



# 2022 CATALOG

---

PUBLISHED:  
FOR PERIOD:

November 2021  
January 1, 2022 - December 31, 2022

# Table of Contents

## ABOUT SCIT ..... 4

MISSION STATEMENT.....	4
VISION & PURPOSE.....	4
VALUES.....	4
DIVERSITY, EQUITY AND INCLUSION STATEMENT.....	4
HISTORY OF THE COLLEGE.....	4
LEGAL STATUS.....	4
ACCREDITATION.....	4
AGENCIES & APPROVALS.....	4
ARTICULATION AGREEMENTS.....	5
BOARD OF TUSTEES.....	5
CAMPUS & FACILITIES.....	5
<i>Library</i> .....	6
<i>Address &amp; Contact Information</i> .....	6

## ADMISSIONS..... 8

ADMISSIONS PROCESS.....	8
ADMISSIONS REQUIREMENTS – UNDERGRADUATE STUDIES..	8
DISTANCE EDUCATION REQUIREMENTS.....	8
ADMISSIONS OF FOREIGN STUDENTS.....	8
ENGLISH LANGUAGE PROFICIENCY.....	8
ADMISSIONS OF THOSE NOT SEEKING A DEGREE OR DIPLOMA.....	9
DISTANCE EDUCATION AVAILABILITY.....	9
TRANSFER CREDIT & ADVANCED STANDING.....	9
<i>Transfer of Credit to SCIT</i> .....	9
<i>Transfer of Credit to SCIT for VA Students</i> .....	9
<i>Notice Concerning Transferability of Credits and</i>	
<i>Credentials Earned at our Institution</i> .....	9
<i>Experiential Learning Credit</i> .....	9
LATE ADMISSION.....	9
READMISSION.....	10
CANCELED ENROLLMENTS.....	10
NON-DISCRIMINATION POLICY.....	10

## FINANCIAL AID..... 12

GENERAL INFORMATION.....	12
FINANCIAL AID ELIGIBILITY.....	12
APPLICATION PROCEDURE.....	12
FINANCIAL AID AVAILABLE.....	12
<i>Federal Grants</i> .....	12
<i>California Grant Programs (CAL Grant)</i> .....	12
<i>Loans</i> .....	12
FEDERAL COLLEGE WORK-STUDY PROGRAM.....	13
SATISFACTORY ACADEMIC PROGRESS.....	13
NOTICE TO APPLICANTS OF FINANCIAL AID.....	13
VERIFICATION OF ENROLLMENT.....	13
TUITION & FEES.....	13
CANCELATION & WITHDRAWAL REFUND POLICY.....	14
<i>Procedures for Cancellation by the Student</i> .....	14
<i>Refund Policy</i> .....	14
<i>Refund Example</i> .....	15
TEXTBOOK, SUPPLIES & EQUIPMENTS.....	15
COURSE WITHDRAW & INCOMPLETE CHARGES.....	16
COURSE ADDITION, FAIL AND REPEAT CHARGES.....	16
STUDENT TUITION RECOVERY FUND.....	16
FAILURE TO FULFILL FINANCIAL OBLIGATION.....	17
<i>Late Fees</i> .....	17

## ACADEMICS.....18

CLASS HOURS & LOCATION.....	18
DISTANCE EDUCATION DELIVERY.....	18
COURSE SEQUENCE, CANCELLATION & CHANGES.....	18
<i>Schedule Change Requests</i> .....	18
CLASS SIZES.....	18
ACADEMIC YEARS, QUARTERS & ACADEMIC STATUS.....	18
QUARTER AND CREDIT UNIT DEFINITION.....	18
UPPER & LOWER DIVISION COURSE DESIGNATION.....	19
ACADEMIC FREEDOM.....	19
COMPARABLE PROGRAM INFORMATION.....	19
GRADING SYSTEM.....	19
<i>Withdraw (W)</i> .....	19
<i>Withdraw Fail (WF)</i> .....	19
<i>Incomplete (I)</i> .....	19
COURSE COMPLETION.....	20
GRADE POINT AVERAGE.....	20
STUDENT PROGRESS & EVALUATION.....	20
REPETITION OF COURSES.....	20
CORRECTION OF GRADES.....	20
TEST OUT.....	20
INDEPENDENT STUDY.....	21
ADD/DROP PERIOD.....	21
ATTENDANCE AND TARDINESS.....	21
INTERRUPTIONS.....	22
<i>Scheduled Breaks</i> .....	22
<i>Leave of Absence (LOA)</i> .....	22
CHANGE OF PROGRAM.....	22
WITHDRAW FROM THE PROGRAM.....	22
MAKE-UP POLICY.....	22
TRANSCRIPTS, DEGREES & DIPLOMAS.....	23
ACADEMIC PLAN AND SAP UNITS.....	23
SATISFACTORY ACADEMIC PROGRESS.....	24
<i>Qualitative Standards – Cumulative GPA Requirements</i> ..	24
<i>Quantitative Standards – Completion Rate Requirements</i>	
<i>(Pace)</i> .....	24
SATISFACTORY PROGRESS EVALUATION CRITERIA.....	24
<i>Evaluation Points</i> .....	24
<i>Multiple Majors</i> .....	24
<i>Financial Aid Warning</i> .....	24
<i>Financial Aid Probation (Academic Probation)</i> .....	25
GRADUATION REQUIREMENTS.....	25
<i>Graduation Ceremony</i> .....	25
<i>Post-Withdrawal Graduation</i> .....	25
ACADEMIC HONORS & AWARDS.....	25
STUDENT RECORDS.....	25
<i>Privacy Act</i> .....	25
ACADEMIC CALENDAR.....	26
FACULTY.....	26
<i>Information Technology &amp; Systems</i> .....	26
<i>Electrician</i> .....	26
<i>Electrical, Electronic &amp; Biomedical Engineering</i> .....	27
<i>Humanities</i> .....	28
<i>Mathematics &amp; Sciences</i> .....	28

## STUDENT AFFAIRS .....30

GENERAL INFORMATION.....	30
TRANSPORTATION, HOUSING & CHILDCARE.....	30
<i>Parking</i> .....	30

TUITION REIMBURSEMENT & ENROLLMENT VERIFICATION	30
STUDENT ADVISING & COUNSELING	30
<i>Academic Advising</i>	30
<i>Non-Academic Advising</i>	30
<i>Counseling</i>	30
<i>Advisement for Distance Education Students</i>	30
TUTORING	30
PLACEMENT SERVICES	30
STUDENT CODE OF CONDUCT	31
<i>Disciplinary Action &amp; Student Sanctions</i>	31
COMPUTER USE POLICY	31
SCHOOL EMAIL ACCOUNTS	32
<i>Ownership, Privacy and Right of Access Disclosure</i>	32
<i>Expiration of School Email Accounts</i>	32
<i>Acceptable Use Policy</i>	32
DRESS CODE	32
SAFETY, FOOD & DRINK POLICY	32
CELL PHONE USAGE POLICY	32
ACCOMMODATIONS FOR DISABLED STUDENTS	32
CAMPUS CRIME & SECURITY	33
<i>Drug Free School</i>	33
STUDENT PROPERTY	33
<i>Lost &amp; Found</i>	33
UNAUTHORIZED GUESTS	33
STUDENT COMPLAINT & GRIEVANCE PROCEDURE	33

## **DIPLOMA PROGRAMS ..... 34**

BIOMEDICAL TECHNOLOGY	34
GENERAL ELECTRICIAN	36
INDUSTRIAL AUTOMATION TECHNOLOGY	38
INFORMATION TECHNOLOGY	40

## **DEGREE PROGRAMS ..... 42**

ASSOCIATE OF SCIENCE INDUSTRIAL ENGINEERING TECHNOLOGY (A.S.I.E.T.)	42
BACHELOR OF SCIENCE BIOMEDICAL ENGINEERING (B.S.B.E.) .....	44
BACHELOR OF SCIENCE ELECTRICAL ENGINEERING (B.S.E.E.)	46
BACHELOR OF SCIENCE ELECTRONIC ENGINEERING (B.S.E.E.)	48
BACHELOR OF SCIENCE INFORMATION SYSTEMS (B.S.I.S.)	50

## **COURSE DESCRIPTIONS ..... 52**

BIO BIOMEDICAL	52
BME BIOMEDICAL ENGINEERING	53
C COMPUTER	53
CHEM CHEMISTRY	54
EE ELECTRONICS	54
ELE ELECTRICAL	57
EL ELECTRICAL	59
GE GENERAL EDUCATION	59
HST HISTORY	60
IS INFORMATION SYSTEMS	60
MAN MANUFACTURING	63
MT MATHEMATICS	64
NEC NATIONAL ELECTRICAL CODE	65
PH PHYSICS	66

**All announcements herein are subject to revision.** Every effort has been made to ensure the accuracy of the information presented in the SCIT Catalog. However, all courses, course descriptions, curricula degree requirements, policies, dates and fees described herein are subject to change or deletion without notice. Any changes made to this catalog will be published in a Catalog Addendum and provided together with this catalog. Any Catalog Addendum constitutes an addendum hereto and is effective as of the effective dates published therein.

## ABOUT SCIT

### MISSION STATEMENT

We seek to create a hands-on learning experience within a student-centric culture that teaches industry relevant skills, fosters ingenuity, nurtures teamwork, develops critical thinking, and has a transformative impact on students seeking professional success in order to advance our communities.

### VISION & PURPOSE

Founded to deliver effective, quality education focusing on application of technology, SCIT will be a leader in producing technological talent by:

- Affording the opportunity for students to apply their knowledge and reinforce their learning through hands-on instruction;
- Fostering ingenuity and a mindset of intellectual curiosity;
- Empowering students with the industry relevant knowledge and skills to seek greater opportunities;
- Supporting a dynamic faculty dedicated to teaching, mentoring, and encouraging students;
- Offering comprehensive curricula that is responsive to the needs of students, employers and communities.

### VALUES

We value an academic culture of integrity, accountability and diversity, thus enriching the learning environment and preparing our students to succeed as industry and community leaders.

### DIVERSITY, EQUITY AND INCLUSION STATEMENT

SCIT is committed to creating a diverse community that is inclusive, responsive and supportive of each and all of its students, faculty and staff. The institute seeks to promote diversity in its many forms, including, but not limited to, ethnicity, gender, age, religion, disability, sexual orientation, place of origin and socioeconomic status. The institute recognizes that students benefit from a learning atmosphere that is inclusive of participants from all manner of backgrounds, and encourages students to maintain diverse perspectives throughout their lives and strive to be responsible members of our community grounded on shared principles of fairness and respect toward one another.

### HISTORY OF THE COLLEGE

Southern California Institute of Technology (SCIT) was founded in 1987 by a small team of educators with a vision to build an institution that prides itself on providing quality education by means of an application centered, hands-on teaching approach. SCIT first opened its doors in Anaheim, CA with a single classroom and offered diploma programs in the areas of electronics and computers.

The institution became accredited by the Accrediting Commission of Career Schools and Colleges (ACCSC) in 1995 and soon thereafter began offering Associates and Bachelor's degrees in the engineering and business disciplines.

The institution grew over the years and built a reputation within the business community for producing technically qualified

graduates. The institution received many equipment donations from various companies from time to time and has used those donations along with substantial internal investments to build educational lab facilities to support its mission of providing quality hands-on education.

Since its inception, SCIT has attempted to bridge the positive qualities of multiple types of higher education institutions across the educational spectrum, from trade schools to traditional four year universities. The school seeks to develop an educational curricula that meet the academic standards expected of senior colleges and universities while also infusing a hands-on educational approach that provides an academic experience where conceptual topics are cemented into the learning process through application based lab work.

### LEGAL STATUS

Southern California Institute of Technology is a wholly owned subsidiary of Southern California Education Corporation, Anaheim, California. SCIT President and CEO: Parviz Shams.

SCIT does not have a pending petition in bankruptcy, is not operating as a debtor in possession, has not filed a petition within the preceding five years, and has not had a petition in bankruptcy filed against it within the preceding five years that resulted in reorganization under Chapter 11 of the United States Bankruptcy Code (11 U.S.C. Sec. 1101 et seq.).

### ACCREDITATION

Southern California Institute of Technology is accredited by the Accrediting Commission of Career School and Colleges (ACCSC). ACCSC is recognized by the U.S. Department of Education as an accrediting agency. All programs listed in this catalog are accredited by ACCSC as of this Catalogs publication date.

### AGENCIES & APPROVALS

Southern California Institute of Technology is a private institution approved to operate in the State of California by the Bureau for Private Postsecondary Education. Approval to operate means being in compliance with state standards as set forth in the CEC and 5, CRC. 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), toll free telephone number (888) 370-7589 or by fax (916) 263-1897. 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. Additional approvals include:

- SCIT is approved to participate in federal student aid programs
- SCIT is approved to participate in veterans education benefits programs under Title 38 of the GI Bill® for eligible veteran students. GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at <https://www.benefits.va.gov/gibill>.
- SCIT is approved by the California Department of Industrial Relations, Division of Apprenticeship Standards to offer the Whole General Electrician Curriculum

- SCIT is approved to issue I-20 Visas to admit foreign students
- SCIT is approved to provide training for the Workforce Investment Act (WIA)

## ARTICULATION AGREEMENTS

Southern California Institute of Technology has not entered into any articulation or transfer agreement with any other college or university.

## BOARD OF TRUSTEES

The Board of Trustees is responsible for ensuring that Southern California Institute of Technology achieves its mission and purpose and maintains its academic and financial integrity as an institution of higher learning. The following are members of the Board of Trustees:

- Rosa Belerique
- Shahab Dadjou
- Parviz Rashti (Chairman)
- Arian Shams
- Nazila Shams
- Parviz Shams
- Sam Brian Shams
- Fattaneh Tavassoli
- Lissa B. Wayne

## CAMPUS & FACILITIES

SCIT maintains an educational facility consisting of 40,000 square feet of classroom and laboratory space. The institution, the facilities it occupies, and the equipment utilized, fully comply with any and all federal, state, and local ordinances and regulations, including those requirements as to fire, building, and health safety. Instruction is in residence at the current facility with both day and night classes. The campus includes 25 classrooms and 17 instructional laboratories. SCIT's campus maintains close to 200 computers for student use. Other school features include a student lounge, learning center and a library. SCIT's laboratory facilities include:

- **Biomedical Instrumentation:** The Biomedical Instrumentations Lab is a simulated clinical environment equipped with electronic-based medical devices such as patient monitoring systems, infusion pumps, cardiac defibrillators, ultrasound machines, neonatal equipment and various other commonly used biomedical instruments. Students learn about device functionalities and train to troubleshoot and repair them in accordance with certain standards.
- **Blueprints:** The Blueprints Lab is a simulated environment where students work within a team installing wiring and electrical components in a home structure in accordance with National Electrical Code (NEC) standards. Students learn to properly read blueprint schematics, identify where wiring and electrical components should be installed and work as a team to correctly follow the blueprints and complete installation. Instructors act as inspectors to mimic real-world processes and ensure all installations meet code standards.
- **Code Special Topics:** The Code Special Topics Lab gives students the opportunity to gain real-world experience by working on hand-selected projects that improve specialty electrical skills. Electrical faculty choose projects based on tasks students may likely encounter in the field. Such projects include wind turbine installations, large conduit bending, low voltage electrical installations like alarm or fire systems, and completing installations that adhere to OSHA safety standards and much more.
- **Commercial Wiring:** The Commercial Wiring Lab is a steel-framed environment consisting of 70+ stations where students gain hands-on experience installing wiring and electrical devices for commercial complexes. The lab is designed to mimic a commercial building constructed with steel frames. Training focuses on the application of National Electrical Code (NEC) standards as they pertain to electrical installations for commercial buildings.
- **Computer Fundamentals:** The Computer Fundamentals Lab is a repair workspace environment where students gain hands-on experience repairing computer hardware. Students disassemble computer hardware, identify issues, make repairs, replace components and re-assemble computers to a working state. Students learn about a variety of components found in home and business settings, such as multi-NIC drives. The lab is designed to teach common practices for those entering the IT field and other related roles, such as how to crimp RJ45 plugs to Cat5e cables.
- **Computer Networking:** The Computer Networking Lab (netLab) is a virtual cluster of multiple networking devices, including servers, clients, routers, switches and firewalls. Students gain hands-on experience working with Microsoft and Cisco servers and network devices. Students train to install, administer and configure clients, servers and network devices that connect to network infrastructures to meet a variety of needs for businesses of all sizes, from small companies to large enterprises.
- **DC/AC Circuits:** The DC/AC Circuits Lab is used by many programs at SCIT and teaches foundational skills required in a variety of courses, projects and other labs. The lab environment contains a series of breadboard stations where students build a range of electronic circuits to study and learn the theory behind the fundamental building blocks of electronic systems, such as resistors, capacitors, inductors and more. Other courses and labs build on the concepts learned in the DC/AC Circuits Lab.
- **Digital Electronics:** The Digital Electronics Lab includes measuring equipment and multiple digital electronic components that give students hands-on experience constructing electronic circuits that accomplish specific tasks. Students become familiarized with the construction of electronic circuits designed for practical applications. For example, students learn to construct a circuit that functions as a calculator.
- **Engineering Design:** The Engineering Design Lab is an open lab where senior students can work on their capstone project. The lab includes various engineering tools and devices, allowing students to design and build a device that integrates numerous interdisciplinary concepts learned throughout their studies. Students work individually or in teams to complete the project and submit a report that

outlines the design details as well as the market feasibility of the product.

- **Industrial Automation:** The Industrial Automation Lab allows students to design and build an automation process. Students learn about various types of sensors and how they can be tied to PLC inputs, which are controlled by a ladder logic program in order to achieve a defined goal. For example, students learn to program a PLC to drive a conveyor belt at a specific speed after receiving an input (like pressing a button). The conveyor will carry a block to a specific end point at which time another process will begin. Students may also explore animatronic projects to replicate lifelike movement of living things.
- **Motor Control:** The Electric Motor Lab contains multiple sensors that train students on various control techniques commonly used with multiple types of electric motors, such as speed control. Students gain hands-on experience with a range of motors including AC, DC, dual voltage repulsion, 3-phase, synchronous and more.
- **Pneumatics:** The Pneumatics Lab is a series of steel racks containing an arrangement of various pneumatic valves and regulator devices to train students how to control pneumatic-based mechanics with PLCs. The lab includes a range of different valves and regulators to familiarize students with the type of motions that can be achieved with pneumatic devices. The Pneumatics Lab introduces students to various techniques for controlling solenoid valves, which include the use of PLC units to send appropriate signals.
- **Programmable Logic Controllers (PLC):** The Programmable Logic Controller (PLC) Lab contains multiple workstations equipped with computers, PLC units and other interfacing devices to train students how to program and upload ladder logic code. Students gain hands-on experience with RSLogix software, which provides a graphical interface representing conditional computer programming functions such as if/else statements. The lab is based primarily on the Allen Bradley family of Programmable Logic Controllers, which are widely used in factories and other settings.
- **Residential Wiring:** The Residential Wiring Lab is a wood-framed environment consisting of 70+ lab stations where students install wiring and electrical devices consistent with National Electrical Code (NEC) standards. Students gain hands-on experience with panels, breakers, receptacle switches, motion sensors, timers, fluorescent lighting, recessed lighting and much more. The lab is designed to mimic real-world jobsites where safety standards are strictly enforced. The lab familiarizes students with NEC standards as they pertain to residential buildings.
- **Robotic Systems:** The Robotics Systems Lab is an arrangement of numerous robotic arms and industrial devices such as conveyor belts and sensors. The lab simulates small manufacturing lines by requiring the use of multiple electromechanical inputs to invoke a controlled sequence of outputs. Students gain hands-on experience interfacing robotic systems with computers and PLC units to produce specific motion based on inputs received from various sensors.
- **Semiconductors:** The Semiconductors Lab contains multiple trainers and oscilloscopes where students learn about the applications and functions of electronic components used in analog circuits. Students gain hands-on experience with electronic components and analog circuitry designs such as field effect transistors, common source amplifiers, source follower amplifiers, MOSFETs and pulse generators. For

example, students learn to build a square wave pulse generator, which could be used as a clock for applications involving processors such as those in a computer, using circuitry components such as diodes, capacitors, resistors and op-amps.

- **Solar and Wind:** The Solar Power Lab is an outdoor environment composed of numerous solar panel cells that gives students hands-on experience with installation techniques for solar panels. This lab is part of a seminar series that is available for students in specific programs, so they can become familiar with and gain the skills needed for solar panel installation.

### LIBRARY

It is the mission of SCIT's library to support the curricular and professional needs of the students, faculty, and administration by continuously developing, acquiring and maintaining information resources and services. The college continues to expand its core materials in order to make the library experience more beneficial for the students. A professional librarian is available to help students and faculty with research projects and other information needs. The SCIT library has over 3500 books, 500 reference books and multiple magazines and periodicals available for students and faculty to check out. Our collection includes reference material in the areas related to the subject matter taught at the school including business and engineering titles. The library is open from 8 a.m. to 10:30 p.m. Monday through Friday (excluding holidays). Students can borrow books for a period of one week at a time. The late fee for book returns is \$0.20 per day for books not returned prior to the due date. If the book is not returned after 30 days, the student will be charged for the book. If students require resources from external libraries, they may submit a request to the school librarian to obtain such resources ("external resources"). Requests for external resources are reviewed on a case by case basis and may take up to 4 weeks to complete. The school does not guarantee that it will be able to secure external resources from other libraries. There is no additional charge to secure external resources; however, there may be additional charges for external resources that are not returned to the school librarian prior to the expiration of the borrowing time. The borrowing time for external resources are determined on a case by case basis depending on the policies of the library lending the external resource. For more information on how to access the schools' library resources or to obtain external resources, please see the school librarian.

### ADDRESS & CONTACT INFORMATION

525 North Muller Street  
Anaheim, CA 92801  
Phone: (714) 300-0300  
Website: [www.scitech.edu](http://www.scitech.edu)  
General email: [info@scitech.edu](mailto:info@scitech.edu)



## ADMISSIONS

### ADMISSIONS PROCESS

The Admissions Process is a sequence of steps an applicant must complete in order to enroll at the school. The Admissions Process is as follows:

1. Complete an Application for Admissions (available from the SCIT Admissions Office).
2. The applicant completes an interview with an Admissions Office Official whereby the student is provided with the most recently published school Catalog and the Student Performance Fact Sheet specifying the most recently reported completion and placement rates for the applicant's program(s) of interest. The topics discussed at the interview may include, but are not limited to; why the applicant wants to attend college and what they expect to gain by attending college, are the program objectives compatible with the academic and career goals of the applicant, how well the applicant has previously performed academically with the topics that fall under the scope of the program, and are the applicant's career and outcome expectations realistic compared to the performance of the program. Applicants may also be provided a tour of the campus and relevant instructional facilities.
3. The applicant schedules a time to complete an entrance exam.
4. If the applicant meets all the admissions requirements, s/he is referred to the school's Financial Aid Office to review the cost of the program and any federal and state student aid they may be eligible to receive. The school's Financial Aid Office is independent from the school's Admissions Office and provides the applicant with information on how to apply for federal student aid online (online FAFSA) and provides any assistance if needed. The Financial Aid Officer provides an Award Letter to the applicant, reviews all aid the applicant is eligible to receive to finance their education, and reviews the repayment responsibilities of the applicant if they were to receive such aid.
5. After the applicant has had time to review the Award Letter and subsequently decides to enroll at the school contingent upon meeting the Admissions Requirements, an Enrollment Agreement is furnished and reviewed with the student by an Enrollment Official, who functions independently from the school's Admissions Office. The Enrollment Official reviews the total educational cost of the program with the applicant along with the terms of the Enrollment Agreement, which includes the withdrawal and refund policies of the school. The Enrollment Official also confirms with the applicant that he or she received the most recently published school Catalog and the Student Performance Fact Sheet specifying the most recently reported completion and placement rates for the applicant's specified program(s). The Enrollment Official also reviews the cancellation policy of the Enrollment Agreement with the applicant if they were to decide to cancel their enrollment prior to beginning their schoolwork. After the student signs the Enrollment Agreement, a copy of the said agreement is provided to the applicant and he or she is referred to the Admissions Office to be scheduled to attend orientation prior to the student's schoolwork and complete any additional required paperwork.

Applicants for programs offered entirely through distance education complete the same admissions process; however, each

step is performed online by completing electronic forms and participating in teleconference sessions with representatives from the Admissions and Financial Aid Offices. Such applicants must have access to a computer and high speed internet in order to successfully be able to complete the admissions process.

### ADMISSIONS REQUIREMENTS – UNDERGRADUATE STUDIES

- Complete an Application for Admissions.
- Interview with and receive a recommendation by an Admissions Office Official to enroll in the school.
- Pass a standardized entrance exam.
- Have an earned High School Diploma or General Equivalency Certificate.
- Be at least 17 years of age by the first day of class.

### DISTANCE EDUCATION REQUIREMENTS

Students enrolled in programs that have some or all courses delivered through distance education (i.e. online) must have access to a personal computer with an installed web camera and microphone, and a high speed internet connection prior to beginning the program. Applicants must be able to demonstrate computer proficiency with the school's online course delivery system by successfully completing an online course orientation prior to beginning their program.

### ADMISSIONS OF FOREIGN STUDENTS

SCIT is authorized by the U.S. Department of Homeland Security ("DHS") to accept nonimmigrant students. Students who are not U.S. citizens or permanent residents must contact the Foreign Admissions Advisor at the school. Before an I-20 can be issued, the nonimmigrant applicant must provide a copy of high school transcript, college transcript, or equivalent, which documents the applicant's academic achievements. If this documentation is written in a language other than English, it must be translated into English and evaluated for equivalency to a U.S. high school diploma by a school official or appropriate outside agency. A statement of financial support, explaining that tuition will be paid in advance of each term, and if applicable, a letter from a sponsor explaining that all necessary living expenses for the international applicant will be provided (Form I-134 may be used). International applicants will not be eligible for U.S. Federal Financial Assistance and applicants cannot work legally in the United States without permission from the DHS. The school only issues I-20's and does not offer any visa services other than vouching for student status for admitted and enrolled international students. International students are responsible for all associated charges to obtain a visa and any charges for maintaining a student visa.

### ENGLISH LANGUAGE PROFICIENCY

All classes are conducted in English. English language proficiency is in part determined by the outcome of the standardized entrance exam which tests the students reading comprehension and sentence skills. Applicants from countries where English is not the primary language, and applicants whose native language is not English, must demonstrate English-language proficiency by providing SCIT with one of the following:

- Completion of a high school diploma or GED in the United States or other nation where English is the official language of the nation, or



- Completion of an accredited college program in the United States, or
- TOEFL paper test score of at least 550 (47 for the 2017 revised paper based test) or TOEFL iBT (Internet Based Test) of at least 65, or
- IELTS minimum Band Score of 5, or
- iTEP minimum score of 3.5, or
- A certificate indicating an intermediate ESL program was successfully completed at an institution accredited by a national or regional accrediting agency recognized by the U.S. Department of Education.

## ADMISSIONS OF THOSE NOT SEEKING A DEGREE OR DIPLOMA

Students wishing to take specific courses but not wanting to pursue a degree or diploma must complete an application for admission. Students must meet the same academic qualifications as those applying for a regular program or cannot be admitted.

## DISTANCE EDUCATION AVAILABILITY

Programs offered entirely through distance education are available to residents of the following states: California.

## TRANSFER CREDIT & ADVANCED STANDING

### TRANSFER OF CREDIT TO SCIT

If a student has credit from courses completed at any other accredited academic institution, they may request their official transcripts to be mailed directly to the SCIT Education Department from the respective academic institution in order to be evaluated for the awarding of transfer credit toward courses in their Academic Plan. Students may request for transfer credit award both prior to and during their enrollment at the school. The SCIT Education Department evaluates each transfer credit request on a case by case basis and is based on how recent the course(s) were completed, whether or not the course(s) are sufficiently thorough and relevant, and if it can be demonstrated that the student completed the course satisfactorily. The SCIT Education Department may require the student to complete an examination if it cannot determine in its sole and absolute discretion that any of the abovementioned criteria were met for the awarding of transfer credit. The school will maintain a written record of any previous education used to award transfer credit to the student and the school will notify the student if and when transfer credit is awarded. If transfer credit is awarded, the student will not be required to enroll in the course(s) for which they received transfer credit and their program length may be reduced. The total costs associated with the tuition, books, materials and fees for all courses that the student receives transfer credit but has not yet attempted will be reduced from the Total Cost of the students' enrollment. Students must earn at least 50% of the credits needed to graduate at the school.

### TRANSFER OF CREDIT TO SCIT FOR VA STUDENTS

In accordance with the Code of Federal Regulation 21.4253(d)(3), this institution will conduct and maintain a written record of any evaluation of previous education and training for all veterans and eligible persons, grant and record appropriate credit if merited,

shorten the program proportionately consistent with the credit received, and notify the VA and student accordingly.

## NOTICE CONCERNING TRANSFERABILITY OF CREDITS AND CREDENTIALS EARNED AT OUR INSTITUTION

The transferability of credits you earn at Southern California Institute of Technology is at the complete discretion of an institution to which you may seek to transfer. Acceptance of the degree or diploma you earn in your educational program is also at the complete discretion of the institution to which you may seek to transfer. If the credits or degree or diploma that you earn at this institution are not accepted at the institution in 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 Southern California Institute of Technology to determine if your credit or degree or diploma will transfer.

## EXPERIENTIAL LEARNING CREDIT

Experience related to your field of study that you wish to obtain experiential learning credit for must be substantially equivalent to course material offered by SCIT and will be judged entirely on documentation showing the experiential learning substantially meets the objectives of the course, is equivalent in length, and is completely and adequately documented. Acceptable documentation includes: (1) A written description of the experiences with work product documents, (2) Estimated total hours of life/work experience supported by documentation, (3) Notarized documentation from your field supervisor(s) attesting to the experience, (4) Military DD214 to document your experience. The faculty evaluating the learning experience will prepare a report indicating: (1) the documents in the student file on which the faculty member relied upon to determine the nature of the student's prior learning, (2) The basis for determining that the experience is equivalent to college level learning and demonstrates a balance between theory and practice, (3) The basis for determining to what college level the experience is equivalent and the proper number of units awarded. If testing is required, an equivalent to the course final will be given at a cost of \$100 per exam, as required. Prospective applicants who would like to appeal any denial of experiential learning credit may do so in a written letter stating the reason for the appeal and include additional documents that may aid in the evaluation of the appeal. Experiential learning credit appeals are reviewed by the Dean of Education and may only be made once for each course the applicant seeks to obtain credit. The Dean of Education makes all final determinations to grant or deny experiential learning credit.

## LATE ADMISSION

Classes start on the date indicated in the Academic Calendar. Late starts (starts that begin after the first class meeting) are considered on an individual basis after assessing the student's ability to complete any missed work. However, students will not be allowed to enter a class after the Add/Drop period without the permission of the Director of Admissions.

## READMISSION

An applicant who was a prior student and withdrew or was dismissed from the school may be evaluated by a Readmission Committee and may be required to attend a meeting with the Readmission Committee prior to beginning the application process. The members of the Readmission Committee will be designated by the school. The Readmission Committee will review the circumstances leading to the students' prior withdrawal or dismissal from the school, which may include but is not limited to violations of the Student Code of Conduct, unsatisfactory academic progress, or lack of attendance. Upon review of the circumstances leading to the prior students' withdrawal or dismissal, the Readmissions Committee will make a recommendation to the Director of Admissions whether or not to allow the applicant to begin the application process. If the Readmissions Committee recommends not allowing the applicant to begin the application process, the Director of Admissions may reject any application submitted by the applicant and the applicant will not be allowed to reenroll in the school.

Prior students who were dismissed from the school for reasons that include, but are not limited to, violation of the Student Code of Conduct, unsatisfactory academic progress, lack of attendance, or inability to meet financial obligations to the school may not reapply for admission to the school for a minimum period of six months after the date the school determined the student was withdrawn from the school. The Director of Admission may waive this restriction for extenuating circumstances that led to the student to being dismissed from the school.

Prior students who withdrew from the school due to a Military service obligation are waived from evaluation by a Readmission Committee and may return to their program of study when ready to reenroll in the school.

## CANCELED ENROLLMENTS

Any student who does not complete SCIT's enrollment process in a timely manner or who cancels his or her enrollment prior to beginning class may have their application canceled. If a new student does not attend during the Attendance Census Period of their first class, he or she may have their enrollment cancelled. In such cases, the student will be entitled to refunds in accordance with the Refund Policy and may be required to repeat the Admissions Process if he or she later decides to seek admission to the school.

## NON-DISCRIMINATION POLICY

Southern California Institute of Technology does not discriminate based on any legally recognized basis ("protected classes") including, but not limited to: race; color; religion; genetic information; national origin; sex; pregnancy, childbirth, or related medical conditions; age; disability; citizenship status; uniform servicemember status; or any other protected class under federal, state or local law in any of its programs, activities or employment practices. Any person who believes that he or she has been or is being subjected to discrimination based on the protected classes specified above may submit a written complaint to the President of the school and or may file a written complaint directly with the U.S. Department of Labor, Civil Rights Center, 200 Constitution Avenue N.W., Room N-4123, Washington D.C. 20210. Students applying to or enrolled in the school who receive WIOA financial assistance who believe they have been subjected to discrimination based on the protected classes specified above may additionally submit a written complaint to the Orange County



## FINANCIAL AID

### GENERAL INFORMATION

In today's society any education after high school will cost time, money and effort. The SCIT Financial Aid Office is committed to providing students and their families with the financial resources they need to finance their education and ensure access to their academic goals. SCIT is an eligible institution participating in federal financial aid programs. Financial aid is available to those who qualify. The U.S. Department of Education has approved Southern California Institute of Technology for participation in the following programs:

- Federal Pell Grant
- Federal Supplemental Education Opportunity Grant (FSEOG)
- Federal Direct Subsidized Loan
- Federal Direct Unsubsidized Loan
- Federal Parent Loans to Undergraduate Students (PLUS)
- Federal Work Study (FWS)

Southern California Institute of Technology also participates in the following programs provided by the State of California, contingent on the institutions current eligibility status:

- Cal Grant A
- Cal Grant B
- Cal Grant C

Please Note: The stated financial aid guidelines and procedures may be a combination of constantly changing federal and state regulations. For information regarding the current changes and eligibility status of the institution, please contact the SCIT Financial Aid Office.

### FINANCIAL AID ELIGIBILITY

Eligibility for most financial aid programs is based on financial need and several other factors. Your eligibility is determined by the information you provide on the Free Application for Federal Student Aid (FAFSA). Basic eligibility requirements include the following:

- Be a U.S. citizen or eligible non-citizen;
- Be enrolled as a regular student working toward a degree or certificate in an eligible program;
- Maintaining Satisfactory Academic Progress;
- Not owe a refund on a federal grant or be in default on a federal educational loan.

Non-citizens are required to verify eligibility with the Financial Aid Office. Students who are required to register with Selective Service must be registered in order to receive financial aid.

Since it is important that you understand the available financial aid programs and your rights and responsibilities under them, the U.S. Department of Education has prepared a brochure entitled THE GUIDE TO FEDERAL FINANCIAL AID PROGRAMS, which explains these federal programs. You may obtain a copy of this booklet from the Financial Aid Office.

### APPLICATION PROCEDURE

The first step in applying for financial aid is to complete the Free Application for Federal Student Aid (FAFSA). This application must be completed every award year and may be completed online at [fafsa.ed.gov](http://fafsa.ed.gov). FAFSA worksheets are available from the Financial Aid Office to assist students prior to completing the application on the web. In addition to completing the FAFSA, students may be required to submit other supporting documents. The supporting documents vary according to a student's particular situation. For more information, contact the Financial Aid Office. The FAFSA and other documents are reviewed by the Financial Aid Administrator to determine the student's eligibility. The Financial Aid Administrator will review available funds and discuss financial options with the students to finance their education.

### FINANCIAL AID AVAILABLE

#### FEDERAL GRANTS

##### *Federal Pell Grant (FPELL)*

Pell Grants are awarded on the basis of financial need and do not have to be repaid. They are provided by the federal government and are awarded to students who demonstrate the greatest financial need and have completed their financial aid application.

##### *Federal Supplemental Educational Opportunity Grant (FSEOG)*

Federal Supplemental Education Opportunity Grants are awarded on the basis of financial need and do not have to be repaid. They are provided by the federal government and are awarded to students who demonstrate the greatest financial need and have completed their financial aid application. It is usually available only to those students who also qualify for the Federal Pell Grant.

#### CALIFORNIA GRANT PROGRAMS (CAL GRANT)

Cal Grants are grants provided by the State of California for qualified educational institutions. Due to the need for educational institutions to recertify eligibility to receive Cal Grants, please check with the SCIT Financial Aid office for the current awards available. Applicants must apply for the Cal Grant by published deadlines.

##### *Cal Grant A*

Cal Grant A awards can be used for tuition and fees. Applicants must be working toward a two-year or four-year degree.

##### *Cal Grant B*

Cal Grant B awards provide low-income students with a living allowance and assistance with tuition and fees. The minimum course length is one academic year.

##### *Cal Grant C*

Cal Grant C awards help pay for tuition and training costs at occupational or career colleges. To qualify, you must enroll in a vocational program that is at least four months long. Funding is available for up to two years, depending on the length of your program.

#### LOANS

##### *Federal Direct Subsidized Loan*

This program is a low interest rate, long-term loan program for undergraduate students who demonstrate financial need. The

federal government will pay interest on this loan while the student is enrolled in college at least half-time.

**Federal Direct Unsubsidized Loan**

This program is a low interest rate, long-term loan program for undergraduate students. This loan is not based on financial need. The student is responsible for the interest during all periods.

**Federal Parent Loan for Undergraduate Students (PLUS)**

Through the Parent Loan for Undergraduate Students (PLUS) program, parents of undergraduate students may borrow up to the annual cost of attendance minus any financial aid. The Federal PLUS loan program is designed to assist parents of dependent undergraduate students who are unable to meet their expected parental contribution or have additional financial need that is not met with other financial aid resources. This loan is limited to parents who don't have an adverse credit history.

**Private Loans**

Private loans are available from a variety of banks and lenders. The terms and rates for alternative loans are usually determined by the lender. The eligibility for these loans is determined by the borrowers (and co-borrowers) credit history.

**FEDERAL COLLEGE WORK-STUDY PROGRAM**

SCIT participates in the Federal College Work-Study Program with award amounts based on demonstrated need. Work-study is money that students may earn by working a part time job. The program allows students to gain work experience and pay for a part of their educational expenses as they earn their award. Funds for this program come from the federal government, as well as, the school.

**SATISFACTORY ACADEMIC PROGRESS**

Satisfactory academic progress is necessary to maintain eligibility for Title IV and state funded programs. See the Academics section for SCIT's Satisfactory Academic Progress criteria.

**NOTICE TO APPLICANTS OF FINANCIAL AID**

An offer of financial aid is contingent upon receipt of funds from all funding sources. The Financial Aid Office reserves the right to revise offers of financial aid at any time during the academic year based on availability of funds and/or procedures mandated by the state or federal authorities. Pursuant to the Privacy Act of 1947, applicants for student financial aid are hereby notified that the disclosure of their Social Security number is required by SCIT to verify the identity of each applicant. If the student receives federal student financial aid funds, the student is responsible for repaying the loan amount plus any interest, less the amount of any refund and is entitled to a refund of the money's not paid from federal student financial aid program funds in accordance with the SCIT Refund Policy.

**VERIFICATION OF ENROLLMENT**

The Financial Aid Office must verify each student's enrollment in his or her scheduled course of study in order to release the students' eligible Financial Aid funds. Student acknowledges and verifies his or her enrollment in his or her scheduled course to the Financial Aid Office and the School by attending any single day of the respective scheduled course in the Attendance Census Period

or during any period in which the instructor of the course opts to track attendance. An attendance record of P-Present, T-Tardy, or E-Early Leave indicates the student attended the course. The date of Students verification of enrollment will be the date of the first recorded attendance indicating that Student attended the course.

**TUITION & FEES**

The student is obligated for the portion of the Total Cost applicable to each Enrolled Quarter, herein referred to as the *Applicable Quarter Cost*. The student must pay the school the Applicable Quarter Cost on or before the first day of the course of study in the Enrolled Quarter unless the school agrees in writing to different payment arrangements. Quarter charges are payable in US funds, by check from a US bank, by money order in US funds, by accepted major credit cards, by Federal Financial Aid, and/or by payment arrangements made between the school and the student and/or the school and third party funding agencies sponsoring the student. The total tuition, course fees, books and materials costs for each program of study is listed below. If the tuition and fees change during the publication period of this catalog, a Catalog Addendum will list the revised and effective costs. If the student (1) enrolls in multiple programs, or (2) request to enroll in additional courses outside the curricula of his/her specified program(s), or (3) is awarded transfer credit, or (4) has completed applicable coursework in prior enrollments at the school, the school may adjust the Total Cost to reflect the addition or removal of courses from the students' Academic Plan.

Program	Books & Materials	Lab Fee	Tuition Charge (Includes Discounts)	Total Cost	Charge Per Unit	Estimated Quarter Cost*
Biomedical Technology	1720	2100	14,960	<b>18,780</b>	340	5400
General Electrician	1590	2600	15,000	<b>19,190</b>	340	5500
Industrial Automation Technology	1830	1700	15,300	<b>18,830</b>	340	5400
Information Technology	1970	0	16,000	<b>17,970</b>	340	5200
AS Industrial Engineering Technology	3470	1000	36,720	<b>41,190</b>	340	5200
BS Biomedical Engineering	5155	1575	61,880	<b>68,610</b>	340	5800
BS Information Systems	3915	500	60,880	<b>65,295</b>	340	5400
BS Electrical Engineering	4550	1275	61,880	<b>67,705</b>	340	5700
BS Electronic Engineering	4235	1175	61,200	<b>66,610</b>	340	5600

\* The Estimated Quarter Cost is an estimate of the Applicable Quarter Cost for an Enrolled Quarter in the first academic year of the respective program. This cost serves only as an estimate and is based on a student enrolled in the respective program with a full time academic status. The actual Applicable Quarter Costs for each student may differ depending on their academic status for the respective Enrolled Quarter, the academic year of the student and the terms and conditions specified in the students Enrollment Agreement.

## CANCELLATION & WITHDRAWAL REFUND POLICY

Students have the right to cancel their enrollment on or before the first day of the first class session, or the seventh day after enrollment, whichever is later. If Student exercises the right contained in the immediate preceding sentence, the School shall refund one hundred percent (100%) of the amount paid for institutional charges and registration fees less any costs for books and/or supplies received by Student. Student has the right to cancel his/her enrollment from the School at any time during their enrollment by following the Procedures for Cancellation/Termination by the Student. If Student cancels his/her enrollment from the School after the first day of the first class session, or the seventh day after enrollment, whichever is later, the Student will be entitled to refunds in accordance with the Refund Policy.

### PROCEDURES FOR CANCELLATION BY THE STUDENT

Any cancellation or refund request by Student should be made in writing and mailed to: Director of Student Services, Southern California Institute of Technology, 525 N. Muller St., Anaheim, CA 92801. A written notice of cancellation must include the Students name, address and last four digits of their Social Security Number. The wording on a written cancellation notice is not critical as long as the student clearly indicates a desire not to be bound by this agreement. A written cancellation notice will be effectuated within 10 business days after the School receives the notice. If a Students cancellation is effectuated, Student will be entitled to refund in accordance with the Refund Policy.

### REFUND POLICY

If Student cancels his or her enrollment on or before the first day of the first class session, or the seventh day after enrollment, whichever is later, the School shall refund one hundred percent (100%) of the amount paid for institutional charges and enrollment fees. If Student withdraws or is terminated from the School any time after the period described in the immediate preceding sentence, Student shall be entitled to a refund of moneys not paid from federal student financial aid funds for the Enrolled Quarter for which the Student withdraws from the School as described below. The Applicable Quarter Cost for the Enrolled Quarter for which the Student withdraws from the School shall be as follows:

- a) If the Student achieves a Quarter Completion Rate of less than or equal to sixty percent (60%) for the respective Enrolled Quarter, the Applicable Quarter Cost will be prorated with respect to the Quarter Completion Rate, wherein the Quarter Completion Rate is defined as the total number of Completed Days over the total number of Period Days for all scheduled courses in the respective Enrolled Quarter, wherein the percentage is calculated to the fourth decimal place; or
- b) If the Student achieves a Quarter Completion Rate of more than sixty percent (60%), the Applicable Quarter Cost shall remain unchanged.

Completed Days is defined as the total number of calendar days comprised of the completed calendar days for each scheduled

course in the Enrolled Quarter whereby the completed calendar days for each scheduled course is as follows:

1. If the Student received an 'A-F' grade in the course, the total calendar days from the course start date to the grade date; or
2. If the Student received a 'W' or 'WF' grade in the course and is an Attendance Required Student, the total calendar days from the course start date to the Students last date of attendance in the course; or
3. If the Student received a 'W' or 'WF' grade in the course and is a Non-Attendance Required Student, the total calendar days from the course start date to the 'W' or 'WF' grade date; or
4. If the Student received an 'I' grade in the course and is an Attendance Required Student, the total calendar days from the course start date to the Students last date of attendance in the course; or
5. If the student received an 'I' grade in the course and is a Non-Attendance Required Student, the total calendar days from the course start date to either the Students last date of attendance in the course or the midpoint of the Enrolled Quarter, whichever is later, whereby the midpoint of the Enrolled Quarter is calculated in accordance with current federal laws and regulations pertaining to Student Withdrawals.

Attendance Required Student is defined as a student whereby an outside entity requires the School to maintain attendance records or the School itself has a requirement to maintain attendance records for the student. A Non-Attendance Required Student is defined as a student whereby neither an outside entity nor the School require attendance records to be maintained for the student. Period Days is defined as the total number of calendar days between the start date and end date of all scheduled courses originally enrolled by the Student in the respective Enrolled Quarter prior to the withdrawal of the student from the respective Enrolled Quarter. The Students withdrawal date will be the Students last date of completion, which is the last day considered as a Completed Day within the respective Enrolled Quarter. If the student did not complete any day in the respective Enrolled Quarter, then the last date of completion will be the latest date of completion from prior Enrolled Quarters. If the student has not completed any days while enrolled at the School, then the withdrawal date will be the Students start date.

The Student will:

- a) Remain obligated to the School for any nonrefundable fees; and
- b) Remain obligated to the School for the adjusted Applicable Quarter Cost for the Enrolled Quarter for which the Student withdraws from the School as provided in this Refund Policy; and
- c) Remain obligated to the School for all Applicable Quarter Costs owed to the School for any previous Enrolled Quarter attended by the Student; and
- d) Remain obligated to the School for all other amounts owed to the School under this Agreement (including any addenda hereto) and/or any other agreement signed by the Student and the School.

If the School determines, in its sole and absolute discretion that Student's withdrawal or termination from the Program during any Quarter was a proximate result of Student suffering an incapacitating illness, accident, death of a close family member or similar circumstance, the School will determine, in its sole and

absolute discretion, whether to reduce Student’s obligation to the School for the Applicable Quarter Cost. If, at the time Student withdraws or is terminated from the School, the School has received any monies for tuition, or Supplies from or on behalf of Student in excess of Student’s obligation therefore as provided in this Refund section, the School will refund such excess to the appropriate party (ies) as specified below.

If Student withdraws or is terminated from the School, Student and/or his or her parent(s) may be ineligible under federal law to use some or all of any federal student financial aid for which Student and/or parent(s) applied. School will refund any government or federal financial aid funds in accordance with current federal laws and regulations. If Student and/or his or her parent(s) are ineligible under federal law to use some or all of any federal student financial aid:

- a) Remitted to the School to satisfy Student’s obligation for tuition and Supplies, (1) federal law requires the School to return to the appropriate party (ies) such unusable aid, (2) the School with advise Student of the amount of such unusable aid returned by the School, and (3) Student will be liable for, and immediately pay the School in full, an amount equal to such unusable aid; or
- b) Received by Student and/or his or her parent(s) and not remitted to the School, (1) federal law requires Student and/or his or her parent(s) to repay to the appropriate party (ies) such unusable aid and (2) the School will advise Student and/or his or her parent(s) of the amount of such unusable aid.

Any refund and return or repayment of unusable federal student financial aid required under this Refund section will be paid first to eliminate any outstanding balances for any federal student financial aid received by or with respect to Student in the following order and priority (unless otherwise required under applicable law) and within the time period prescribed by law: (1) Federal SLS Loans; (2) unsubsidized Federal Stafford Loans; (3) subsidized Federal Stafford Loans; (4) Federal PLUS Loans; (5) unsubsidized Federal Direct Stafford Loans; (6) subsidized Federal Direct Stafford Loans; (7) Federal Direct PLUS Loans; (8) Federal Perkins Loans; (9) Federal Pell Grants; (10) Federal SEOG Program aid; (11) other programs authorized by Title IV of the Higher Education Act of 1965, as amended (except for the Federal Work Study Program); and (12) other federal, state, private or institutional student financial assistance. The School will pay Student any refund remaining after all outstanding balances specified in the immediate preceding sentence are eliminated within 30 days of Student’s withdrawal or termination date.

If the Student is eligible for a loan guaranteed by the federal or state government and the Student defaults on the loan, both of the following may occur: (1) the federal or state government or a loan guarantee agency may take action against the student, including applying any income tax refund to which the person is entitled to reduce the balance owed on the loan, and (2) the Student may not be eligible for any other federal student financial aid at another institution or other government assistance until the loan is repaid.

REFUND EXAMPLE

Applicable Quarter Cost (AQC) = \$5000

60% PRO-RATA REFUND						
Quarter Completion Rate	0%	20%	40%	60%	80%	100%
% AQC Refunded	100%	80%	60%	40%	0%	0%
\$ AQC Refunded	\$5000	\$4000	\$3000	\$2000	\$0	\$0

TEXTBOOK, SUPPLIES & EQUIPMENTS

Student can purchase all books, equipment and supplies (collectively “Supplies”) required for their program at the beginning of their enrollment. If Student chooses this option, then the following rules apply:

- Student has to purchase all Supplies required for their program specified at the beginning of their enrollment. Student cannot pick and choose which Supplies they do not want to purchase.
- Students who receive Transfer Credit will have the Supplies costs for the course(s) they are receiving transfer credit removed from the total Supplies cost. The Supplies costs for the transfer credit course(s) are determined at the time of enrollment and are final.
- Student cannot return Supplies and they cannot receive refunds after receiving the Supplies.
- Students will not be charged for any additional Supplies added to their curriculum. In conjunction, students will not be refunded for any Supplies removed from the curriculum.
- The payment for the Supplies will be disbursed evenly in quarters throughout the time of the students’ enrollment and integrated into their financial aid funding package. Payment for the quarter’s Supplies is due at the time the students’ enrollment is verified.
- Students will receive Supplies for the course after the first day of the course and only if they are in good financial standing with the School. Students may not receive Supplies for a course prior to the course start date unless approved by the school.

Student can purchase Supplies directly from the school or from other sources. If student purchases Supplies from the school they will be charged for the cost of the Supplies at the time of purchase. Purchased Supplies are not returnable and are non-refundable.

## COURSE WITHDRAW & INCOMPLETE CHARGES

If a student receives a withdraw grade ("W" Grade), a withdraw fail ("WF" Grade), or an incomplete grade ("I" Grade) for a course and attended the respective course for at least one (1) day, the student will be assessed additional charges based on the amount of the respective course(s) Quarter Credit Units. The total amount charged for a withdraw or withdraw fail grade is equal to the total units of the course being withdrawn times one half (50%) of the Tuition Cost Per Unit stated in the students enrollment agreement. The total amount charged for an incomplete course is equal to the total units of the incomplete course times the Tuition Cost Per Unit stated in the students enrollment agreement. The School reserves the right to reduce any course withdraw charge or incomplete charge for any extenuating circumstances at the Schools absolute and sole discretion.

## COURSE ADDITION, FAIL AND REPEAT CHARGES

If Student fails a course and is required to repeat that course to complete his/her program of study or if Student chooses to repeat a course for any reason or if Student chooses to enroll in a course that is not included or required for completion of his/her program of study, the Student will be assessed additional charges for the cost of the added or repeated course(s). The amount that will be charged will be equal to the total units of the course being added or repeated times the Tuition Cost Per Unit stated in the students enrollment agreement. School reserves the right to reduce the charged amount for any extenuating circumstances at the Schools absolute and sole discretion.

## STUDENT TUITION RECOVERY FUND

The State of California established the Student Tuition Recover 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 the Bureau for Private Postsecondary Education, 2535 Capitol Oaks Drive, Suite 400, Sacramento, CA 95833, (916) 431-6959 or (888) 370-7589.

To be eligible for STRF, you must be a California resident or are 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 education 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 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 education program offered by the institution as to which the Bureau determined there was 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 noncollection 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.



## FAILURE TO FULFILL FINANCIAL OBLIGATION

Students who do not pay or do not have an approved arrangement to pay the Applicable Quarter Cost on or before the first day of the course of study in the Enrolled Quarter, are not in good financial standing with the school, or who have an outstanding financial obligation to the school may not be eligible to (1) receive an official transcript, and/or (2) receive any books or materials the student is scheduled to receive, and/or (3) receive verification or confirmation of his or her status at the school, including verification requests from third parties, and/or (4) receive placement services, and/or (5) receive student services, and/or (6) receive academic services, which includes access to and use of education facilities. In order to remain enrolled in a course, a student must be in good financial standing with the school by the end of the Add/Drop Period of the respective course. If a student is not placed on good financial standing by the end of the Add/Drop Period of a course, then s/he will be dropped from the respective course. If a student is dropped from a course due to his or her financial standing and is not placed on good financial standing by the end of the term of the respective course, then s/he may be withdrawn from the school. The determination of whether or not a student is in good financial standing with the school is solely decided by the school consistent with school policies and is based on the funding arrangements with third party agencies or entities, the balance on a student's account, the amount of past due payments, and the length of time the said payments have been past due.

## LATE FEES

Billing statements are distributed two (2) weeks ahead of when they are due. Students have a five (5) day grace period after the day the payment is due. If no payment has been received by the end of the grace period, the student may be charged an additional \$25 late fee. The school reserves the right to reduce any Late Fee for any extenuating circumstances at the schools sole and absolute discretion.

## ACADEMICS

### CLASS HOURS & LOCATION

Regular school office hours are Monday through Friday, 9:00 a.m. to 7:00 p.m. Classes are usually scheduled between 8:00 a.m. and 10:30 p.m. Monday through Friday and between 9 a.m. and 4 p.m. on Saturday (for certain courses), one to five nights a week. In certain circumstances, classes may be scheduled outside of these times. All in-person courses are conducted at the school, which is located at 525 North Muller Street, Anaheim, CA 92801.

### DISTANCE EDUCATION DELIVERY

Courses delivered through distance education may be offered either *fully online* or as *hybrid online* courses. Fully online courses include a combination of watching online video recordings and participating in live, online teleconference sessions with the instructor of the course. Hybrid online courses include watching online video recordings and participating in in-person class sessions conducted at the school (located at 525 North Muller Street, Anaheim, CA 92801), which are generally courses requiring substantial in-class coursework such as supervised laboratory courses. The system by which online courses are delivered requires the student to log in with a school issued student account. Online courses, whether fully online or hybrid online, are accessible when the student signs in with his or her school issued student account using any computer connected to the internet. When signed in, the student has access to the online video recordings, the ability to join live teleconference sessions with the instructor, and access to course materials that the instructor posts to the online class webpage, including, but not limited to, assignments, exams and the course syllabus. The student will also be able to submit assignments and complete examinations online when signed into the online course.

### COURSE SEQUENCE, CANCELLATION & CHANGES

The actual sequence in which courses are taken may vary based on schedule needs. The school reserves the right to revise, add, delete and/or cancel classes if the proper facilities, equipment or staff are not available or if the number enrolled is insufficient as determined by the school. Students will be notified of any cancellations. Curriculum changes may impact both current and returning students. If a change occurs, the education department will establish an alternative plan of study that must be completed in lieu of the original requirements. In special circumstances, students may be scheduled for elective courses, which need to be approved by the dean of education and director of the school. Students are scheduled with prerequisite sequences taken into consideration and usually take lower division courses prior to upper division courses. The school reserves the right to modify a students' schedule based on scheduling needs.

### SCHEDULE CHANGE REQUESTS

Students may request to have their schedules changed or modified by notifying the school. Schedule change requests may include session changes, change of classes, or any request that is class scheduling related. Students will be notified of the result of the schedule change request within one week. Students must be aware that schedule change requests may extend their projected

graduation date and/or may be denied due to scheduling conflicts as determined by the school.

### CLASS SIZES

Class sizes will be appropriate to the course of instruction and shall contribute to the achievement of the course objectives. All courses, whether in-person, fully online or hybrid online, generally range between 10 to a maximum of 50 students.

### ACADEMIC YEARS, QUARTERS & ACADEMIC STATUS

An Academic Year is a period of time the student is enrolled in the school whereby each academic year is equal to three (3) consecutive Enrolled Quarters, which begins with the first Enrolled Quarter. An Enrolled Quarter is a school defined instructional period of 10 weeks whereby the Student could enroll in at least one course scheduled within the respective quarter. A Quarter Academic Status is the students status for an Enrolled Quarter whereby the students Quarter Academic Status is equal to: (1) Full Time if the Student is scheduled in twelve or more credit units within the respective quarter, or (2) 3/4 Time if the Student is scheduled in nine or more but less than twelve credit units within the respective quarter, or (3) 1/2 Time if the Student is scheduled in six or more but less than nine credit units within the respective quarter, or (4) Less than 1/2 Time if the Student is scheduled in less than six credit units within the respective quarter. A student is considered scheduled for a course in an Enrolled Quarter if s/he is enrolled in a course meeting the following criteria: (1) that is in progress or has not yet begun, or (2) whereby s/he received an 'A-F' grade, or (3) whereby s/he has an attendance record for any of the courses scheduled days, or (4) that ends after another course meeting any of the aforementioned criteria within the Enrolled Quarter.

### QUARTER AND CREDIT UNIT DEFINITION

At Southern California Institute of Technology, programs are measured in Quarter Credit Units. One (1) Quarter Credit Unit = 15 didactic clock hours, 20 laboratory clock hours or 60 out-of-class work/preparation clock hours as part of a didactic or laboratory based course. One clock hour is equal to 60 minutes where, at minimum, 50 minutes of the clock hour is for instructional activity. Courses may be composed of one or more of the specified clock hour types. For example, a one (1) Quarter Credit Unit didactic based course may be composed of 10 didactic clock hours and 20 out-of-class work/preparation clock hours. Didactic clock hours may be a combination of asynchronous and synchronous instruction when delivered through a distance education modality. A Quarter is a school defined instructional period of ten (10) weeks whereby the Student enrolls in at least one course within the Quarter. A Students Enrollment Status for an enrolled Quarter is equal to (1) *Full Time* if the Student is enrolled in twelve or more Quarter Credit Units within the respective quarter, or (2) *3/4 Time* if the Student is enrolled in nine or more but less than twelve Quarter Credit Units within the respective quarter, or (3) *1/2 Time* if the Student is enrolled in six or more but less than nine Quarter Credit Units within the respective quarter, or (4) *Less than 1/2 Time* if the Student is

enrolled in less than six Quarter Credit Units within the respective quarter

outlined in the syllabi for each course. SCIT uses a traditional A – F (4.0 – 0.0) grading system.

### UPPER & LOWER DIVISION COURSE DESIGNATION

Courses designated at the 100 or 200 level are considered lower division courses. Courses designated at the 300 or 400 level are considered upper division courses. Upper division courses are usually advanced and/or specialized courses that are beyond the introductory level. These courses often build on the foundation provided from lower division courses.

### ACADEMIC FREEDOM

SCIT permits and encourages "academic freedom", or the right to discuss and hold non-standard or traditional viewpoints, allowing the school, teachers, and student's latitude. Academic freedoms are viewed as additions, and may supplement the curriculum, but must not replace it. Faculty has the freedom to take viewpoints that may conflict with the school, its administration and the world in general. A faculty member can articulate or even advocate controversial positions or concepts without any fear of reprisal from anyone associated with the school. The faculty is not allowed to participate in any conduct that would violate the laws of the land or that violate any individual's right to his or her own personal freedoms. Standards of decency and respect must be maintained and observed at all times.

### COMPARABLE PROGRAM INFORMATION

Comparable program information related to tuition, fees, and program length is available from:

The Accrediting Commission of Career Schools and Colleges  
 2101 Wilson Boulevard, Suite 302  
 Arlington, Virginia, 22201  
 Website: www.accsc.org

### GRADING SYSTEM

Students will be evaluated and assessed using quizzes, exams, lab exercises, projects, written reports, oral reports, and/or presentations. Specific evaluation and assessment criteria are

GRADING SYSTEM CHART			
Letter Grade	Grade Point	Percent Equivalent	Indicates
A	4.0	90-100%	Excellent
B	3.0	80-89%	Good
C	2.0	70-79%	Average
D	1.0	60-69%	Poor
F	0.0	0-59%	Fail
I	0.0		Incomplete
W	0.0		Withdraw
WF	0.0		Withdraw Fail

In addition to the grading system, SCIT uses the following designations:

#### WITHDRAW (W)

A grade designation of W indicates that a student has voluntarily withdrawn from a course after the end of the Add/Drop period and prior to completing 80% of the scheduled clock hours for the course. Students who receive a W grade are subject to the *Course Withdraw and Incomplete Charge* policy stated in this catalog. A grade designation of W:

- Does not contribute to a student's grade point average;
- Does not count as quarter credits units toward a students' degree or diploma completion requirement;
- Counts toward the total number of credits attempted when determining full or part-time status; and
- Counts toward total number of credits attempted for determining the students Satisfactory Academic Progress.

#### WITHDRAW FAIL (WF)

A grade designation of WF indicates that a student has either (1) voluntarily withdrawn from a course on or after completing 80% of the scheduled clock hours of the course and prior to the last scheduled date of the course, or (2) been administratively withdrawn from a course by the school due to the school imposing student sanctions resulting from the student violating school policies. Students who receive a WF grade are subject to the *Course Withdraw and Incomplete Charge* policy stated in this catalog. A grade designation of WF:

- Contributes to a student's grade point average;
- Does not count as quarter credits units toward a students' degree or diploma completion requirement;
- Counts toward the total number of credits attempted when determining full or part-time status; and
- Counts toward total number of credits attempted for determining the students Satisfactory Academic Progress.

#### INCOMPLETE (I)

A grade designation of I indicates that a student was enrolled for a course but did not complete the objectives and requirements of the course. An I grade designation additionally indicates that the

student was not in attendance at the conclusion of the course as opposed to an F grade which indicates that the student was in attendance but failed to complete the course objectives. Students who receive an I grade are subject to the *Course Withdraw and Incomplete Charge* policy stated in this catalog. A grade designation of I:

- Contributes to a student’s grade point average;
- Does not count as quarter credits units toward a students’ degree or diploma completion requirement;
- Counts toward the total number of credits attempted when determining full or part-time status; and
- Counts toward total number of credits attempted for determining the students Satisfactory Academic Progress.

Students who receive an Incomplete Grade (I) in all their enrolled courses during a term must notify the school that they intend to continue their studies and appeal to remain enrolled at the school within the deadline of (1) thirty days after the end date of the respective courses if the student is a Non-Attendance Required Student, or (2) fourteen days after the end date of the respective courses if the student is an Attendance Required Student. The school reserves the right to extend the aforementioned deadlines in its sole and absolute discretion. Students who notify the school that they intend to continue and appeal to remain enrolled at the school must indicate so in writing by completing the applicable forms provided by the school within the aforementioned deadlines. The school, in its sole and absolute discretion, will either grant or deny the students appeal to remain enrolled at the school based on the reason(s) the student provides for his or her lack of attendance, the students past attendance patterns and the students past academic history at the school. If the appeal is granted, the student must attend within the Attendance Census Period of their next scheduled course and may not drop during the Add/Drop Period of his/her next scheduled course unless approved or they may be withdrawn from the school. If the student does not appeal to remain enrolled at the school within the applicable deadlines and/or is denied his or her appeal to continue, the student will be withdrawn from the school.

**COURSE COMPLETION**

A course is considered complete if the student (1) receives an A-D grade in the course, or (2) receives transfer credit for the course, or (3) receives experiential learning credit for the course, or (4) receives an A-D grade in a course designated as an elective or Independent Study of the respective course by the SCIT Education Department, or (5) tests out of the course.

**GRADE POINT AVERAGE**

The grade point average is determined by dividing the number of grade points earned by the number of units attempted. The total grade points earned for a course equals the number of grade

points assigned times the number of course units. Grade point average (GPA) calculations will be based on the following:

**GRADE POINT AVERAGE CALCULATION**

Course Credit x Grade Points = Total Points  
 Total Points ÷ Credits = GPA

Example:

Course	Credits	x	Grade (Points)	=	Total Points
Course 1	4	x	A (4.0)	=	16.0
Course 2	3	x	B (3.0)	=	9.0
Course 3	2	x	C (2.0)	=	4.0
Totals	9				29.0

Grade Point Average for this example:  
 29.0 Points ÷ 9 Credits = 3.22 GPA

**STUDENT PROGRESS & EVALUATION**

Student’s progress is generally evaluated at 40%, 80% and 100% completion of each quarter 10 weeks or 5-week module through daily assignments, assessments of hands-on work, quizzes and examinations. Progress is measured by the use of the grade point system.

**REPETITION OF COURSES**

Students may repeat a failed course as many times satisfying that they meet the schools satisfactory academic progress requirements, however, students may repeat a completed (passed) course only once. If a student repeats a course, the higher of the grades achieved in the repeated course is calculated into the students’ grade point average. However, the students’ academic record will show both the original and repeated course grades. The academic transcript will indicate the repeated course as credits attempted but only the course with the highest grade earned will be calculated into the credits completed and the GPA. Repeated courses are calculated as attempted units when calculating quantitative standards for Satisfactory Academic Progress. However, only the highest grade is used when calculating qualitative standards for satisfactory academic progress. Students should be aware that repeating a course may result in additional charges, may affect the students projected graduation date, and/or may affect the students’ future course schedule.

**CORRECTION OF GRADES**

All grades are considered final when recorded into the students’ transcript. All requests for a grade change must be submitted in writing to the Dean of Education.

**TEST OUT**

The SCIT Education Department may designate certain courses for which a student may petition to test out from and, thereby, no longer be required to enroll in the course. A petition to test out from a course must include the reason as to why the student

believes s/he is sufficiently proficient and has the appropriate competency in the respective courses subject matter objectives. The SCIT Education Department may then decide whether the student must take a comprehensive examination that assesses their knowledge of the course material or whether previous successfully completed examinations, including those administered by outside entities, are sufficient in scope to demonstrate the students' competency in the respective courses subject matter objectives. If the student demonstrates competency in the respective courses subject matter objects, then (1) the student will no longer be required to enroll in the respective course, and (2) if the student has not yet attempted the course, the total costs associated with the tuition, books, materials and fees for the course will be reduced from the Total Cost of the students' enrollment.

## INDEPENDENT STUDY

Independent Study is self-directed learning conducted by the student and supervised by a faculty member. Independent Study may require students to read, conduct research, complete written examinations, reports, research papers, portfolios, or similar assignments that are designated to measure the student's achieved competency relative to the required subject matter objectives. Each Independent Study a student completes will be awarded appropriate credit units as determined by the school. The assessment and grading criteria of independent study courses will be determined by the supervising faculty member. The school may require a student to conduct Independent Study in lieu of enrolling into certain courses due to circumstances including, but not limited to, lack of sufficient enrollment, lack of availability of faculty, or lack of availability of facilities. The school will determine in its sole and absolute discretion whether or not a student may be required to complete Independent Study as a replacement of course(s) composing a portion of their Academic Plan. A student may petition to the Dean of Education to complete an Independent Study in lieu of enrolling into course(s) within their Academic Plan in writing at any time. The Dean of Education will decide at his/her discretion whether or not to grant the students petition to complete an Independent Study in lieu of enrolling into course(s) in their Academic Plan. In no circumstance may more than 10% of the total required units of a students' Academic Plan be completed via Independent Study units.

## ADD/DROP PERIOD

The Add/Drop Period for each course is during the first week of instruction for each respective course. Students wishing to drop from a course within the Add/Drop period must complete and submit all applicable forms to the school by the last day of the Add/Drop period. Students may drop from a course within the Add/Drop Period without the course appearing as a withdraw grade (W or WF) on the student's transcript. The course will also not be considered attempted for the purposes of Satisfactory Academic Progress if dropped within the Add/Drop period. If a student requests to drop all courses in a term during the Add/Drop Period, then the student will be considered requesting a Leave of Absence (LOA) for the term and the LOA policies outlined in this catalog will apply. If the student requests to drop all courses in a term during the Add/Drop Period and does not meet the LOA policies outlined in this catalog, then the student

will be required to enroll in at least one course for the respective term in order to remain enrolled in the school.

## ATTENDANCE AND TARDINESS

The school expects students to attend all scheduled days of their classes. For courses offered through distance education, the school expects students to participate in all live, teleconference sessions of the respective online course. Each student is designated as either an Attendance Required Student or a Non-Attendance Required Student. An Attendance Required Student is defined as a student whereby an outside entity requires the school to maintain attendance records for the student. A Non-Attendance Required Student is any student not designated as an Attendance Required Student. The School takes attendance for all students for each class during an Attendance Census Period. The Attendance Census Period is during the first week of each scheduled course. After the Attendance Census Period, faculty members will continue to track attendance for Attendance Required Student and may opt to track attendance for Non-Attendance Required Student for the remainder of the course. Faculty members who opt to track attendance will bring to the attention of the school patterns of absenteeism for a student at which point the school may hold counseling sessions with the student in regards to attendance. If there is no evidence the student was in attendance at the conclusion of a term, the school will attempt to contact the student to hold a counseling session. If the school is unsuccessful at contacting the student, the student may be administratively dropped from all future courses and withdrawn from the school. Attendance for courses offered through distance education is based on participation in the live, teleconference sessions scheduled each week for the respective online course.

The school schedules and enrolls students into courses each term. In order for a student to remain enrolled in a course, he or she must either (1) attend at least one day of the respective course during that Attendance Census Period, or (2) receive approval for an Attendance Waiver by submitting a written appeal to remain enrolled in the respective course without attending during the Attendance Census Period. Appeals for an Attendance Waiver must state the reason(s) as to why the student will be unable to attend the respective course during the Attendance Census Period and must be submitted prior to the end of the Attendance Census Period. Appeals for an Attendance Waiver are reviewed on a case by case basis and may be approved or denied depending on the reason(s) the student is unable to attend and the students past academic performance, which may include, but is not limited to, past attendance patterns. The school may require the student to provide additional documentation to substantiate the reasoning as to why he or she is unable to attend the respective course during the Attendance Census Period. If a student fails to attend a course during the Attendance Census Period and does not receive approval for an Attendance Waiver, then the student may be dropped from the respective course.

If a student is dropped from all courses in a term resulting from a lack of attendance, then the student must provide a written appeal to remain enrolled in the school. The school, in its sole and absolute discretion, will either grant or deny the students appeal to remain enrolled at the school based on the reason(s) the student provides for his or her lack of attendance, the students past attendance patterns and the students past academic history at the school. If the appeal is granted, the student must attend within the Attendance Census Period of his or her next scheduled course and may not drop during the Add/Drop Period of his or her next scheduled course unless approved or they may be withdrawn

from the school. If the student does not appeal to remain enrolled at the school within the applicable deadline and/or is denied his or her appeal to continue, the student will be withdrawn from the school.

## INTERRUPTIONS

### SCHEDULED BREAKS

Scheduled breaks are institutional based breaks of 5 days or more that either (1) is scheduled for all students based on the Academic Calendar (i.e. holidays), or (2) an individual student may be placed on in the event there is no class available for that student due to scheduling, enrollment conflicts, and/or other reasons as deemed necessary by the college administration. If a student is placed on a scheduled break, he/she will be notified as to the time they are scheduled to return from their scheduled break and resume classes. Students who do not return by the scheduled return date may be withdrawn from the school.

### LEAVE OF ABSENCE (LOA)

The purpose of a leave of absence (LOA) is to provide students with the opportunity to leave school for a certain period of time without withdrawing or affecting satisfactory academic progress. An LOA may be granted under the following circumstances:

- The student must present a sound reason as to why he or she is requesting an LOA which include, but are not limited to: medical emergencies, military duty, pregnancy, death of an immediate family member, employment responsibilities, or personal hardships.
- The reason provided for requesting an LOA must carry a reasonable expectation that the student will return from LOA.
- Students must be in good academic standing.
- Requests for LOA must be in writing and include the reason for the request. Students must complete an LOA request form available from the school, sign and date it, and attached any additional supporting documentation if necessary. The LOA request form may also be electronically signed.
- A leave of absence together with any additional leaves must not exceed a total of 180 days in a 12-month period.
- The student will not incur any additional tuition charges during an approved LOA.

LOA requests may take up to two weeks for review and may require the student to attend a counseling session prior to being granted or denied. Students may extend an approved LOA return date by completing another LOA Form satisfying that the student meets the above mentioned conditions. Students may not extend an approved LOA return date one (1) week prior to the return date unless approved by the Dean of Education. In certain cases, students may be required to extend their LOA return date due to class availability. In certain emergency cases, an LOA may be granted by the school if the student meets the above conditions but is unable to complete an LOA form prior to the LOA begin date due to special circumstances. In such cases, a completed LOA form will need to be completed by the student at a later time.

LOA's are generally granted for entire terms. The student must specify the start and end date of his or her LOA request, which generally corresponds to the start date of the term he or she is

requesting to begin the leave and the start date of the term he or she is requesting to return from the leave.

Students who do not return by the scheduled return date may be withdrawn from the school. If a student is withdrawn due to not returning from an LOA, the student should be aware that the grace period for any federal loan repayments will begin on their last date of completion prior to the LOA begin date.

## CHANGE OF PROGRAM

Students may request to change their enrolled program(s) at any time during their enrollment at the school. Requests for program changes are reviewed and either approved or denied by the SCIT Education Department. Requests for a change of program may include a review of a student's academic history at the school, admissions exam scores, financial standing at the school, or other relevant information pertaining to the student's progress at the school. Students may be required to complete a secondary interview or may be required to complete more coursework at the school prior to the SCIT Education Department deciding whether or not to approve the student's change of program request. If a student's change of program request is denied, then the student will not be allowed to change their enrolled program(s).

## WITHDRAW FROM THE PROGRAM

Any student wishing to withdraw from the program or cancel their enrollment should follow the "Procedures for Cancellation by Student" stated in the Financial Aid section of this catalog and also stated in the enrollment agreement. If student officially withdraws from the school while enrolled in one or more courses, he/she will be withdrawn from all currently enrolled courses and receive the appropriate withdrawal grade for each respective course.

## MAKE-UP POLICY

Students may have circumstances that prevent them from attending a course to attempt at completing an assessment for the course on a designated date and time, such as taking a midterm or final examination on the respective examination date. Students may request to take a make-up for any missed assessments due to specific circumstances, which include but are not limited to; employment responsibilities, military duty requirements, medical circumstances, and personal emergencies. The school, in its sole and absolute discretion, may grant or deny allowing a student to take a make-up based on (1) the reason why the student was unable to attempt at completing an assessment on the designated date and time, and (2) the date by which the student informed the school or respective faculty member s/he would be unable to attempt at completing the assessment on the designated date and time, and (3) the total number of prior make-up's the student has taken at the school, and (4) the documentation provided, if any, to substantiate the students reason(s) for requesting to take a make-up. Depending on the reasons and circumstances surrounding the request for a make-up exam, the school may require the student to produce documentation substantiating the students' reasons for requesting a make-up and/or may penalize the student by capping the maximum score a student may receive on a make-up. The school reserves the right to verify the accuracy of any documentation provided, which may include contacting any third parties substantiating the reason as to why the student was unable to attend on the designated date and time of the assessment. Students who are denied from taking a make-up may

appeal in writing to the Dean of Education. The Dean of Education will make any final determination as to whether or not the student will be allowed to take a make-up exam and/or whether or not a make-up exam will be penalized.

## TRANSCRIPTS, DEGREES & DIPLOMAS

Students may request an official transcript from the SCIT Registrar's Office as long as they are in good financial standing with the school. Official transcripts generally take two weeks to be prepared and cost a fee, which can be obtained by contacting the SCIT Registrar's Office. Students may pick up their official transcript at the SCIT Registrar's Office during normal business hours when ready or request that their official transcripts be mailed for an additional fee. Students may also request that the preparation of their official transcript be expedited for an additional fee.

Diplomas and Degrees will be available for pick up at the SCIT Registrar's Office approximately two weeks after graduation and completion of the Exit Form. There is no cost for the original degree or diploma. Students may request additional copies of their degrees or diplomas for an additional cost by contacting the SCIT Registrar's Office.

## ACADEMIC PLAN AND SAP UNITS

A students' Academic Plan is a list of all courses the student is required to complete in order to graduate from the school. The Academic Plan is determined by the school and is based on the curricula of the program(s) for which the student enrolls. A students Academic Plan may change throughout the students enrollment at the school depending on whether modification are made to a programs curricula as determined by the SCIT Education Department or the student decides to enroll in additional programs or withdraw from a currently enrolled program. The Academic Plan SAP Units is the sum of credit units for all required courses in the students' current and prior, if any, Academic Plan(s) in the students' current enrollment minus courses for which the student did not attempt but has completed based on any of the criteria defined in the Course Completion section of this Catalog.

## SATISFACTORY ACADEMIC PROGRESS

To be in good standing with the school and to be eligible to receive Title IV financial aid, students must maintain Satisfactory Academic Progress (“SAP”). Satisfactory Academic Progress consists of:

1. Qualitative Standards - Cumulative grade point average (CGPA) requirements; and
2. Quantitative Standards - Completion rate requirements (Pace).

Students who do not meet the Satisfactory Academic Progress requirements may be withdrawn from the school.

### QUALITATIVE STANDARDS – CUMULATIVE GPA REQUIREMENTS

Students must maintain a minimum cumulative GPA of 2.0 to graduate. To demonstrate SAP, the student must maintain a minimum CGPA of 2.0 at each evaluation point (see below) throughout their enrollment at the school. All courses a student attempts at the school is factored in and calculated into their CGPA.

### QUANTITATIVE STANDARDS – COMPLETION RATE REQUIREMENTS (PACE)

To ensure completion of the program within the maximum allowable timeframe, students must achieve and maintain a cumulative completion rate (“Pace”) of 60%. Pace is equal to the cumulative number of credits completed divided by the cumulative number of credits attempted.

$$\text{Pace} = \frac{\text{Cumulative Number of Credits Completed}}{\text{Cumulative Number of Credits Attempted}}$$

#### *Maximum Program Length (150% Rule)*

The credit hours attempted must not exceed one and a half (150%) times the students’ Academic Plan SAP Units. For example, a student enrolled in a 100-credit hour program cannot attempt more than 150 credit hours. Any student who exceeds the 150% maximum time requirement will not be allowed to graduate from their program of study. If at any point during the student’s enrollment it becomes mathematically impossible for the student to complete their program within the maximum program length, the student will be withdrawn from the school.

#### *Maximum Attempts*

Students may only attempt a course three (3) times. If the student cannot complete the course after three attempts, they may be withdrawn from the school. Students can appeal to the Dean of Education to attempt a course more than the aforementioned amount as long as the subsequent attempt(s) of the course

provides that the student would be able to meet all other SAP requirements.

## SATISFACTORY PROGRESS EVALUATION CRITERIA

Grade	Credits Attempted	Credits Completed	Calculated in GPA
A-D	Yes	Yes	Yes
F	Yes	No	Yes
Incomplete (I)	Yes	No	Yes
Withdraw Fail (WF)	Yes	No	Yes
Withdraw (W)	Yes	No	No
Repeated Course	Yes	No	No

### EVALUATION POINTS

Students will be evaluated at the end of each Enrolled Quarter for the duration of their program to check whether or not they are meeting SAP requirements. If a student is not meeting SAP requirements at any evaluation point, then they will be placed on Financial Aid Warning or Financial Aid Probation (Academic Probation) depending on the circumstance (see Financial Aid Warning and Financial Aid Probation policies in this Catalog).

### MULTIPLE MAJORS

A student may major in more than one program if approved by the Dean of Education. If a student majors in more than one program, then the students’ Academic Plan required course list will reflect all courses the student will be required to complete in order to graduate from each respective program. If a student changes programs throughout their enrollment, then (1) all previously attempted courses at the school are considered and included in the calculations for both the quantitative and qualitative standards of SAP, and (2) the total required units respective to the 150% Rule includes all units the student needs to complete for their new major and all courses the student previously attempted that was required for their prior major.

### FINANCIAL AID WARNING

If a student fails to meet satisfactory academic progress at any evaluation point throughout his/her program, the student will be placed on a Financial Aid Warning Status for a maximum of one (1) Quarter, effective on the date of evaluation. The student will be notified that they are placed on a Financial Aid Warning Status within two weeks after the date of evaluation. The student is eligible to receive Financial Aid for the quarter in which the student is on a Financial Aid Warning Status. If the student fails to meet all SAP requirements at the end of the students Financial Aid Warning Status period, the student may be dropped from the school unless he/she appeals to the Dean of Education to be placed on Financial Aid Probation. If a student meets all SAP requirements at the end of the students Financial Aid Warning



Status period, the student will be restored to good academic standing.

#### FINANCIAL AID PROBATION (ACADEMIC PROBATION)

If a student fails to meet satisfactory academic progress at the end of his/her Financial Aid Warning Status period, he/she may appeal to the Dean of Education to be placed on a Financial Aid Probation status ("Academic Probation"). If a student does not appeal to the Dean of Education to be placed on Academic Probation, he/she may be withdrawn from the school. Students may only appeal to be placed on Academic Probation for the following reasons:

- Injury or Illness; or
- Death of a relative; or
- Other special circumstances.

Academic Probations can have a maximum length of one (1) Quarter and must include an academic plan developed for the student by the Dean of Education in order for the student to be able to meet satisfactory academic progress by the end of the Academic Probation. The academic plan lists the courses the student must complete in the respective Quarter and the minimum grades s/he must achieve in the respective courses. If the student fails to meet the academic plan outlined by the Dean of Education, the student will be withdrawn from the school. If a student is granted to be placed on Academic Probation, the student is eligible to receive Financial Aid for the quarter in which the student is on Academic Probation. If the students meets the academic plan outlined by the Dean of Education and meets SAP requirements at the end of the Academic Probation period, the student will be restored to good academic standing.

#### *Academic Probation for VA Students*

In accordance with the requirements of the Code of Federal Regulations 21.4253 (d)(4), the VA educational benefits received by qualifying student will be terminated if the student's CGPA is not at least 2.0 at the end of the student's first academic year (an academic year is three quarters in length) and at the end of each subsequent quarter of the program. A veteran or eligible person may request re-certification for benefits upon reestablishing a 2.0 GPA.

#### GRADUATION REQUIREMENTS

In order to graduate from a program, whether offered in-person or through distance education:

- The student must pass all classes in the program and complete all course requirements, thus obtaining the total credits required for graduation, and achieve a minimum GPA of 2.0.
- The student must satisfy all financial obligations to the school.
- The student must meet all satisfactory academic progress requirements and the credit hours attempted must not exceed 1.5 times the credit hours required to complete the program.

- The student must complete an exit interview conducted by the Student Services Office.

#### GRADUATION CEREMONY

The school holds a graduation ceremony on an annual basis. Only graduates from a degree program may participate in the graduation ceremony. Graduates who wish to participate in the graduation ceremony must see the graduation coordinator for reservations and pay any graduation fees required to participate in the ceremony. Students must have a cap and gown to participate in graduation ceremony, which is usually included with the graduation fees.

#### POST-WITHDRAWAL GRADUATION

Students who have withdrawn from the school and have twelve (12) or less quarter credit units remaining to complete their program of study may appeal within one (1) year of their withdrawal date to complete the respective remaining coursework at another accredited academic institution and transfer such credit to the school in accordance with the most recent *Transfer Credit and Advanced Standing Policy*. Appeals to transfer credit to the school after the student has withdrawn from the school are reviewed on a case-by-case basis depending on the circumstances of the student and the reason for the student's withdrawal from the school. If approved, the student will have a timeframe set by the school to complete all approved coursework at another accredited academic institution and transfer such credit to the school in order to have completed all course requirements and to graduate from his or her program of study. The school reserves the right to deny students seeking transfer credit after being withdrawn from the school for any violation of the *Student Code of Conduct*.

#### ACADEMIC HONORS & AWARDS

Graduates from degree programs with a GPA of at least 3.7 receive academic honors and awards for their exemplary academic achievements at the school. Academic Honors and Awards are presented at the graduation ceremonies.

#### STUDENT RECORDS

SCIT maintains records, including attendance, admission information, and academic progress for a minimum of five (5) years and are made available during normal business hours for inspection as required and per school policy. Students may view the content of their academic files by submitting a written request to the Registrar.

#### PRIVACY ACT

SCIT complies with the Privacy act of 1974 to protect the privacy of the students, educational records, and students' right to inspect and review their academic records.

## ACADEMIC CALENDAR

SCIT will provide specific orientation and graduation dates when available. SCIT may change or modify the Academic Calendar at any time. Withdrawal deadlines and Add/Drop periods are dependent on the end dates and meeting sessions of each course and may be obtained from the course syllabi.

### 2022 TERM START AND END DATES

Courses begin and end on the following dates:

Term Number	Term Start Date	Term End Date
1	January 3, 2022	February 4, 2022
2	February 7, 2022	March 11, 2022
3	March 14, 2022	April 15, 2022
4	April 18, 2022	May 20, 2022
5	May 23, 2022	June 24, 2022
6	June 27, 2022	July 29, 2022
7	August 1, 2022	September 2, 2022
8	September 6, 2022	October 7, 2022
9	October 10, 2022	November 11, 2022
10	November 14, 2022	December 16, 2022

### 2020 SCHOOL HOLIDAYS

There are no courses scheduled for the following holidays:

January 17, 2022	Martin Luther King Day
May 30, 2022	Memorial Day
July 4, 2022	Independence Day
September 5, 2022	Labor Day
November 10, 2022	Veterans Day
November 24, 2022 – November 25, 2022	Thanksgiving
December 19, 2022 – January 2, 2023	Winter Break

## FACULTY

### INFORMATION TECHNOLOGY & SYSTEMS

#### Karpukhin, Alexander

Lecturer

Educational Background: Master in Security of Information Systems, Institute of International Relations, Ukraine, '08  
Professional Background: VP Operations, TeamLogicIT | Information Systems Analyst III, City of Walnut Creek | Senior Network Engineer, All3IT, Technical Service Engineer, LogicLink

#### Tran, Long

Lecturer

Educational Background: B.S. Mechanical Engineer, Cal State University Northridge '86  
Professional Background: Instructor for Information Systems and Cyber Security, ITT | Network System Administrator, E.A.S. Manufacturing | Network Consultant, Mulgrew Aircraft Inc. | Microsoft and Cisco Certification Trainer and Network System Administrator, Monterey Park College | Process / Project Engineer, Electrocube Co.

#### Yang, Wei

Assistant Professor

Educational Background: M.S. Educational Administration and Supervision, University of Nebraska at Omaha '95 | B.A. English Language and Literature '82

Professional Background: Instructor and School Chair, ITT Technical Institute | Instructor, Monterey Park College | Data System Analyst, Los Angeles County

### ELECTRICIAN

#### Dubois, Joseph

Instructor

Educational Background: HS

Professional Background: Electrical Training Instructor, ECA Brightwood College | Electrician, Claremont University Consortium | Electrician, Contractors

#### Hunnel, Gary

Senior Instructor

Educational Background: BS Electronics Engineering, SCIT '03 | AS Electronics & Computer Science, SCIT '03

Professional Background: Instructor, SCIT | Electronic Technician, Transcend Inc.

#### Khan, Mohammad

Instructor

Educational Background: MS Math & Physics, University of Punjab Lahore, Pakistan '81 | BS Electrical Engineering, Cal State University, Fullerton '87

Professional Background: Electrical Program Instructor, Brightwood College | Electrical and Information Technology Instructor, ITT Technical Institute | Network Administrator, PCI | Electrical Engineer, Suntech Imaging Corp

#### Perry, Grant

Senior Instructor

Educational Background: Journeyman Electrician, State of CA  
Professional Background: Lead Instructor, Wyotech | Electrician Project Manager, Bolt Electric

#### Rodriguez, Mario

Instructor

Educational Background: A.A. Business Administration, Fullerton College '87 | C-10 Electrical license #980261 | Journeyman certified general electrician, State of CA

Professional Background: Lead Electrical Instructor, Wyotech | Lighting Division Manager, Sundown Lighting & Electrical

#### William, Matthew

Instructor

Educational Background: A.A. Science & Math, Coastline Community College '10 | C10 CA State License # 509979

Professional Background: Electrical Instructor, InterCoast College | Construction Manager, Innovative Structures | C10 Contractor, Cost Less Electric | Project Manager, Ardell Marten Painting & Interior Design.

## ELECTRICAL, ELECTRONIC &amp; BIOMEDICAL ENGINEERING

**Badra, Renny**

Lecturer

Educational Background: Ph.D. Electrical Engineering, UCLA '00 | M.Sc. Electronic Engineering, Universidad Simon Bolivar '91 | B.Sc. Electronic Engineering, Universidad Simon Bolivar '86  
 Professional Background: Full Professor, Universidad Simon Bolivar | Instructor, Logtel | Training Consultant, Qualcomm Inc. | Researcher, Centro de Investigaciones en Energia, Desarrollo y Ambiente

**Davarpanah, Mike**

Lecturer

Educational Background: Ph.D. EE, University of Missouri at Rolla '75 | M.S. EE, University of Missouri at Rolla '71  
 Professional Background: Professor electrical & Computer Engineering, Cal Poly Pomona | Electrical & Computer Engineer, Software & Hardware Solutions Group Inc. | Chief Technical Officer, Pacific Shores Engineering Alhambra | Senior Electrical Engineer, Swales Aerospace Pasadena | Technical Manager & Computer Engineer, OCEANIT Hawaii | Task Manager, MDNET Inc. | Senior Electrical Engineer, Jet Propulsion Laboratory.

**Haj-Mohamadi, Mohamad**

Assistant Professor

Educational Background: Ph.D. Electrical Engineering, University of Missouri '87 | M.S. Electrical Engineering, University of Missouri '84 | B.S. Electrical Engineering, Kansas State University '82  
 Professional Background: Department Head, Alamance Community College | Assistant Professor, North Carolina A&T State University | Assistant Professor, Lincoln University

**Hoang, Trong**

Lecturer

Educational Background: M.S. Electrical Engineering, CSU Long Beach '17 | B.S. Electrical Engineering, CSU Long Beach '13  
 Professional Background: Lecturer, CSU Long Beach | Principal Electrical Engineer, Vyaire Medical | Electrical Engineer, BIT Group USA

**Koprowski, Anthony**

Instructor

Educational Background: A.S. Degree Biomedical Engineering, Community College of the Air Force '86  
 Professional Background: Lead Biomedical Support Specialist, Acting Chief, Veterans Affairs LA | Supervisor Biomedical Engineer, Masterplan | Lead Imaging Service Technician, Park Nicollet Methodist Hospital | Supervisor Biomedical Engineer, Hennepin County Medical Center

**Lin, Airo**

Lecturer

Educational Background: M.S. Electrical Engineering, CSU Los Angeles '12 | B.S. Electrical Engineering, CSU Los Angeles '09  
 Professional Background: Senior Software/Embedded Engineer, RobotSoC Corp. | Lecturer, CSU Los Angeles | Network/IT Engineer, Laban Pen | Database/IT Engineer, Euston Investment Inc.] | Project Manager/Sr. Software Engineer, Happywork Information Technology Co. | Senior Software Engineer/Network System Engineer, Enlite Computer and System Information Co.

**Mekonnen, Fasil**

Associate Professor

Educational Background: M.S. EE, Cal State Fullerton '14 | B.S. EE, Bahir Dar University '02  
 Professional Background: Electrical Instructor, Wyotech Long Beach | Test Technician, Hospira, Inc. | Graduate Assistant, Bahir Dar University.

**Musbah, Mahmud**

Assistant Professor

Educational Background: Ph.D. Electrical Engineering, UC Davis '84 | M.S. Electrical Engineering, UC Davis '80 | B.S. Electrical Engineering, University of Tripoli '76  
 Professional Background: Principal, Circuit Consulting Group | Director of SoC Design, Actel | Director of Circuit Design, Barcelona Design Inc. | Analog/Mixed Signal Circuit Design Manager, Philips Semiconductors | Hard Disk Drives Electronics Section Head, Sony Semiconductors | Staff Circuit Design Engineer, National Semiconductors | Senior Circuit Design Engineer, Raytheon Semiconductors | Engineering Specialist, Ford Aerospace

**Panyarachun, George**

Lecturer

Educational Background: M.S. Biomedical Engineering, University of Akron '86 | B.S. Mechanical Engineering, The Royal Thai Air Force Academy '81 | A.S. Biomedical Equipment Technology, Stanly Technical College '84  
 Professional Background: Adjunct Assistant Professor, Los Angeles Valley College | Director Biomedical Engineering Department, UC Irvine Medical Center | Manager Biomedical Engineering Department, Hollywood Presbyterian Medical Center | Manager Biomedical Engineering Department, Children's Hospital Los Angeles | Managing Director, Medical and Environmental Technologies Inc. | Principal Clinical Engineer, UCLA Medical Center | Supervisor Biomedical Engineering Department, St. Vincent Medical Center | Clinical Engineer, The Royal Thai Air Force Hospital

**Pham, Patrick**

Lecturer

Educational Background: M.S. Physical Therapy, Cal State Long Beach '07 | M.S. Exercise Physiology, Cal State Long Beach '97 | B.S. Psychobiology, University of California Riverside '91  
 Professional Background: Lecturer, CSU Long Beach

**Rad, Khosrow**

Associate Professor

Educational Background: Ph.D. Electrical and Computer Engineering, University of Idaho '07 | M.S. Electrical and Computer Engineering, CSU Los Angeles '88 | B.S. Electrical and Computer Engineering, CSU Los Angeles '85  
Professional Background: Faculty, CSU Los Angeles | Associate Faculty in Industrial Electrical Technology, Norco College | Lecturer, CSU Long Beach | Lecturer, UC Irvine

**Rokni, Sam**

Lecturer

Educational Background: MS Electrical Engineering, CSU Fullerton '07 | BS Electrical Engineering, CSU Fullerton '05  
Professional Background: Hardware & SoC Technology Consultant & Analyst, Savant Affiliate | Lecturer, CSU Fullerton

**Safari, Sara**

Lecturer

Educational Background: M.S. Electrical Engineering, UCLA '07 | B.S. Electrical Engineering, UCLA '05  
Professional Background: System Engineer, Raytheon | Test Engineer, Broadcom

**Subhan, Arif**

Lecturer

Educational Background: M.S. Biomedical Engineering, Drexel University '93 | B.E. Electrical Engineering, NED University of Engineering & Technology '88  
Professional Background: Chief Biomedical Engineer, VA Greater Los Angeles Health Care System | Chief Biomedical Engineer, VA Nebraska-Western Iowa Health Care System | Senior Clinical Engineer, Masterplan

**Taylor, Roy**

Lecturer

Educational Background: M.S. Civil Engineering, CSU Fullerton '10 | B.S. Civil and Environmental Engineering, University of Utah '07 | B.S. Architectural Engineering, University of Technology '98  
Professional Background: Faculty, Don Bosco Technical Institute | Faculty, Argosy University-Art Institute of Orange County | Faculty, Irvine Valley College | Drafting and Design Instructor, ITT Technical Institute | Instructor, CSU Fullerton | Owner, Wall Engineering | Civil Engineer, TL Group

**Thompson, Allen**

Senior Instructor

Educational Background: B.S. Electronics Engineer, SCIT '97 | A.S. Electronics Engineering, National Institute of Technology '88  
Professional Background: Instructor for computers, digital electronics, semiconductor electronics, National Education Center

HUMANITIES

**Jasso, Aaron**

Lecturer

Educational Background: Psy.D Psychology, Alliant International University '15 | M.A. Clinical Psychology, Alliant International University '11 | B.A. Psychology, CSU Fullerton '09  
Professional Background: Adjunct Faculty, Cerritos College | Acting Clinical Supervisor, Children, Youth and Family Services Consortium

**Jwad, Ali**

Lecturer

Educational Background: M.A. English, CSU Fullerton '15 | B.A. English, CSU Fullerton '09  
Professional Background: Professor, West Coast University | Teacher, Education First | English Teacher, Al-Hadi School | Head of PR Department, Consulate General of the Republic of Iraq

**Ryan, Steve**

Lecturer

Educational Background: M.A. English Literature, City College of New York '88 | B.A. English Literature, City College of New York '85  
Professional Background: Faculty, Art Institute of California | Faculty, ITT Technical Institute | Faculty, University of Phoenix

**Sakhai, Parastou**

Associate Professor

Educational Background: M.S. Counseling, Cal State Fullerton, '10 | B.S. Business Administration, Cal State University Northridge, '94  
Professional Background: Counselor, Private Practice | MFT Instructor, Mariposa Women & Family Center | Intern Counselor, Outreach Concern | Program Facilitator, Girls Inc.

MATHEMATICS & SCIENCES

**Axelrod, Herbert**

Lecturer

Educational Background: Ph.D. Biochemistry, UC Riverside '89 | B.S. Biochemistry, UC Riverside '81  
Professional Background: Lecturer, CSU Fullerton | Adjunct Faculty, Mt San Antonio College | Staff Scientist, Stanford Synchrotron Radiation Lightsource/SLAC National Accelerator Laboratory

**Reyes, Jeffrey**

Assistant Professor

Educational Background: M.S. Mathematics, CSU Long Beach '17 | B.S. Mathematics, CSU Long Beach '14  
Professional Background: Tutor Technician, Cerritos Community College

**Sahu, Pushpa**

Lecturer

Educational Background: Ph.D. Biology, University of Mississippi '04 | Bachelor of Medicine & Surgery, Ravishankar University, Raipur '86

Professional Background: Associate Faculty, Norco Community College | Part-time Faculty Biology, South University Online | Part-time Instructor, Santa Ana College | Instructor, Inter Coast College

**Sotomayor, Andrew**

Associate Professor

Educational Background: M.S. Mathematics, Cal State Long Beach '16 | B.S. Mathematics, Cal State Long Beach '12

Professional Background: Teaching Associate, Cal State Long Beach.

**Tran, Benjamin**

Lecturer

Educational Background: Ed.D. USC '17 | M.S. Neuroscience, USC '04 | M.S. Biomedical Science, University of Hawaii, Manoa '99 | B.S. Biological Science, UC Irvine '97

Professional Background: Adjunct Instructor, University of La Verne | Assistant Professor, West Coast University | Adjunct Instructor, Allied American University | Adjunct Instructor, Chapman University

**Wu, Benson**

Lecturer

Educational Background: M.S. Mathematics, Cal State Long Beach '15 | B.S. Mathematics, Cal State Fullerton '13

Professional Background: Lecturer, Cal State Long Beach | Lecturer, El Camino College

## STUDENT AFFAIRS

### GENERAL INFORMATION

SCIT's Student Affairs Office offers a full range of services to support students as they pursue their academic and professional goals. We are committed to assisting students by providing useful information to help them make informed decisions throughout their collegiate years. It is often much easier to address issues and concerns with the help of the Student Affairs staff, which is why we encourage students to ask for help and information when needed.

### TRANSPORTATION, HOUSING & CHILDCARE

Student Services furnishes information on public transportation, general costs in the area of childcare, and points of interest. SCIT does not have its own housing facilities, as we do not offer a residential program. However when given prior notice at least two weeks in advance of the prospective students start date, SCIT will offer assistance to the student in finding suitable housing in the local area. SCIT further makes no guarantee of said housing based on availability. An approximation for the average cost of housing near the campus is around \$1645 per month. This estimation is based on a sampling of 48 one bedroom apartments within 1.5 miles of the campus obtained from rentometer.com as of the publication date of this catalog. This estimation is in no way a guaranteed cost, either expressed or implied, for housing and is subject to change at any time.

### PARKING

SCIT has ample parking for students at no fee. Parking is at your own risk. SCIT takes no responsibility for any loss of property from and of the parking areas in and around the campus.

### TUITION REIMBURSEMENT & ENROLLMENT VERIFICATION

Students may request a letter for tuition reimbursement or enrollment verification from the SCIT Registrar's Office. Verification letters generally take one week to prepare. There is no fee for enrollment verifications unless it is requested to be expedited.

### STUDENT ADVISING & COUNSELING

#### ACADEMIC ADVISING

Student Services and/or a faculty member assigned by the Dean of Education provide student advisement in regards to academic matters. Students are first instructed to speak with their assigned academic advisor in regards to academic advisement. If the academic advisement is beyond that of the advisors knowledge or expertise, then students may be referred to the Director of Education, appropriate Department Chair, or the Student Services Office depending on the students situation where a counseling session is usually arranged for students. In general, SCIT staff and faculty have open door policies if students would like to discuss academic related issues.

#### NON-ACADEMIC ADVISING

Non-academic advisement is done by the Student Services Office as necessary. Advisement may cover areas such as; attendance, housing, transportation, childcare, student conflict, conduct,

and/or other topics that are not financial or academic in nature. Financial advisement of any nature is referred to the Accounting Office or Financial Aid Office.

### COUNSELING

The school counselor handles counseling in regards to life skills and coping skills. The Student Services Office maintains an open door and privacy policy for all students requesting advisement pertaining to their personal lives. Should the student require experience beyond the counselors capabilities, the student may be referred to professional agencies in the local area.

### ADVISEMENT FOR DISTANCE EDUCATION STUDENTS

The Student Services Office is committed to providing advisement and counseling services to all students, including those learning through distance education. Student advisement and counseling is available through live teleconference sessions where distance education students have the opportunity to meet virtually in a private, online session to receive academic advisement, non-academic advisement or any advisement pertaining to personal life hardships. Teleconference sessions are available to conduct during normal business hours for the Student Services Office by appointment.

### TUTORING

Tutoring is arranged on an as-needed basis by the Student Services Office for students who feel they need help with their academics and who show satisfactory attendance as determined by the Student Services Office. Students may be advised to seek tutoring if their instructor identifies them as needing help with the course material. Tutoring is usually conducted by an instructor or by a qualified person. Students who request tutoring and do not show satisfactory attendance as determined by the Student Services Office may be charged for tutoring.

### PLACEMENT SERVICES

The SCIT Placement Office assists students in (1) creating, modifying and/or rewriting resumes, (2) career related workshops and/or counseling, and (3) providing job leads. The school maintains job leads from various employers who work with the school. The availability of job leads depends on the open positions available from the employers and how well those positions match candidate backgrounds. The school does not guarantee that it will provide job leads to all graduates. Graduates who do not have any outstanding financial obligations to the School are eligible to receive placement services at any point within a nine (9) month time period that begins on the graduates' date of graduation ("Eligibility Timeframe"). Eligible graduates may contact the SCIT Placement Office in order to receive placement services. In order for a graduate to receive placement services throughout his/her Eligibility Timeframe, the graduate must actively participate in the placement process, meaning the graduate must (1) respond to, communicate and attend scheduled meetings with his/her assigned placement representative to a degree that satisfies the Placement Representative, (2) complete any placement related assignments in a diligent and proactive fashion, and (3) attend a reasonable amount of workshops provided by SCIT as deemed appropriate by the graduates Placement Representative. Any student or graduate who violates the student code of conduct may be denied placement services as solely decided by the SCIT Placement Office. The school does not make any promise or representation whatsoever to any student or graduate that

he/she will obtain employment, whether part-time, training related, or otherwise.

## STUDENT CODE OF CONDUCT

Students must demonstrate courtesy and consideration toward the staff, instructors, and other students. The college reserves the right to suspend or dismiss any student whose conduct is inappropriate or demeaning to fellow students, or the school and its reputation.

At the discretion of the school administration, a student may be temporarily or permanently suspended from school for any serious or repeated incident, including but not limited to

- A drugged or intoxicated state of behavior;
- Possession of drugs, alcohol or weapons upon school premises;
- Physical or verbal behavior creating a safety hazard;
- Disobedience or disrespectful behavior toward an administrator, faculty member, or another student;
- Any verbal, physical or other conduct based on a persons sex, race, color, religion, national origin, age, disability, veteran or marital status that has the purpose or effect of threatening or intimidating or coercing another, or impairing academic performance, career development, or any other aspect of education;
- Academic dishonesty, such as cheating, plagiarism, knowingly furnishing false information or any activity deemed as academic dishonesty by the Dean of Education;
- Obstruction or disruption of teaching, administration, disciplinary procedures, or any school related activity;
- Theft of, or damage to, property of the college;
- Violation of the Computer Use Policy defined in this Catalog;
- Disorderly conduct or led, indecent, or obscene conduct or expression;
- Knowingly making false statements or accusations that damage or undermine the schools reputation;
- Violation of any school directives such as a *No Contact* directive or *No Trespass* directive;
- Failure to comply with the verbal or written directions of any college official acting in the performance and scope of his/her duty;
- Violation of any of the policies outlined in the schools most recently published Annual Security Report.

## DISCIPLINARY ACTION & STUDENT SANCTIONS

In the event that a student violates the Student Code of Conduct, the school may impose any of the following sanctions:

- Educational Sanctions
- Denial of Access to Campus, Resources or Persons
- Suspension (one or more days or one or more terms)
- Expulsion

The school makes a determination as to whether any Student Code of Conduct was violated by performing the appropriate investigations per school policy depending on the type of infraction. The school will determine, in its sole and absolute discretion, as to the sanction(s) to impose on the student, if any, depending on (1) the conclusions of the investigations, and (2) the nature and severity of the infraction, and (3) any prior incidents the student may have had at the school. Incidents leading to any

disciplinary action are recorded in writing and filed in the students file.

If the student is temporarily suspended, s/he will be allowed to resume his or her studies after a certain number of days as determined by the school. If the student is suspended from a term or expelled, the student will receive a Withdraw Fail grade ("WF" Grade) for all courses the student is enrolled in at the time of the infraction. A student who is expelled from the school may appeal for reinstatement to a Readmission Committee as to the reason(s) the student believes s/he should be reinstated at the school. The appeal must be made in writing, must include any additional documentation to support claims made by the student as to the events that led to the expulsion, and may require the student to attend a counselling session with the Readmission Committee. The Readmission Committee, in its sole and absolute discretion, may choose to grant the appeal to reinstate the student at the school or may deny the appeal. If the student's appeal is denied, s/he will not be allowed to re-enroll at the school.

## COMPUTER USE POLICY

SCIT students are authorized to use the school's computers for course related work and other educational purposes only. Use of SCIT's resources for other than educational purposes is not permitted. SCIT reserves the right to inspect all information stored on SCIT computers, including programs and data. All students' work, exercises, and information are to be stored on an external device such as a flash drive, not the computer hard drive. The school is not responsible for lost work saved on the hard drive. The systems provided are for public usage and not restricted to one user.

Instances of system misuse and/or inappropriate usage are in violation of the Student Code of Conduct and may result in removal of privileges to SCIT's computers, suspension or expulsion from the school. Misuse and/or inappropriate usage of SCIT's computer systems include, but are not limited to:

- Unauthorized copying, installing or distribution of software without approval from SCIT;
- Playing games, chatting on the internet, or participating in activities that are not course related;
- Deliberately trying to damage system software or hardware;
- Any attempt to create or import a program that may jeopardize system security or compromises data integrity;
- Viewing any images (i.e., photographs, drawings, paintings, or other derivatives thereof), audio, videos, movies or data that are discriminatory, abusive, profane, harassing, adult oriented, inappropriate or sexually offensive. When a complaint regarding discriminatory, abusive, profane, harassing, adult oriented, inappropriate or sexually offensive material is received by Southern California Institute of Technology, the matter will be turned over to the appropriate dean, office, committee or law enforcement agency.

SCIT reserves the right to limit or deny access to anyone using SCIT computers and/or facilities when privileges are abused.

## SCHOOL EMAIL ACCOUNTS

The school utilizes a cloud-based platform provided by Google ("Gmail Accounts") to provide students with school email accounts. Students are assigned a school email account normally within one month after beginning their enrollment at the school. The school email account also serves as a Google Account that enables students to access a variety of Google Apps and Services while attending school.

### OWNERSHIP, PRIVACY AND RIGHT OF ACCESS DISCLOSURE

The school owns all school email accounts, including all data transmitted or stored using the schools email accounts, subject to underlying copyright and intellectual property rights under applicable laws. While the school will make every effort to keep email messages secure, privacy is not guaranteed and students should have no general expectation of privacy in email messages sent through school email accounts. Under certain circumstances, it may be necessary for school officials to access and inspect school email accounts. These circumstances may include, but are not limited to, maintaining the system, investigating security or abuse incidents or investigating violations of school policies. The school reserves and retains the right to access and inspect stored information on school email accounts without the consent of the user. All school email users are bound by the schools Acceptable Use Policy and Google's Acceptable Use Policy, which can be found at the following URL  
[https://gsuite.google.com/intl/en/terms/use\\_policy.html](https://gsuite.google.com/intl/en/terms/use_policy.html).

### EXPIRATION OF SCHOOL EMAIL ACCOUNTS

Students may leave the school for a variety of reasons, which gives rise to differing situations regarding the length of email privileges or expiration of accounts. The school does not guarantee school email accounts to be active after the student graduates or withdraws from the school. The school will establish policies, which may change from time to time, about the length of time it will allow school email accounts to remain active after a student leaves the school. The most recent policy in regards to the expiration of school email accounts can be obtained by contacting the Student Services Office.

### ACCEPTABLE USE POLICY

This policy details specific requirements for the use of school email accounts. The school reserves the right to suspend any student's school email account for violation of this policy or any policy outlined in the Student Code of Conduct or Computer Use Policy in the most recently published school catalog.

Students given a school email account are expected to use such accounts for academic purposes and protect their accounts from

unauthorized use. The exchange of any email content below is prohibited:

- Generating unsolicited bulk emails;
- Infringing on or assisting with the infringement on another person's copyright or other property rights;
- Violating or encouraging the violation of any federal or state laws;
- Intentionally distributing viruses, worms, Trojan horses, malware, corrupted files, hoaxes, or other items of a destructive or deceptive nature;
- Generating or forwarding content that is profane, abusive, harassing, excessively violent, may incite or threaten violence, inappropriate or sexually offensive;
- Creating a risk to a person's safety or health, creating a risk to public safety or health, or interfering with an investigation by law enforcement;
- Misrepresenting the identity of the sender of an email or misrepresenting the nature of the individuals relationship with the school; or
- Acting as an agent or official of the school or conducting business under the aegis of the school without the school's explicit authorization.

## DRESS CODE

The dress code is "Casual, but modest". No offensive statements on clothing are permitted.

## SAFETY, FOOD & DRINK POLICY

Students are required to observe all standard safety precautions. Students are not permitted to move any equipment or furniture on the campus. Students are not permitted to have food or drink in any of the buildings, except for water in spill proof containers.

## CELL PHONE USAGE POLICY

Students may not use cell phones in the classroom or in areas marked as for no cell phones usage on the school premises. Unauthorized use of cell phones is in violation of the student code of conduct.

## ACCOMMODATIONS FOR DISABLED STUDENTS

Students with disabilities may request for reasonable accommodations to attend school by submitting a request in writing to the Student Services Office stating the following: (1) a description of the nature of the disability, (2) how the disability affects his or her ability to perform in academic activities at the school, and (3) the specific accommodations he or she is requesting the school to make available. For certain cases, the school may request additional documentation that may include, but is not limited to, a recent letter from a medical professional that verifies the disability and provides recommendations for reasonable accommodations. Reasonable accommodations are made available providing the requested accommodations do not cause an undue financial or administrative burden on the school,



do not fundamentally alter the school's academic programs, and are not of a personal nature.

## CAMPUS CRIME & SECURITY

SCIT publishes an Annual Security Report by October 1<sup>st</sup> of each year in compliance with the requirements of the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act of 1988 ("Clery Act"). The most recent SCIT Annual Security Report may be found on the schools website at <https://www.scitech.edu/campus/crime>. The Annual Security Report contains information in regards to campus security policies and procedures, which includes policies related to alcohol, drugs and weapons, and sexual misconduct. Students are required to follow all policies and procedures as stated in the schools most recently published Annual Security Report.

## DRUG FREE SCHOOL

SCIT forbids the use, possession, distribution or sale of drugs or alcohol by students, faculty or staff anywhere on college property or at college sponsored events off campus. Anyone in violation of state, federal or other local regulations, with respect to illegal drugs or alcohol, may be subject to both criminal prosecution and disciplinary action. Students should refer to the schools most recently published Annual Security Report for the schools policies and procedures in regards to alcohol and drugs.

## STUDENT PROPERTY

No personal property or other property may be brought to the school for repair, troubleshooting or any other reason. SCIT assumes no responsibility for lost property.

## LOST & FOUND

Any Student items that are lost or stolen on college property are the responsibility of the student. The college does not take any responsibility for lost or stolen items. Any lost items found should be taken to the Student Services Office where it will be placed in "Lost & Found." Items in the "Lost & Found" are held for a maximum of two (2) weeks at which point they may be donated or destroyed.

## UNAUTHORIZED GUESTS

Students are not allowed to bring any unauthorized guests onto the premises without approval from the Student Services Office. Unauthorized guests include, but are not limited to: children, family members, friends, and/or co-workers.

## STUDENT COMPLAINT & GRIEVANCE PROCEDURE

Any student wishing to resolve a problem or wishing to register a complaint should first contact his/her instructor. If the problem is not resolved, the student should contact the Student Services Office. If the problem is still unresolved, the student may submit a written complaint to the President of SCIT.

Schools accredited by the Accrediting Commission of Career Schools and Colleges must have a procedure and operational plan for handling students' complaints. If a student does not feel that the school has adequately addressed a complaint or concern, the student may consider contacting the Accrediting Commission. All complaints reviewed by the Commission must be in written form and should grant permission for the Commission to forward a copy of the complaint to the school for a response. This can be accomplished by filing the ACCSC Complaint Form. The complainant(s) will be kept informed as to the status of the complaint as well as the final resolution by the Commission. Please direct all inquiries to:

**The Accrediting Commission of Career Schools and Colleges**  
**2101 Wilson Boulevard, Suite 302**  
**Arlington, VA, 22201**  
**(703) 247-4212**  
**[www.accsc.org](http://www.accsc.org)**

A copy of the ACCSC Complaint Form is available at the school and may be obtained by contacting the Student Services Office or online at [www.accsc.org](http://www.accsc.org).

Any questions a student may have regarding the enrollment agreement or 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)), Telephone: (916) 431-6959, 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 toll-free or by completing a complaint form, which can be obtained on the bureau's Internet Web site [www.bppe.ca.gov](http://www.bppe.ca.gov)

## DIPLOMA PROGRAMS

### BIOMEDICAL TECHNOLOGY

AWARD..... DIPLOMA  
PROGRAM LENGTH ..... 35 WEEKS (8 MONTHS)  
QUARTER CREDIT UNITS..... 44 UNITS  
CLOCK HOURS ..... 720 HOURS

#### EDUCATIONAL PROGRAM OBJECTIVES & PROGRAM DESCRIPTION

The goal of the Biomedical Technology Diploma program is to prepare graduates for employment as entry-level biomedical equipment technicians. Students are trained to troubleshoot, maintain and repair electronic based medical equipment. The educational program objectives are as follows:

1. Obtain entry-level employment in fields related to medical equipment repair or maintenance.
2. Effectively function as a team member in technical environments.

#### STUDENT OUTCOMES

The student outcomes of the Biomedical Technology Diploma are for its graduates to attain the following:

- a. Knowledge and understanding of fundamental electronic components and basic electronic circuitry.
- b. A general understanding of medical equipment and the contexts in which they are used.
- c. An ability to identify, diagnose and troubleshoot electronic based devices.
- d. An ability to use techniques, skills and modern technical tools to repair medical equipment.
- e. An ability to function as team members in a technical environment.

#### MODE OF PROGRAM DELIVERY

This program is delivered in either a residential or a distance learning modality. Students decide which modality to complete the program at the time of enrollment contingent on program availability. When delivered in a residential modality, courses are delivered primarily at the campus with some courses having an asynchronous didactic learning component integrated into the curriculum (i.e. online materials to support the courses residential delivery). When delivered in a distance learning modality, all courses are delivered online. Courses delivered online utilize both asynchronous and synchronous methods. The school reserves the right to change the mode of delivery for any course if necessary, including the extent to which asynchronous and synchronous instructional methods are utilized for delivery through distance learning. The program objectives and outcomes remain the same regardless of the mode of program delivery.

#### O\*NET SOC OCCUPATIONS

O\*NET is a taxonomy of hundreds of occupations and an online resource for occupational information. It is being developed under the sponsorship of the US Department of Labor. To learn more, visit [www.onetcenter.org](http://www.onetcenter.org).

The program primarily provides training for the following O\*NET SOC Occupation:

49-9062.00 Medical Equipment Repairers

In addition to the O\*NET SOC Occupation listed above, the program may also provide training for the following additional O\*NET SOC Occupations:

17-3029.04 Electronics Engineering Technologists

49-2094.00 Electrical and Electronics Repairers, Commercial and Industrial Equipment

## BIOMEDICAL TECHNOLOGY COURSES

Course Code	Course Title	Units
BIO101	Introduction to Human Anatomy & Physiology	6
BIO110	Biomedical Instrumentation	4
BIO110L	Biomedical Instrumentation Lab	2
BIO150	Biomedical Electronic Troubleshooting	4
BIO150L	Biomedical Electronic Troubleshooting Lab	2
BIO155	Advanced Biomedical Electronic Troubleshooting	4
BIO155L	Advanced Biomedical Electronic Troubleshooting Lab	2
C110	Computer Hardware Fundamentals	4
C110L	Computer Hardware Fundamentals Lab	2
EE103	Introduction to Electronics	4
EE103L	Introduction to Electronics Lab	2
ELE100	Introduction to Electrical Engineering	4
ELE100L	Introduction to Electrical Engineering Lab	2
MT102	College Math	2
<b>Total</b>		<b>44</b>

## GENERAL ELECTRICIAN

AWARD.....	DIPLOMA
PROGRAM LENGTH .....	35 WEEKS (8 MONTHS)
QUARTER CREDIT UNITS.....	45 UNITS
CLOCK HOURS .....	750 HOURS

### EDUCATIONAL PROGRAM OBJECTIVES & PROGRAM DESCRIPTION

The goal of the General Electrician Diploma program is to prepare graduates for entry-level employment in the electrician field for residential, commercial or industrial sectors. Students are trained to perform basic electrical wiring and installation in accordance with the National Electrical Code. The educational program objectives are as follows:

1. Obtain entry-level employment in electrician related fields in the residential, commercial or industrial sectors, or fields that substantially utilize electrical skills and proficiencies.
2. Effectively function as a team member in technical environments.

### STUDENT OUTCOMES

The student outcomes of the General Electrician Diploma are for its graduates to attain the following:

- a. An ability to perform basic electrical calculations for electrical installations.
- b. An ability to use techniques, skills and modern tools to install, repair and maintain electrical wiring, electrical fixtures and other electrical components in accordance with the National Electrical Code for residential, commercial and industrial environments.
- c. An ability to read electrical blueprints and perform electrical installations that meet the specifications and requirements outlined in electrical blueprints.
- d. An ability to install various types of electric motors and motor control systems.
- e. An ability to program programmable logic controllers (PLC) in order to perform basic automated functions using ladder logic coding concepts.
- f. An ability to function as team members in a technical environment.

### MODE OF PROGRAM DELIVERY

This program is delivered in either a residential or a distance learning modality. Students decide which modality to complete the program at the time of enrollment contingent on program availability. When delivered in a residential modality, courses are delivered primarily at the campus with some courses having an asynchronous didactic learning component integrated into the curriculum (i.e. online materials to support the courses residential delivery). When delivered in a distance learning modality, all courses are delivered online. Courses delivered online utilize both asynchronous and synchronous methods. The school reserves the right to change the mode of delivery for any course if necessary, including the extent to which asynchronous and synchronous instructional methods are utilized for delivery through distance

learning. The program objectives and outcomes remain the same regardless of the mode of program delivery.

### ELECTRICIAN LICENSURE INFORMATION

All persons who work as electricians making connections of greater than 100 volt amps and who work for C-10 Contractors in the State of California must be licensed as a "certified electrician" by the California Department of Industrial Relations ("DIR"). The DIR specifies various levels of electrician certification; each corresponding to the type of electrical work that is allowed to be performed for the respective certification level. The SCIT General Electrician Diploma program is approved by the DIR to offer the "Whole General Electrician Curriculum," which corresponds to the highest level of electrician certification specified by the DIR. For those deciding to embark on a career as an electrician and have no experience or related instruction, one method to becoming a "certified general electrician" requires the person to (1) accumulate 8000 hours of on-the-job-experience, (2) complete 720 hours of related and supplemental instruction, and (3) pass an exam administered by DIR to become a certified electrician. One method of obtaining "on-the-job-experience" is to register with the State of California as an "electrician trainee" which a person may do by enrolling and maintaining satisfactory academic progress in a state recognized school such as SCIT. By registering as an "electrician trainee," a person may work directly supervised by a certified electrician. Individuals who are registered as "electrician trainees" are responsible for maintaining their trainee registration status with the DIR, which may require registration fees and periodic renewal applications as determined by the DIR. For more information, please visit the DIR website for electrician certification at [www.dir.ca.gov/das/electricaltrade.htm](http://www.dir.ca.gov/das/electricaltrade.htm).

### O\*NET SOC OCCUPATIONS

O\*NET is a taxonomy of hundreds of occupations and an online resource for occupational information. It is being developed under the sponsorship of the US Department of Labor. To learn more, visit [www.onetcenter.org](http://www.onetcenter.org).

The program primarily provides training for the following O\*NET SOC Occupation:

47-3013.00 Helpers-Electricians

In addition to the O\*NET SOC Occupations listed above, the program may also provide training for the following additional O\*NET SOC Occupations:

47-2111.00 Electricians

49-2098.00 Security and Fire Alarm Systems Installers

49-9097.00 Signal and Track Switch Repairers

47-1011.00 First-Line Supervisors of Construction Trades and Extraction Workers

## GENERAL ELECTRICIAN COURSES

Course Code	Course Title	Units
EE103	Introduction to Electronics	4
EE103L	Introduction to Electronics Lab	2
ELE110	Electric Motor Control	4
ELE110L	Electric Motor Control Lab	2
MAN130	Programmable Logic Controllers	4
MAN130L	Programmable Logic Controllers Lab	2
MT102	College Math	2
NEC101	National Electrical Code A	4
NEC101L	National Electrical Code A Lab	2
NEC110	National Electrical Code B	4
NEC110L	National Electrical Code B Lab	2
NEC120	National Electrical Code C	4
NEC120L	National Electrical Code C Lab	2
NEC130	National Electrical Code D	4
NEC130L	National Electrical Code D Lab	2
NEC123L	National Electrical Code Special Topics Lab	1
<b>Total</b>		<b>45</b>

## INDUSTRIAL AUTOMATION TECHNOLOGY

AWARD..... DIPLOMA  
PROGRAM LENGTH ..... 35 WEEKS (8 MONTHS)  
QUARTER CREDIT UNITS..... 45 UNITS  
CLOCK HOURS ..... 680 HOURS

### EDUCATIONAL PROGRAM OBJECTIVES & PROGRAM DESCRIPTION

The goal of the Industrial Automation Technology Diploma program is to prepare graduates for entry level employment as technicians within industrial automation fields or similar roles. Students are trained to install, troubleshoot, calibrate, program and repair industrial devices used in automation systems. The educational program objectives are as follows:

1. Obtain entry-level employment in fields related to the installation, maintenance and repair of industrial devices used in automation systems.
2. Effectively function as a team member in technical environments.

### STUDENT OUTCOMES

The student outcomes of the Biomedical Technology Diploma are for its graduates to attain the following:

- a. An ability to perform basic electrical calculations for electrical installations.
- b. An ability to install various types of electric motors and motor control systems.
- c. An ability to program programmable logic controllers (PLC) in order to perform basic automated functions using ladder logic coding concepts.
- d. An ability to install, monitor, maintain and troubleshoot programmable logic control systems and related industrial devices.
- e. An ability to test, calibrate, and troubleshoot pneumatic and hydraulic based devices used in industrial processes.
- f. An ability to function as team members in a technical environment.

### MODE OF PROGRAM DELIVERY

This program is delivered in either a residential or a distance learning modality. Students decide which modality to complete the program at the time of enrollment contingent on program availability. When delivered in a residential modality, courses are delivered primarily at the campus with some courses having an asynchronous didactic learning component integrated into the curriculum (i.e. online materials to support the courses residential delivery). When delivered in a distance learning modality, all courses are delivered online. Courses delivered online utilize both asynchronous and synchronous methods. The school reserves the right to change the mode of delivery for any course if necessary, including the extent to which asynchronous and synchronous instructional methods are utilized for delivery through distance

learning. The program objectives and outcomes remain the same regardless of the mode of program delivery.

### O\*NET SOC OCCUPATIONS

O\*NET is a taxonomy of hundreds of occupations and an online resource for occupational information. It is being developed under the sponsorship of the US Department of Labor. To learn more, visit [www.onetcenter.org](http://www.onetcenter.org).

The program primarily provides training for the following O\*NET SOC Occupation:

17-3029.09 Manufacturing Production Technicians

In addition to the O\*NET SOC Occupation listed above, the program may also provide training for the following additional O\*NET SOC Occupations:

17-3026.00 Industrial Engineering Technicians

17-3023.03 Electrical Engineering Technicians

## INDUSTRIAL AUTOMATION TECHNOLOGY COURSES

Course Code	Course Title	Units
EE103	Introduction to Electronics	4
EE103L	Introduction to Electronics Lab	2
ELE110	Electric Motor Control	4
ELE110L	Electric Motor Control Lab	2
ELE112	Advanced Electric Motor Control	4
ELE112L	Advanced Electric Motor Control Lab	2
MAN100	Occupational Safety and Health Administration (OSHA) Standards for General Industry	1
MAN130	Programmable Logic Controllers	4
MAN130L	Programmable Logic Controllers Lab	2
MAN132	Advanced Programmable Logic Controllers	4
MAN132L	Advanced Programmable Logic Controllers Lab	2
MAN140	Hydraulic & Pneumatic Automation Technology	4
MAN140L	Hydraulic & Pneumatic Automation Technology Lab	2
MT102	College Math	2
NEC101	National Electrical Code A	4
NEC101L	National Electrical Code A Lab	2
<b>Total</b>		<b>45</b>

## INFORMATION TECHNOLOGY

AWARD..... DIPLOMA  
PROGRAM LENGTH ..... 35 WEEKS (8 MONTHS)  
QUARTER CREDIT UNITS..... 50 UNITS  
CLOCK HOURS ..... 850 HOURS

### EDUCATIONAL PROGRAM OBJECTIVES & PROGRAM DESCRIPTION

The goal of the Information Technology Diploma program is to prepare graduates for employment as entry-level computer network specialists or computer support specialists. Students are trained to install, configure and administrator computer networks and network services. The educational program objectives are as follows:

1. Obtain entry-level employment in fields related to computer network support, computer user support or fields that substantially utilize computer network or operating system administration and proficiency.
2. Effectively function as a team member in technical environments.

### STUDENT OUTCOMES

The student outcomes of the Information Technology Diploma are for its graduates to attain the following:

- a. An ability to identify and diagnose common computer hardware failures for computers used in business environments.
- b. An ability to understand network topologies and IP addressing schemas for LAN and WAN networks.
- c. An ability to install, configure and troubleshoot common operating systems and network services.
- d. An ability to install, configure and troubleshoot networking devices commonly used in layer 2 and layer 3 of the OSI model.
- e. An ability to function as team members in a technical environment.

### MODE OF PROGRAM DELIVERY

This program is delivered in either a residential or a distance learning modality. Students decide which modality to complete the program at the time of enrollment contingent on program availability. When delivered in a residential modality, courses are delivered primarily at the campus with some courses having an asynchronous didactic learning component integrated into the curriculum (i.e. online materials to support the courses residential delivery). When delivered in a distance learning modality, all courses are delivered online. Courses delivered online utilize both asynchronous and synchronous methods. The school reserves the right to change the mode of delivery for any course if necessary, including the extent to which asynchronous and synchronous instructional methods are utilized for delivery through distance learning. The program objectives and outcomes remain the same regardless of the mode of program delivery.

### O\*NET SOC OCCUPATIONS

O\*NET is a taxonomy of hundreds of occupations and an online resource for occupational information. It is being developed under the sponsorship of the US Department of Labor. To learn more, visit [www.onetcenter.org](http://www.onetcenter.org).

The program primarily provides training for the following O\*NET SOC Occupation:

15-1151.00 Computer User Support Specialists

In addition to the O\*NET SOC Occupation listed above, the program may also provide training for the following additional O\*NET SOC Occupations:

15-1152.00 Computer Network Support Specialist

49-2011.00 - Computer, Automated Teller, and Office Machine Repairers



## INFORMATION TECHNOLOGY COURSES

Course Code	Course Title	Units
C110	Computer Hardware Fundamentals	4
C110L	Computer Hardware Fundamentals Lab	2
IS100	Computer Network Fundamentals	4
IS100L	Computer Network Fundamentals Lab	2
IS110	Server Administration I	4
IS110L	Server Administration I Lab	2
IS111	Server Administration II	4
IS111L	Server Administration II Lab	2
IS120	Switch Administration	4
IS120L	Switch Administration Lab	4
IS121	Router Administration	4
IS121L	Router Administration Lab	4
IS122	Introduction to Computer Security and Wireless Networks	4
IS122L	Introduction to Computer Security and Wireless Networks Lab	4
MT102	College Math	2
<b>Total</b>		<b>50</b>

## DEGREE PROGRAMS

### ASSOCIATE OF SCIENCE INDUSTRIAL ENGINEERING TECHNOLOGY (A.S.I.E.T.)

AWARD..... AS DEGREE  
 PROGRAM LENGTH ..... 90 WEEKS (23 MONTHS)  
 QUARTER CREDIT UNITS..... 108 UNITS  
 CLOCK HOURS ..... 1500 HOURS

#### EDUCATIONAL PROGRAM OBJECTIVES & PROGRAM DESCRIPTION

The goal of the Associate of Science Industrial Engineering degree program is to produce well-rounded engineering technologists or technicians prepared for entry-level careers in industrial engineering or related disciplines. The program educates in the utilization and application of the fundamentals of engineering, math and sciences to create innovative solutions to industrial challenges and needs. The educational program objectives are as follows:

1. Establish and develop a career in engineering or technologist related professions that involve the design, development, implementation or improvement of integrated industrial or service systems to achieve organizational goals.
2. Collaborate with others and efficiently function as members or leaders of engineering or multidisciplinary teams.
3. Continue to develop skills in engineering, business, management or other industrial and systems engineering related fields.
4. Effectively adapt to the changing demands in the workplace and perform increasingly complex tasks, including tasks outside a field of expertise.

#### STUDENT OUTCOMES

The student outcomes of the Associate of Science Industrial Engineering are for its graduates to attain the following:

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline;
2. an ability to design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline;
3. an ability to apply written, oral, and graphical communication in well-defined technical and non-

technical environments; and an ability to identify and use appropriate technical literature

4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results; and
5. an ability to function effectively as a member of a technical team.

#### MODE OF PROGRAM DELIVERY

This program is delivered in either a blended or a distance learning modality. Students decide which modality to complete the program at the time of enrollment contingent on program availability. When delivered in a blended modality, some courses are delivered residentially at the campus whereas other courses are delivered online only. When delivered in a distance learning modality, all courses are delivered online. Courses delivered residentially at the campus may have an asynchronous didactic learning component integrated into the curriculum (i.e. online materials to support the courses residential delivery). Courses delivered online utilize both asynchronous and synchronous methods. The school reserves the right to change the mode of delivery for any course if necessary, including the extent to which asynchronous and synchronous instructional methods are utilized for delivery through distance learning. The program objectives and outcomes remain the same regardless of the mode of program delivery.

#### O\*NET SOC OCCUPATIONS

O\*NET is a taxonomy of hundreds of occupations and an online resource for occupational information. It is being developed under the sponsorship of the US Department of Labor. To learn more, visit [www.onetcenter.org](http://www.onetcenter.org).

The program primarily provides training for the following O\*NET SOC Occupation:

17-3029.05 Industrial Engineering Technologists

In addition to the O\*NET SOC Occupation listed above, the program may also provide training for the following additional O\*NET SOC Occupations:

- 17-3026.00 Industrial Engineering Technicians
- 17-2112.00 Industrial Engineers
- 17-3023.01 Electronics Engineering Technicians
- 17-3023.03 Electrical Engineering Technicians
- 17-3029.06 Manufacturing Engineering Technologists
- 17-3029.04 Electromechanical Engineering Technologists

## ASJET COURSES

Course Code	Course Title	Units
C110	Computer Hardware Fundamentals	4
C110L	Computer Hardware Fundamentals Lab	2
C220	Applied Numerical Computing	2
C220L	Applied Numerical Computing Lab	2
C230	Computer Aided Design	2
C230L	Computer Aided Design Lab	2
EE103	Introduction to Electronics	4
EE103L	Introduction to Electronics Lab	2
EE142	Semiconductor Device Electronics	2
EE142L	Semiconductor Device Electronics Lab	2
EE160	Digital Electronics	2
EE160L	Digital Electronics Lab	2
EE210	Circuit Analysis I	2
EE210L	Circuit Analysis I Lab	1
EE220	Signals and Systems	2
EE220L	Signals and Systems Lab	2
EE311	Circuit Analysis II	2
EE311L	Circuit Analysis II Lab	1
ELE100	Introduction to Electrical Engineering	4
ELE100L	Introduction to Electrical Engineering Lab	2
ELE210	Introduction to Electric Machines	2
ELE210L	Introduction to Electric Machines Lab	2
ELE230	Industrial Controllers	2
ELE230L	Industrial Controllers Lab	2
ELE330	Design of Control Systems	2
ELE330L	Design of Control Systems Lab	2
ELE480	LabVIEW Visual Programming for Automated Systems	2
ELE480L	LabVIEW Visual Programming for Automated Systems Lab	2
GE102	Composition and Critical Thinking	2
GE102L	College Writing	1
GE202	Introduction to Technical Communication	2
GE202L	Technical Writing	1
GE250	General Psychology	3
GE350	Organizational Behavior	3
IS100	Computer Network Fundamentals	4
IS100L	Computer Network Fundamentals Lab	2
MAN200	Introduction to Manufacturing and Industrial Technology	2
MAN280L	Introduction to 3D Modeling Lab	2
MT121	College Algebra I	4
MT122	College Algebra II	4
MT230A	Calculus 1 A	3
MT230B	Calculus 1 B	3
MT235A	Calculus 2 A	3
MT235B	Calculus 2 B	3
PH200	Physics 1	4
PH200L	Physics 1 Lab	2
<b>Total</b>		<b>108</b>

## BACHELOR OF SCIENCE BIOMEDICAL ENGINEERING (B.S.B.E.)

AWARD ..... BS DEGREE  
 PROGRAM LENGTH ..... 150 WEEKS (38 MONTHS)  
 QUARTER CREDIT UNITS ..... 182 UNITS  
 CLOCK HOURS ..... 2350 HOURS

### EDUCATIONAL PROGRAM OBJECTIVES & PROGRAM DESCRIPTION

The goal of the Bachelor of Science Biomedical Engineering degree program is to produce well-rounded biomedical engineers prepared for entry-level careers in biomedical engineering or related disciplines. The program educates in the application of the principles of engineering, biology, human physiology, math and sciences to solve biomedical engineering problems, including those related to the interaction between living and non-living systems. The educational program objectives are as follows:

1. Establish and develop a career in engineering or technologist related professions that involve the design, development, implementation or improvement of biomedical systems.
2. Collaborate with others and efficiently function as members or leaders of engineering or multidisciplinary teams.
3. Continue to develop skills in engineering, business, management or other biomedical engineering related fields.
4. Effectively adapt to the changing demands in the workplace and perform increasingly complex tasks, including tasks outside a field of expertise.

### STUDENT OUTCOMES

The student outcomes of the Bachelor of Science Biomedical Engineering are for its graduates to attain the following:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a

collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

### MODE OF PROGRAM DELIVERY

This program is delivered in either a blended or a distance learning modality. Students decide which modality to complete the program at the time of enrollment contingent on program availability. When delivered in a blended modality, some courses are delivered residentially at the campus whereas other courses are delivered online only. When delivered in a distance learning modality, all courses are delivered online. Courses delivered residentially at the campus may have an asynchronous didactic learning component integrated into the curriculum (i.e. online materials to support the courses residential delivery). Courses delivered online utilize both asynchronous and synchronous methods. The school reserves the right to change the mode of delivery for any course if necessary, including the extent to which asynchronous and synchronous instructional methods are utilized for delivery through distance learning. The program objectives and outcomes remain the same regardless of the mode of program delivery.

### O\*NET SOC OCCUPATIONS

O\*NET is a taxonomy of hundreds of occupations and an online resource for occupational information. It is being developed under the sponsorship of the US Department of Labor. To learn more, visit [www.onetcenter.org](http://www.onetcenter.org).

The program primarily provides training for the following O\*NET SOC Occupation:

17-2031.00 Biomedical Engineers

In addition to the O\*NET SOC Occupation listed above, the program may also provide training for the following additional O\*NET SOC Occupations:

- 17-2072.00 Electronics Engineers, Except Computer
- 17-3029.04 Electronics Engineering Technologists
- 17-3023.01 Electronics Engineering Technicians
- 17-3029.06 Manufacturing Engineering Technologists

## BSBE COURSES

Course Code	Course Title	Units
BIO101	Introduction to Human Anatomy & Physiology	6
BIO110	Biomedical Instrumentation	4
BIO110L	Biomedical Instrumentation Lab	2
BIO160	Introduction to Biomedical Engineering	2
BIO320	Fundamentals of Biomedical Imaging	4
BIO320L	Biomedical Image Processing Lab	2
BIO430	Biomaterials	4
BIO440	Biomechanics	4
BIO490AL	Senior Design Project A	3
BIO490BL	Senior Design Project B	3
C110	Computer Hardware Fundamentals	4
C110L	Computer Hardware Fundamentals Lab	2
C201A	Introduction to Computer Programming A	2
C201AL	Introduction to Computer Programming A Lab	1
C201B	Introduction to Computer Programming B	2
C201BL	Introduction to Computer Programming B Lab	1
C220	Applied Numerical Computing	2
C220L	Applied Numerical Computing Lab	2
CHEM200A	General Chemistry A	3
CHEM200B	General Chemistry B	3
EE103	Introduction to Electronics	4
EE103L	Introduction to Electronics Lab	2
EE142	Semiconductor Device Electronics	2
EE142L	Semiconductor Device Electronics Lab	2
EE160	Digital Electronics	2
EE160L	Digital Electronics Lab	2
EE210	Circuit Analysis I	2
EE210L	Circuit Analysis I Lab	1
EE220	Signals and Systems	2
EE220L	Signals and Systems Lab	2
EE242 <sup>1</sup>	Power Electronics	2
EE242L <sup>1</sup>	Power Electronics Laboratory	2
EE311	Circuit Analysis II	2
EE311L	Circuit Analysis II Lab	1
EE320	Digital Signal Processing	4
EE320L	Digital Signal Processing Lab	2
EE362 <sup>1</sup>	Advanced Digital Electronics	2
EE362L <sup>1</sup>	Advanced Digital Electronics Lab	2
ELE100	Introduction to Electrical Engineering	4
ELE100L	Introduction to Electrical Engineering Lab	2
ELE350	Embedded Systems	2
ELE350L	Embedded Systems Lab	2
ELE352	Robotics Engineering	2
ELE352L	Robotics Engineering Lab	2
GE102	Composition and Critical Thinking	2
GE102L	College Writing	1
GE202	Introduction to Technical Communication	2
GE202L	Technical Writing	1
GE222	Introduction to Communication and Speech	3
GE250	General Psychology	3
GE330	Leadership	3
GE350	Organizational Behavior	3
GE360	Engineering Economy	3

GE362	Ethics in Engineering	3
MT121	College Algebra I	4
MT122	College Algebra II	4
MT230A	Calculus 1 A	3
MT230B	Calculus 1 B	3
MT235A	Calculus 2 A	3
MT235B	Calculus 2 B	3
MT310	Linear Algebra	4
MT315	Discrete Mathematics	4
MT330	Calculus 3	4
MT460	Probability and Statistics	4
MT470	Complex Variables	4
MT480	Ordinary and Partial Differential Equations	4
PH200	Physics 1	4
PH200L	Physics 1 Lab	2

**Total** **182**

<sup>1</sup> EE260A, EE260AL, EE260B and EE260BL may be taken as an elective.

## BACHELOR OF SCIENCE ELECTRICAL ENGINEERING (B.S.E.E.)

AWARD ..... BS DEGREE  
 PROGRAM LENGTH ..... 150 WEEKS (38 MONTHS)  
 QUARTER CREDIT UNITS ..... 182 UNITS  
 CLOCK HOURS ..... 2340 HOURS

### EDUCATIONAL PROGRAM OBJECTIVES & PROGRAM DESCRIPTION

The goal of the Bachelor of Science Electrical Engineering degree program is to produce well-rounded electrical engineers or technologists prepared for entry-level careers in electrical engineering or related disciplines. The program educates in the utilization and application of the fundamentals of engineering, math and sciences to create solutions that harness the power of electricity and magnetism to address challenges in a variety of industries such as manufacturing, transportation, construction, business, healthcare and other sectors. The educational program objectives are as follows:

1. Establish and develop a career in engineering or technologist related professions that involve the design, development, implementation or improvement of electrical systems to achieve organizational goals.
2. Collaborate with others and efficiently function as members or leaders of engineering or multidisciplinary teams.
3. Continue to develop skills in engineering, business, management or other electrical engineering related fields.
4. Effectively adapt to the changing demands in the workplace and perform increasingly complex tasks, including tasks outside a field of expertise.

### STUDENT OUTCOMES

The student outcomes of the Bachelor of Science Electrical Engineering are for its graduates to attain the following:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a

collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

### MODE OF PROGRAM DELIVERY

This program is delivered in either a blended or a distance learning modality. Students decide which modality to complete the program at the time of enrollment contingent on program availability. When delivered in a blended modality, some courses are delivered residentially at the campus whereas other courses are delivered online only. When delivered in a distance learning modality, all courses are delivered online. Courses delivered residentially at the campus may have an asynchronous didactic learning component integrated into the curriculum (i.e. online materials to support the courses residential delivery). Courses delivered online utilize both asynchronous and synchronous methods. The school reserves the right to change the mode of delivery for any course if necessary, including the extent to which asynchronous and synchronous instructional methods are utilized for delivery through distance learning. The program objectives and outcomes remain the same regardless of the mode of program delivery.

### O\*NET SOC OCCUPATIONS

O\*NET is a taxonomy of hundreds of occupations and an online resource for occupational information. It is being developed under the sponsorship of the US Department of Labor. To learn more, visit [www.onetcenter.org](http://www.onetcenter.org).

The program primarily provides training for the following O\*NET SOC Occupation:

17-2071.00 Electrical Engineers

In addition to the O\*NET SOC Occupation listed above, the program may also provide training for the following additional O\*NET SOC Occupations:

- 17-2072.00 Electronics Engineers, Except Computer
- 17-3029.02 Electrical Engineering Technologists
- 17-3012.02 Electrical Drafters
- 17-3029.04 Electronics Engineering Technologists
- 17-3023.03 Electrical Engineering Technicians
- 17-3023.01 Electronics Engineering Technicians
- 49-2095.00 Electrical and Electronics Repairers, Powerhouse, Substation, and Relay
- 17-3029.03 Electromechanical Engineering Technologists
- 11-9041.00 Architectural and Engineering Managers

## BSEE COURSES

Course No.	Course Title	Units
C201A	Introduction to Computer Programming A	2
C201AL	Introduction to Computer Programming A Lab	1
C201B	Introduction to Computer Programming B	2
C201BL	Introduction to Computer Programming B Lab	1
C220	Applied Numerical Computing	2
C220L	Applied Numerical Computing Lab	2
C230	Computer Aided Design	2
C230L	Computer Aided Design Lab	2
EE103	Introduction to Electronics	4
EE103L	Introduction to Electronics Lab	2
EE142	Semiconductor Device Electronics	2
EE142L	Semiconductor Device Electronics Lab	2
EE160	Digital Electronics	2
EE160L	Digital Electronics Lab	2
EE210	Circuit Analysis I	2
EE210L	Circuit Analysis I Lab	1
EE220	Signals and Systems	2
EE220L	Signals and Systems Lab	2
EE242 <sup>1</sup>	Power Electronics	2
EE242L <sup>1</sup>	Power Electronics Laboratory	2
EE311	Circuit Analysis II	2
EE311L	Circuit Analysis II Lab	1
EE362 <sup>1</sup>	Advanced Digital Electronics	2
EE362L <sup>1</sup>	Advanced Digital Electronics Lab	2
EE490AL	Senior Design Project A	3
EE490BL	Senior Design Project B	3
ELE100	Introduction to Electrical Engineering	4
ELE100L	Introduction to Electrical Engineering Lab	2
ELE210	Introduction to Electric Machines	2
ELE210L	Introduction to Electric Machines Lab	2
ELE230	Industrial Controllers	2
ELE230L	Industrial Controllers Lab	2
ELE330	Design of Control Systems	2
ELE330L	Design of Control Systems Lab	2
ELE350	Embedded Systems	2
ELE350L	Embedded Systems Lab	2
ELE352	Robotics Engineering	2
ELE352L	Robotics Engineering Lab	2
ELE420	Electromagnetic Fields	4
ELE470	Power System Analysis	4
ELE472	Electric Power Distribution Systems	4
ELE474	Power System Protection	4
ELE480	LabVIEW Visual Programming for Automated Systems	2
ELE480L	LabVIEW Visual Programming for Automated Systems Lab	2
GE102	Composition and Critical Thinking	2
GE102L	College Writing	1
GE202	Introduction to Technical Communication	2
GE202L	Technical Writing	1
GE222	Introduction to Communication and Speech	3
GE250	General Psychology	3
GE330	Leadership	3
GE350	Organizational Behavior	3

GE360	Engineering Economy	3
GE362	Ethics in Engineering	3
MAN200	Introduction to Manufacturing and Industrial Technology	2
MAN280L	Introduction to 3D Modeling Lab	2
MT121	College Algebra I	4
MT122	College Algebra II	4
MT230A	Calculus 1 A	3
MT230B	Calculus 1 B	3
MT235A	Calculus 2 A	3
MT235B	Calculus 2 B	3
MT310	Linear Algebra	4
MT315	Discrete Mathematics	4
MT330	Calculus 3	4
MT460	Probability and Statistics	4
MT470	Complex Variables	4
MT480	Ordinary and Partial Differential Equations	4
PH200	Physics 1	4
PH200L	Physics 1 Lab	2
PH310	Physics 2	4
PH310L	Physics 2 Lab	2
<b>Total</b>		<b>182</b>

<sup>1</sup> EE260A, EE260AL, EE260B and EE260BL may be taken as an elective.

## BACHELOR OF SCIENCE ELECTRONIC ENGINEERING (B.S.E.E.)

AWARD ..... BS DEGREE  
 PROGRAM LENGTH ..... 150 WEEKS (38 MONTHS)  
 QUARTER CREDIT UNITS ..... 180 UNITS  
 CLOCK HOURS ..... 2300 HOURS

### EDUCATIONAL PROGRAM OBJECTIVES & PROGRAM DESCRIPTION

The goal of the Bachelor of Science Electronic Engineering degree program is to produce well-rounded electronic engineers or technologists prepared for entry-level careers in electronic engineering or related disciplines. The program educates in the utilization and application of the fundamentals of engineering, math and sciences to create solutions that utilize electronic systems and circuitry to address challenges in a variety of industries such as manufacturing, transportation, construction, business, healthcare and other sectors. The educational program objectives are as follows:

1. Establish and develop a career in engineering or technologist related professions that involve the design, development, implementation or improvement of electronic systems to achieve organizational goals.
2. Collaborate with others and efficiently function as members or leaders of engineering or multidisciplinary teams.
3. Continue to develop skills in engineering, business, management or other electronic engineering related fields.
4. Effectively adapt to the changing demands in the workplace and perform increasingly complex tasks, including tasks outside a field of expertise.

### STUDENT OUTCOMES

The student outcomes of the Bachelor of Science Electronic Engineering are for its graduates to attain the following:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a

collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

### MODE OF PROGRAM DELIVERY

This program is delivered in either a blended or a distance learning modality. Students decide which modality to complete the program at the time of enrollment contingent on program availability. When delivered in a blended modality, some courses are delivered residentially at the campus whereas other courses are delivered online only. When delivered in a distance learning modality, all courses are delivered online. Courses delivered residentially at the campus may have an asynchronous didactic learning component integrated into the curriculum (i.e. online materials to support the courses residential delivery). Courses delivered online utilize both asynchronous and synchronous methods. The school reserves the right to change the mode of delivery for any course if necessary, including the extent to which asynchronous and synchronous instructional methods are utilized for delivery through distance learning. The program objectives and outcomes remain the same regardless of the mode of program delivery.

### O\*NET SOC OCCUPATIONS

O\*NET is a taxonomy of hundreds of occupations and an online resource for occupational information. It is being developed under the sponsorship of the US Department of Labor. To learn more, visit [www.onetcenter.org](http://www.onetcenter.org).

The program primarily provides training for the following O\*NET SOC Occupation:

17-2072.00 Electronics Engineers, Except Computer

In addition to the O\*NET SOC Occupation listed above, the program may also provide training for the following additional O\*NET SOC Occupations:

- 17-2071.00 Electrical Engineers
- 17-3029.04 Electronics Engineering Technologists
- 17-3012.01 Electronic Drafters
- 17-3029.02 Electrical Engineering Technologists
- 17-3023.03 Electrical Engineering Technicians
- 17-3023.01 Electronics Engineering Technicians
- 17-2072.01 Radio Frequency Identification Device Specialists
- 11-9041.00 Architectural and Engineering Managers



## BSEE COURSES

Course No.	Course Title	Units
C201A	Introduction to Computer Programming A	2
C201AL	Introduction to Computer Programming A Lab	1
C201B	Introduction to Computer Programming B	2
C201BL	Introduction to Computer Programming B Lab	1
C220	Applied Numerical Computing	2
C220L	Applied Numerical Computing Lab	2
EE103	Introduction to Electronics	4
EE103L	Introduction to Electronics Lab	2
EE142	Semiconductor Device Electronics	2
EE142L	Semiconductor Device Electronics Lab	2
EE160	Digital Electronics	2
EE160L	Digital Electronics Lab	2
EE210	Circuit Analysis I	2
EE210L	Circuit Analysis I Lab	1
EE220	Signals and Systems	2
EE220L	Signals and Systems Lab	2
EE242 <sup>1</sup>	Power Electronics	2
EE242L <sup>1</sup>	Power Electronics Laboratory	2
EE251	Analog Integrated Circuits	4
EE252	Digital Integrated Circuits	4
EE311	Circuit Analysis II	2
EE311L	Circuit Analysis II Lab	1
EE320	Digital Signal Processing	4
EE320L	Digital Signal Processing Lab	2
EE362 <sup>1</sup>	Advanced Digital Electronics	2
EE362L <sup>1</sup>	Advanced Digital Electronics Lab	2
EE370	Introduction to Analog Communications	2
EE370L	Introduction to Analog Communications Lab	2
EE372	Introduction to Digital Communications	2
EE372L	Introduction to Digital Communications Lab	2
EE472	Wireless Communications & Mobile Ad Hoc Networks	4
EE475	Antennas	4
EE490AL	Senior Design Project A	3
EE490BL	Senior Design Project B	3
ELE100	Introduction to Electrical Engineering	4
ELE100L	Introduction to Electrical Engineering Lab	2
ELE230	Industrial Controllers	2
ELE230L	Industrial Controllers Lab	2
ELE330	Design of Control Systems	2
ELE330L	Design of Control Systems Lab	2
ELE350	Embedded Systems	2
ELE350L	Embedded Systems Lab	2
ELE352	Robotics Engineering	2
ELE352L	Robotics Engineering Lab	2
GE102	Composition and Critical Thinking	2
GE102L	College Writing	1
GE202	Introduction to Technical Communication	2
GE202L	Technical Writing	1
GE222	Introduction to Communication and Speech	3
GE250	General Psychology	3
GE330	Leadership	3
GE350	Organizational Behavior	3

GE360	Engineering Economy	3
GE362	Ethics in Engineering	3
MT121	College Algebra I	4
MT122	College Algebra II	4
MT230A	Calculus 1 A	3
MT230B	Calculus 1 B	3
MT235A	Calculus 2 A	3
MT235B	Calculus 2 B	3
MT310	Linear Algebra	4
MT315	Discrete Mathematics	4
MT330	Calculus 3	4
MT460	Probability and Statistics	4
MT470	Complex Variables	4
MT480	Ordinary and Partial Differential Equations	4
PH200	Physics 1	4
PH200L	Physics 1 Lab	2
PH310	Physics 2	4
PH310L	Physics 2 Lab	2
<b>Total</b>		<b>180</b>

<sup>1</sup> EE260A, EE260AL, EE260B and EE260BL may be taken as an elective.

## BACHELOR OF SCIENCE INFORMATION SYSTEMS (B.S.I.S.)

AWARD..... BS DEGREE  
PROGRAM LENGTH ..... 150 WEEKS (38 MONTHS)  
QUARTER CREDIT UNITS..... 182 UNITS  
CLOCK HOURS ..... 2500 HOURS

### EDUCATIONAL PROGRAM OBJECTIVES & PROGRAM DESCRIPTION

The goal of the Bachelor of Science Information Systems degree program is to produce well-rounded information systems specialists prepared for entry-level careers that involve the use, delivery and management of information systems to achieve organizational goals. The program educates in the design, implementation, deliverance and management of computer networks and information systems to support organizational business processes. The educational program objectives are as follows:

1. Establish and develop a career in information systems or information technology related professions or functions within an organization.
2. Collaborate with others and efficiently function as members or leaders of a technical and multidisciplinary team.
3. Continue to develop skills in information systems, business, management or other fields requiring the use of information systems to achieve organizational goals.
4. Effectively adapt to the changing demands of the workplace and perform increasingly complex tasks while taking into consideration changes in information systems practices.

### STUDENT OUTCOMES

The student outcomes of the Bachelor of Science Information Systems are for its graduates to attain the following:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

### MODE OF PROGRAM DELIVERY

This program is delivered in either a blended or a distance learning modality. Students decide which modality to complete the program at the time of enrollment contingent on program availability. When delivered in a blended modality, some courses are delivered residentially at the campus whereas other courses

are delivered online only. When delivered in a distance learning modality, all courses are delivered online. Courses delivered residentially at the campus may have an asynchronous didactic learning component integrated into the curriculum (i.e. online materials to support the courses residential delivery). Courses delivered online utilize both asynchronous and synchronous methods. The school reserves the right to change the mode of delivery for any course if necessary, including the extent to which asynchronous and synchronous instructional methods are utilized for delivery through distance learning. The program objectives and outcomes remain the same regardless of the mode of program delivery.

### O\*NET SOC OCCUPATIONS

O\*NET is a taxonomy of hundreds of occupations and an online resource for occupational information. It is being developed under the sponsorship of the US Department of Labor. To learn more, visit [www.onetcenter.org](http://www.onetcenter.org).

The program primarily provides training for the following O\*NET SOC Occupation:

15-1142.00 Network and Computer Systems Administrators

In addition to the O\*NET SOC Occupation listed above, the program may also provide training for the following additional O\*NET SOC Occupations:

15-1152.00 Computer Network Support Specialist

11-3021.00 Computer and Information Systems Managers

15-1199.02 Computer Systems Engineers/Architects

15-1122.00 Information Security Analysts

## BSIS COURSES

Course No.	Course Title	Units
C110	Computer Hardware Fundamentals	4
C110L	Computer Hardware Fundamentals Lab	2
C201A	Introduction to Computer Programming A	2
C201AL	Introduction to Computer Programming A Lab	1
C201B	Introduction to Computer Programming B	2
C201BL	Introduction to Computer Programming B Lab	1
C302	Advanced Computer Programming	2
C302L	Advanced Computer Programming	2
GE102	Composition and Critical Thinking	2
GE102L	College Writing	1
GE202	Introduction to Technical Communication	2
GE202L	Technical Writing	1
GE222	Introduction to Communication and Speech	3
GE250	General Psychology	3
GE330	Leadership	3
GE340	Introduction to Project Management	2
GE350	Organizational Behavior	3
GE360	Engineering Economy	3
GE362	Ethics in Engineering	3
IS100	Computer Network Fundamentals	4
IS100L	Computer Network Fundamentals Lab	2
IS110	Server Administration I	4
IS110L	Server Administration I Lab	2
IS111	Server Administration II	4
IS111L	Server Administration II Lab	2
IS120	Switch Administration	4
IS120L	Switch Administration Lab	4
IS121	Router Administration	4
IS121L	Router Administration Lab	4
IS122	Introduction to Computer Security and Wireless Networks	4
IS122L	Introduction to Computer Security and Wireless Networks Lab	4
IS170	Introduction to Information Systems	2
IS210	Introduction to Open Source Systems	2
IS210L	Open Source Systems Lab	2
IS230A	Network Security and Defense A	2
IS230AL	Network Security and Defense A Lab	1
IS230B	Network Security and Defense B	2
IS230BL	Network Security and Defense B Lab	1
IS250	Introduction to Web Technologies	2
IS250L	Web Technologies Lab	2
IS261	Introduction to Databases	2
IS261L	Introduction to Databases Lab	1
IS311	Open Source System Administration and Maintenance	2
IS311L	Open Source System Administration and Maintenance Lab	2
IS340	Introduction to Cloud Computing	2
IS340L	Introduction to Cloud Computing Lab	1
IS345	Computer System Integration and Architecture	2
IS345L	Computer System Integration and Architecture Lab	2
IS361	Database Management	2
IS361L	Database Management Lab	1

IS380	Shell and Administrative Scripting	2
IS380	Shell and Administrative Scripting Lab	2
IS430A	Hacking, Forensics & Countermeasures A	2
IS430AL	Hacking, Forensics & Countermeasures A Lab	1
IS430B	Hacking, Forensics & Countermeasures B	2
IS430BL	Hacking, Forensics & Countermeasures B Lab	1
IS441	Cloud Architecture and Design	2
IS441L	Cloud Architecture and Design Lab	1
IS450	Front-End Web Development	2
IS450L	Front-End Web Development Lab	2
IS451	Back-End Web Development	2
IS451L	Back-End Web Development Lab	2
IS471	Information Systems in Organizations	2
IS490AL	Senior Design Project A	3
IS490BL	Senior Design Project B	3
MT121	College Algebra I	4
MT122	College Algebra II	4
MT230A	Calculus 1 A	3
MT230B	Calculus 1 B	3
MT235A	Calculus 2 A	3
MT235B	Calculus 2 B	3
MT310	Linear Algebra	4
MT315	Discrete Mathematics	4
MT460	Probability and Statistics	4
MT470	Complex Variables	4

**Total****182**

## COURSE DESCRIPTIONS

The school may modify or waive prerequisite or corequisite requirements as needed.

\* Indicates courses that have a limited offering.

### BIO BIOMEDICAL

#### BIO101 INTRODUCTION TO HUMAN ANATOMY & PHYSIOLOGY 6 UNITS

Human Anatomy and Physiology explores the systems comprising the human body by emphasizing physiological mechanisms and a thorough understanding of human anatomy. An emphasis is placed on the interrelatedness of such systems as the skeletal, muscular, nervous and circulatory. Formerly BI101.

#### BIO110 BIOMEDICAL INSTRUMENTATION 4 UNITS

PREREQUISITE: BIO101

This course covers Instrumentation systems, Calibration, Biostatistics, Terminology, Introduction to signal conditioning, Amplifiers, Comparators, Introduction to bio-potentials, Nervous system organization, Signals, EMG, ECG, Surface potentials, Normal Sinus Rhythm, Electrodes, and related topics. Formerly BI110A and BI120.

#### BIO110L BIOMEDICAL INSTRUMENTATION LAB 2 UNITS

COREREQUISITE: BIO110

This lab allows students to apply their knowledge in a lab setting as it applies to BIO110. Formerly BI110B.

#### BIO150 BIOMEDICAL ELECTRONIC TROUBLESHOOTING 4 UNITS

PREREQUISITE: BIO110

This course provides the student with the opportunity to utilize the knowledge gained in BIO110 and BIO110L to troubleshoot and repair defective circuits in biomedical electronic equipment. Industrial safety precautions are learned, and the student learns how to isolate and diagnose problems in electronic systems and devices. Formerly EL214.

#### BIO150L BIOMEDICAL ELECTRONIC TROUBLESHOOTING LAB 2 UNITS

COREQUISITE: BIO150

Students learn the methods and approaches taken by an experienced biomedical troubleshooter in the field. They learn isolation, to utilize test equipment, and techniques to enhance their troubleshooting ability. They become familiar with short cuts to effective circuit repair, and become adept at troubleshooting. Formerly EL215.

#### BIO155 ADVANCED BIOMEDICAL ELECTRONIC TROUBLESHOOTING 4 UNITS

PREREQUISITE: BIO150

This course expands on the biomedical troubleshooting techniques learned in BIO155 into more advanced troubleshooting techniques as it relates to medical devices.

#### BIO155L ADVANCED BIOMEDICAL ELECTRONIC TROUBLESHOOTING LAB 2 UNITS

COREQUISITE: BIO155

This course expands on the biomedical troubleshooting techniques learned in BIO150L.

#### BIO160 INTRODUCTION TO BIOMEDICAL ENGINEERING 2 UNITS

This course introduces students to the current trends the biomedical engineering industry and discusses general topics such as a survey of the types of industries, career growth process in the biomedical engineering field, overview of regulations, roles of engineers in the field, and other topics as relevant.

#### BIO320 FUNDAMENTALS OF BIOMEDICAL IMAGING 4 UNITS

This course will introduce the physical and mathematical principles that are the foundation of biomedical imaging. The application of these principles will be demonstrated through Optical Imaging, X-ray Computed Tomography and Magnetic Resonance Imaging. Formerly BME320.

#### BIO320L BIOMEDICAL IMAGE PROCESSING LAB 2 UNITS

PREREQUISITE: C220, BIO320

This lab allows students to apply their knowledge in a lab setting as it applies to BIO320.

#### BIO430 BIOMATERIALS 4 UNITS

PREREQUISITE: CHEM200B

This course discusses various aspects pertaining to the selection, processing, testing (in vitro and in vivo) and performance of biomedical materials. The biocompatibility and surgical applicability of metallic, polymeric and ceramic implants and prosthetic devices are discussed. The physico-chemical interactions between the implant material and the physiological environment will be described. The use of biomaterials in maxillofacial, orthopedic, dental, ophthalmic and neuromuscular applications is presented. Formerly BME435.

#### BIO440 BIOMECHANICS 4 UNITS

PREREQUISITE: PH200

This course is an introduction to the analysis of the musculoskeletal systems using principles of engineering mechanics. Basic principles of mechanics, stress, strain and deformation in beams are presented and used to characterize the material properties of tissues such as skin, tendon, ligament, bone and cartilage. Principles of biomechanics are also applied to the design of medical devices and bioengineered tissues. Topics include forces, moments of forces, free body diagrams, principal stresses, transverse shear stresses and beam loading. Formerly BME395.

#### BIO490AL SENIOR DESIGN PROJECT A 3 UNITS

This course allows students to apply concepts learned throughout the program to work on a project that showcases the students ability to apply the engineering design process to produce solutions that meet specified needs as it relates to the Biomedical Engineering field. Formerly BME494.

**BIO490BL SENIOR DESIGN PROJECT B  
3 UNITS**

This course is a continuation of BIO490AL allowing students to present and showcase their work on a culminating senior capstone project related to the Biomedical Engineering field. Formerly BME495.

**BME BIOMEDICAL  
ENGINEERING****BME421\* DEVELOPMENT AND  
REGULATIONS OF MEDICAL PRODUCTS  
4 UNITS**

This course will provide an understanding of the basics of the Food and Drug Administration (FDA) regulation and compliance for medical devices including how the various activities within a medical device company are affected by the FDA regulations. Additional coverage will include the applicable laws and regulations enforced by the FDA; international standards and regulations; the regulations controlling medical device design and development; the medical device approval process; laboratory and clinical studies; the introduction to the Quality System Regulations (QSRs); and the FDA inspection process.

**BME470\* MEDICAL INSTRUMENTATION  
DESIGN  
4 UNITS**

This course covers fundamentals of medical instrumentation systems, sensors, and biomedical signal processing. Example instruments for cardiovascular and respiratory assessment. Clinical laboratory measurements, therapeutic and prosthetic devices, and electrical safety requirements.

**C COMPUTER****C110 COMPUTER HARDWARE  
FUNDAMENTALS  
4 UNITS**

In this course students study PC hardware components and current operating system administration of workstation computer systems. Hardware portions emphasize data storage, manipulation and recovery techniques. Students learn core and advanced operating system configuration and administration techniques. Topics include disk configurations, hardware devices, user profiles, group policies and networking hardware. Formerly C170.

**C110L COMPUTER THEORY I LAB  
2 UNITS  
COREQUISITE: C110**

This lab allows the student to receive practical hands-on experience with computer hardware and operating system administration. Computer systems are torn down and configured to give the student an understanding of computer hardware. Students configure various aspects of an operating system to give them an understanding of desktop administration in a networked environment. Formerly C171.

**C201A INTRODUCTION TO COMPUTER  
PROGRAMMING A  
2 UNITS**

Students are introduced to object oriented programming, including concepts as it relates to: data structure, conditionals, iterations, methods, and pointers. classes, polymorphism, inheritance, and programming best practices. Formerly C101A or C320 when taken with C201B.

**C201AL INTRODUCTION TO COMPUTER  
PROGRAMMING A LAB  
1 UNIT**

COREREQUISITE: C201A  
This lab allows students to apply their knowledge in a lab setting as it applies to C201A. Formerly C101AL or C321 when taken with C201BL.

**C201B INTRODUCTION TO COMPUTER  
PROGRAMMING B  
2 UNITS**

PREREQUISITE: C201A  
This course is a continuation of C201A where students further study object oriented program, including concepts as it relates to classes, polymorphism, inheritance, and programming best practices. Formerly C101B or C320 when taken with C201A.

**C201BL INTRODUCTION TO COMPUTER  
PROGRAMMING LAB  
1 UNIT**

COREREQUISITE: C201B  
This lab allows students to apply their knowledge in a lab setting as it applies to C201B. Formerly C101AL or C321 when taken with C201AL.

**C202\* DATA COMMUNICATION I  
4 UNITS**

This course involves the study of wireless transmission of voice, video and data signals using radio transmission and reception.

**C203\* DATA COMMUNICATION II  
4 UNITS**

This course involves the study of communication, cabling practices, using both wired and fiber optic channels, including standards, connection topologies, installation, testing and troubleshooting.

**C204\* DATA COMMUNICATION II LAB  
4 UNITS**

This course gives the students an opportunity to apply their knowledge of cabling in a lab setting.

**C220 APPLIED NUMERICAL COMPUTING  
2 UNITS**

PREREQUISITE: C201B, MT235B  
Introduction to numerical computing and analysis using MATLAB. Students learn to use numerical methods to solve systems of linear equations and nonlinear equations such as matrix manipulations and algorithm implementations. Students learn to visually display computed values through use of basic plotting techniques, built-in functions, waveform generation and user interfaces. Formerly C494.

**C220L APPLIED NUMERICAL COMPUTING LAB**  
2 UNITS

COREQUISITE: C220

This lab course allows students to apply concepts learned in C220. Students learn programming techniques available in MATLAB to compute and visually depict systems of equations. Formerly C495.

**C230 COMPUTER AIDED DESIGN**  
2 UNITS

This is an introductory course in freehand sketching and computer-aided design. Students will be taught basic CAD commands, tools, multi-view drawing and dimensioning techniques. Students learn to use many of the powerful electrical drawing creation tools in the AutoCAD Electrical software. Students will create schematic drawings (ladder logic and point to point), panel drawings, and PLC-I/O circuits using automated commands for symbol insertion, component tagging, wire numbering, and drawing modification. Students are also introduced to methods of customizing AutoCAD Electrical symbols, circuits, and databases. Formerly C300 when taken with C230L.

**C230L COMPUTER AIDED DESIGN LAB**  
2 UNITS

COREQUISITE: C230

This course allows students to apply their knowledge as it relates to C230. Formerly C300 when taken with C230.

**C302 ADVANCED COMPUTER PROGRAMMING**  
2 UNITS

PREREQUISITE: C201B

This course includes advanced programming concepts including the utilization of external libraries, exception handling, software architecture, enhancing performance, and debugging strategies.

**C302L ADVANCED COMPUTER PROGRAMMING LAB**  
2 UNITS

COREQUISITE: C302

This course allows students to apply their knowledge as it relates to C302.

## CHEM CHEMISTRY

**CHEM200A GENERAL CHEMISTRY A**  
3 UNITS

This course includes the introduction to physical and chemical properties of the elements, chemical reactions, gas laws, chemical nomenclature, structure of atoms, chemical bonding, and solutions. Formerly CHEM105 when taken with CHEM200B.

**CHEM200B GENERAL CHEMISTRY B**  
3 UNITS

PREREQUISITE: CHEM200A

This course is a continuation of CHEM200A where students further study structures of atoms, chemical binding and solutions. This course includes the introduction to physical and chemical properties of the elements, chemical reactions, gas laws, chemical nomenclature, structures of atoms, chemical bonding, and solutions. Formerly CHEM105 when taken with CHEM200A.

**CHEM205\* ORGANIC CHEMISTRY**  
4 UNITS

PREREQUISITE: CHEM200B

This course includes the introduction to the basic principles, theories, and applications of the chemistry of carbon compounds. Representative reactions, preparation, and properties of carbon compounds will be covered.

## EE ELECTRONICS

**EE103 INTRODUCTION TO ELECTRONICS**  
4 UNITS

This course familiarizes the student with electricity and the electronic laws and formulas that apply to DC Electronics. They learn fundamentals such as: series circuits, parallel circuits, capacitors, resistors, inductors, time constants, and ohm's law. This course also covers AC currents, inductive reactance, capacitive reactance, and circuit impedance. Also covered are wave shaping devices, power conversion circuits, AC measurements and calculations, circuit resonance, high pass, low pass, band pass, band reject filters, transformers, and AC applications. Formerly EL101 and EL120.

**EE103L INTRODUCTION TO ELECTRONICS LAB**  
2 UNITS

COREQUISITE: EE103

Students learn to construct simple DC circuits, observe safety precautions, make component value determination, test circuits with a meter and start working with schematics. Formerly EL102.

**EE142 SEMICONDUCTOR DEVICE ELECTRONICS**  
2 UNITS

PREREQUISITE: ELE100

This course covers diodes, zeners, the various classes of amplifiers, transistor switching applications, and amplifier configurations, biasing techniques for linear circuit operation, SCRs, TRIACs and Thyristors, JFETS, MOSFETS, Unijunction Transistors, and Break over Devices, Operational Amplifiers, and oscillators. Formerly EL140 and EL212.

**EE142L SEMICONDUCTOR DEVICE ELECTRONICS LAB**  
2 UNITS

COREQUISITE: EE142

This is a lab course using diodes, zeners, and transistors to construct half wave, full wave, and bridge rectifier circuits, small signal & power amplifiers, and voltage regulators. Formerly EL141.

**EE160 DIGITAL ELECTRONICS**  
2 UNITS

PREREQUISITE: ELE100

This course examines the combination and sequential circuits. Students are introduced to the circuits that store/or process digital information. Course starts with the review on flip-flops and continue to explore sequential circuits such as counters and shift registers. After sequential circuits, combination circuits such as encoders, decoders, multiplexers, and demultiplexers are discussed. Furthermore, the applications of logic circuits in arithmetic are discussed. Lastly, analog-to-digital and digital-to-analog devices are introduced and their integrated circuits are discussed.. Formerly EL160 and EL220.

**EE160L DIGITAL ELECTRONICS LAB**  
2 UNITS

COREQUISITE: EE160

This course allows student to apply concepts learned in EE160 in a lab setting. Formerly EL221.

EE210 CIRCUIT ANALYSIS I  
2 UNITS

PREREQUISITE: ELE100

This course is taught using an integrated approach where DC is presented as a special case of AC. Topics include: Thevenin's and Norton's theorems, Series and parallel laws, mesh and node analysis, frequency response, RLC circuits, transformers, power & energy and transient analysis of circuits. Formerly EE310A or EL410 when taken with EE210L.

EE210L CIRCUIT ANALYSIS I LAB  
1 UNITS

COREQUISITE: EE210

This course allows students to apply concepts learned in EE210 in a lab setting. Formerly EE310AL or EL410 when taken with EE210.

EE220 SIGNALS AND SYSTEMS  
2 UNITS

PREREQUISITE: MT235B

This course will covers the fundamentals of signal and system analysis, focusing on representations of discrete-time and continuous-time signals (singularity functions, complex exponentials and geometrics, Fourier representations, Laplace and Z transforms, sampling) and representations of linear, time-invariant systems (difference and differential equations, block diagrams, system functions, poles and zeroes, convolution, impulse and step responses, frequency responses).

EE220L SIGNALS AND SYSTEMS LAB  
2 UNITS

PREREQUISITE: C220

COREQUISITE: EE220

This course allows student to apply their knowledge in a lab setting as it applies to EE220. The lab will consist of computer-based exercises using MATLAB.

EE242 POWER ELECTRONICS  
2 UNITS

PREREQUISITE: EE142

The objective of this course is to present the principles of power electronics and its applications. This includes power electronics circuits, power semiconductor devices, and converter topologies. The student will learn analysis and design techniques for switch-mode converters using the buck, boost, and buck-boost topologies. The course will emphasize complex theoretical analysis and computer simulation tools as course project. Principles of power electronics, power semiconductor devices, switch-mode dc-dc converters, power losses, converter dynamics, stability and control design.

EE242L POWER ELECTRONICS LAB  
2 UNITS

COREQUISITE: EE242

This course allows students to apply their knowledge in a lab setting as it applies to EE242.

EE251 ANALOG INTEGRATED CIRCUITS  
4 UNITS

PREREQUISITE: EE142, EE210

This course covers analog integrated circuits for mixed-signal VLSI, active and passive analog components in integrated circuits, current mirrors, single-ended and differential amplifiers, Op-Amps, comparators, frequency response and stability analysis, sample and hold circuits, bandgaps. Applications to data converters, power regulators, and filters. Design and simulation using PCB tools

EE252 DIGITAL INTEGRATED CIRCUITS  
4 UNITS

PREREQUISITE: EE251

This course is an overview of metal-oxide semiconductor (MOS) device technologies for large scale integrated (LSI) circuits; inverter circuits, static and transient operation; complementary metal-oxide semiconductor (CMOS) logic implementation, full-custom gate design, mask layout fundamentals; static and dynamic logic circuits; sequential logic circuit designs; non-volatile semiconductor memory structures; static and dynamic random access memory design principles Design and simulation using Microwind 2.6a tools.

EE260A\* DIGITAL ELECTRONICS AND INTEGRATED CIRCUITS A  
2 UNITS

PREREQUISITE: EE142 and EE160

This course introduces students to digital logic design in an FPGA utilizing Verilog. Students learn about the design tradeoffs, including speed and optimization, in order to analyze logic circuits and select optimum implementations.

EE260AL\* DIGITAL ELECTRONICS AND INTEGRATED CIRCUITS A LAB  
2 UNITS

COREQUISITE: EE260A

This course allows students to apply concepts learned in EE260A in a lab setting using an FPGA board.

EE260B\* DIGITAL ELECTRONICS AND INTEGRATED CIRCUITS B  
2 UNITS

PREREQUISITE: EE260A

This course is a continuation of EE260A where further emphasis is placed on sequential digital circuits and systems.

EE260BL\* DIGITAL ELECTRONICS AND INTEGRATED CIRCUITS A LAB  
2 UNITS

COREQUISITE: EE260B

This course allows students to apply concepts learned in EE260B in a lab setting using an FPGA board.

EE311 CIRCUIT ANALYSIS II  
2 UNITS

PREREQUISITE: EE210

This course covers the analysis of single-phase and three-phase circuits, Laplace transforms in circuit analysis, and Fourier series. Formerly EE310B or EL460 when taken with EE311L.

EE311L CIRCUIT ANALYSIS II LAB  
1 UNITS

COREQUISITE: EE311

This course allows students to apply concepts learned in EE311 in a lab setting. Formerly EE310BL or EL460 when taken with EE311.

**EE320 DIGITAL SIGNAL PROCESSING  
4 UNITS**

This course is an introduction to DSP concepts and implementation. It starts by explaining the need for digital signal processing and DSP systems. A complete model of a DSP system is examined from the input transducer, through all the stages including: signal conditioning, anti-aliasing filter, analog-to-digital and digital-to-analog conversion, output smoothing filter, and output transducers. Formerly EL465 when taken with EE320L.

**EE320L DIGITAL SIGNAL PROCESSING  
LAB  
2 UNITS**

**COREQUISITE: EE465**  
This course allows students to apply concepts learned in EE320 in a lab setting by utilizing tools such as MATLAB. Formerly EL465 when taken with EE320L.

**EE362 ADVANCED DIGITAL  
ELECTRONICS  
2 UNITS**

**PREREQUISITE: EE160**  
This course introduces students to system design as it relates to the application of topics introduced in EE142 and EE160, emphasizing combinational circuits and systems where Verilog HDL is used to simulate, verify and synthesize digital systems. Sequential synchronous digital circuits and systems are also introduced. Student study how various electronic components can be assembled to perform operations based on predefined specifications.

**EE362L ADVANCED DIGITAL  
ELECTRONICS LAB  
2 UNITS**

**COREQUISITE: EE362**  
This course allows students to apply concepts learned in EE362 in a lab setting.

**EE370 INTRODUCTION TO ANALOG  
COMMUNICATIONS  
2 UNITS**

**PREREQUISITE: EE220**  
This course covers carrier communications systems; types of modulation; communication circuits; transmitters and receivers; superheterodyne radio receivers; stereo systems; noise analysis; pulse modulation. design and simulation using MATLAB.

**EE370L INTRODUCTION TO ANALOG  
COMMUNICATIONS LAB  
2 UNITS**

**COREQUISITE: EE370**  
This course allows students to apply concepts learned in EE370 in a lab setting.

**EE372 INTRODUCTION TO DIGITAL  
COMMUNICATIONS  
2 UNITS**

**PREREQUISITE: EE370**  
This course covers sampling theorem and aliasing error; random process and white noise; source encoders and decoders; Pulse Code Modulation; matched filter; timing considerations; baseband systems; ASK, FSK, PSK; error analysis; design considerations. Design and simulation using MATLAB tools

**EE372L INTRODUCTION TO DIGITAL  
COMMUNICATIONS LAB  
2 UNITS**

**COREQUISITE: EE372**  
This course allows students to apply concepts learned in EE372 in a lab setting.

**EE472 WIRELESS COMMUNICATIONS  
AND MOBILE AD HOC NETWORKS  
4 UNITS**

**PREREQUISITE: EE372**  
This course covers analysis and design of wireless communication systems at the link level, multiple access techniques, MIMO and Multiuser detection techniques, wireless networking, and introduction to wireless protocols and standards. Principles, practices, and research topics on Ad Hoc Networks and Security. MAC layer design (IEEE802.11, MACAW), routing (DSR, AODV, LAR), cryptography, authentication, access control and security protocols (WEP, WPA).

**EE475 ANTENNAS  
4 UNITS**

**PREREQUISITE: EE472**  
This course covers dipole, loop, aperture, and other antennas; array theory, antenna patterns, and pattern multiplication; radiation resistance, directivity, and gain; antenna synthesis and design.

**EE490AL SENIOR DESIGN PROJECT A  
3 UNITS**

The course requires students to work in small design teams to solve a significant engineering problem. Students develop, design, and implement a solution to the engineering problem in conjunction with a faculty advisor. The course reinforces principles of the engineering design process and serves as a capstone for electrical engineering knowledge obtained in the EE curriculum. The consideration of the ethical and social implications of technology and the basic concepts of business are also aspects of the course. Each student design team is expected to present information related to their project in both written and oral formats. Preliminary paper design is followed by implementation in the lab using digital and analog hardware design techniques and through software engineering. It is expected that a complete or partially working system will be demonstrated at the end of the course. Formerly EL405 when taken with EE490BL.

**EE490BL SENIOR DESIGN PROJECT B  
3 UNITS**

This course is a continuation of EE490AL culminating in a presentation of the students senior design project. Formerly EL405 when taken with EE490AL.



**ELE ELECTRICAL****ELE100 INTRODUCTION TO ELECTRICAL ENGINEERING**  
4 UNITS

Applications of electrical engineering abound in nearly every aspect of today's technological world. This course presents a survey of the field of electrical engineering and is designed to introduce students to the fundamental concepts behind the hardware and software that are ubiquitous in everyday (and not so everyday) electronic devices and systems such as computers, telephones, TVs, high-speed communication networks, video games, CDs, modems, and satellite communications. The course will introduce basic electrical concepts including charge, voltage, current, energy, power, resistance, capacitance, inductance, and Kirchoff's laws. Practical digital and analog electronic systems will also be introduced to illustrate advanced topics that are treated more completely in subsequent electrical engineering courses. These topics include signal processing, semiconductor circuit design, communications, and computer architecture. The material is here presented from both theoretical and application perspectives and is integrated with laboratory experiments requiring the design and construction of electronic circuits and systems, which are intrinsic elements of current technology. Formerly EE110.

**ELE100L INTRODUCTION TO ELECTRICAL ENGINEERING LAB**  
2 UNITS  
COREREQUISITE: ELE100

The course is designed to introduce the basic principles of electrical engineering to the students and expose them to the electronics and computer laboratory environment. Students are given the opportunity to become familiar with the basic ideas of electronic components, actual and virtual test and measurement instruments, and some basic microcontroller basics. This course is also designed to provide an overview of some of the topics that the students will encounter in more advanced courses. The tools, components and parts purchased by students in this course will be useful to them for the duration of their electrical engineering studies. Formerly EE110L.

**ELE110 ELECTRIC MOTOR CONTROL**  
4 UNITS

This course covers DC, AC, single, 3 phases, motor, calculating the HP, current identifying the type and size of the cable for motor installation, grounding, speed control, forwarding, reversing, motor configuration. . In addition, the courses touches on transformers, types of transformers, over current protection grounding, and over current protection. Formerly IE110, or EL202 and EL203A.

**ELE110L ELECTRIC MOTOR CONTROL LAB**  
2 UNITS  
COREQUISITE: ELE110

This course allows student to apply motor control concepts from ELE110 in a lab setting. Formerly IE110L or EL203B.

**ELE112 ADVANCED ELECTRIC MOTOR CONTROL**  
4 UNITS

PREREQUISITE: ELE110  
This course expands on electric motor control concepts to include modeling and parameter identification of SMPM machines, fully-controlled bridge converters, modulation techniques, voltage and current regulation, control of SMPM drives, variable frequency drives (VFD), synchronous motor drives, volt/hertz induction motor drives, indirect and direct field orientation control and optimal control of induction motor drives.

**ELE112L ADVANCED ELECTRIC MOTOR CONTROL LAB**  
2 UNITS  
COREQUISITE: ELE112

This course allows students to apply concepts learned in ELE112 and gain hands-on experience with testing and control of various advanced electric motors.

**ELE210 INTRODUCTION TO ELECTRIC MACHINES**  
2 UNITS  
PREREQUISITE: EE311

This course introduces students to electromechanical principles and their applications to electric machines and transformers. The course starts with covers the discussion of magnetism and magnetic circuits, three phase circuits and principle of operation of single phase and three phase transformers. The course will review of mechanical system concepts and study of simple machines. Electromechanical energy conversion and principles of AC and DC. Formerly EL230.

**ELE210L INTRODUCTION TO ELECTRIC MACHINES LAB**  
2 UNITS  
PREREQUISITE: C220  
COREQUISITE: ELE210

This course allows student to apply their knowledge in a lab setting as it applies to ELE210.

**ELE230 INDUSTRIAL CONTROLLERS**  
2 UNITS  
PREREQUISITE: EE311

This course provides the student with information on automated process control. Analysis of industrial process shows the steps involved in a closed loop system, starting with measurement, and continuing through such things as variables, control set points, error feedback, signal processing, and finally, the control. Formerly IE310.

**ELE230L INDUSTRIAL CONTROLLERS LAB**  
2 UNITS  
COREQUISITE: ELE230

This course allows students to apply their knowledge in a lab setting as it applies to ELE230. Formerly IE311.

**ELE330 DESIGN OF CONTROL SYSTEMS**  
2 UNITS

PREREQUISITE: ELE230

This course is about methods to analyze dynamic systems and to design appropriate controls to obtain a desired dynamic performance. Examples of systems discussed in the course are mechanical, electrical and magnetic systems. Topics of the course include: Transient response analysis, stability and damping. Frequency domain techniques for analysis and design of dynamic systems: root locus and frequency response analysis. PID controls. Also covered are time domain techniques such as the state space representation of dynamic system and its use for analysis and design of control systems. Formerly IE330.

**ELE330L DESIGN OF CONTROL SYSTEMS LAB**  
2 UNITS

PREREQUISITE: C220  
COREQUISITE: ELE330

The student is introduced to the fundamentals of automatic control systems including the analysis and design of control systems for various engineering applications. Topics include modeling of physical systems using both transfer function and state space models. System responses, performance and design criteria. Control system characteristics, stability, sensitivity, steady state errors and transient response. Stability analyses using Routh-Hurwitz, Root-locus, Nyquist, and Bode methods. Lead and lag compensators and PID controllers design using root-locus method. Frequency-response analysis. MATLAB and SIMULINK are used to aid in the analysis and design of control systems. Formerly IE332

**ELE350 EMBEDDED SYSTEMS**  
2 UNITS

PREREQUISITE: C201B

This course covers computer number systems, codes, and arithmetic functions; microprocessor and microcontroller functions, architecture, instruction sets, addressing modes, internal operations, PIA interfacing, and I/O operations. Introduction to operating systems. Formerly RE300 when taken with ELE350L.

**ELE350L EMBEDDED SYSTEMS LAB**  
2 UNITS

COREQUISITE: ELE350

This course allows student to apply their knowledge in a lab setting as it applies to ELE350. Formerly RE300 when taken with ELE350.

**ELE352 ROBOTICS ENGINEERING**  
2 UNITS

PREREQUISITE: ELE350

This course covers basics of Robotics Engineering, including Cartesian coordinates, robotics, control components, speed controllers, servos, synchros, stepper motors, and motor drive control circuits. This course additionally covers the control of robotic arms and manipulators through the use of interface cards. Formerly RE305.

**ELE352L ROBOTICS ENGINEERING LAB**  
2 UNITS

COREQUISITE: ELE352

This course allows students to apply concepts learned in ELE352 in a lab environment in order to program the control of robotic motions and interface with robotic systems. Formerly RE306.

**ELE420 ELECTROMAGNETIC FIELDS**  
4 UNITS

PREQUISITE: PH310, MT330

This course introduces students to electrostatics, Faraday's laws, Maxwell's equations, electromagnetic wave propagation and refraction, Smith Chart, and the transmission of electromagnetic energy through transmission lines.

**ELE470 POWER SYSTEM ANALYSIS**  
4 UNITS

PREREQUISITE: ELE420

This course covers the basic components of power system and discusses the process of converting non-electrical energy to electricity for electric utilities. Transmission line parameter computation and analysis. Models for transformers, generators, and loads Power flow analysis and control. Formerly EL480.

**ELE472 ELECTRIC POWER DISTRIBUTION SYSTEMS**  
4 UNITS

PREREQUISITE: ELE470

Electric power distribution system planning, design and operations; load characteristics and distribution transformers, design of sub-transmission lines and distribution substations, primary and secondary feeder design considerations, distribution system voltage regulation, protection and reliability; distributed generation and smart grid application. Formerly EL485.

**ELE474 POWER SYSTEM PROTECTION**  
4 UNITS

PREREQUISITE: ELE472

Power system protection is an integral part of every power system. All power equipment including power generators, step-up transformers, step-down transformers, transmission lines, power capacitors and electric motors and other loads etc. need protection. The necessity for protection is incurred by all kinds of contingencies such as equipment failure due to insulation deterioration, lightning strike, short-circuit by nature force or creature-made happenings, inappropriate operation of power system and other inadvertent incidences. Some power equipment is very expensive such as MW generators which could cost millions of dollars. Furthermore outage due to failure of power system causes severe damage to economy and inconvenience to people's daily life. A properly designed protection can ensure power supply cut to minimum users yet continue supply power to other end users in case that a fault occurs in the system. It is a sophisticated art which needs a systematic study in order to master. All these call for a new course for undergraduate students to learn in the field of power system protection.

**ELE480 LABVIEW VISUAL PROGRAMMING FOR AUTOMATED SYSTEMS**

2 UNITS

PREREQUISITE: EE311

The purpose of this course is to introduce students to the methods and techniques used in LabVIEW programming. The LabVIEW programming environment has become a standard in both scientific research and industry, especially in the areas of data acquisition and instrument control, making it important for students to learn how to best use LabVIEW and its programming environment. Students will become familiar with graphical programming basics; file input/output, stimulus presentation for research experiments, signal generation and processing, and data acquisition and analysis. At the end of this course students will be expected to have the ability to write high-level LabVIEW programs that can be implemented in both research and industry environments. Each class will include lectures and hands on exercises. There will be weekly or bi-weekly assignments designed to improve the ability and understanding of the students. Student will also complete a final project which will be related to their own research agenda

**ELE480L LABVIEW VISUAL PROGRAMMING FOR AUTOMATED SYSTEMS LAB**

2 UNITS

COREQUISITE: ELE480

This course allows students to apply their knowledge in a lab setting as it applies to ELE480. The students, through appropriate programming assignments, gain hands-on experience in programming for data acquisition and control

**EL ELECTRICAL**

**EL100A\* CIRCUIT CONSTRUCTION LAB**  
3.5 UNITS

In this lab the student will learn component specifications, procedures, use of tools, component identification, soldering and assembly techniques, fixed power supplies, analog electronics, digital electronics, variable power supplies, and schematics.

**EL320\* PROCESS CONTROL**

5 UNITS

PREREQUISITE: MT301

This course teaches the practical details of how elements of a control system are designed and how they operate from a practical working perspective. Students learn the elements that make up the control loop: controller, control element, process, and measurement.

**EL321\* PROCESS CONTROL LAB**

1 UNIT

PREREQUISITE: EL320

This lab provides the students with the opportunity to utilize the concepts learned in Process Control.

**EL450\* DIGITAL DESIGN I**

7.5 UNITS

PREREQUISITE: IE330 or RE210 or EL220

This course presents a comprehensive and concise treatment of the underlying concepts and building blocks that make up today's digital components and systems. It includes analytical tools and design methodologies currently used in design.

**EL470\* DIGITAL DESIGN II**

2.5 UNITS

PREREQUISITE: EL450

This course involves the microprocessor aspects of digital design and deals primarily with signal conversion, microprocessors, analysis and synthesis. It includes design methodologies currently used in the design of modern digital devices.

**EL471\* DIGITAL DESIGN II LAB**

2 UNITS

COREREQUISITE: EL470

This lab course involves utilizing advanced digital circuitry to design and develop individual assignments. Previously 2.5 Units.

**EL490\* ELECTRICAL CODES & REGULATIONS**

4 UNITS

This course provides an overview of the various National Electrical Codes used in practice and the impacts of such codes on designs of electrical systems in residential, commercial and industrial settings.

**EL495\* ELECTRONIC COMMUNICATIONS**

5 UNITS

PREREQUISITE: MT410

A course on electronic communications, examines radio frequency signals, propagation and modulation techniques. It covers the inherent problems encountered in RF communications and electronic communications in general.

**GE GENERAL EDUCATION**

**GE100\* ORGANIZATIONAL COMMUNICATIONS**

2 UNITS

This course familiarizes the students with the functions and structures of organizational communications. It involves power and conflict, dyadic communications, group communications and public forms of communications.

**GE102 COMPOSITION AND CRITICAL THINKING**

2 UNITS

This course develops a proficiency in reading and writing utilizing the techniques of critical thinking and rhetoric. It explores the more prominent writers and provides an analysis of short stories, poetry, and other writings, using reasoning and argument. Formerly GE101 or ENG101A.

**GE102L COLLEGE WRITING**

1 UNIT

COREQUISITE: GE102

Students develop effective organization and clarity of expression through the use of process and collaborative writing techniques as they practice the principles of expository writing. Students develop an analytical approach to expressing ideas and use electronic research techniques to develop an in-depth understanding of written forms of expression. Formerly GE110 or ENG101AL.

**GE202 INTRODUCTION TO TECHNICAL COMMUNICATION**

2 UNITS

This course familiarizes the students with the functions and structures of technical communication, including such topics as audience analysis, usability considerations, electronic forms of communication, page layout, and ethical issues facing technical communicators. Formerly ENG101B.

## SCIT Catalog

### GE202L TECHNICAL WRITING 1 UNIT

COREQUISITE: GE202

This course allows students to apply concepts studied in GE202 by learning to use tools and techniques of technical edition and practice marking indisputable errors in spelling, grammar, punctuation, syntax and usage in technical documentation. Formerly ENG101BL.

### GE222 INTRODUCTION TO COMMUNICATION AND SPEECH 3 UNITS

Students demonstrate the techniques taught in the class by individual and group presentations. Techniques of effective and efficient oral communication develop interpersonal communications, interviewing skills, questioning and other types of vocal and non-vocal communication techniques. Formerly GE220.

### GE250 GENERAL PSYCHOLOGY 3 UNITS

This course provides a broad coverage of the field of psychology, introducing theories, research, and applications that constitute the discipline. It utilizes both lecture and student involvement to demonstrate how psychology impacts our lives at home and at work. Formerly PSY150.

### GE330 LEADERSHIP 3 UNITS

Students will be introduced to the basic principles of leadership development with a particular emphasis on leadership skills for a variety of group contexts. In addition, students will become aware of their own leadership styles as they relate to their job's leadership positions, and future interests.

### GE340 INTRODUCTION TO PROJECT MANAGEMENT 2 UNITS

Students will be introduced to various methods and approaches towards project management, including development of project schedules, managing risk, managing project teams, progress and performance measures, and an introduction to Agile Project Management.

### GE350 ORGANIZATIONAL BEHAVIOR 3 UNITS

This course surveys various concepts as it relates to organizational behavior, including discussions on the work and non-work interface, productive behavior in organizations, beliefs and attitudes about work and the organization, theories of motivation, and team dynamics.

### GE360 ENGINEERING ECONOMY 3 UNITS

PREREQUISITE: MT122, GE202

This course is designed as an introduction to financial engineering theory and its applications. It focuses upon the fundamental principles of corporate finance and investment science such as cash flow streams, arbitrage, risk aversion, pricing of firms and finance instruments, interest rate term structure, fixed income instruments duration, bond portfolio immunization, and the Markowitz mean-variance portfolio theory. The text for the course presents the material in a very systematic way and has enough detail to convey the basic mathematical principles. The mathematics is not complex, but student should be comfortable with the use of mathematics as a method of deduction and problem solving. For instance, in a typical MBA course, the perpetual annuity formula might simply be presented, but in this course, it will be derived using elementary algebra. Why may this course be important to you? (1) Engineering is one of the better paid professions, especially, financial engineering; (2) personal reasons: saving to buy a car, home, putting children through college, be prepared for retirement, to become wealthy. Students are expected to be able to utilize PCs and MS Excel. Whenever it is possible, MS Excel spreadsheets will be used to illustrate the theoretical statements. This will help with the understanding of the material and strengthen computer skills.

### GE362 ETHICS IN ENGINEERING 3 UNITS

The course consists of three integrated components: moral philosophy, case studies and industry perspectives, as well as the code of conduct for engineers. Moral Philosophy: basic ethical theories such as utilitarianism, deontology, and virtue ethics, but also more modern theories such as discourse ethics and feminist ethics. Case Study: Analysis of examples of situations which engineers may encounter in their professional life with the help of the studied ethical theory. Industry Perspective: discussion with professionally active engineers on ethical issues they have encountered during their career.

## HST HISTORY

### HST260\* AMERICAN CIVILIZATION 3 UNITS

This course addresses the development of American culture and society from the colonization era and the Revolutionary War, through the eras of industrialization, enlightenment, and reform to geographic expansion and the effects of race, class and gender on the society.

## IS INFORMATION SYSTEMS

### IS100 COMPUTER NETWORK FUNDAMENTALS

4 UNITS

This course covers fundamental concepts of networked systems and design. Topics such as TCP/IP protocols, UTP Cabling, the OSI model and various network components are discussed. Students also learn about operating system configurations for local area networks (LAN). Formerly N110A.

### IS100L COMPUTER NETWORK FUNDAMENTALS LAB

2 UNITS

COREQUISITE: IS100

This is a lab that supports the concepts and provides "hands on" experience with network design, as it relates to IS100. Formerly N110B.

IS110 SERVER ADMINISTRATION I  
4 UNITS  
Part I (Windows Server Active Directory Configuration). This course covers the implementing, administering, maintaining and troubleshooting active directory. Additional topics include Group Policy administration such as user and computer configurations, and management strategies. Part II (Windows Server Network Infrastructure Configuration). This course covers implementation and administration of Windows Server services as it pertains to networks and network protocols. Emphasis is placed on implementations of DHCP, DNS, Network Security and IPSec. Formerly N120A.

IS110L SERVER ADMINISTRATION ILAB  
2 UNITS  
COREQUISITE: IS110  
This is a lab that supports the concepts and provides “hands on” experience with servers, as it relates to IS110. Formerly N120B.

IS111 SERVER ADMINISTRATION II  
4 UNITS  
PREREQUISITE: IS110  
Part I (Windows Server Applications Infrastructure Configuration). This course covers deployment of Windows Server Applications Server, File Server, and IIS services. The course also studies terminal services, clustering and virtualizing servers. Part II (Windows Server Administrator). This course covers planning a Windows Server based network. Topics include server deployment, infrastructure services deployment, active directory deployment, application services deployment and planning for high availability. Formerly N130A.

IS111L SERVER ADMINISTRATION II LAB  
2 UNIT  
COREQUISITE: IS111  
This is a lab that supports the concepts and provides “hands on” experience with servers, as it relates to IS111. Formerly N130B.

IS120 SWITCH ADMINISTRATION  
4 UNITS  
PREREQUISITE: IS100  
This course covers the basic functions and operation of network switches and goes on to include more advanced features of network switches. Topics include basic configuration of switches, Virtual LAN’s (VLANs), and switch protocols. Formerly N150A.

IS120L SWITCH ADMINISTRATION LAB  
4 UNITS  
COREQUISITE: IS120  
This lab allows students to utilize basic functions, as well as, more advanced functions and operations of a network router as it relates to IS120. Formerly N150B.

IS121 ROUTER ADMINISTRATION  
4 UNITS  
PREREQUISITE: IS120  
This course covers the basic function and operation of a network router and then goes on to include more advanced features of network routers. Firewall concepts are discussed as well. Topics include implementation of routing tables, static and dynamic routing protocols, and ACL’s. Formerly N140A.

IS121L ROUTER ADMINISTRATION LAB  
4 UNITS  
COREQUISITE: IS121  
This lab allows students to utilize basic functions, as well as, more advanced functions and operations of a network router as it relates to IS121. Formerly N140B.

IS122 INTRODUCTION TO COMPUTER SECURITY AND WIRELESS NETWORKS  
4 UNITS  
PREREQUISITE: IS121  
This course covers general computer networking security concept, including a review of common risks (back door attacks, spoofing attacks, man in the middle attacks, etc.), TCP/IP security concerns, review of monitoring and intrusion detection, implementing and maintaining a secure network. This course also reviews wireless networks and establishing secure, reliable wireless networking infrastructures.

IS122 INTRODUCTION TO COMPUTER SECURITY AND WIRELESS NETWORKS LAB  
4 UNITS  
COREQUISITE: IS122  
This lab allows students to work on devices in a lab setting as it relates to IS122.

IS170 INTRODUCTION TO INFORMATION SYSTEMS  
2 UNITS  
This course introduces students to the current trends the information technology/systems industry and discusses general topics such as a survey of the types of industries, career growth process in the information technology/systems field, overview of common functional separations, roles of engineers and technicians in the field, and other topics as relevant.

IS210 INTRODUCTION TO OPEN SOURCE SYSTEMS  
2 UNITS  
This course reviews the Linux operating system and how open source systems and tools and be used to replicate many of the services offered by other commercial systems. Student review the Linux file system, command line, users and permissions, process management, network services, development tools and basic administration. Formerly C450 when taken with IS210L.

IS210L OPEN SOURCE SYSTEMS LAB  
2 UNITS  
COREQUISITE: IS210  
This course allows students to configure and administer the Linux operating system and perform tasks as it relates to concepts studied in IS210. Formerly C450 when taken with IS210.

IS230A NETWORK SECURITY AND DEFENSE A  
2 UNITS  
PREREQUISITE: IS122  
This course expands on security concepts covered in IS122 to include more advanced topics such as intrusion detection methods, cryptography, application security, operation security and compliances in regards to IT security. Formerly C430 when taken with IS230AL.

## SCIT Catalog

**IS230A NETWORK SECURITY AND DEFENSE A LAB**  
1 UNIT  
COREQUISITE: IS230A  
This course allows students to apply concepts reviewed in IS230A in a lab setting. Formerly C430 when taken with IS230A.

**IS230B NETWORK SECURITY AND DEFENSE B**  
2 UNITS  
PREREQUISITE: IS230A  
This course is a continuation of IS230A and continues expanding on topics such as application security, operation security and compliance. Formerly C431 when taken with IS230BL.

**IS230BL NETWORK SECURITY AND DEFENSE B LAB**  
1 UNIT  
COREQUISITE: IS230B  
This course allows students to apply concepts reviewed in IS230B in a lab setting. Formerly C431 when taken with IS230B.

**IS250 INTRODUCTION TO WEB TECHNOLOGIES**  
2 UNITS  
This course reviews various web technologies, including HTTP/HTTPS protocols, HTML, CSS, JavaScript, DOM and XML. This course also reviews common JavaScript libraries used in industry.

**IS250L WEB TECHNOLOGIES LAB**  
2 UNITS  
COREQUISITE: IS250  
This course allows student to apply concepts learned in IS250 to build a basic web page using HTML, CSS and JavaScript.

**IS261 INTRODUCTION TO DATABASES**  
2 UNITS  
This course includes principles of databases, managing the physical database structure and managing data base objects. Student review how data can be structured in tables using keys to connect data elements across tables in one-to-one, one-to-many and many-to-many joins. Formerly C210 when taken with IS261L.

**IS261L INTRODUCTION TO DATABASES LAB**  
1 UNITS  
COREQUISITE: IS261  
Students apply concepts learned in IS260 in a lab setting whereby students perform SQL queries based on specified reporting criteria. Formerly C210 when taken with IS261.

**IS311 OPEN SOURCE SYSTEM ADMINISTRATION AND MAINTENANCE**  
2 UNITS  
PREREQUISITE: IS210  
This course expands on the topics learned in IS210 to include topics such as security of Linux systems and more advanced administration techniques, including shell scripting basics, administration in hybrid environments, network applications, batch jobs and system loggings.

**IS311L OPEN SOURCE SYSTEM ADMINISTRATION AND MAINTENANCE LAB**  
2 UNITS  
COREQUISITE: IS311  
This course allows students to configure and administer the Linux operating system and perform tasks as it relates to concepts studied in IS311.

**IS340 INTRODUCTION TO CLOUD COMPUTING**  
2 UNITS  
PREREQUISITE: IS310, IS230B  
This course introduces students to cloud based network infrastructures, including a review of infrastructure service models, virtualization concepts, best and worst practices, and a survey of popular cloud computing platforms and solutions.

**IS340L INTRODUCTION TO CLOUD COMPUTING LAB**  
1 UNIT  
This course allows students to apply concepts learned in IS340 in a lab setting.

**IS345 COMPUTER SYSTEM INTEGRATION AND ARCHITECTURE**  
2 UNITS  
PREREQUISITE: IS310  
This course studies the process of aggregating sub-systems into one system in order to act as a coordinated whole. Students review integration of systems at various levels, including at the networking level and application level.

**IS345L COMPUTER SYSTEM INTEGRATION AND ARCHITECTURE LAB**  
2 UNITS  
Students learn to apply concepts learned in IS345 in a lab setting.

**IS361 DATABASE MANAGEMENT**  
2 UNITS  
PREREQUISITE: IS261  
This course introduces students to management techniques and tools for database systems with such topics related to disaster recovery, optimization strategies, high availability deployments, user authentication and authorization, backup tools, and access restrictions. Formerly C211 when taken with IS361L.

**IS361L DATABASE MANAGEMENT LAB**  
1 UNIT  
COREQUISITE: IS361  
Students apply concepts learned in IS360 in a lab setting whereby students learn to use a popular enterprise database management software in relation to topics covered in IS360. Formerly C211 when taken with IS361.

**IS380 SHELL AND ADMINISTRATIVE SCRIPTING**  
2 UNITS  
PREREQUISITES: C302  
This course reviews techniques to automate server and computer administration through the use of scripts. Students learn to program scripts utilizing variables, loops, creating and calling subroutines, creating interactive scripts, and automating tasks with scripts.

**IS380L SHELL AND ADMINISTRATIVE SCRIPTING LAB**  
2 UNITS  
COREQUISITE: IS380  
This course allows students to write scripts to automate various server administration tasks as it relates to topics learned in IS380.

**IS430A HACKING, FORENSICS & COUNTERMEASURES A**  
2 UNITS  
PREREQUISITES: IS230B  
This course expands on networking security concepts discussed in IS230 to include topics such as digital forensics, windows forensics, and network forensics. Formerly C440 when taken with IS430AL.

**IS430AL HACKING, FORENSICS AND COUNTERMEASURES A LAB**  
 1 UNITS  
 COREQUISITE: IS430A  
 This course allows students to apply concepts reviewed in IS430A in a lab setting. Formerly C440 when taken with IS430A.

**IS430B HACKING, FORENSICS & COUNTERMEASURES B**  
 2 UNITS  
 PREREQUISITES: IS430A  
 This course is a continuation of IS430A that expands on computer security topics, including web-based attacks, email-based attacks, and techniques to avert networking attacks. Formerly C441 when taken with IS430BL.

**IS430BL HACKING, FORENSICS AND COUNTERMEASURES B LAB**  
 1 UNITS  
 COREQUISITE: IS430B  
 This course allows students to apply concepts reviewed in IS430B in a lab setting. Formerly C441 when taken with IS430B.

**IS441 CLOUD ARCHITECTURE AND DESIGN**  
 2 UNITS  
 PREREQUISITE: IS340  
 This course covers designing a cloud solution based on business needs, review of SaaS, PaaS, and IaaS, cloud monitoring and auditing techniques and disaster recovery.

**IS441L CLOUD ARCHITECTURE AND DESIGN LAB**  
 1 UNITS  
 COREQUISITE: IS441  
 This course allows students to apply concepts learned in IS440 to build a secure a cloud based network environment based on business needs.

**IS450 FRONT-END WEB DEVELOPMENT**  
 2 UNITS  
 PREREQUISITE: C302, IS250  
 This course introduces students to front-end web application development using JavaScript and MVC based frameworks that are able to manipulate the DOM based on user interactions and data supplied by back-end systems.

**IS450L FRONT-END WEB DEVELOPMENT LAB**  
 2 UNITS  
 COREQUISITE: IS450  
 This course allows students to apply their knowledge as it relates to IS450 in a lab setting.

**IS451 BACK-END WEB DEVELOPMENT**  
 2 UNITS  
 PREREQUISITE: IS450  
 This course covers topics as it relates to building server-side, dynamic web applications utilizing MVC based frameworks and database systems, including such topics as user authentication and authorization, developing API's, security considerations, and templates.

**IS451L BACK-END WEB DEVELOPMENT LAB**  
 2 UNITS  
 COREQUISITE: IS450  
 This course allows students to apply their knowledge as it relates to IS451 in a lab setting.

**IS471 INFORMATION SYSTEMS IN ORGANIZATIONS**  
 2 UNITS  
 This course allows students to study the societal and ethical implications of information systems as it relates to its adoption in societies, businesses and the economy. Students review case studies showing the impacts of design decisions and the ethical implications that should be considered.

**IS490AL SENIOR DESIGN PROJECT A**  
 3 UNITS  
 This course allows students to apply concepts learned throughout the program to work on a project that showcases the students ability to apply the engineering design process to produce solutions that meet specified needs as it relates to the Information Technology and Systems fields.

**IS490BL SENIOR DESIGN PROJECT B**  
 3 UNITS  
 PREREQUISITE: IS490AL  
 This course is a continuation of IS490AL culminating in a presentation of the students senior design project.

## MAN MANUFACTURING

**MAN100 OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR GENERAL INDUSTRY**  
 1 UNIT  
 This course introduces students to OSHA standards for general industry, including material handling – subpart N, introduction to industrial hygiene – subpart Z, blood borne pathogens – subpart Z, safety and health programs, fall protection, and general industry hazards.

**MAN130 PROGRAMMABLE LOGIC CONTROLLERS**  
 4 UNITS  
 This course introduces students to programmable logic control concepts, ladder diagram, latch, counters, number systems PLC- programming, interfacing circuit, relays. Formerly IE130 or EL170.

**MAN130L PROGRAMMABLE LOGIC CONTROLLERS LAB**  
 2 UNITS  
 COREQUISITE: MAN130  
 This course allows students to learn how to apply concepts from MAN130 toward programming PLC devices to run various industrial simulations. Formerly IE130L or EL172.

**MAN132 ADVANCED PROGRAMMABLE LOGIC CONTROLLERS**  
 4 UNITS  
 PREREQUISITE: MAN130  
 This course expands on programmable logic controller concepts to include debugging ControlLogix and CompactLogix (5000), network technologies applicable to PLCs, debugging and diagnosing and PLC over TCP/IP, reading analog inputs, PID loops, and blueprint reading for automation.

**MAN132L ADVANCED PROGRAMMABLE LOGIC CONTROLLERS LAB**  
 2 UNITS  
 COREQUISITE: MAN132  
 This course allows student to apply concepts learned in MAN132 and gain hands-on experience connecting to PLCs using RSLogix 5000, implementing a networked connection topology with PLCs, troubleshooting applications, and fault handling.

**MAN140 HYDRAULIC AND PNEUMATIC AUTOMATION TECHNOLOGY**  
4 UNITS

This course introduces students to various hydraulic based and pneumatic based devices commonly used in industrial applications, including such topics as fluid power systems, components of a hydraulic system, valves and pumps, pneumatic instruments, and troubleshooting fluid powered systems.

**MAN140L HYDRAULIC AND PNEUMATIC AUTOMATION TECHNOLOGY LAB**  
2 UNITS

**COREQUISITE: MAN140**  
This course allows student to apply concepts learned in MAN140 by gaining hands-on experience troubleshooting, testing, calibrating and analyzing the performance of hydraulic and pneumatic devices commonly used in industrial processes.

**MAN200 INTRODUCTION TO MANUFACTURING AND INDUSTRIAL TECHNOLOGY**  
2 UNITS

**PREREQUISITE: C230**  
America has been called a land of consumers. Our society has become accustomed to the luxury of purchasing commodities from retail stores in a way that is convenient and affordable. Most of us don't take the time to think much past the checkout line, however. Where do these products come from exactly? Were they made in our country or shipped in from somewhere else entirely? What machines and equipment were used to make the items we purchase? Who are the people involved in manufacturing and assembling the finished goods that line the shelves of our favorite stores? This course will give you a behind-the-scenes look at the vast industry called manufacturing. In this unit, you'll examine the basics of manufacturing, including a brief history and some of the basic processes and principles that work together to transform raw materials into useful and valuable commodities.

**MAN280L INTRODUCTION TO 3D MODELING LAB**  
2 UNITS

This course introduces the student to three-dimensional parametric solid modeling with SolidWorks. Students will begin with basic parametric solid modeling techniques advancing into complex assemblies requiring animation. Formerly C301.

**MT MATHEMATICS**

**MT102 COLLEGE MATH**  
2 UNITS

The course includes a detailed examination of mathematics applications. It covers modeling algebraic functions, exponential functions matrices and systems of equations. Formerly MT101.

**MT120\* COLLEGE MATHEMATICS II**  
4 UNITS

**PREREQUISITE: MT101**  
This course covers the concepts of Boolean algebra, number systems, conversion of number systems from one to another, arithmetic in several bases and logic algebra functions.

**MT121 COLLEGE ALGEBRA I**  
4 UNITS

This course covers the fundamental concepts of Algebra, linear equations, functions and graphs, parallel and perpendicular lines and circles, composite and inverse, quadratic functions, polynomial functions and graphs, dividing polynomials, zeros of polynomial functions, and modeling using variation. Formerly MT190.

**MT122 COLLEGE ALGEBRA II**  
4 UNITS

**PREREQUISITE: MT121**  
This course is a continuation of the fundamental concepts of Algebra taught in MT121. It covers algebra of matrices, conic sections and systems of nonlinear equations, arithmetic and geometric sequences, mathematical induction, counting techniques, probability and the binomial theorem. Formerly MT202.

**MT230A CALCULUS 1 A**  
3 UNITS

**PREREQUISITE: MT122**  
In this class, we will discuss certain techniques that are commonly used for limits and continuity, tangent lines and derivatives, methods of differentiation for specific functions, chain rule, and implicit differentiation. Formerly MT301 when taken with MT230B.

**MT230B CALCULUS 1 B**  
3 UNITS

**PREREQUISITE: MT230A**  
This course is a continuation of MT230A and covers such topics as linear approximations and differentials to approximate specific values, maximum and minimum values of a function, limits of indeterminate form by means of l'Hospital's Rule, solving optimization problems, and antiderivatives of functions. Formerly MT301 when taken with MT230A.

**MT235A CALCULUS 2 A**  
3 UNITS

**PREREQUISITE: MT230B**  
This course discusses the area problem to motivate the concept of integration. From here we will see the introduction of integration techniques, such as substitution and integration by parts, as well as see applications of integrals with volumes. Finally we will solve improper integrals and give exposure to the Laplace Transform. Formerly MT410 when taken with MT235B.

**MT235B CALCULUS 2 B**  
3 UNITS

**PREREQUISITE: MT235A**  
This course is a continuation of MT235A and covers concepts such as calculating arc lengths and surface areas, solving certain types of differential equations, infinite sequences and series, along with the concepts of convergence and divergence, which will lead to the power series representation of a function, and finally the Taylor and Maclaurin series representations for a function. Formerly MT410 when taken with MT235A.



**MT310 LINEAR ALGEBRA**  
4 UNITS

PREREQUISITES: MT122

This course is an introduction to the techniques of linear algebra in Euclidean space. Topics covered include matrices, determinants, and systems of linear equations, vectors in n-dimensional space, complex numbers, and eigenvalues.

**MT315 DISCRETE MATHEMATICS**  
4 UNITS

Students are introduced to concepts related to discrete mathematics, including the logic of compound and quantified statements, elementary number theory, sequences, mathematical induction, recursion, and set theory.

**MT330 CALCULUS 3**  
4 UNITS

PREREQUISITE: MT235B

This course covers functions of several variables and multiple integration, including integrals of planes, volume, surface area, Divergence Theorem and Stokes Theorem.

**MT460 PROBABILITY AND STATISTICS**  
4 UNITS

PREREQUISITE: MT235B

This course introduces the elements of statistical analysis, using an intuitive approach to the study of probability and probability distributions, measures of central tendency and dispersion, sampling techniques, parametric and non-parametric test of hypothesis, point and interval estimation, linear regression, and correlation. Applications to business, biological science and the social sciences are included.

**MT470 COMPLEX VARIABLES**  
4 UNITS

PREREQUISITE: MT235B

Introduction to analytic functions of several complex variables. The d-bar problem, cousin problems, domains of holomorphy, and complex manifolds.

**MT480 ORDINARY AND PARTIAL DIFFERENTIAL EQUATIONS**  
4 UNITS

PREREQUISITE: MT330

This course covers ordinary differential equations including existence and uniqueness theorems and the theory of linear systems. Topics may also include stability theory, the study of singularities, and boundary value problems. The wave equation, the heat equation, Laplace's equation, and other classical equations of mathematical physics and their generalizations.

**NEC NATIONAL ELECTRICAL CODE**

**NEC101 NATIONAL ELECTRICAL CODE A**  
4 UNITS

This course introduces the students to various types of raceways, fittings, boxes, enclosures and conduit bodies used in residential, commercial and industrial installation based on NEC Codes. Students will be instructed on - the importance of job-site safety and OSHA and proper use of hand tools and symbols pertaining to raceway installation. Formerly EL164.

**NEC101L NATIONAL ELECTRICAL CODE A**  
LAB

2 UNITS

COREQUISITE: NEC101

This course is designed to give students residential/ commercial lab project and troubleshooting techniques. Students will use electrical tools to install raceways, boxes, will perform conduit bending following NEC Codes. Students are required to follow all safety rules in the lab. Formerly EL165.

**NEC110 NATIONAL ELECTRICAL CODE B**  
4 UNITS

PREREQUISITE: NEC101

This course introduces the student's base on NEC Code pertaining to feeder and branch circuit installation in residential, commercial and industrial application including grounding and bonding, blueprint and symbols pertain to wiring installation, smoke detectors, type of switches and receptacle devices. Conductor splitting and terminations, electrical panel will also be introduced. Formerly EL166.

**NEC110L NATIONAL ELECTRICAL CODE B**  
LAB

2 UNITS

COREQUISITE: NEC110

This course introduces the students to lab projects related to wiring of electrical circuits. Safety is enforced. Formerly EL167.

**NEC120 NATIONAL ELECTRICAL CODE C**  
4 UNITS

PREREQUISITE: NEC110

This course introduces the students to electrical symbol, different electrical blue prints, NEC Codes for wire system management, panels, conduit, grounding, switches, raceways and boxes. Formerly EL200.

**NEC120L NATIONAL ELECTRICAL CODE C**  
LAB

2 UNITS

COREQUISITE: NEC120

This is a lab course so students base on blue prints and NEC Code will do panel installation, conduit bending and installation, wiring, cable pulling, grounding. By following safety and proper use of hand tools, Safety is enforced. Formerly EL201.

**NEC123L NATIONAL ELECTRICAL CODE SPECIAL TOPICS LAB**

1 UNIT

This lab introduces students to specialty topics in the NEC. Labs are rotated based on the faculty discretion and industry input.

**NEC130 NATIONAL ELECTRICAL CODE D**  
4 UNITS

PREREQUISITE: NEC120

This course introduces students to basic electrical safety and OSHA, transformers and power systems, electrical blueprints, solar and wind systems, low voltage wiring, and advanced meter concepts.

**NEC130L NATIONAL ELECTRICAL CODE D**  
LAB

2 UNITS

COREQUISITE: NEC130

This lab course introduces students to Romex, MC Cables, FMC Cables, Meters, Low Voltage/Data Cabling, and burglar alarms.

## PH PHYSICS

### PH200 MECHANICS

4 UNITS

PREREQUISITE: MT235B

This course introduces students to Newtonian physics, including linear motion, two and three dimensional motion, Newton's laws of motion, work and kinetic energy, potential energy, momentum and gravity. Formerly PH300.

### PH200L MECHANICS LAB

2 UNITS

COREQUISITE: PH200

This course allows students to apply concepts learned in PH200 in a lab setting whereby students test Newton's laws of motion using the scientific method.

### PH310 ELECTRICITY & MAGNETISM

4 UNITS

PREREQUISITE: PH200

This course covers conservation laws and electromagnetic waves, Poynting's theorem, tensor formulation, potentials and fields. Plane wave problems (free space, conductors and dielectric materials, boundaries). Dipole and quadrupole radiation. Special relativity and transformation between electric and magnetic fields. Formerly PH400.

### PH310L ELECTRICITY AND MAGNETISM LAB

2 UNITS

COREQUISITE: PH310

This course allows students to apply concepts learned in PH310 in a lab setting whereby students test electromagnetic theories using the scientific method.

