Graduate Core:      15 credits
- Electives:      15 credits

The details are shown in the table below.

<b>Computer Science Graduate Core</b>		<b>15 credits</b>
CS440M	Computer Networks I	3 credits
CE450M	Computer Architecture I	3 credits
CS500	Operating System Design	3 credits
CS502	Design & Analysis of Algorithms	3 credits
CS520	Database System Principles	3 credits
<b>Graduate Electives</b>		<b>Minimum 15 credits</b>
CS510	Artificial Intelligence	3 credits
CS511	Machine Learning	3 credits
CS512	Deep Learning	3 credits
CS513	Reinforcement Learning	3 credits
CS514	Large Language Model	3 credits
CS515	Business Intelligence and Data Warehousing	3 credits
CS516	Data Science	3 credits
CS517	MATLAB for Machine Learning	3 credits
CS518	Data Mining and Big Data	3 credits
CS519	Web Data Mining	3 credits
CS522	Database Administration	3 credits
CS540	Computer Networks II	3 credits
CS542	Network Management	3 credits
CS545	Network Security	3 credits
CS546	Network Design and Analysis	3 credits
CE550	Computer Architecture II	3 credits
CS560	Software Engineering	3 credits
CE562	Embedded Software Design	3 credits
CS562	Software Quality Assurance	3 credits
<b>Graduate Special Topic Electives</b>		
CS596-015	Cloud Computing	3 credits
CS596-018	Computer Performance Evaluation	3 credits

### Preparing for Licensure

The MSCS program is not designed to lead to positions in a profession, occupation, trade, or career field requiring licensure in California.



## STANDARD OCCUPATIONAL CLASSIFICATION (SOC)

Based on United States Department of Labor – Bureau of Labor Statistics, the SOC for MSCS are:

<b>2018 SOC Code</b>	<b>SOC Title</b>	<b>SOC Direct Match Title</b>
11-3021	Computer and Information Systems Managers	Chief Technology Officer Information Technology Systems Director Management Information Systems Director
13-1151	Training and Development Specialists	Computer Software Training Specialist Computer Training Specialist
15-1211	Computer Systems Analysts	Applications Analyst Data Processing Systems Analyst Information Systems Analyst Systems Architect
15-1212	Information Security Analysts	Computer Security Specialist IT Risk Specialist Network Security Analyst
15-1221	Computer and Information Research Scientists	Computational Theory Scientist Control System Computer Scientist Programming Methodology and Languages Researcher
15-1231	Computer Network Support Specialists	Network Diagnostic Support Specialist Network Support Technician Network Technician
15-1232	Computer User Support Specialists	End-User Support Specialist Help Desk Technician IT Support Specialist
15-1241	Computer Network Architects	Computer Network Engineer Network Designer Network Developer
15-1242	Database Administrators	Database Programmer Database Security Administrator
15-1243	Database Architects	Data Architect Data Integration Specialist Data Warehousing Specialist Database Developer
15-1244	Network and Computer Systems Administrators	Network Analyst Network Coordinator Wide Area Network Administrator
15-1251	Computer Programmers	Applications Programmer Computer Language Coder IT Programmer Systems Programmer
15-1252	Software Developers	Computer Applications Engineer Computer Systems Engineer Mobile Applications Developer Software Applications Architect Software Engineer Systems Software Developer
15-1253	Software Quality Assurance Analysts and Testers	Applications Tester Software Quality Assurance Technician Software Quality Control Specialist Software Quality Engineer Software Test Engineer
15-1254	Web Developers	Intranet Developer Web Applications Developer Web Architect
15-1255	Web and Digital Interface Designers	Digital Designer

		Graphic Web Designer Web Content Specialist
15-1299	Computer Occupations, All Other	Computer Console Operator Computer Laboratory Technician Data Center Operator
15-2051	Data Scientists	Business Intelligence Developer Data Analytics Specialist Data Mining Analyst Data Visualization Developer
27-3042	Technical Writers	Documentation Writer Specifications Writer



## COURSE DESCRIPTIONS

### Definitions of Subject Acronyms

CE: Computer Engineering  
CS: Computer Science  
MATH: Mathematics

### Course Numbers

Course Number Prefix indicates each course level.

#### **400-499 Graduate Mezzanine Courses**

Courses with these numbers are for graduate students.

#### **500-699 Graduate Courses**

Courses with these numbers are for graduate students only.

### Course Numbers Convention

Course Number Suffix indicates each course in the area of specialization.

#### **Computer Science and Computer Engineering**

00-19: Computer Science Introduction/  
Fundamental/Operating Systems  
20-29: Databases  
30-39: Programming  
40-49: Networks  
50-59: Computer Engineering Introduction/  
Fundamental  
60-69: Software Systems/Embedded Systems  
70-79: Board/Chip Hardware Systems  
80-89: Others

#### **Special Courses**

91-92: Curricular Practical Training Project  
96: Special Topics  
97: Thesis  
98: Projects/Research  
99: Independent Studies

### Lab Courses

Lab courses designated by an "L" are not considered a course variation.

## COMPUTER SCIENCE GRADUATE MEZZANINE COURSES

#### **CS440M Computer Networks I**

*3 credit hours (3 hours of lecture)*

Computer networks form the backbone of technology

in the information age. This course is a comprehensive technical introduction to the increasingly important and exciting field of computer networking. It covers the theory and practice of essential computer network hardware, architecture and protocols. Topics include: signal transmission; Fourier analysis, modulation, and multiplexing; OSI reference model; Media Access Control; error detection; flow control; error control; congestion control; routing and network applications.

*Pre-requisite: None*

#### **CE450M Computer Architecture I**

*3 credit hours (3 hours of lecture)*

The goal of this course is to provide the students with a working knowledge of how computers operate and the general principles that affect their performance. The topics of this course include an in-depth presentation on major functional units of small to medium-scale digital computers, on machine instruction set characteristics, pipelining and caching, design of arithmetic and logic data path, and the detailed control units. The key aspects of CPU performance, RISC processor design and instruction-level implication will also be addressed.

*Pre-requisite: None*

## COMPUTER SCIENCE GRADUATE COURSES

#### **CS500 Operating System Design**

*3 credit hours (3 hours of lecture)*

The course covers the internals of the different Operating Systems subsystems including: Process Mgmt, Threads and SMP, Concurrency Control, Memory Mgmt, Scheduling, I/O Mgmt and Disk Scheduling, File Mgmt, and Security threats and techniques to handle it.

*Pre-requisite: CS400 Knowledge of development environment on UNIX or LINUX operating system, editing, compiling, and debugging on UNIX or LINUX.*

*Co-Requisite: Background on editing, compiling and debugging C programs on Linux or UNIX*

#### **CS502 Design and Analysis of Algorithms**

*3 credit hours (3 hours of lecture)*

An algorithm is an effective method for solving a problem expressed as a finite sequence of instructions. This course provides students with balanced introduction on computational models for asymptotic time-space complexity analyses as well as algorithmic design techniques with performance and cost implications. Topics include: growth of functions, recurrences, probabilistic analysis and randomized algorithms, sorting algorithms, binary search trees, red-black trees, dynamic programming, greedy algorithms, B-trees, heaps, graph algorithms, minimum spanning trees, shortest paths, maximum flow, sorting networks.

*Pre-requisite: CS300 or CS430*

### **CS510 Artificial Intelligence**

*3 credit hours (3 hours of lecture)*

Artificial Intelligence (AI) seeks to understand the mechanisms underlying thought and intelligent behavior, with a particular focus on their embodiment in machines. Core topics include the integrating perspective of intelligent agents and how such systems can engage in: search and problem solving; symbolic and probabilistic knowledge representation and reasoning; planning; and machine learning. The course introduces both basic concepts and algorithms, and explores how to apply them in the construction of systems that can interact intelligently with complex environments.

*Pre-requisite: CS300 and CS430 (or equivalent)*

### **CS511 Machine Learning**

*3 credit hours (3 hours lecture)*

This course introduces the fundamentals of Machine Learning using the Python programming language. There will be a practical introduction to the Python programming language syntax and data structures. This course is divided into five parts.

Part 1: Supervised Vs. Unsupervised Learning.

Part 2: Recommender or Recommendation System.

Part 3: Data Mining and Data Handling.

Part 4: Big Data.

Part 5: Experimental Design.

*Pre-requisite: CS510 (or equivalent)*

### **CS512 Deep Learning**

*3 credit hours (3 hours lecture)*

Deep Learning technique is a subset of Machine Learning in artificial intelligence, influenced by the way a human think and learn. This course covers the fundamental methods of Deep Learning or Artificial Neural Networking, using TensorFlow and PyTorch. TensorFlow is an open-source Deep Learning library developed by Google. PyTorch is an open-source Machine Learning library developed by Facebook's AI Research Lab.

*Pre-requisite: CS510 (or equivalent)*

### **CS513 Reinforcement Learning**

*3 credit hours (3 hours lecture)*

This course is about algorithms for deep reinforcement learning – methods for learning behavior from experience, with a focus on practical algorithms that use deep neural networks to learn behavior from high-dimensional observations. Topics will include methods for learning from demonstrations, both model-based and model-free deep RL methods, methods for learning from offline datasets, and more advanced techniques for learning multiple tasks such as goal-conditioned RL, meta-RL, and unsupervised skill discovery.

*Pre-requisite: CS510 (or equivalent)*

### **CS514 Large Language Model**

*3 credit hours (3 hours lecture)*

Large language models (LLMs) have utterly transformed the field of natural language processing (NLP) in the last 3-4 years. They form the basis of state-of-art systems and become ubiquitous in solving a wide range of natural language understanding and generation tasks. With the unprecedented potential and capabilities, these models also give rise to new ethical and scalability challenges. This course aims to cover cutting-edge research topics centering around pre-trained language models. We will discuss their technical foundations (BERT, GPT, T5 models, mixture-of-expert models, retrieval-based models), emerging capabilities (knowledge, reasoning, few-shot learning, in-context learning), fine-tuning and adaptation, system design, as well as security and ethics.

*Pre-requisite: CS511 and CS512 (or equivalent)*

### **CS515 Business Intelligence and Data Warehousing**

*3 credit hours (3 hours of lecture)*

This course is designed for graduate students (majoring in either Computer Science or Business) who wish to become familiar with Data Warehouse and Business Intelligence technology and its role in the enterprise. Topics include: Data Warehouse design, development, and management, Data pre-processing and cleansing, Business analytics (OLAP), cubes, reports, and predictive analytics, Principals for data, text and web mining for Business Intelligence, mining frequent patterns including associations, correlations, classification and prediction. In addition, the course covers cluster analysis for unstructured data, and future trends in Business Intelligence.

*Pre-requisite: CS520*

### **CS516 Data Science**

*3 credit hours (3 hours of lecture)*

The course covers the fundamental concepts in Data Science, including data capturing, data cleaning, data analysis, data mining, and data visualization. The course also includes introduction to both Python and R programming languages as the tools and examples for implementing some of the theories.

*Pre-requisite: Graduate Standing*

### **CS517 MATLAB® for Machine Learning**

*3 credit hours (3 hours of lecture)*

Apply different types of machine learning models for clustering, classification, and regression in MATLAB®. The overall objective of this course is to raise the awareness of using machine learning, and apply different methods, techniques, and tools for solving real world problems. This course will also provide students with a conceptual understanding of

the role of selecting different algorithms to solve applied problems.

*Pre-requisite: Graduate Standing*

### **CS518 Data Mining and Big Data**

*3 credit hours (3 hours of lecture)*

Students will learn different data mining techniques including OLAP and hands-on experience with Data Mining with SQL Server 2008. In addition, the course covers Big Data including: what is Big Data, why Big Data matters, Big Data and the business case, Big data sources, Big data details, and security/compliance/auditing/protection, and best practices for Big Data Analytics. Finally, we survey available open source technologies/tools in the Apache Hadoop including: Ambari, Cassandra, HBase, Hive, Pig, Mahout, and Zookeeper. Finally, brief overview of the R Statistical Programming Language.

*Pre-requisite: CS420 or CS520. Background about SQL Server is a plus.*

### **CS519 Web Data Mining**

*3 credit hours (3 hours of lecture)*

Introduction to data mining, data pre-processing; Association rules and sequential patterns, Supervised learning (classification), Unsupervised learning (clustering), Partially supervised learning, Information retrieval and Web search, Basic text processing and representation, Cosine similarity, Social network analysis, Page rank algorithm (of Google), Mining communities on the Web, Web crawling, Web Data extraction and information integration, Opinion mining and sentiment analysis and Web usage mining.

*Pre-requisite: Graduate Standing*

### **CS520 Database System Principles**

*3 credit hours (3 hours of lecture)*

Students will learn relational database design both at the physical and at the logical levels. An overview of relational algebra and will cover the SQL programming language. Special topics to be covered include constraints and triggers, views and indexes. In addition, we cover SQL in the server environment including embedded SQL, stored procedure, CLI, and JDBC. We close by covering an overview for query processing and high-level overview of SQL compiler design.

*Pre-requisite: CS420*

### **CS522 Database Administration**

*3 credit hours (3 hours of lecture)*

Database administration is the key to success of any Relational Database Management System (RDBMS). This course provides the fundamental concepts and techniques involved in the administration of an Oracle database. Topics include: SQL queries, DML, DDL, Oracle database architecture, instance management, control file, online redo log file, table space and data

file, tables, indexes, sequence/synonym, views, user management, privileges, roles.

*Pre-requisite: CS420*

### **CS540 Computer Networks II**

*3 credit hours (3 hours of lecture)*

For students with CS440 or equivalent background, this course provides detailed coverage of advanced topics in computer networks. Topics include: layer 2 switching and spanning tree protocol, VLAN, TCP/IP, VLSM and subnet, IP routing protocols (RIP, OSPF, BGP, and ISIS), advanced network IPV6 Addressing scheme and static routing, switch/router testing methodology, enterprise network design. The course learning will be aided by regular GNS3 Lab sessions.

*Pre-requisite: CS440*

### **CS542 Network Management**

*3 credit hours (3 hours of lecture)*

This course presents the basic principles and functionality of network management systems and introduces you to network management protocols, i.e., Simple Network Management Protocol (SNMP). Future trends in network management technologies are also discussed. Topics include: overview of network management, hands-on network design, modeling and analysis of computer networks, network operating systems, probability theory for network engineers, network security, network requirements for multimedia, SNMP, network wiring theory and practice, ATM and frame relay network modeling, network management tools, ASN.1, SNMPv1 and standard MIBs, SNMPv2, SNMPv3.

*Pre-requisite: CS440*

### **CS544 Network Administration**

*3 credit hours (3 hours of lecture)*

This course first introduces the basics of the TCP/IP protocols and services that provide the fundamental concepts of networks. It then covers key concepts involved in network administration. Topics include: TCP/IP, addressing, network services, client & server, network installation planning, TCP/IP & Unix kernel configuration, Ethernet & PPP interface configuration, routing table, DNS name services, POP mail servers, network file system, Sendmail, troubleshooting, security, and keeping up with changing network information.

*Pre-requisite: CS440*

### **CS545 Network Security**

*3 credit hours (3 hours of lecture)*

This is an introductory course to network security. Topics covered include: basics of cryptography, symmetric and asymmetric cryptography, basic number theory, and classical cryptosystems, public key cryptography, one-way functions, Diffie-Hellman key exchange, key distribution problem. Public-key management, Stream cipher RC4, RSA cryptosystem,

El Gamal cryptosystem, hash functions SHA-512, Whirlpool, HMAC, digital signatures, data authentication and integrity, MAC, cryptography a la Claude E. Shannon, Data Encryption Standard, and Advanced Encryption Standard (Rijndael), elliptic curves based cryptosystem, crypto placements in networks, public-key infrastructure (PKI), IPsec, SSL/TLS, secure email (PGP, S/MIME), Kerberos, secure remote logins, wireless network security (WEP, WPA, WPA2, Bluetooth security, wireless mesh network security), network perimeter security (firewalls, viruses, worms, Trojan horses, web security, denial of service attacks, anti-malicious software), intrusion detection (network-based and host-based detections, signature detections, behavioral forensics, honeypots).

*Pre-requisite: CS440*

### **CS546 Network Design and Analysis**

*3 credit hours (3 hours of lecture)*

Overview of techniques used in design and analysis of computer networks. Well known graph-theoretic techniques used in computer networks. Topics covered in this course include: Evaluation of network connectivity and its reliability, analysis of networks via queuing theory and simulation, factorial design, design of different types of networks (i.e. access and backbone networks), study of Internet traffic, structure of the Internet, general principles used in the design and evaluation of network protocols.

*Pre-requisite: CS440*

### **CE550 Computer Architecture II**

*3 credit hours (3 hours of lecture)*

This course outlines machine organization and computation structure, processor issues, ALU design, fixed and floating-point numbers and their representations, computer arithmetic algorithms, controlling unit pipelining, operation overlap, control unit look-ahead, address processing, paging and segmentation, virtual machines, memory hierarchies (cache, main, secondary and back-up memories), super scalar, reservation station, multiprocessor issues, and symmetrical multiprocessors (SMP).

### **CS560 Software Engineering**

*3 credit hours (3 hours of lecture)*

The need to produce efficient, reliable and maintainable software requires the use of engineering principles in specification, creation, verification, validation and management. This course introduces the student to the principles of software engineering as they apply to each stage in the development of a software product. Topics include: software process, requirement engineering, analysis methods, architectural design, component-level design, user interface design, design patterns, software quality assurance, and overview of project management.

*Pre-requisite: Graduate Standing*

### **CE562 Embedded Software Design**

*3 credit hours (3 hours of lecture)*

Embedded software is computer software which plays an integral role inside the electronics. Embedded software is usually written for special purpose hardware. This course deals with advanced embedded software programming concepts, interfacing techniques, hardware organization and software development using embedded systems. Topics covered in this course include: embedded device drivers, embedded operating systems, networking, error handling and debugging, hardware and software co-verification, DSP in embedded systems, techniques for embedded processing, development technologies and trends, and practical embedded coding techniques.

*Pre-requisite: CE460*

### **CS562 Software Quality Assurance**

*3 credit hours (3 hours of lecture)*

The requirements of high-quality, reliable, predictable software become increasingly necessary as software use continues to grow both generally and in the professional work places. As the software industry evolves, the need for qualified engineers trained in the principles, methodologies, techniques and tools of software quality assurance has grown. This course presents the specifics of software quality assurance and software testing. The course also describes how these processes fit into the software development process. Topics include: unit testing, control flow testing, data flow testing, domain testing, system integration testing, functional testing, system test design, system test planning and automation, system test execution, acceptance testing, and software reliability.

*Pre-requisite: CS230, CS332 or CS430 (or equivalent)*

### **CS596 Special Topics in Computer Science**

*3 credit hours (3 hours of lecture)*

This course covers various subjects of current interest in the field of Computer Science. A student may take this course more than once if topics differ. Topics include: object-oriented analysis and design using UML, building E-Commerce application using XML, advanced Java programming, data mining and applications, cloud computing, mobile device programming, .NET programming, web applications, database performance and scalability.

*Pre-requisite: Graduate Standing*

### **CS596-015 Cloud Computing**

*3 credit hours (3 hours of lecture)*

This course is designed for graduate students in Computer Science who wishes to become familiar with Cloud Computing and its impact on the Data center. Topics covered include: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). The course covers case studies for

popular Cloud Computing offerings, and we conclude with Mobile and cloud computing overview.

*Pre-requisite: Background in data management and Web-based applications development.*

### **CS596-018 Computer Performance Evaluation**

*3 credit hours (3 hours of lecture)*

Measurement and evaluation of computer performance. Workload characterization. Analysis of computer systems via simulation, and queue theoretic models. Learn the art of simulating computing systems via random variate generation, and discrete event techniques. Closed and open queueing computing systems. Operational and mean value analysis. Bottleneck analysis.

*Pre-requisite: MATH 200 and MATH 210*

### **CS596-023 Wireless Communication and Networks**

*3 credit hours (3 hours of lecture)*

This course is an introduction to wireless communication. Topics include: Transmission fundamentals, Communication networks, protocols and the TCP / IP suite, Antennas and wave propagation, Signal encoding techniques, Spread spectrum, coding and error control, Satellite communication, Cellular wireless networks, Cordless systems and Wireless Local Loop. Mobile IP and Wireless Access Protocol, Wireless LAN technology, IEEE 802.11 Wireless LAN standard, and Bluetooth will also be covered.

*Pre-requisite: None*

### **CS596-025 Theory of Computation**

*3 credit hours (3 hours of lecture)*

The course has four main parts. The first part briefly covers discrete mathematics used in computer science. The second part consists of automata and languages. Regular and context free languages are covered in it. The third part consists of computability theory. It consists of Church-Turing thesis, decidability, reducibility, and some advanced topics in computability theory. The fourth part consists of complexity theory. It consists of time and space complexity, intractability, and some advanced topics in complexity theory.

*Pre-requisite: MATH200, MATH206, CS200.*

### **CS596-026 OpenStack Cloud Architecture**

*3 credit hours (3 hours of lecture)*

This OpenStack Cloud Architecture course provides practical knowledge around fundamental OpenStack components such as Compute (Nova), Image Service (Glance), Identity (Keystone), Block Storage (Cinder) and Dashboard (Horizon). In addition, to make this course as complete and relevant as possible, we also cover several OpenStack building blocks used for object storage, networking, monitoring and orchestration.

*Pre-requisite: None*

### **CS596-030 Internet of Things**

*3 credit hours (3 hours of lecture)*

This course intends to provide introductory level overview with a broad scope of basic theoretical topics and some hands-on exercises of Internet of Things application for students with or without strong engineering backgrounds. Students are required to complete either a detailed end to end IoT design project or hands-on implementation by the end of the semester. Open source IoT hardware/software/cloud platforms will be used for some exercises and recommended for students' IoT projects. However, this introductory course will not require too much in-depth knowledge or prior SW/HW experience.

*Pre-requisite: None*

### **CS598 Graduate Project**

*3 credit hours (3 hours of lecture)*

CS598 is a supervised development, analysis, and/or research in the field of concentration A or B. Basic requirements for a graduate project are: (1) it is an independent effort, and (2) represents either significant effort or significant technical contribution.

(To initiate a graduate project, the student should set up a counseling session with a potential project instructor to define the project objective, scope, and progress check points. In general, the student should meet with his or her instructor at least biweekly and submit a formal report and presentation for discussion and evaluation. Upon completion, and with the instructor's approval, a final report shall be submitted to CS department and a formal project presentation shall be presented to the department.)

*Pre-requisite: Graduate Standing*

## **CATALOG SPECIFICATIONS**

The information contained in this catalog is updated every school calendar year.

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This institution is provisionally approved by the Bureau for Private Postsecondary Education to offer degree programs. To continue to offer this degree program, this institution must meet the following requirements:

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- Achieve accreditation candidacy or pre-accreditation, as defined in regulations, by MMM DD, YYYY, and full accreditation by MMM DD, YYYY.

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- Provide a teach-out to finish the educational program or provide a refund.

An institution that fails to comply with accreditation requirements by the required dates shall have its approval to offer degree program automatically suspended.



## **UNIVERSITY ADMINISTRATION**

### **President, Dr. Jerry Shiao**

Ph.D. in Electrical Engineering, University of Southern California, Los Angeles, California (1992)  
B.S. in Control Engineering, National Chiao-Tung University, Hsinchu, Taiwan (1984)

### **Academic Dean, Dr. Jerry Shiao**

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B.S. in Control Engineering, National Chiao-Tung University, Hsinchu, Taiwan (1984)

### **Associate Academic Dean, Mr. Simon Au**

B.S. in Electrical Engineering and Computer Science, University of California, Berkeley CA (1977)

### **Chief Financial Officer, Dr. Jerry Shiao**

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B.S. in Control Engineering, National Chiao-Tung University, Hsinchu, Taiwan (1984)

### **CS Program Administrator, Dr. Albert Tsao**

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B.S. in Electrical Engineering, National Taiwan University, Taipei, Taiwan

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### **Student Office Manager, Ms. Tiffany Chiang**

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B.S. in Computer Engineering, National Chiao-Tung University, Hsinchu, Taiwan (1986)

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M.A. in Business Administration, California State University, Hayward, CA (In-Progress)  
B.A. in Hospitality Administration and Management, San Diego State University, San Diego, CA (2017)  
B.A. in International Hospitality and Tourism Management, I-Shou University, Taipei, Taiwan

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M.S. in Computer Science, International Technological University, San Jose, CA (2019)  
M.S. in Computer Engineering, American Innovation University, San Jose, CA (2014)  
B.S. in Information Management, Chaoyang University of Technology, Taichung, Taiwan (2006)

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M.S. in Computer Science, University of Southern California, Los Angeles, California (1987)  
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### **University Librarian, TBD**



## **UNIVERSITY FACULTY MEMBERS**

### **Nirdosh Bhatnagar**

Professor

Ph.D. in Electrical Engineering, Stanford University, Palo Alto, California (1978)

M.S. in Electrical Engineering, Stanford University, Palo Alto, California (1972)

M.S. in Operations Research, Stanford University, Palo Alto, California (1980)

B.S. in Electrical Engineering in Electronics and Communications Engineering, Osmania University, Hyderabad, India (1970)

Expertise: Design & Analysis of Algorithms, Machine Learning, Network Security, Network Design & Analysis, Network Modeling, Web Data Mining, Wireless Communications, Theory of Computations, Computer Performance Evaluation, Computer Networks, Cryptology, Mathematics, and Probability Theory

### **Eugene Chang**

Associate Professor

Ph.D. in Computer Engineering, University of Texas at Austin, Austin, Texas (1993)

M.S. in Electrical Engineering, University of California Santa Barbara, Santa Barbara, California (1988)

B.S. in Electrical Engineering, National Taiwan University (1984), Taipei, Taiwan

Expertise: Design & Analysis of Algorithms, Machine Learning and Data Mining, Data Science, Business Intelligence, Cloud Computing, Data Mining and Big Data, and Predictive Analytics

### **Michael Chen**

Associate Professor

Ph.D. in Electrical and Computer Engineering, State University of New York at Buffalo, Buffalo, New York (1996)

M.S. in Electrical and Computer Engineering, State University of New York at Buffalo, Buffalo, New York (1990)

B.S. in Electrical Engineering, Fu-Jen University, Taipei, Taiwan (1985)

Expertise: Computer Architecture, SoC Design and Methodology, ASIC Design and Methodology, FPGA Design, Routing and Switching Technologies, Computer Networks, and Microprocessor Design

### **Allen Chen**

Assistant Professor

M.S. in Computer Science, Utah State University, Logan, Utah (1984)

B.S. in Electrical Engineering, Tatung University, Taipei, Taiwan (1978)

Expertise: IC Physical Layout Design, IC Placement Route, EDA Design Tools, Logic Design, IC Design and Computer Architecture

### **Peter Chen**

Associate Professor

Ph.D. in Electrical Engineering, Universidad Empresarial de Costa Rica, San Jose, Costa Rica (2010)

M.S. in Computer Science and Database/Artificial Intelligence, University of Southern California, Los Angeles, California (1987)

M.S. in BioMedical Engineering and Signal Processing/Data Science, University of Southern California, Los Angeles, California (1986)

MBA Executive, National Chiao-Tung University, Hsinchu, Taiwan (2013)

B.S. in Computer Engineering, National Chiao-Tung University, Hsinchu, Taiwan (1986)

Expertise: UNIX/Linux, Object-Oriented Programming, Java Programming, C++ Programming, Python Programming, Data Structures, Web Services, and Network Management Systems

### **Tiffany Chiang**

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### **Vicky Hsu**

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M.S. in Electrical Engineering, Oklahoma State University, Stillwater, Oklahoma (1993)

M.A. in Telecommunications, Michigan State University, East Lansing, Michigan (1996)

B.S. in Electrical Engineering, National Central University, Chungli, Taiwan (1990)

Expertise: Computer Networks, UNIX/Linux, Embedded Computer System Design, Embedded Software Design, Internet of Things, Consumer electronics/software/telecom/wireless industry, Speech/Pattern/Recognition/Coding, Digital Signal Processing/Semantic/Cognitive/Graphic Theory

### **Dongming Liang**

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Ph.D. in Computer Science, York University, Toronto, Canada (2004)

M.S. in Information Technology, University of Science and Technology & Academia Sinica, Beijing, China (1996)

B.S. in Computer Science, University of Science & Technology, Beijing, China (1991)

Expertise: Database System Design, Database Implementation and Administration, Query Optimization, SQL Performance Tuning, Machine Learning, Cyber Security System, Data Virtualization and Software Defined Data Environments, and OpenStack Cloud Architecture

#### **Yazdan Pedram Razi**

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Ph.D. in Thermo-fluid Engineering, Paul Sabatier University, Toulouse, France (2004)

B.S. in Mechanical Engineering in Thermo-fluids, University of Science and Technology of Iran, Tehran, Iran (1992)

Expertise: Heat Transfer and Fluid Mechanics, Energy Conversion, Thermodynamics, Mathematics, Calculus, Physics, Discrete Mathematics, Mathematical Analysis, Probability Theory, Statistical Analysis, and Robotics

#### **Mei-Ling Shek**

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Ph.D. in Applied Physics, Stanford University, Palo Alto, California (1983)

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B.S. in Chemistry, California Institute of Technology, Pasadena, California (1974)

Expertise: Telecom, Solar Energy, Optical Modeling and Material Characterization, Energy and Environment Science, Calculus, Physics, Discrete Mathematics, Mathematical Analysis, Probability Theory, Statistical Analysis, and Nanotechnology

#### **Jerry Shiao**

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Ph.D. in Electrical Engineering, University of Southern California, Los Angeles, California (1992)

B.S. in Control Engineering, National Chiao-Tung University, Hsinchu, Taiwan (1984)

Expertise: UNIX/Linux, Wired/Wireless Local Area Networks (LANs), Network Design & Optimization (Routing), Network Management, Software Engineering, Software Quality Assurance, Modeling & Performance Analysis of Network Systems, High Speed Access Networks, Operating System Design, and Embedded System Design

#### **Albert Tsao**

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Ph.D. in Computer Science, University of California Los Angeles, Los Angeles, California (1996)

B.S. in Electrical Engineering, National Taiwan University, Taipei, Taiwan

Expertise: Design & Analysis of Algorithms, Statistics, Data Analysis, Graph Theory, Data Structures, C++ Programming, Java Programming, Python Programming, UNIX/Linux, and Operating System Design

#### **Sandy Wang**

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Expertise: Computer Networks, Routing, Switching, QoS Technologies, Networking Protocols, Wide Area Networks, and Operating System Design

#### **Yung-Ming (Bert) Wu**

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M.S. in Electrical Engineering, University of Southern California, Los Angeles, California (1994)

B.S. in Electrical Engineering, National Tsing Hua University, Hsinchu, Taiwan (1990)

Expertise: Digital System Development & Verification, FPGA & ASIC Flow and Design, PCB & SI Design, HDL design, Logic Design, IC Design, VLSI Design, Computer Networks, and Embedded System Design