SCIT Southern California Institute of Technology

2019 CATALOG

PUBLISHED: January 2019
FOR PERIOD: January 1, 2019 - December 31, 2019

Southern California Institute of Technology
525 North Muller Street, Anaheim, CA 92801 ◆ www.scitech.edu ◆ Tel: (714) 300-0300 ◆ Fax: (714) 300-0311

Table of Contents

ABOUT SCIT

MISSION STATEMENT

SCIT's mission is to provide quality programs that are sound in concept, implemented by a competent and dedicated faculty, and geared to serve those seeking the foundation required to build a career in their chosen fields. The program emphasizes hands on training based on the needs of industry and provides a wider perspective of general knowledge, thus developing the insight, diversity, and understanding needed to better function in society, provide leadership, and become a better, more confident citizen in the community. SCIT helps to develop the potential and talent, which will provide for personal and professional growth, while meeting personal objectives and goals. The college provides a learning atmosphere that develops attitudes, disciplines, and skills consistent with the needs of the local community and society in general. Lifelong learning is encouraged and supported by faculty through individual encouragement, attention, effective teaching techniques, and regularly scheduled evaluations. SCIT offers a curriculum that is current with trends as well as technological advancements. We also encourage and support ethnic and cultural diversity in the faculty, staff, and student body of the school thus enriching the overall learning environment.

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, nor had, any petitions for bankruptcy throughout its operational years.

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

- SCIT is approved by the U.S. Department of Homeland Security to issue I-20 Visas to admit foreign students
- SCIT is approved by the U.S. Department of Education for Title IV funding
- SCIT is approved for the training of veterans according to Title 38, United States Code
- 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 provide training for the Workforce Investment Act (WIA)

Southern California Institute of Technology is a private institution approved to operate in the State of California by the Bureau for Private Postsecondary Education. 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, 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.

BOARD OF TUSTEES

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:

- Shahab Dadjou
- Parviz Rashti (Chairman)
- Arian Shams
- Nazila Shams
- Parviz Shams
- Sam Brian Shams
- Michael H. Simonian
- Manish Surti
- 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 10 educational laboratories. SCIT's campus maintains close to 500 computers for student use. Other school features include a student lounge, career resource center and a library. SCIT's laboratory facilities include:

- **Electrical Lab**
  The Electrical Lab includes various wiring stations used to teach installation of various electrical devices such as wires, conduits, outlets, switches, panels, breakers and more based on the National Electrical Code.

- **Electrical Motors Lab**
  The Electrical Motors Lab includes a variety of industrial electric motors and control units used to teach motor installation techniques, control relays, start/stop methods, electrical interlocks and more.

- **Robotics Engineering Lab**
  The Robotics Engineering Lab includes various industrial grade robotic arms and control systems used to teach robotic system integration, control and design techniques.

- **Industrial & Automation Lab**
  The Industrial & Automation Lab includes various electric sensors and factory automation systems used to teach automation system control and troubleshooting techniques.

- **Programmable Logic Controller Lab**
  The Programmable Logic Controller Lab includes multiple PLC stations equipped with Allen Bradley Micrologic PLC units, computers and various sensors used to teach PLC ladder logic and I/O programming techniques used for automation.

- **Computer Networking Lab**
  The Computer Networking Lab includes a variety of routers, switches, desktops and virtualized servers used to teach router programming, switch programming and client-server installation, configuration and administration techniques.

- **Biomedical Lab**
  The Biomedical Lab includes a variety of electronics based medical devices such as patient monitoring systems, infusion pumps, cardiac defibrillators, neonatal equipment and other common medical devices used to teach the operation and troubleshooting of such devices.

- **Electronics Lab**
  The Electronics Lab includes multiple stations that include breadboards, oscilloscopes and various simulating electronic projects used to teach the design and implementation of digital and analog based electronic circuits.

- **Solar Lab**
  The Solar Lab includes multiple commercial grade solar panels and power storage devices used to teach the installation and connection of solar panels to electrical power supplies and grids.

- **Pneumatics Lab**
  The Pneumatics Lab includes multiple stations equipped with a variety of pneumatics based, mechanical industrial devices used to teach precision control techniques.

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
General email: 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 applicants 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 schools Financial Aid Office to review the cost of the program and any federal and state student aid they may be eligible to receive. The schools Financial Aid Office is independent from the schools 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 schools 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 cancelation 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.

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.

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.

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.

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.

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 Workforce Development Board, 1300 S. Grand Ave Building B, 3rd Floor, Santa Ana, CA 92705.

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. 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	14,080	**17,900**	320	5200
General Electrician	1590	2600	14,200	**18,390**	320	5300
Information Technology	1970	0	16,000	**17,970**	320	5200
AS Industrial Engineering Technology	3470	1000	34,560	**39,030**	320	4900
BS Biomedical Engineering	5195	2975	55,120	**63,290**	320	5200
BS Information Systems	3915	500	58,880	**63,295**	320	5100
BS Electrical Engineering	4550	1275	58,240	**64,065**	320	5400
BS Electronic Engineering	4235	1175	57,600	**63,010**	320	5300

* 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.

CANCELATION & 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.

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 fifty dollars per Quarter Credit Units withdrawn ("$50 per unit"). The total amount charged for an incomplete course is equal to one hundred dollars per Quarter Credit Units incomplete ("$100 per unit"). 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 Student Tuition Recovery Fund (STRF) was established by the California State Legislature to protect any California resident who attends a private postsecondary institution from losing money if they prepaid tuition and suffered a financial loss as a result of school closing, failing to live up to its enrollment agreement or refusing to pay a court judgment. You must pay the state-imposed assessment for the Student Tuition Recovery Fund (STRF) if all of the following applies to you:

1. You are a student, who is a California resident, or are enrolled in a residency program, and prepays all or part of your tuition either by cash, guaranteed student loans, or personal loans, and

2. Your total charges are not paid by any third-party payer such as an employer, government program or other payer unless you have a separate agreement to repay the third party.

You are not eligible for protection from the STRF and you are not required to pay the STRF assessment, if either of the following applies:

1. You are not a California resident, or are not enrolled in a residency program, or

2. Your total charges are paid by a third party, such as an employer, government program or other payer, and you have no separate agreement to repay the third party.

The State of California created the Student Tuition Recovery Fund (STRF) to relieve or mitigate economic losses suffered students who are California residents, or are enrolled in a residency

program attending certain schools regulated by the Bureau for Private Postsecondary Education.

You may be eligible for STRF if you are a California resident or are enrolled in a residency program, prepaid tuition, paid the STRF assessment, and suffered an economic loss as a result of any of the following:

1. The school closed before the course of instruction was completed.

2. The school's failure to pay refunds or charges on behalf of a student to a third party for license fees or any other purpose, or to provide equipment or materials for which a charge was collected within 180 days before the closure of the school.

3. The school's failure to pay or reimburse loan proceeds under a federally guaranteed student loan program as required by law or to pay or reimburse proceeds received by the school prior to closure in excess of tuition and other costs.

4. There was a material failure to comply with the Act or this Division within 30 days before the school closed or, if the material failure began earlier than 30 days prior to closure, the period determined by the Bureau.

5. An inability after diligent efforts to prosecute, prove, and collect on a judgment against the institution for a violation of the Act.

Except when SCIT provides a refund pursuant to section 94919(d) or section 94920(b) of the California Private Postsecondary Education Act of 2009, the STRF fee is non-refundable.

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

Regular school office hours are Monday through Friday, 9:00 a.m. to 5:00 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 only depending on the schedule), one to five nights a week. In certain circumstances, classes may be scheduled outside of these times.

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. Classroom and Laboratories generally range between 10 to a maximum of 50.

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 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 Lecture Clock Hours, 20 Laboratory Clock Hours or 60 Out-of-Class Work/Preparation Clock Hours as part of a didactic/lecture or laboratory based course (60 minutes is one clock hour). Courses may be composed of one or more of the specified clock hour types. For example, a one (1) Quarter Credit Unit didactic/lecture based course may be composed of 10 Lecture Clock Hours and 20 Out-of-Class Work/Preparation Clock Hours. 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

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

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, 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		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. 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 may 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.

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 of 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.

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

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

COUNTING GRADES FOR THE COMPLETION RATE CALCULATION			
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 Regulations21.4253 (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:

- The student must pass all classes in the program and complete all course requirements, thus obtaining the total credits required for graduation, by the last day of the graduating term 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.

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.

2019 TERM START AND END DATES
Courses begin and end on the following dates:

Term Number	Term Start Date	Term End Date
1	January 7, 2019	February 8, 2019
2	February 11, 2019	March 15, 2019
3	March 18, 2019	April 19, 2019
4	April 22, 2019	May 24, 2019
5	May 28, 2019	June 28, 2019
6	July 1, 2019	August 2, 2019
7	August 5, 2019	September 6, 2019
8	September 9, 2019	October 11, 2019
9	October 14, 2019	November 15, 2019
10	November 18, 2019	December 20, 2019

2019 SCHOOL HOLIDAYS
There are no courses scheduled for the following holidays:

January 21, 2019	Martin Luther King Day
May 27, 2019	Memorial Day
July 4, 2019	Independence Day
September 2, 2019	Labor Day
November 11, 2019	Veterans Day
November 28, 2019 – November 29, 2019	Thanksgiving
December 23, 2019 - January 3, 2020	Winter Holiday

FACULTY

INFORMATION TECHNOLOGY & SYSTEMS

Curran-Norton, Amy
Adjunct Lecturer
Educational Background: M.S. Business and Technology Management, Coleman College '05 | B.A. Dramatic Arts, UC Santa Barbara '93 | A.S. Psychology, Orange Coast College '18
Professional Background: Instructor, University of La Verne | Instructor, Art Institute of California | Senior Instructor, Coleman College | Web Developer/Designer Vivendi Universal | Graphic Designer, KPMG

Karpukhin, Alexander
Adjunct 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

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.

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 & BIOMEDICAL ENGINEERING

Armanios, Sameh
Adjunct Lecturer
Educational Background: MBA, So. Ca. University '07 | B.S. Computer Science, Southern Ca. University '05 | B.S.E.E., SCIT '04
Professional Background: Design Engineer PCB boards, Spireon | General Manager, VAC Inc. | Electronics & computer quality control Technician, Mina Ceramic | Electronics & computer Technician, MGM

Asfaw, Wesenachin
Lecturer
Educational Background: M.S. Electrical Engineering, University of Roorkee, India '98 | B.S. Regional Electrical College, India, '92
Professional Background: Instructor for electrical courses, WyoTech | Dean, Engineering Dept. Bahir Dar University

Davarpanah, Mike
Professor
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.

Etezadbrojerdi, Maryam
Assistant Professor
Educational Background: Ph.D. Electrical Engineering, Concordia University '12 | M.S. Electrical Engineering, Concordia University '06 | B.S. Applied Physics, Shahid Beheshti University, '03
Professional Background: Lecturer, University of Vermont | Senior Research Scientist, Northern Radar Inc. | Sessional Professor, Memorial University

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

Mekonnen, Fasil
Lecturer
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.

Panyarachun, George
Assistant Professor
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
Adjunct 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
Adjunct Lecturer
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

Raman, Saravana
Adjunct Lecturer
Educational Background: Ph.D. Biomedical Engineering & Applied Mathematics, CSU Long Beach & Claremont Graduate University '16 | MS Electrical Engineering, CSU Long Beach '06
Professional Background: Adjunct Faculty, CSU Long Beach

Rokni, Sam
Assistant Professor
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
Adjunct Lecturer
Educational Background: M.S. Electrical Engineering, UCLA '07 | B.S. Electrical Engineering, UCLA '05
Professional Background: System Engineer, Raytheon | Test Engineer, Broadcom

Taylor, Roy
Adjunct 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

Mande, Anupama
Adjunct Lecturer
Educational Background: Ph.D. Latin American Studies, Ohio State University,'99 | M.A. History, Ohio State University '94 | M.Phil. History, University of Poona, India '91 | M.A. History, University of Poona, India '89 | B.A. History, University of Madras '87
Professional Background: Professor and Chair, History Department, Fullerton College

Page, Rita
Adjunct Lecturer
Educational Background: M.A. History, CSU Long Beach '12 | M.A. Education, CSU Dominguez Hills | B.A. Interdisciplinary Studies, CSU Dominguez Hills '02
Professional Background: Adjunct History Instructor, Mt. San Antonio College | Adjunct Humanities Instructor, El Camino College | Adjunct Humanities Instructor, Los Angeles Mission College

Ryan, Steve
Adjunct 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

De Leon, Jose
Adjunct Lecturer
Educational Background: M.D., University of Santo Tomas '98 | B.S. Zoology, University of the East '93
Professional Background: Professor, Southern California University | Anatomy Professor, Mt. San Antonio Community College | Surgical Theory Instructor, Career Network Institute

Ibrahim, Suzanne
Adjunct Lecturer
Educational Background: M.D. Pediatrics, Ain-Shams University, Egypt '88 | M.B, B.Ch. Ain-Shams University, Egypt '80
Professional Background: Diagnostic Ultrasound Instructor, ATI College | Diagnostic Ultrasound Instructor, American School of Radiology | Medical Officer, Al-Isaaf Medical Complex, Oman.

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

Sekhri, Suramya
Adjunct Lecturer
Educational Background: M.S. Material Science and Engineering, New Jersey Institute of Technology '15 | B.S. Physics, Kirorimal College, Delhi University '13
Professional Background: Analyst and Researcher, Lotus Life Corporation

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

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 $1399 per month. This estimation is based on the average sample of 24 one bedroom apartments within 1.5 miles of the campus listed as of the publication of this catalog. This estimation is in no way a guaranteed cost 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.

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. 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.

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 1st of each year in compliances 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

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.

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), 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

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.

LABORATORIES & EQUIPMENT

Courses are taught in lecture classrooms and laboratories on campus. Students also have access to learning resources such as the library, as well as, access to the internet during non-classroom hours.

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.

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

PROGRAM DISCLOSURES

Disclosure information for this program can be found by visiting https://www.scitech.edu/programs/biomedical-technology-diploma/disclosures

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
EE110	Introduction to Digital and Analog Circuits	4
EE110L	Introduction to Digital and Analog Circuits Lab	2
MT102	College Math	2
Total		**44**

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.

LABORATORIES & EQUIPMENT

Courses are taught in lecture classrooms and laboratories on campus. Students also have access to learning resources such as the library, as well as, access to the internet during non-classroom hours.

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.

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.

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

PROGRAM DISCLOSURES

Disclosure information for this program can be found by visiting https://www.scitech.edu/programs/general-electrician-diploma/disclosures

GENERAL ELECTRICIAN COURSES

Course Code	Course Title	Units
EE103	Introduction to Electronics	4
EE103L	Introduction to Electronics Lab	2
IE110	Electric Motor Control	4
IE110L	Electric Motor Control Lab	2
IE130	Programmable Logic Controllers	4
IE130L	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

Total   **45**

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.

LABORATORIES & EQUIPMENT

Courses are taught in lecture classrooms and laboratories on campus. Students also have access to learning resources such as the library, as well as, access to the internet during non-classroom hours.

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.

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

PROGRAM DISCLOSURES

Disclosure information for this program can be found by visiting https://www.scitech.edu/programs/information-technology-diploma/disclosures

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
Total		**50**

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:

a. An ability to apply the knowledge, techniques, skills, and modern tools of the discipline to narrowly defined engineering technology activities;

b. An ability to apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require limited application of principles but extensive practical knowledge;

c. An ability to conduct standard tests and measurements, and to conduct, analyze, and interpret experiments;

d. An ability to function effectively as a member of a technical team;

e. An ability to identify, analyze, and solve narrowly defined engineering technology problems;

f. An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature;

g. An understanding of the need for and an ability to engage in self-directed continuing professional development;

h. An understanding of and a commitment to address professional and ethical responsibilities, including a respect for diversity; and

i. A commitment to quality, timeliness, and continuous improvement.

LABORATORIES & EQUIPMENT

Courses are taught in lecture classrooms and laboratories on campus. Students also have access to learning resources such as the library, as well as, access to the internet during non-classroom hours.

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.

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

PROGRAM DISCLOSURES

Disclosure information for this program can be found by visiting https://www.scitech.edu/programs/industrial-engineering-associates-degree/disclosures

ASIET COURSES

Course Code	Course Title	Units
C101	Introduction to Computer Programming	4
C101L	Introduction to Computer Programming Lab	2
C110	Computer Hardware Fundamentals	4
C110L	Computer Hardware Fundamentals Lab	2
EE103	Introduction to Electronics	4
EE103L	Introduction to Electronics Lab	2
EE110	Introduction to Digital and Analog Circuits	4
EE110L	Introduction to Digital and Analog Circuits Lab	2
EE142	Semiconductor Device Electronics	2
EE142L	Semiconductor Device Electronics Lab	2
EE160	Digital Electronics	2
EE160L	Digital Electronics Lab	2
EE260	Digital Electronics and Integrated Circuits	4
EE260L	Digital Electronics and Integrated Circuits Lab	4
ENG101	English Composition & Grammar	4
ENG101L	Writing	2
IE210	Introduction to Electromechanics	4
IE210L	Introduction to Electromechanics Lab	4
IE220	Robotics Engineering	4
IE220L	Robotics Engineering Lab	4
IE230	Industrial Electronics and Controllers	4
IE230L	Industrial Electronics and Controllers Lab	4
IS100	Computer Network Fundamentals	4
IS100L	Computer Network Fundamentals Lab	2
MT121	College Algebra I	4
MT122	College Algebra II	4
MT230	Differential Calculus	6
MT235	Integral Calculus	6
PH200	Mechanics	4
PH200L	Mechanics Lab	2
PSY201	Organizational Psychology	6
Total		**108**

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 educations 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:

a. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

b. An ability to apply the engineering design process to produce solutions that meet specified needs with consideration for public health and safety, and global, cultural, social, environmental, economic, and other factors as appropriate to the discipline.

c. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

d. An ability to communicate effectively with a range of audiences.

e. 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.

f. An ability to recognize the ongoing need to acquire new knowledge, to choose appropriate learning strategies, and to apply this knowledge.

g. An ability to function effectively as a member or leader of a team that establishes goals, plans tasks, meets deadlines, and creates a collaborative and inclusive environment.

LABORATORIES & EQUIPMENT

Courses are taught in lecture classrooms and laboratories on campus. Students also have access to learning resources such as the library, as well as, access to the internet during non-classroom hours.

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.

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

PROGRAM DISCLOSURES

Disclosure information for this program can be found by visiting https://www.scitech.edu/programs/biomedical-engineering-bachelors-degree/disclosures

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	Fundamentals of Biomedical Imaging Lab	2
BIO340	Biomechanics	4
BIO435	Biomaterials	4
BIO460	Development and Regulations of Medical Products	6
BIO490L	Senior Capstone Project	6
C101	Introduction to Computer Programming	4
C101L	Introduction to Computer Programming Lab	2
C110	Computer Hardware Fundamentals	4
C110L	Computer Hardware Fundamentals Lab	2
C494	Applied Numerical Computing	4
C495	Applied Numerical Computing Lab	4
CHEM201	General Chemistry	6
EE103	Introduction to Electronics	4
EE103L	Introduction to Electronics Lab	2
EE110	Introduction to Digital and Analog Circuits	4
EE110L	Introduction to Digital and Analog Circuits Lab	2
EE142	Semiconductor Device Electronics	2
EE142L	Semiconductor Device Electronics Lab	2
EE160	Digital Electronics	2
EE160L	Digital Electronics Lab	2
EE260	Digital Electronics and Integrated Circuits	4
EE260L	Digital Electronics and Integrated Circuits Lab	4
EE310	Circuit Analysis	4
EE310L	Circuit Analysis Lab	2
EE465	Digital Signal Processing	4
EE465L	Digital Signal Processing Lab	2
ENG101	English Composition & Grammar	4
ENG101L	Writing	2
GE230	Leadership	6
IE220	Robotics Engineering	4
IE220L	Robotics Engineering Lab	4
MT121	College Algebra I	4
MT122	College Algebra II	4
MT230	Differential Calculus	6
MT235	Integral Calculus	6
MT310	Linear Algebra	4
MT315	Discrete Mathematics	4
MT330	Multivariable Calculus	4
MT460	Probability and Statistics	4
MT470	Complex Variables	4
MT480	Ordinary and Partial Differential Equations	4
PH200	Mechanics	4
PH200L	Mechanics Lab	2
PSY201	Organizational Psychology	6
Total		**182**

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:

a. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

b. An ability to apply the engineering design process to produce solutions that meet specified needs with consideration for public health and safety, and global, cultural, social, environmental, economic, and other factors as appropriate to the discipline.

c. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

d. An ability to communicate effectively with a range of audiences.

e. 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.

f. An ability to recognize the ongoing need to acquire new knowledge, to choose appropriate learning strategies, and to apply this knowledge.

g. An ability to function effectively as a member or leader of a team that establishes goals, plans tasks, meets deadlines, and creates a collaborative and inclusive environment.

LABORATORIES & EQUIPMENT

Courses are taught in lecture classrooms and laboratories on campus. Students also have access to learning resources such as the library, as well as, access to the internet during non-classroom hours.

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.

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

PROGRAM DISCLOSURES

Disclosure information for this program can be found by visiting https://www.scitech.edu/programs/electrical-engineering-bachelors-degree/disclosures

BSEE COURSES

Course No.	Course Title	Units
C101	Introduction to Computer Programming	4
C101L	Introduction to Computer Programming Lab	2
C310	Electrical Computer Aided Drafting	4
C310L	Electrical Computer Aided Drafting Lab	4
C494	Applied Numerical Computing	4
C495	Applied Numerical Computing Lab	4
EE103	Introduction to Electronics	4
EE103L	Introduction to Electronics Lab	2
EE110	Introduction to Digital and Analog Circuits	4
EE110L	Introduction to Digital and Analog Circuits Lab	2
EE142	Semiconductor Device Electronics	2
EE142L	Semiconductor Device Electronics Lab	2
EE160	Digital Electronics	2
EE160L	Digital Electronics Lab	2
EE230	Industrial Transformers	4
EE260	Digital Electronics and Integrated Circuits	4
EE260L	Digital Electronics and Integrated Circuits Lab	4
EE310	Circuit Analysis	4
EE310L	Circuit Analysis Lab	2
EE405	Engineering Economy	6
EE430	Field Theory and Transmission Lines	4
EE480	Electrical Power Systems	4
EE485	Electrical Power Distribution	4
EE490L	Senior Capstone Project	6
ENG101	English Composition & Grammar	4
ENG101L	Writing	2
GE230	Leadership	6
IE210	Introduction to Electromechanics	4
IE210L	Introduction to Electromechanics Lab	4
IE220	Robotics Engineering	4
IE220L	Robotics Engineering Lab	4
IE230	Industrial Electronics and Controllers	4
IE230L	Industrial Electronics and Controllers Lab	4
MT121	College Algebra I	4
MT122	College Algebra II	4
MT230	Differential Calculus	6
MT235	Integral Calculus	6
MT310	Linear Algebra	4
MT315	Discrete Mathematics	4
MT330	Multivariable Calculus	4
MT460	Probability and Statistics	4
MT470	Complex Variables	4
MT480	Ordinary and Partial Differential Equations	4
PH200	Mechanics	4
PH200L	Mechanics Lab	2
PH400	Electricity and Magnetism	4
PH400L	Electricity and Magnetism Lab	2
PSY201	Organizational Psychology	6
Total		**182**

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:

a. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

b. An ability to apply the engineering design process to produce solutions that meet specified needs with consideration for public health and safety, and global, cultural, social, environmental, economic, and other factors as appropriate to the discipline.

c. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

d. An ability to communicate effectively with a range of audiences.

e. 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.

f. An ability to recognize the ongoing need to acquire new knowledge, to choose appropriate learning strategies, and to apply this knowledge.

g. An ability to function effectively as a member or leader of a team that establishes goals, plans tasks, meets deadlines, and creates a collaborative and inclusive environment.

LABORATORIES & EQUIPMENT

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.

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

PROGRAM DISCLOSURES

Disclosure information for this program can be found by visiting https://www.scitech.edu/programs/electronic-engineering-bachelors-degree/disclosures

BSEE COURSES

Course No.	Course Title	Units
C101	Introduction to Computer Programming	4
C101L	Introduction to Computer Programming Lab	2
C494	Applied Numerical Computing	4
C495	Applied Numerical Computing Lab	4
EE103	Introduction to Electronics	4
EE103L	Introduction to Electronics Lab	2
EE110	Introduction to Digital and Analog Circuits	4
EE110L	Introduction to Digital and Analog Circuits Lab	2
EE142	Semiconductor Device Electronics	2
EE142L	Semiconductor Device Electronics Lab	2
EE160	Digital Electronics	2
EE160L	Digital Electronics Lab	2
EE250	Introduction to Microprocessors and Microcomputers	4
EE255	Computer Logic and Architecture	4
EE260	Digital Electronics and Integrated Circuits	4
EE260L	Digital Electronics and Integrated Circuits Lab	4
EE310	Circuit Analysis	4
EE310L	Circuit Analysis Lab	2
EE322	Fundamentals of Process Control	4
EE322L	Fundamentals of Process Control Lab	4
EE360	Digital Systems Design	4
EE360L	Digital Systems Design Lab	4
EE405	Engineering Economy	6
EE465	Digital Signal Processing	4
EE465L	Digital Signal Processing Lab	2
EE472	Electronic Communication Systems	4
EE475	Fundamentals of Telecommunications and Data Communications	4
EE490L	Senior Capstone Project	6
ENG101	English Composition & Grammar	4
ENG101L	Writing	2
GE230	Leadership	6
IE220	Robotics Engineering	4
IE220L	Robotics Engineering Lab	4
MT121	College Algebra I	4
MT122	College Algebra II	4
MT230	Differential Calculus	6
MT235	Integral Calculus	6
MT310	Linear Algebra	4
MT315	Discrete Mathematics	4
MT330	Multivariable Calculus	4
MT460	Probability and Statistics	4
MT470	Complex Variables	4
MT480	Ordinary and Partial Differential Equations	4
PH200	Mechanics	4
PH200L	Mechanics Lab	2
PH400	Electricity and Magnetism	4
PH400L	Electricity and Magnetism Lab	2
PSY201	Organizational Psychology	6
Total		**180**

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:

a. An ability to analyze a problem, and to identify and define the computing requirements appropriate to its solution.
b. An ability to design, implement, and evaluate a computer-based solution to meet a given set of computing requirements in the context of the discipline.
c. An ability to communicate effectively with a range of audiences about technical information.
d. An ability to make informed judgements in computing practice based on legal and ethical principles.
e. An ability to function effectively on teams to establish goals, plan tasks, meet deadlines, manage risk, and produce deliverables.
f. An ability to support the delivery, use, and management of information systems within an information systems environment.

LABORATORIES & EQUIPMENT

Courses are taught in lecture classrooms and laboratories on campus. Students also have access to learning resources such as the library, as well as, access to the internet during non-classroom hours.

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.

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

PROGRAM DISCLOSURES

Disclosure information for this program can be found by visiting https://www.scitech.edu/programs/information-systems-bachelors-degree/disclosures

BSIS COURSES

Course No.	Course Title	Units
C101	Introduction to Computer Programming	4
C101L	Introduction to Computer Programming Lab	2
C110	Computer Hardware Fundamentals	4
C110L	Computer Hardware Fundamentals Lab	2
ENG101	English Composition & Grammar	4
ENG101L	Writing	2
GE230	Leadership	6
GE430	Project Management	4
GE430L	Project Management 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
IS170	Introduction to Information Systems	2
IS210	Introduction to Open Source Systems	2
IS210L	Open Source Systems Lab	2
IS211	Administration and Security of Open Source Systems	4
IS211L	Advanced Open Source Systems Lab	4
IS250	Introduction to Web Technologies	2
IS250L	Web Development Lab	2
IS310	Shell and Administrative Scripting	4
IS310L	Shell and Administrative Scripting Lab	4
IS350	Introduction to Web Application Development	4
IS350L	Web Application Development Lab	2
IS360	Databases	4
IS360L	Databases Lab	2
IS430	Network Security and Defense	4
IS430L	Network Security and Defense Lab	2
IS431	Hacking, Forensics & Countermeasures	4
IS431L	Hacking, Forensics & Countermeasures Lab	2
IS440	Cloud Computing, Architecture and Design	4
IS440L	Cloud Computing, Architecture and Design Lab	2
IS470	Information Systems in Organizations	6
IS490L	Senior Capstone Project	6
MT121	College Algebra I	4
MT122	College Algebra II	4
MT230	Differential Calculus	6
MT235	Integral Calculus	6
MT310	Linear Algebra	4
MT315	Discrete Mathematics	4
MT460	Probability and Statistics	4
MT470	Complex Variables	4
PSY201	Organizational Psychology	6

COURSE DESCRIPTIONS

BI BIOMEDICAL INSTRUMENTATION

BI101 INTRODUCTION TO HUMAN ANATOMY & PHYSIOLOGY
5 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. This course is equivalent to and may be taken as a replacement for BIO101.

BI110A BIOMEDICAL INSTRUMENTATION
5 UNITS
PREREQUISITE: BI101
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. This courses is equivalent to and may be taken as a replacement for BIO110 when taken with BI120.

BI110B BIOMEDICAL INSTRUMENTATION LAB
1.5 UNITS
PREREQUISITE: BI110A
This lab allows students to apply their knowledge in a lab setting as it applies to BI110A. This courses is equivalent to and may be taken as a replacement for BIO110L.

BI120 BIOMEDICAL EQUIPMENT REPAIR ANALYSIS
2.5 UNITS
PREREQUISITE: BI110A
This course covers the application of the performance analyzer, tester and simulator for troubleshooting and calibration of medical equipment. This courses is equivalent to and may be taken as a replacement for BIO110 when taken with BI110A.

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. This courses is equivalent to and may be taken as a replacement for 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. This courses is equivalent to and may be taken as a replacement for 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. This courses is equivalent to and may be taken as a replacement for 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. This courses is equivalent to and may be taken as a replacement for 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. This courses is equivalent to and may be taken as a replacement for 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. This courses is equivalent to and may be taken as a replacement for EL214.

BIO155L ADVANCED BIOMEDICAL ELECTRONIC TROUBLESHOOTING LAB
2 UNITS
COREQUISITE: BIO155
This course expands on the biomedical troubleshooting techniques learned in BIO150L. This courses is equivalent to and may be taken as a replacement for EL215.

BIO160 INTRODUCTION TO BIOMEDICAL ENGINEERING
2 UNITS
PREREQUISITE: BIO101
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. This
courses is equivalent to and may be
taken as a replacement for BME320.

BIO320L FUNDAMENTALS OF
BIOMEDICAL IMAGING LAB
2 UNITS
COREREQUISITE: BIO320
This lab allows students to apply their
knowledge in a lab setting as it applies
to BIO320.

BIO340 BIOMECHANICS
4 UNITS
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. This courses is equivalent to
and may be taken as a replacement for
BME395.

BIO435 BIOMATERIALS
4 UNITS
A 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. This courses is equivalent to
and may be taken as a replacement for
BME435.

BIO460 DEVELOPMENT AND
REGULATIONS OF MEDICAL PRODUCTS
6 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. This courses is
equivalent to and may be taken as a
replacement for BME421.

BIO490L SENIOR CAPSTONE PROJECT
6 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. This courses is
equivalent to and may be taken as a
replacement for BME494 and BME495.

BME BIOMEDICAL ENGINEERING

BME320 BASICS 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. This
courses is equivalent to and may be
taken as a replacement for BIO320.

BME395 BIOMECHANICS
4 UNITS
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. This courses is equivalent to
and may be taken as a replacement for
BIO340.

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. This courses is
equivalent to and may be taken as a
replacement for BIO460.

BME435 BIOMATERIALS
4 UNITS
A 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. This courses is equivalent to and may be taken as a replacement for BIO435.

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.

BME494 PROGRAMMING FUNDAMENTALS IN BIOMEDICAL ENGINEERING
4 UNITS
PREREQUISITE: C494
This course will introduce the theory of computer programming specifically designed for the applications in biomedical engineering. Students will learn the basic computer architecture and the interaction between the computer hardware, operating system and application software. MATLAB will be the primary language used to teach the above mentioned programming principles. This courses is equivalent to and may be taken as a replacement for BIO490L when taken with BME495.

BME495 PROGRAMMING FUNDAMENTALS IN BIOMEDICAL ENGINEERING LAB
2 UNITS
PREREQUISITE: BME494
This lab will be covering the basics of biomedical instrumentation in both hardware and software components. This courses is equivalent to and may be taken as a replacement for BIO490L when taken with BME494.

C COMPUTER

C101 INTRODUCTION TO COMPUTER PROGRAMMING
4 UNITS
Student are introduced to object oriented programming, including concepts as it relates to: data structure, conditionals, iterations, methods, classes, polymorphism, inheritance, and programming best practices. This courses is equivalent to and may be taken as a replacement for C320.

C101L INTRODUCTION TO COMPUTER PROGRAMMING LAB
2 UNITS
COREREQUISITE: C101
This lab allows students to apply their knowledge in a lab setting as it applies to C101. This courses is equivalent to and may be taken as a replacement for C321.

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. This courses is equivalent to and may be taken as a replacement for 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. This courses is equivalent to and may be taken as a replacement for C171.

C170 COMPUTER THEORY I
6.5 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.

C171 COMPUTER THEORY I LAB
4 UNITS
PREREQUISITE: C170
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. This courses is equivalent to and may be taken as a replacement for C110L.

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
PREREQUISITE: C210
This course gives the students an opportunity to apply their knowledge of cabling in a lab setting.

C205 PRINCIPLES OF WEB TECHNOLOGY
6 UNITS
Students will learn about creating web sites, topics and techniques in the development of web based applications, website maintenance and management. This course is equivalent to and may be taken as a replacement for IS250 when taken with C206.

C206 WEB TECHNOLOGY
6 UNITS
Students will learn about databases, applications and over the web issues on web application,. Architecture will be discussed regarding network infrastructure. This course is equivalent to and may be taken as a replacement for IS250 when taken with C205.

C210 COMPUTER DATABASE SYSTEMS I
6 UNITS
This course includes Principles of Data Base SQL, managing the physical data base structure and managing data base object. This course is equivalent to and may be taken as a replacement for IS360 and IS360L when taken with C211.

C211 COMPUTER DATABASE SYSTEMS I LAB
4 UNITS
PREREQUISITE: C210
This course gives the student an opportunity to apply his/her knowledge of SQL in a lab setting. This course is equivalent to and may be taken as a replacement for IS360 and IS360L when taken with C210.

C300 COMPUTER SYSTEMS I
7.5 UNITS
PREREQUISITE: C170
This Computer Aided Drafting course includes: A full set of solid modeling of 3D tools, and its co-existence with the products of 2D drafting tools. As fundamentally a Vector Graphics drawing, student learn to use primitive entities such as lines, polylines, circles, arcs and text as a foundation for more complex objects. This course is equivalent to and may be taken as a replacement for C310 and C310L when taken with C301.

C301 COMPUTER SYSTEMS I LAB
2 UNITS
This course gives the students the opportunity to work with the software and practice the contents learned in C220 in a real application and environment. Previously 2.5 Units. This course is equivalent to and may be taken as a replacement for C310 and C310L when taken with C300.

C310 ELECTRICAL COMPUTER AIDED DRAFTING
4 UNITS
This Computer Aided Drafting course includes: A full set of solid modeling of 3D tools, and its co-existence with the products of 2D drafting tools. As fundamentally a Vector Graphics drawing, student learn to use primitive entities such as lines, polylines, circles, arcs and text as a foundation for more complex objects. This course is equivalent to and may be taken as a replacement for C300 and C301 when taken with C310L.

C310L ELECTRICAL COMPUTER AIDED DRAFTING LAB
4 UNITS
COREQUISITE: C310
This course gives the students the opportunity to work with the software and practice the contents learned in C310 in a real application and environment. This course is equivalent to and may be taken as a replacement for C300 and C301 when taken with C310.

C320 COMPUTER SYSTEMS II
8.5 UNITS
PREREQUISITE: C170
C programming and introduction to C++. Course topics include: classes, dynamic memory allocation, user-defined conversions, virtual functions, polymorphism, and introduction to templates. This courses is equivalent to and may be taken as a replacement for C101.

C321 COMPUTER SYSTEMS II LAB
2 UNITS
PREREQUISITE: C320
C programming and introduction to C++ Lab. Students work in the lab utilizing the concepts they learn in class lectures and write programs appropriate to the course material of C320 Computer Systems II. This courses is equivalent to and may be taken as a replacement for C101L.

C430 NETWORK SECURITY
6 UNITS
PREREQUISITE: C210
This course topics include how to identify security needs within the network, in operation systems, databases, and applications over the web and how to implement different securities. This course is equivalent to and may be taken as a replacement for IS430.

C431 NETWORK SECURITY LAB
4 UNITS
PREREQUISITE: C210
This course gives the students an opportunity to apply their knowledge of Computer Security Professional II in a lab setting. This course is equivalent to and may be taken as a replacement for IS430L.

C440 ADVANCED COMPUTER SECURITY
6 UNITS
PREREQUISITE: C430
This course includes security policies that can help protect and maintain a network and security auditing, areas of study involve security risks, security solutions and tools available. This course is equivalent to and may be taken as a replacement for IS431.

C441 ADVANCED COMPUTER SECURITY LAB
6 UNITS
PREREQUISITE: C440
This course gives the students an opportunity to apply their knowledge of Advanced Computer Security in a lab setting. This course is equivalent to and may be taken as a replacement for IS431L.

C450 COMPUTER ARCHITECTURE
6 UNITS
PREREQUISITE: C170 or C171
This course teaches the elements that make up a modern microcomputer, microprocessor, or computer system. It includes standard peripherals, buss structure, direct memory access and control logic. It includes the system of interrupt handling and priority within the system. This course is equivalent to and may be taken as a replacement for IS210 and IS210L.

C494 APPLIED NUMERICAL COMPUTING
4 UNITS
PREREQUISITE: MT310
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.

C495 APPLIED NUMERICAL COMPUTING LAB
4 UNITS
PREREQUISITE: C494
This lab course allows students to apply concepts learned in C494. Students learn programming techniques available in MATLAB to compute and visually depict systems of equations.

CHEM CHEMISTRY

CHEM105 General Chemistry
4 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. This course is equivalent to and may be taken as a replacement for CHEM201.

CHEM201 General Chemistry
6 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. This course is equivalent to and may be taken as a replacement for CHEM105.

CHEM205 Organic Chemistry
4 UNITS
PREREQUISITE: CHEM105
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 ELECTRICAL AND 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for EL102.

EE110 INTRODUCTION TO DIGITAL AND ANALOG CIRCUITS
4 UNITS
This course is an introduction to electrical and electronic engineering. It starts with the basic review of analog and digital circuits. Basic circuit analysis techniques are reviewed and fundamental of common semiconductor devices and related circuits are discussed. Moreover, basic digital circuits and digital systems analysis techniques are covered.

EE110L INTRODUCTION TO DIGITAL AND ANALOG CIRCUITS LAB
2 UNITS
COREREQUISITE: EE110
This lab allows students to apply their knowledge in a lab setting as it applies to EE110.

EE142 SEMICONDUCTOR DEVICE ELECTRONICS
2 UNITS
PREREQUISITE: EE110
This is a course covering 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for EL141.

EE160 DIGITAL ELECTRONICS
2 UNITS
PREREQUISITE: EE110
This course introduces the student to Digital Electronics. The student becomes familiar with octal, hexadecimal, and binary numbering systems, the standard logic gates and symbols used for basic industrial controls, ladder logic, combined gate circuits and truth tables. Additional topics include RS latches, flip-flops of various types, switch de-bounce, counters, BCD decoders, and 7-segment displays, electrostatic precautions and IC family characteristics. It explains multiplexers, demultiplexers, decoders, shift registers, ring counters, Johnson counter, static and dynamic memory (ROM and RAM) This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for EL221.

EE230 INDUSTRIAL TRANSFORMER
4 UNITS
This course covers transfer of electrical energy from one circuit to another, a variety of transformer types used in industry for power distribution from the electrical power generation stations all the way to the consumers. This course is equivalent to and may be taken as a replacement for EL230.

EE250 INTRODUCTION TO MICROPROCESSORS AND MICROCOMPUTERS
4 UNITS
This course introduces students the basic architecture and operation of microprocessors and microcomputers, including topics as it relates to microprocessor architecture, interfacing, programming and design.

EE255 COMPUTER LOGIC AND ARCHITECTURE
4 UNITS
This course introduces students the basic computer logic and architecture, including topics related to quantitative design and analysis, memory hierarchy design, instruction-level parallelism, data-level parallelism and thread-level parallelism.

EE260 DIGITAL ELECTRONICS AND INTEGRATED CIRCUITS
4 UNITS
PREREQUISITE: EE142 and EE160
This course introduces students to system design as it relates to the application of topics introduced in EE142 and EE160. Student study how various electronic components can be assembled to perform operations based on predefined specifications.

EE260L DIGITAL ELECTRONICS AND INTEGRATED CIRCUITS LAB
4 UNITS
COREQUISITE: EE260
This course allows students to apply concepts learned in EE260 in a lab setting.

EE310 CIRCUIT ANALYSIS
4 UNITS
PREREQUISITE: EE260
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. This course is equivalent to and may be taken as a replacement for EL410 and EL460 when taken with EE310L.

EE310L CIRCUIT ANALYSIS LAB
2 UNITS
COREQUISITE: EE310
This course allows students to apply concepts learned in EE310 in a lab setting. This course is equivalent to and may be taken as a replacement for EL410 and EL460 when taken with EE310.

EE322 FUNDAMENTALS OF PROCESS CONTROL
4 UNITS
PREREQUISITE: MT230
This course teaches the 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. This course is equivalent to and may be taken as a replacement for EL320.

EE322L FUNDAMENTALS OF PROCESS CONTROL LAB
4 UNIT
COREQUISITE: EE322
This lab provides the students with the opportunity to utilize the concepts learned in EE322. This course is equivalent to and may be taken as a replacement for EL321.

EE360 DIGITAL SYSTEMS DESIGN
4 UNITS
PREREQUISITE: EE260
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. This course additionally touches on the microprocessor aspects of digital design dealing primarily with signal conversion, microprocessors, analysis and synthesis. This course is equivalent to and may be taken as a replacement for EL450 and EL470.

EE360L DIGITAL SYSTEMS DESIGN LAB
4 UNITS
COREQUISITE: EE360
This lab course involves utilizing advanced digital circuitry to design and develop individual assignments. This course is equivalent to and may be taken as a replacement for EL471.

EE405 ENGINEERING ECONOMY
6 UNITS
This course allows students to study the societal and ethical implications of engineering projects as it relates to its adoption in societies and the economy. Students review case studies showing the impacts of engineering decisions and the ethical implications that should be considered. This course is equivalent to and may be taken as a replacement for EL405 when taken with EE490L.

EE430 FIELD THEORY AND TRANSMISSION LINES
4 UNITS
PREREQUISITES: 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.

EE465 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. This course is equivalent to and may be taken as a replacement for EL465 when taken with EE465L.

EE465L DIGITAL SIGNAL PROCESSING LAB
2 UNITS
COREQUISITE: EE465
This course is allows students to apply concepts learned in EE465 in a lab setting by utilizing tools such as MATLAB. This course is equivalent to and may be taken as a replacement for EL465 when taken with EE465.

EE472 ELECTRONIC COMMUNICATION SYSTEMS
4 UNITS
This course examines radio frequency signals, propagation and modulation techniques. It covers the inherent problems encountered in RF communications and electronic communications in general. This course is equivalent to and may be taken as a replacement for EL495 when taken with EE475.

EE475 FUNDAMENTALS OF TELECOMMUNICATIONS AND DATA COMMUNICATIONS
4 UNITS
This course introduces students to telecommunications technology fundamentals, including analog and digital transmission, multiplexing, transmission media, and PSTN. Students are also introduced to data communications basics including the OSI model, WANs, LANs and other forms of networks. This course is equivalent to and may be taken as a replacement for EL495 when taken with EE472.

EE480 ELECTRICAL POWER SYSTEM
4 UNITS
This course covers the process of converting non-electrical energy to electricity for electric utilities. It also covers hydroelectric, geothermal power, solar power, wind power and nuclear power. This course is equivalent to and may be taken as a replacement for EL480.

EE485 ELECTRICAL POWER DISTRIBUTION
4 UNITS
This course covers delivery of electricity to end users, including power lines, electrical substations, circuit breakers, voltage drops, and WYE configuration, including 3 phase. This course is equivalent to and may be taken as a replacement for EL485.

EE490L SENIOR CAPSTONE PROJECT
6 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 Electrical and Electronic Engineering fields. This course is equivalent to and may be taken as a replacement for EL405 when taken with EE405.

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.

EL101 DC THEORY
2 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 is equivalent to and may be taken as a replacement for EE103 when taken with EL120.

EL102 DC LAB
1 UNITS
PREREQUISITE: EL101
Students learn to construct simple DC circuits, observe safety precautions, make component value determination, test circuits with a meter and start working with schematics. This course is equivalent to and may be taken as a replacement for EE103L.

EL120 AC THEORY
3 UNITS
PREREQUISITE: EL101
This course 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. This course is equivalent to and may be taken as a replacement for EE103 when taken with EL101.

EL140 SEMICONDUCTOR THEORY I
4 UNITS
PREREQUISITE: EL120
This is a course covering diodes, zeners, the various classes of amplifiers, transistor switching applications, and amplifier configurations, biasing techniques for linear circuit operation, and transistor troubleshooting procedures. This course is equivalent to and may be taken as a replacement for EE142 when taken with EL212.

EL141 SEMICONDUCTOR I LAB
2 UNITS
PREREQUISITE: EL140
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. DC biasing is part of this course. Previously 1.5 Units. This course is equivalent to and may be taken as a replacement for EE142L.

EL160 DIGITAL CONCEPTS
2 UNITS
PREREQUISITE: EL120
This course introduces the student to Digital Electronics. The student becomes familiar with octal, hexadecimal, and binary numbering systems, the standard logic gates and symbols used for basic industrial controls, ladder logic, combined gate circuits and truth tables. Previously 3 Units. This course is equivalent to and may be taken as a replacement for EE160 when taken with EL220.

EL164 NATIONAL ELECTRICAL CODE A
6 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. This course is equivalent to and may be taken as a replacement for NEC101.

EL165 ELECTRICAL CODE A LAB
3.5 UNITS
PREREQUISITE: EL164
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. This course is equivalent to and may be taken as a replacement for NEC101L.

EL166 NATIONAL ELECTRICAL CODE B
7 UNITS
PREREQUISITE: EL164
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. This course is equivalent to and may be taken as a replacement for NEC110.

EL167 ELECTRICAL CODE B LAB
2 UNITS
PREREQUISITE: EL166
This course introduces the students to lab projects related to wiring of electrical circuits. Safety is enforced. Related to EL-166 This course is equivalent to and may be taken as a replacement for NEC110L.

EL170 LOGIC CONTROL
5 UNITS
This course will introduce programmer logic control concept, ladder diagram, latch, counters, number systems PLC-programming, interfacing circuit, relays. This course is equivalent to and may be taken as a replacement for IE130.

EL172 PLC LAB
4 UNITS
PREREQUISITE: EL170
In this lab course students learn how to use the knowledge learned in EL-170 and applies it in programming an actual PLC in the lab to control a traffic light. Safety in the lab is enforced. Previously 1 Unit. This course is equivalent to and may be taken as a replacement for IE130L.

EL200 ADVANCE BLUEPRINTS AND CODE CONCEPTS
5 UNITS
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. This course is equivalent to and may be taken as a replacement for NEC120.

EL201 ADVANCED BLUE PRINTS AND CODE CONCEPTS LAB
4 UNITS
PREREQUISITE: EL200
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. This course is equivalent to and may be taken as a replacement for NEC120L.

EL202 POWER DISTRIBUTIONS
4 UNITS
Transformers, types of transformers, over current protection grounding, transformers calculating primary and secondary current and voltage, generators, distribution gear, over current protection. This course is equivalent to and may be taken as a replacement for IE110 when taken with EL203A.

EL203A MOTOR CONTROL
5 UNITS
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. This course is equivalent to and may be taken as a replacement for IE110 when taken with EL202.

EL203B MOTOR CONTROL LAB
2 UNITS
PREREQUISITE: EL203A
Motor control labs related to the topics on EL-191a. Safety in the lab is enforced. This course is equivalent to and may be taken as a replacement for IE110L.

EL212 ANALOG DEVICES AND APPLICATIONS
4 UNITS
PREREQUISITE: EL140
This course teaches SCRs, TRIACs and Thyristors, JFETS, MOSFETS, Unijunction Transistors, and Break over Devices, Operational Amplifiers (as comparators, inverting and non-inverting amps, summing amps, differential amplifiers and voltage follower configurations), oscillators, 555 timer, misc. devices. This course is equivalent to and may be taken as a replacement for EE142 when taken with EL140.

EL214 ELECTRONIC CIRCUIT TROUBLESHOOTING
4 UNITS
PREREQUISITE: EL212
This course provides the student with the opportunity to utilize the knowledge gained in previous courses to troubleshoot and repair defective circuits in electronic equipment. Industrial safety precautions are learned, and the student learns how to isolate and diagnose problems in electronic systems and devices. This courses is equivalent to and may be taken as a replacement for BIO150 and BIO155.

EL215 ELECTRONIC CIRCUIT TROUBLESHOOTING LAB
4.5 UNITS
PREREQUISITE: EL214
Students learn the methods and approaches taken by experience 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. This courses is equivalent to and may be taken as a replacement for BIO150L and BIO155L.

EL220 ADVANCED DIGITAL APPLICATIONS
4 UNITS
PREREQUISITE: EL160
This course covers RS latches, flip-flops of various types, switch de-bounce, counters, BCD decoders, and 7-segment displays, electrostatic precautions and IC family characteristics. It explains multiplexers, demultiplexers, decoders, shift registers, ring counters, Johnson counter, static and dynamic memory (ROM and RAM). Previously 3 Units. This course is equivalent to and may be taken as a replacement for EE160 when taken with EL160.

EL221 ADVANCED DIGITAL I LAB
2 UNITS
PREREQUISITE: EL220
During this course, a light display circuit, and a roulette wheel are built to demonstrate the principles learned in the lecture. Previously 1 Unit. This course is equivalent to and may be taken as a replacement for EE160L.

EL230 INDUSTRIAL TRANSFORMER
4 UNITS
This course covers transfer of electrical energy from one circuit to another, a variety of transformer types used in industry for power distribution from the electrical power generation stations all the way to the consumers. This course is equivalent to and may be taken as a replacement for EE230.

EL320 PROCESS CONTROL
5 UNITS
PREREQUISITE: MT301 and IE330 or RE210
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. This course is equivalent to and may be taken as a replacement for EE322.

EL321 PROCESS CONTROL LAB
1 UNIT
PREREQUISITE: EL320
This lab provides the students with the opportunity to utilize the concepts learned in Process Control. This course is equivalent to and may be taken as a replacement for EE322L.

EL405 ENGINEERING ECONOMY
4 UNITS
This course allows students, with the aid of a faculty advisor, to define a real-world electrical engineering problem and apply previous course knowledge to propose a solution that is sound in concept and practical from an engineering perspective. Through research and teamwork, students complete an engineering proposal and present their work to fellow students and instructors. This course is equivalent to and may be taken as a replacement for EE405 and EE490L.

EL410 CIRCUIT ANALYSIS I
5.5 UNITS
PREREQUISITE: MT301 and IE330 or RE240
This course is taught using an integrated approach where DC is presented as a special case of AC. Thevenin's and Norton's theorems, Series and parallel laws are covered. This course is equivalent to and may be taken as a replacement for EE310 and EE310L when taken with EL460.

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. This course is equivalent to and may be taken as a replacement for EE360 when taken with EL470.

EL460 CIRCUIT ANALYSIS II
5 UNITS
PREREQUISITE: EL410
This course is taught using an integrated approach where DC is presented as a special case of AC. Mesh and node analysis, frequency response, RLC circuits, transformers, power & energy and transient analysis of circuits are included. This course is equivalent to and may be taken as a replacement for EE310 and EE310L when taken with EL410.

EL465 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. This course is equivalent to and may be taken as a replacement for EE465 and EE465L.

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. This course is equivalent to and may be taken as a replacement for EE360 when taken with EL450.

EL471 DIGITAL DESIGN II LAB
2 UNITS
PREREQUISITE: EL470
This lab course involves utilizing advanced digital circuitry to design and develop individual assignments. Previously 2.5 Units. This course is equivalent to and may be taken as a replacement for EE360L.

EL480 ELECTRICAL POWER SYSTEM
4 UNITS
This course covers the process of converting non-electrical energy to electricity for electric utilities. It also covers hydroelectric, geothermal power, solar power, wind power and nuclear power. This course is equivalent to and may be taken as a replacement for EE480.

EL485 ELECTRICAL POWER DISTRIBUTION
4 UNITS
This course covers delivery of electricity to end users, including power lines, electrical substations, circuit breakers, voltage drops, and WYE configuration, including 3 phase. This course is equivalent to and may be taken as a replacement for EE485.

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: IE330 and 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. This course is equivalent to and may be taken as a replacement for EE472 and EE475.

ENG ENGLISH

ENG101 ENGLISH COMPOSITION AND GRAMMAR
4 UNITS
This course begins with a review of grammar fundamentals, and then 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. This course is equivalent to and may be taken as a replacement for GE101 and GE110 when taken with ENG101L.

ENG101L WRITING
2 UNITS
COREQUISITE: ENG101
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. This course is equivalent to and may be taken as a replacement for GE101 and GE110 when taken with ENG101.

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.

GE101 ENGLISH COMPOSITION
3 UNITS
This course begins with a review of grammar fundamentals, and then 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. This course is equivalent to and may be taken as a replacement for ENG101 and ENG101L when taken with GE110.

GE110 WRITTEN COMMUNICATIONS
3.5 UNITS
PREREQUISITE: GE101
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. Prerequisite: GE101. This course is equivalent to and may be taken as a replacement for ENG101 and ENG101L when taken with GE101.

GE220 SPEECH
2.5 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. This course may be taken as an elective to GE230.

GE230 LEADERSHIP
6 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. This course may be taken as an elective to GE220.

GE430 PROJECT MANAGEMENT
4 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.

GE430L PROJECT MANAGEMENT LAB
2 UNITS
COREQUISITE: GE430
Students will be able to apply concepts learned in GE430 to manage a hypothetical project in teams and present their rationale for how they determine the way by which they manage the project.

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.

IE INDUSTRIAL ELECTRONICS

IE110 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. This course is equivalent to and may be taken as a replacement for EL202 and EL203A.

IE110L ELECTRIC MOTOR CONTROL LAB
2 UNITS
COREQUISITE: IE110
This course allows student to apply motor control concepts from IE110 in a lab setting. This course is equivalent to and may be taken as a replacement for EL203B.

IE130 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. This course is equivalent to and may be taken as a replacement for EL170.

IE130L PROGRAMMABLE LOGIC CONTROLLERS LAB
2 UNITS
COREQUISITE: IE130
This course allows students to learn how to apply concepts from IE130 toward programming PLC devices to run various industrial simulations. This course is equivalent to and may be taken as a replacement for EL172.

IE210 INTRODUCTION TO ELECTROMECHANICS
4 UNITS
This course introduces students to concepts of electromechanics, including magnetic circuits, power transformers, electromechanical systems, DC machines, polyphaser induction motors, synchronous machines, and electronic controls of motors.

IE210L INTRODUCTION TO ELECTROMECHANICS LAB
4 UNITS
COREQUISITE: IE210
This course allows students to apply concepts from IE210 in a lab setting by working with motor control systems.

IE220 ROBOTICS ENGINEERING
4 UNITS
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. This course is equivalent to and may be taken as a replacement for RE300, RE305 and RE305 when taken with IE220L.

IE220L ROBOTICS ENGINEERING LAB
4 UNITS
COREQUISITE: IE220
This course allows students to apply concepts learned in IE220 in a lab environment in order to program the control of robotic motions and interface with robotic systems. This course is equivalent to and may be taken as a replacement for RE300, RE305 and RE305 when taken with IE220.

IE230 INDUSTRIAL ELECTRONICS AND CONTROLLERS
4 UNITS
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. This course is equivalent to and may be taken as a replacement for IE330 and IE332 when taken with IE230L.

IE230L INDUSTRIAL ELECTRONICS AND CONTROLLERS LAB
4 UNITS
COREQUISITE: IE230
This course enables students to apply concepts covered in IE230 in a lab setting. This course is equivalent to and may be taken as a replacement for IE330 and IE332 when taken with IE230.

IE310 INDUSTRIAL FUNDAMENTALS
4 UNITS
PREREQUISITE: EL212 and EL220
This course covers industrial control circuits used in a variety of production line and industrial automation applications, including synchronization of individual processes and device interfacing.

IE311 INDUSTRIAL ELECTRONICS LAB I
2 UNITS
PREREQUISITE: EL212 and EL220
This course enables students to apply concepts covered in IE310.

IE320 SENSORS, TRANSDUCERS, & SWITCHES
4 UNITS
PREREQUISITE: EL310
This course covers structural sensor, transducers, vibration sensors, pressure sensors, temperature sensors, fluid level sensors and switches, and input devices from which industrial control circuits receive their directions.

IE330 INDUSTRIAL CONTROLLERS
4 UNITS
PREREQUISITE: IE310
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. This course is equivalent to and may be taken as a replacement for IE230 and IE230L when taken with IE332.

IE332 INDUSTRIAL ELECTRONICS LAB II
3 UNITS
PREREQUISITE: IE311
This course enables students to apply concepts covered in IE 330. This course is equivalent to and may be taken as a replacement for IE230 and IE230L when taken with IE332.

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). This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for C450 when taken with IS210.

IS211 ADMINISTRATION AND SECURITY OF OPEN SOURCE SYSTEMS
4 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.

IS211L ADVANCED OPEN SOURCE SYSTEMS LAB
4 UNITS
COREQUISITE: IS211
This course allows students to configure and administer the Linux operating system and perform tasks as it relates to concepts studied in IS211.

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 DEVELOPMENT 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.

IS310 SHELL AND ADMINISTRATIVE SCRIPTING
4 UNITS
PREREQUISITES: IS111 and IS210
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.

IS310L SHELL AND ADMINISTRATIVE SCRIPTING LAB
4 UNITS
COREQUISITE: IS310
This course allows students to write scripts to automate various server administration tasks as it relates to topics learned in IS310.

IS350 INTRODUCTION TO WEB APPLICATION DEVELOPMENT
4 UNITS
PREREQUISITES: IS250
This course covers topics as it relates to building dynamic web applications and common development practices for developing web applications that utilize databases to supply data to render templates. Students study the MVC framework for developing web pages.

IS350L WEB APPLICATION DEVELOPMENT LAB
2 UNITS
COREQUISITE: IS350
Student use a popular framework in conjunction with a database server to develop a dynamic web application based on concepts learned in IS350.

IS360 DATABASES
4 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. This course is equivalent to and may be taken as a replacement for C210 and C211 when taken with IS360L.

IS360L DATABASE LAB
2 UNITS
Students apply concepts learned in IS360 in a lab setting whereby students perform SQL queries based on specified reporting criteria. This course is equivalent to and may be taken as a replacement for C210 and C211 when taken with IS360.

IS430 NETWORK SECURITY AND DEFENSE
4 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. This course is equivalent to and may be taken as a replacement for C430.

IS430L NETWORK SECURITY AND DEFENSE LAB
2 UNITS
COREQUISITE: IS430
This course allows students to apply concepts reviewed in IS430 in a lab setting. This course is equivalent to and may be taken as a preplacement for C431.

IS431 HACKING, FORENSICS & COUNTERMEASURES
4 UNITS
PREREQUISITES: IS430
This course expands on networking security concepts discussed in IS430 to include topics such as digital forensics, windows forensics, network forensics, web based attacks, email based attacks, and techniques to avert networking attacks. This course is equivalent to and may be taken as a replacement for C440.

IS431L HACKING, FORENSICS AND COUNTERMEASURESLAB
2 UNITS
COREQUISITE: IS431
This course allows students to apply concepts reviewed in IS431 in a lab setting. This course is equivalent to and may be taken as a preplacement for C441.

IS440 CLOUD COMPUTING, ARCHITECTURE AND DESIGN
4 UNITS
This course introduces students to cloud based network infrastructures, including a review of infrastructure service models, virtualization concepts, best and worst practices, designing a cloud solution based on business needs, review of SaaS, PaaS, and IaaS, cloud monitoring and auditing techniques and disaster recovery.

IS440L CLOUD COMPUTING, ARCHITECTURE AND DESIGN LAB
2 UNITS
COREQUISITE: IS440
This course allows students to apply concepts learned in IS440 to build a cloud based network environment based on business needs.

IS470 INFORMATION SYSTEMS IN ORGANIZATIONS
6 UNITS
COREQUISITE: IS490L
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.

EE490L SENIOR CAPSTONE PROJECT
6 UNITS
COREQUISITE: IS470
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.

MT MATHEMATICS

MT101 COLLEGE MATHEMATICS I
4 UNITS
The course includes a detailed examination of mathematics applications. It covers modeling algebraic functions, exponential functions matrices and systems of equations. This course is equivalent to and may be taken as a replacement for MT102.

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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. Previously 5 Units. This course is equivalent to and may be taken as a replacement for MT202.

MT190 COLLEGE ALGEBRA I
5 UNITS
PREREQUISITE: MT120
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. Previously 5 Units. This course is equivalent to and may be taken as a replacement for MT121.

MT202 COLLEGE ALGEBRA II
5 UNITS
PREREQUISITE: MT190
This course is a continuation of the fundamental concepts of Algebra taught in MT190. 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. Previously 5 Units. This course is equivalent to and may be taken as a replacement for MT122.

MT230 DIFFERENTIAL CALCULUS
6 UNITS
PREREQUISITE: MT122
This course covers calculus to include: a review of Formulas and Techniques, Integration by Parts, Trig Integration, Integration of Rational Functions Using Partial Fractions, Integration Tables and computer Algebra Systems, Indeterminate Forms and L'Hopital's Rule, Improper Integrals, Sequences of Real Numbers, Infinite Series, Integral Test and Comparison Tests, Alternating Series, Absolute Convergence and Ration Test, Power Series, Taylor Series, Fourier Series, Plane Curves and Parametric Equations, Calculus and Parametric Equations, Arc Length and Surface Area in Parametric Equations, Polar Coordinates, Calculus and Polar Coordinates, Conic Sections, Conic Sections in Polar Coordinates. This course is equivalent to and may be taken as a replacement for MT301.

MT235 INTEGRAL CALCULUS
6 UNITS
PREREQUISITE: MT230
In this course the student expands his or her knowledge of the systems of fundamental calculus, including Transcendental Functions, Techniques of Integration, Indeterminate Forms and Improper Integrals, Numerical Methods and Approximations, Indefinite Series, and Conic & Polar Coordinates, Geometry in Plane, Vectors, Geometry in Space, Vectors, The Derivative in n-Space, The Integral in n-Space, Vector Calculus, and Differential Equations. This course is equivalent to and may be taken as a replacement for MT410.

MT301 CALCULUS I
5 UNITS
PREREQUISITE: MT202
Calculus to include: a review of Formulas and Techniques, Integration by Parts, Trig Integration, Integration of Rational Functions Using Partial Fractions, Integration Tables and computer Algebra Systems, Indeterminate Forms and L'Hopital's Rule, Improper Integrals, Sequences of Real Numbers, Infinite Series, Integral Test and Comparison Tests, Alternating Series, Absolute Convergence and Ration Test, Power Series, Taylor Series, Fourier Series, Plane Curves and Parametric Equations, Calculus and Parametric Equations, Arc Length and Surface Area in Parametric Equations, Polar Coordinates, Calculus and Polar Coordinates, Conic Sections, Conic Sections in Polar Coordinates. This course is equivalent to and may be taken as a replacement for MT230.

MT310 LINEAR ALGEBRA
4 UNITS
PREREQUISITES: MT202
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 MULTIVARIABLE CALCULUS
4 UNITS
PREREQUISITES: MT235
This course covers functions of several variables and multiple integration, including integrals of planes, volume, surface area, Divergence Theorem and Stokes Theorem.

MT410 CALCULUS II
5 UNITS
PREREQUISITE: MT301
In this course the student expands his or her knowledge of the systems of fundamental calculus, including Transcendental Functions, Techniques of Integration, Indeterminate Forms and Improper Integrals, Numerical Methods and Approximations, Indefinite Series, and Conic & Polar Coordinates, Geometry in Plane, Vectors, Geometry in Space, Vectors, The Derivative in n-Space, The Integral in n-Space, Vector Calculus, and Differential Equations. This course is equivalent to and may be taken as a replacement for MT235.

MT460 PROBABILITY AND STATISTICS
4 UNITS
PREREQUISITE: MT190 and MT202
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: MT202
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
PREREQUISITES: MT410
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.

N NETWORKING

N110A COMPUTER NETWORKS I
6 UNITS
PREREQUISITE: C170 and C171
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). This course is equivalent to and may be taken as a replacement for IS100.

N110B COMPUTER NETWORKS I LAB
4 UNITS
PREREQUISITE: N110A
This is a lab that supports the concepts and provides "hands on" experience with network design, as it relates to N110A. This course is equivalent to and may be taken as a replacement for IS100L.

N120A COMPUTER NETWORKS II
6 UNITS
PREREQUISITE: C170 and C171
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 2008 services as it pertains to networks and network protocols. Emphasis is placed on implementations of DHCP, DNS, Network Security and IPSec. This course is equivalent to and may be taken as a replacement for IS110.

N120B COMPUTER NETWORKS II LAB
4 UNITS
PREREQUISITE: N120A
This is a lab that supports the concepts and provides "hands on" experience with servers, as it relates to N120A. This course is equivalent to and may be taken as a replacement for IS110L.

N130A COMPUTER NETWORKS III
6 UNITS
PREREQUISITE: N120A and N120B
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. This course is equivalent to and may be taken as a replacement for IS111.

N130B COMPUTER NETWORKS III LAB
4 UNIT
PREREQUISITE: N130A
This is a lab that supports the concepts and provides "hands on" experience with servers, as it relates to N130A. This course is equivalent to and may be taken as a replacement for IS111L.

N140A COMPUTER NETWORKS IV
6 UNITS
PREREQUISITE: N110A and N110B
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. This course is equivalent to and may be taken as a replacement for IS121 and IS122 when taken with N140B.

N140B COMPUTER NETWORKS IV LAB
4 UNITS
PREREQUISITE: N140A
This lab allows students to utilize basic functions, as well as, more advanced functions and operations of a network router as it relates to N140A. This course is equivalent to and may be taken as a replacement for IS121L and IS122L when taken with N140A.

N150A COMPUTER NETWORKS
6 UNITS
PREREQUISITE: N140A
This course covers the basic functions and operation of network switches and goes on to include more advanced features of network switches. Wireless (Wi-Fi) concepts are discussed as well. Topics include basic configuration of switches, Virtual LAN's (VLANs), and switch protocols. This course is equivalent to and may be taken as a replacement for IS120.

N150B COMPUTER NETWORKS V LAB
4 UNITS
PREREQUISITE: N150A
This lab allows students to utilize basic functions, as well as, more advanced functions and operations of a network router as it relates to N150A. This course is equivalent to and may be taken as a replacement for IS120L.

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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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. This course is equivalent to and may be taken as a replacement for 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: MT230
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.

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.

PH300 PHYSICS
4 UNITS
PREREQUISITE: MT202
This course teaches Physics topics including a prelude of stars and atoms, the Newtonian universe, a transition to new physics, and the post Newtonian Universe, and finally exploration within the atom, including fusion and fission. The course concludes with a look toward the future.

PH400 ELECTRICITY & MAGNETISM
4 UNITS
PREREQUISITE: PH300
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 quadruple radiation. Special relativity and transformation between electric and magnetic fields.

PH400L ELECTRICITY AND MAGNETISM LAB
2 UNITS
COREQUISITE: PH400
This course allows students to apply concepts learned in PH400 in a lab setting whereby students test electromagnetic theories using the scientific method.

PSY PSYCHOLOGY

PSY150 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 demonstrates how psychology impacts our lives at home and at work. This course is equivalent to and may be taken as a replacement for PSY201.

PSY201 ORGANIZATIONAL PSYCHOLOGY
6 UNITS
This course surveys various concepts as it relates to organizational psychology, 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. This course is equivalent to and may be taken as a replacement for PSY150.

RE ROBOTICS ENGINEERING

RE300 ROBOTICS ENGINEERING
4 UNITS
PREREQUISITE: EL212 and EL220
This course covers Robotics basics, Cartesian coordinates, robotics, control components, speed controllers, servos, synchros, stepper motors, and motor drive control circuits. This course is equivalent to and may be taken as a replacement for IE220 and IE220L when taken with RE305 and RE306.

RE305 ROBOTIC COMPUTER INTERFACING
2 UNITS
PREREQUISITE: RE300
This module covers the control of robotic arms, manipulators, etc., through the use of interface cards, and the design of custom user interfaces. This course is equivalent to and may be taken as a replacement for IE220 and IE220L when taken with RE300 and RE306.

RE306 ROBOTIC LAB
2 UNITS
PREREQUISITE: RE300 and RE305
This lab applies robotics basics, Cartesian coordinates, robotics, control components, speed controllers, servos, synchros, stepper motors, and motor drive control circuits. This course is equivalent to and may be taken as a replacement for IE220 and IE220L when taken with RE300 and RE305.