

# Southern California University



## 2011 CATALOG

For Period 1.1.11 to 12.31.11  
Published January 2011

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# Southern California University

## Mission

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SCU'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 obtain maximum proficiency in their field of study. The program emphasizes individuality 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. 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. SCU offers a curriculum that is current with trends as well as technological advancements. We encourage and support ethnic and cultural diversity in the faculty, staff, and student body, thus enriching the overall learning environment. It is our primary objective to offer the highest standard of education thus providing motivated graduates to meet the needs of the current workforce administratively as well as technologically. SCU uses the traditional in residence style of classroom instruction, offering undergraduate degree programs focusing on Electronic Engineering, Computer Science, and an MBA Graduate program.

## Legal Status

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Southern California University is a wholly owned subsidiary of Southern California Education Corporation, Anaheim, California. Southern California University does not nor had any petitions for bankruptcy throughout its operational years. SCU is located at:

Southern California University  
222 South Harbor Blvd., Suite 200  
Anaheim, CA 92805  
(714) 300-0300

## Approvals

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The Southern California University is a wholly owned subsidiary of Southern California Education Corporation, Anaheim, California. Southern California University is a private institution that is approved to operate 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, California 95833, [www.bppe.ca.gov](http://www.bppe.ca.gov), toll-free telephone number: (888) 370-7589 or by fax: (916) 263-1897. As a prospective student, you are encouraged to review this catalog prior to signing an enrollment agreement. You are also encouraged to review the School Performance Fact Sheet, which must be provided to you prior to signing an enrollment agreement. A student or any member of the public may file a complaint about this institution with the Bureau for Private Postsecondary Education by calling (888) 370-7589 toll-free or by completing a complaint form, which can be obtained on the bureau's Internet Web site [www.bppe.ca.gov](http://www.bppe.ca.gov).

## Programs

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Bachelor of Science in Electronic Engineering  
Bachelor of Science in Computer Science  
Master of Business Administration

# Admissions

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## Admissions Policy & Procedures

Students may apply by submitting an application for admission into the university. All applicants will be required to be interviewed in person when feasible. Telephone interviews will be accepted from out of area applicants. All applicants must be at least 17 years of age by the start of the first class.

### Undergraduate Requirements

1. Applicant must present documentation attesting to successful high school completion or the equivalent thereof, or be in possession of a degree from an accredited institution.
2. Applicants must demonstrate proficiency in basic college level skills and must be evidenced by fulfilling one of the following requirements.
  - a) Submitting of ACT or SAT examination scores deemed appropriate by SCU for the program in which they are applying.
  - b) Attainment of satisfactory scores appropriate to the program desired on SCU administered placement examinations in reading, retention, comprehension, arithmetic and algebra.
  - c) Providing evidence of passing grades in at least 36 quarter units from an accredited post secondary institution.

### Graduate Requirements

1. Applicants must possess a baccalaureate degree with a minimum GPA of 2.5 from an accredited college or 4 year university.
2. Applicants must submit a Letter of Recommendation from an immediate supervisor or an individual qualified to assess ability to pursue a graduate degree.

All official transcripts and required documentation (i.e. high school diploma, GED) must be provided for the student academic file prior to the end of the first quarter of instruction. SCU maintains the right to grant a reasonable exception to this clause.

## Transfer of Credit to SCU

If you have credit from courses completed at any other accredited institution, your official transcripts must be mailed directly to the SCU admissions office from that institution prior to the start of the program. Allow a minimum of two weeks for credit transfer evaluation. If it is recent, sufficiently thorough and relevant, and can be demonstrated as satisfactorily proficient, appropriate credit may be allowed. Under such conditions, the program length may change and the fees will be adjusted accordingly. Transfer Credits may or may not apply to upper level courses. Students must earn at least 50% of the credits needed to graduate at SCU for undergraduate program. A maximum of 4 units of transfer credit is allowed for the MBA program. SCU has formed a consortium agreement with Southern California Institute of Technology whereby credits earned in either institution that coincide with comparable courses are transferable to the other institution.

## Experiential Learning (Undergraduates Only)

Experience related to your field of study, which you wish to obtain experiential learning credit for, must be equivalent to courses offered by SCU, and will be judged entirely on documentation showing the experiential learning 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 \$50 per exam, as required. Applicants who would like to appeal experiential credit received may do so in a written letter to the Dean of Education stating the reason for the appeal and include additional documentation that may aid in the evaluation of the appeal. Appeals for experiential credit must be made within 30 days after the date the student is notified whether experiential credit was granted or denied. Experiential credit appeals are reviewed by the Dean of Education and a final decision is made within two (2) weeks of the date of the appeal. Appeals for experiential credit may only be made once for each course the student is seeking experiential credit.

## Those Not Seeking a Degree

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

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

The transferability of credits you earn at Southern California University is at the complete discretion of an institution to which you may seek to transfer. Acceptance of the degree you earn in any of our programs is also at the complete discretion of the institution to which you may seek to transfer.

If the credits or degree that you earn at this institution are not accepted at the institution to which you seek to transfer, you may be required to repeat some or all of your course work at the 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 University to determine if your credits or degree will transfer.

# Academics

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## Satisfactory Academic Progress

To be in good standing with the School, student must maintain satisfactory academic progress. Satisfactory Academic Progress consists of:

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

Students who do not meet the Satisfactory Academic Progress requirements may be dismissed from the college.

### Qualitative Standards – Cumulative GPA Requirements

Students must maintain a minimum cumulative GPA of 2.0 to graduate. To demonstrate satisfactory academic progress, students must maintain a minimum CGPA of 1.8 after completion of credits that amount to 25% of the programs total defined credits.

Students must maintain a CGPA of 2.0 for credits completed thereafter. Students must have a CGPA of 2.0 by the end of his/her second academic year regardless of the total units the student accrued.

### Quantitative Standards – Completion Rate Requirements

To ensure completion of the program within the maximum allowable timeframe, students must achieve and maintain a cumulative completion rate of 60%. Cumulative completion rates are calculated base on total number of credits completed divided by the total number of credits attempted.

## Maximum Program Length

The credit hours attempted must not exceed one and a half (150%) times the credit hours required to complete the program. 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.

## Academic Probation & Dismissal

If at any point of the program a student is not meeting satisfactory academic progress, he/she will receive a notice and may be placed on academic probation for one (1) quarter. During the probationary period, the student will be required to attend academic counseling to discuss a plan to re-establish satisfactory academic progress. If at the end of the probationary period the student does not meet the minimum outlines satisfactory academic progress requirements, he/she may be dismissed from the college. If at any point it is determined that it is mathematically impossible for the student to meet the minimum satisfactory academic progress requirements, the student will be dismissed from the college.

## Attendance and Tardiness

SCU places great emphasis on attendance. Students with excessive absences or tardiness must see student services for advisement. Absenteeism may result in warnings, counseling, probation or dismissal. Dismissal could be for a particular course or for the entire program. Students that have been absent 3 or more days for a particular course may be placed on attendance probation. Students may be dismissed from the school if they are on attendance probation for 2 consecutive quarters unless they provide reasonable justification to the Student Services Office.

## Graduation Requirements / GPA

In order to graduate from a program:

1. 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. Graduate programs require a minimum GPA of 3.0
2. The student must satisfy all financial obligations to the college and complete an exit interview with all departments.
3. The credit hours attempted must not exceed 1.5 times the credit hours required to complete the program.

The GPA is based on all grades and credit hours earned to date. If a student repeats a course, the highest grade is used to determine the GPA. Withdrawal from a course does not affect the GPA. If units are transferred to SCU they will not affect the GPA.

## Course Sequence, Cancellations & Changes

The actual sequence in which courses are taken may vary based on scheduling needs. SCU reserves the right to cancel classes if the number enrolled is insufficient. 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. SCU reserves the right to revise, add, or delete courses.

## Grading System – Progress / Evaluation

Student's progress is evaluated at 40%, 80% and 100% completion of each quarter. Students receive grades at the end of each quarter.

The grading system is as follows:

<b>Letter Grade</b>	<b>Grade Points</b>	
A-Excellent	4.0	I - Incomplete
B-Good	3.0	W - Withdraw
C-Average	2.0	CR- Credit through proficiency exam (not considered in calculating GPA)
D-Poor	1.0	TR- Transfer Credit from college or university (not considered in calculating GPA)
F-Fail	0	

## Credit / Clock Hours & Program Length

At Southern California University, programs are measured in Quarter Credit Units. One (1) Quarter Credit Unit = 10 Lecture Clock Hours; One (1) Quarter Credit Unit = 20 Laboratory Clock Hours. Credit earned toward graduation must be earned at a rate that assures satisfactory progress. The credit hours attempted must not exceed 1.5 times the credit hours required to complete the program. The maximum time required to complete a program cannot exceed 1.5 times the standard program length. (60 minutes = 1 clock hour)

## Student Advisement

Students with a GPA of 2.5 or below are subject to counseling by the education department. Students are all signed a student advisor and are scheduled to meet with that advisor on a quarterly basis to discuss class schedule and courses needed. If any student should have an attendance problem or academic issue will also be scheduled automatically to meet with the Dean of Students and the department head in the area concerned.

## Reinstatement Policy

A student that has been terminated for failure to maintain Satisfactory Academic Progress may be reinstated through the appeal process. Upon obtaining a 2.0 (for undergraduates) or 3.4 for (graduates)) or greater GPA for the module (course), the student's status will be changed to "Good Academic Standing." Re-enrollment or re-admission will be approved only after evidence is shown to the Director's satisfaction that the conditions, which caused the interruption or unsatisfactory progress, have been rectified.

## Academic Freedom

SCU permits and encourages "academic freedom", or the right to discuss and hold non-standard or traditional viewpoints, allowing the school, teachers, and students 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 societal viewpoints 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 any federal or state laws 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. Faculty should take the viewpoint that their freedom ends where someone else's freedom begins.

### Quarter/Term Start Date for 2011

<b>Term Start Date Schedule 2011</b>
January 3
March 14
May 23
August 1
October 10

## SCU Faculty

### **Saravana Raman**

M.S. Electrical Engineering, California State University Long Beach  
B.Eng. Electronics & Communication Engineering, Visvesvaraya Technological University

### **Jonathan Ibera**

M.S. Electrical Engineering, California State Polytechnic University Pomona  
B.S. Electronics & Communications Engineering, Mapua Institute of Technology

### **Feras Abou-Galala**

Ph.D. Electrical Engineering, Ohio State University  
M.S. Electrical Engineering, Ohio State University  
B.S. Electrical Engineering, University of Qatar

### **Sam Rokni**

M.S. Electrical Engineering, California State University Fullerton  
B.S. Electrical Engineering, California State University Fullerton

### **Joseph Chen**

M.S. Information Assurance, Capitol College  
B. Industrial Management & Business Administration, National Taiwan University of Science & Technology  
A.A. Electronic Engineering, St. Johns University

### **Juan Pantigoso**

M.S. Computer Science, Colorado Technical University  
B.S. Computer Science, San Marcos University

### **Neil Donaldson**

Ph.D. Mathematics, University of Bath  
B.S. Mathematics, University of Edinburgh

### **Jerry Pantow**

M.B.A. California State University Fullerton  
B.A. Business Administration, California State University Fullerton

### **David Betts**

M.A. Psychology, Pepperdine University  
B.A. English, UCLA

### **Richard Bray**

M.A. English, California State Polytechnic University Pomona  
B.A. History, University of California Berkeley

# Regulations and Student Services

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## Graduation Ceremony

Graduates who wish to participate in the graduation ceremony must see the registrar for reservations and pay \$75 for the cost of the cap and gown within two weeks of completion of their program. Graduation ceremonies occur twice a year and you may pick up your cap and gown at the graduation. Students must have a cap and gown to participate in graduation ceremonies.

## Code of Conduct

Students must demonstrate courtesy and consideration toward the staff, instructors, and other students. We reserve 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 dismissed from school for any serious or repeated incident, including but not limited to a drugged or intoxicated state of behavior, possession of drugs or alcohol upon school premises, possession of weapons upon school premises, behavior creating a safety hazard, disobedience or disrespectful behavior toward an administrator, faculty member, another student, or any other stated or determined infraction of conduct.

## Records

SCU maintains records, including attendance, admission information, academic progress and counseling for a period of not less than five years within the State of California, and are made immediately available during normal business hours for inspection as required. Progress and Grading system documents are available and graduates receive Transcripts, or Degrees. Important scheduling information (operating hours, holidays, vacations, class schedules, and revisions) is announced to students in advance. Students may view the content of their files by submitting a written request to the registrar.

## Privacy Act

SCU 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.

## 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 reason for the request. Students must complete an LOA request form from the Student Services Office, sign & date it, and attached any additional supporting documentation if necessary. Students may also submit LOA requests online at [www.scitech.edu](http://www.scitech.edu).
- 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 Director of the School. In certain cases, students may be required to extend their LOA return date due to class availability and would need to complete another LOA Form. 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. Students who do not return by the scheduled return date may be terminated from the program. In this event the student may request to be reinstated, and if approved would then follow the procedures for a new enrollment.

## Drop from the Program

Any student wishing to drop from the program or cancel their enrollment should follow the "Procedures for Cancellation by Student." An appointment will be scheduled with the Director of Student Services within the next three days. The drop will take effect when all departments have cleared the student.

## Withdrawal

If a student decides to withdraw from a particular course within the first two sessions of the class, he/she can change to another class or withdraw from that class without penalty or affect on their transcript. If a student withdraws after the first two sessions, but has not completed 80% of the course then the student can withdraw and a "W" will be entered on the transcripts, which will not adversely affect the GPA. Students cannot withdraw during the final 20% of the course, but must complete the course. If in this case the student does not complete the course he/she will receive an "I" (incomplete) on the transcript and will need to meet with the education department to resolve the incomplete. An *incomplete* that is not resolved within one week becomes an "F" (fail). A student who withdraws from all courses during two terms will be dismissed. A student may not enroll in a course more than twice, unless the dean of academic affairs approves the enrollment and must be supported by documented proof detailing the circumstances.

## Transcripts & Degrees

Students requesting official transcripts must complete a Student Services Request Form (available from the registrar), and allow two weeks for the transcript to be prepared. The first transcript requested is free. Subsequent transcripts cost \$10 each. If a transcript is needed sooner than two weeks (within 3 days) the cost is \$25. All fees are payable to Accounting and a copy of the receipt must be submitted to the registrar at the time the Student Services Request Form is completed.

Degrees will be available for pick up at the office of the registrar approximately two weeks after graduation and completion of the Exit Form. There is no cost for the original degree. Additional copies of degrees may be obtained one week following completion of your request form at a cost of \$20. If it were needed within 3 days, the cost would be \$30. In this case, a receipt of payment made must be submitted to the registrar at the time the Student Services Request Form is completed.

## Tuition Reimbursement & Enrollment Verification

Students requesting a letter for tuition reimbursement or enrollment verification must complete a Student Services Request Form (available from the registrar), and allow one week for the letter to be ready. There is no fee unless it must be provided within 3 days, in which case there is a \$20 preparation fee. In this case, a receipt of payment made must be submitted to the registrar at the time the Student Services Request Form is completed.

## Dress Code

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

## 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 SCU. If you need further assistance you may contact the Bureau for Private Postsecondary Education at 2535 Capitol Oaks Drive Suite 400, Sacramento, California 95833, <http://bppe.ca.gov>, telephone: (916) 431-6959, fax: (916) 263-1897.

## Campus Crime & Security Act

SCU is in compliance with the Campus Crime and Security Act of 1990 and publishes an annual report on September 1 of each year. Should students become witnesses to or victims of crime on campus, they should immediately report the incident to the local law enforcement agency. Emergency numbers are posted.

When equipment is issued, any shortages or defective parts should be reported to the instructor immediately (date of issue). Damage to cars in the parking lot, "break ins", lost equipment and tools, and items stolen from the classroom are the responsibility of the student. Do not leave anything of value at the school; the school does not take any responsibility for lost or stolen items.

## Holiday & Class Schedule

Martin Luther King Jr., President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving, and Christmas Holidays. Faculty conference days will be announced in advance. Classes convene every five weeks (10 class starts per year). For exact start dates call Admissions at (714) 300-0300. Start Dates are listed at the end of this catalog.

## Placement Services

SCU provides current students and graduates up to one (1) year after a student's graduation date with limited placement services. Placement services include access to resume worksheets, general job search info sheets and access to internet ready computer facilities for employment search. All placement related worksheets and info sheets may be obtained from the Student Services Office. Computer facilities are open during posted hours. Students who withdraw from the college prior to graduation will not be eligible to receive the aforementioned placement services.

## **Other Student Services**

Student Services furnishes information on public transportation, general costs in the area of childcare, and points of interest. The education department is available on a daily basis to assist in advising students on matters relating to school and problems outside of school that may affect their performance. SCU 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, SCU will offer assistance to the student in finding suitable housing in the local area. An approximate and estimated cost of housing near the campus is around \$1000 per month. This estimation is based on the average of 1000, 1 bedroom apartments within 15 miles of the campus as of April 2010. This estimation is in no way a guaranteed cost of housing and is subject to change at any time. SCU further makes no guarantee of said housing based on availability.

# Physical Facilities

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## **Facilities**

The SCU campus is located at 222 South Harbor Boulevard, Suite 200, Anaheim, CA 92805. 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, with an estimated 350 students at any time. The SCU campus includes 16 classrooms, Electronics and Computer Labs and a Robotics Lab. Certain classrooms include projects and large screen televisions for instructional use.

## **Library**

The library hours are from 8:00 a.m. to 5:00 p.m. Monday through Friday. The Library contains over 2000 books, various magazines, and manuals. If students require resources beyond our library, we have mutual agreements with other nearby colleges to use their facilities (check with the librarian). Students can borrow books for a period of one week at a time. Students are encouraged by the faculty to form study groups that may meet in the library before or after classes.

## **Electronics and Computer Labs**

Computer labs are equipped with various types of computers and hardware components. Students work with operating systems in conjunction with computer hardware. Computer troubleshooting and upgrading is performed in this lab. SCU's central electronic troubleshooting lab is fully equipped with test equipment including oscilloscopes, logic analyzer, AF/RF generators, power supplies, variable voltage transformers, frequency counters, self-ranging meters, isolation transformers, and more.

## **Robotics Lab**

The Robotics labs are equipped with small training robotic arms and multiple large industrial robotic arms. Students work with computers to interface with robotic controllers and learn to program various automation tasks such as assembly control and robotic movements.

## **Parking**

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

## **School Hours**

Regular school office hours are Monday through Friday, 9:00 a.m. to 5:00 p.m. Classes can be scheduled anytime from Monday through Friday, 7:30 am to 11:00 pm and on Saturday from 8:00 to 5:00 p.m.

## **Safety, Food & Drink and 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. No personal property or other property may be brought to the school for repair, troubleshooting or any other reason. SCU assumes no responsibility for lost property.

# Tuition and Fees

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## Tuition Policy

All tuition and fees are payable in advance. Payment methods and terms of payment are in compliance with federal truth-in-lending and State Retail Installment requirements. The student enrolled on the quarter system, is only obligated for the portion of the mandatory Program Costs applicable to each Program Quarter in which Student is enrolled. Students must pay the School the applicable Quarterly Program Cost (i.e. quarterly tuition, cost of any books, tools, and supplies Student purchases from the School) on or before the first day of each Program Quarter, unless the School hereafter agrees in writing to different payment arrangements.

## Cancellation & Withdrawal

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. Students may be withdrawn from the school for violation of the Student Code of Conduct, including but not necessarily limited, to a student's lack of attendance.

### 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 University, 222 S. Harbor Blvd., Suite 200, Anaheim, CA 92805. 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 and withdraw from the school. A written cancellation notice will be effectuated the day 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 registration fees less any costs for books and/or supplies received by Student. If Student withdraws or is terminated from the School anytime after the period described in the immediate preceding sentence, Student shall be entitled to a refund of moneys less any nonrefundable fees. If Student withdraws, or is terminated from the school:

- a After the first week of instruction, but within 60% of any Quarter Student attends at the School, Student will be obligated to the School for a Pro Rata Portion (defined below) of the tuition, and all books and supplies purchased by the Student from the School (collectively "Supplies"); or
- b After completing 60% or more of any Quarter the Student attends at the School, Student will be obligated to the School for all Supplies and Tuition for that particular Quarter.
- c The Student will:
- d Remain obligated to the School for the Registration Fee and any other nonrefundable fees
- e Remain obligated to the School for all tuition and Supplies owed to the School for any previous course(s) attended by Student; and
- f Remain obligated to the School for all other amounts owed to the School under this Agreement (including any addenda hereto) and/or any other Student-School agreement.

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 tuition or fees for such Quarter as specified above. 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. Pro Rata Portion means the percentage derived by dividing the total number of weeks of instruction in a Quarter into the number of weeks of instruction expired in that particular Quarter as of the Student's withdrawal or termination date. Student's withdrawal or termination date will be Student's last date of recorded attendance at the School for students "required to take attendance." For students where "attendance is not required," the withdrawal date will be determined pursuant to the withdrawal date determination guidelines for schools where attendance is not required provided by the Department of Education. The School will pay Student any refund remaining after all outstanding balances are eliminated within 30 days of Student's withdrawal or termination date.

### Refund Example

Total Quarter Cost = \$2100

Registration Fee = \$100

Documented Equipment Cost = \$300

Tuition Cost = \$1700.

The student paid the full \$2100. The student withdraws after completing 50% of the program.

Total - Equipment - Registration = Tuition costs.

(\$2100 - 300 - 100 = \$1700)

Tuition costs - Percent Completed (if less than 60%) = Refund

(\$1700 - (.5X \$1700) = \$850 Refund)

PRO-RATA REFUND					
Percent of Course Completed	10%	30%	50%	60%	70%
Percent of Tuition Refunded	90%	70%	50%	40%	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.
- Student has the right to refuse acceptance of Supplies. In such cases, the student will be refunded the cost of the Supplies specified at the time of refusal.
- 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 funding package. Payment for the quarter's Supplies is due at the beginning of the quarter.
- Students will only receive Supplies for the course after the first day of the course and after they pay the quarterly books/supplies payments.

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.

### Failure to Fulfill Financial Obligation

Students will not receive a transcript, or degree with outstanding financial obligations to SCU. Students may be dismissed due to failure to pay tuition or other charges in a timely manner. The student himself would be held responsible for tuition or other charges in accordance with SCU's cancellation and refund policy.

TUTION & FEES	Units	Hours	Reg.	Equip.	Tuition	Total	Estimate Quarterly Fee
Masters of Business Administration	48	480	\$100	\$1,200	\$16,800	\$18,100	\$3017
Bachelor of Science Electronic Engineering	191	2195	\$100	\$2,430	\$40,110	\$42,640	\$3554
Bachelor of Science Computer Science	180	2100	\$100	\$2,110	\$37,800	\$40,010	\$3638

Unit cost for undergraduate courses is \$210, graduate courses are \$350

### 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 prepaays 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 SCU 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.

## **Financial Aid and Loans**

Southern California University does not participate in Federal Financial Aid programs at this time. If a student obtains a loan to pay for an educational program, the student will have the responsibility to repay the full amount of the loan plus interest, less the amount of any refund.

# Undergraduate Programs

## BACHELOR OF SCIENCE IN ELECTRONIC ENGINEERING

The Bachelor of Science in Electronic Engineering program concentrates on the study of how electronic circuitry components can be utilized and designed to develop electronic based devices. Students are trained via mathematics to design analog and digital circuits and perform failure analysis, modify hardware, make program updates, and write computer programs for industrial applications. Equipment specifications are studied and include creating layouts and prototype modifications. Students learn to appreciate divergent viewpoints and develop intellectual and analytical/critical thinking abilities in an environment where academic freedom is exercised and encouraged. The program is designed for those entering into the Electronic Engineering field and assumes no prior experience. Prospective students must show an appropriate level of mathematical abilities due to the inherent use of mathematics throughout the program. The aim of the program is to provide graduates with skills in many diverse electronic engineering branches including research and development, manufacturing, and product engineering. Graduates receive a Bachelor of Science Degree in Electronic Engineering.

191-Quarter Credit Units – 2195 Hours (150 Weeks)

Course		Units	Course		Units
<b>Quarter One</b>			<b>Quarter Seven</b>		
MT101	College Mathematics I	4	PSY150	Psychology	3
GE100	Organizational Comm.	2	IE310	Industrial Electronics	4
EL100A	Circuit Construction Lab	3.5	IE320	Sensors, Transducers & Switches	4
EL101	DC Theory	2	IE330	Industrial Controllers	4
EL102	DC Lab	1	IE331	Industrial Electronics Lab	0.5
EL120	AC Theory	3	<b>Quarter Eight</b>		
EL121	AC Lab	0.75	GE220	Speech	2.5
<b>Quarter Two</b>			C320	Computer Systems II	8
MT120	College Mathematics II	4	C321	Computer Systems II Lab	2.5
GE101	English Composition	3	PH300	Physics	4
EL140	Semiconductor Theory I	4	<b>Quarter Nine</b>		
EL141	Semiconductor Lab I	1.5	MT301	Calculus I	5
<b>Quarter Three</b>			EL320	Process Control	5
MT190	College Algebra I	5	EL321	Process Control Lab	1
EL160	Digital Concepts	3	MT460	Probability & Statistics	4
EL161	Logic Circuit Lab	0.5	<b>Quarter Ten</b>		
C170●	Computer Theory I	10	MT410	Calculus II	5
C171●	Computer I Lab	1.25	EL410	Circuit Analysis I	5.5
<b>Quarter Four</b>			EL450*	Digital Design I (elective)	7.5
GE110	Written Communication	3.5	<b>Quarter Eleven</b>		
EL212	Analog Devices & Applications	4	EL460	Circuit Analysis II	5
EL213	Semiconductor Lab II	0.75	EL470*	Digital Design II (elective)	2.5
EL214◇◇	Electronic Troubleshooting	4	EL471	Digital Design II Lab	2.5
EL215◇◇	Electronic Troubleshooting Lab	4.5	MT470	Complex Variables	4
<b>Quarter Five</b>			<b>Quarter Twelve</b>		
EL220	Advanced Digital Applications	3	C492	Computer Programming using Matlab	8
EL221	Advanced Digital Lab I	0.75	C493	Computer Programming using Matlab with Lab	3.5
C300	Computer Systems I	7.5	EL495	Electronic Communications	5
C301	Computer Systems I Lab	2.5	<b>TOTAL</b>		
<b>Quarter Six</b>			<b>191</b>		
MT202	College Algebra II	5	<b>Elective*</b>		
HST 260	American Civilization	3	EL170●	Logic Control	5
RE300	Robotic Engineering	4	EL172●	PLC Lab	1
RE305	Robotic Computer Interfacing	2	C150●	Computer Operation Systems Lab	2.25
RE306	Robotic Lab	2	EL100●	Circuit Construction	3
			EL202	Power Distribution	4
			EL203A	Motor Control	5
			EL203B	Motor Control Lab	2

Electives may be taken in place of other courses indicated by corresponding symbols

# BACHELOR OF SCIENCE IN COMPUTER SCIENCE

The Bachelor of Science in Computer Science program concentrates on the study of various branches of computer systems and computer networks. Students learn how to utilize computers and computer systems in networks and participate in design and modification of computer systems and networks. The program is designed for those entering into the computer field and assumes no prior experience. Prospective students must show an appropriate level of mathematical abilities due to the inherent use of mathematics throughout the program. Students take general education courses to help them develop the critical thinking abilities necessary to fill responsible leadership positions. The aim of the Computer Science program is to prepare students for entry-level positions as computer engineers and computer specialists with a background in data systems, information technologies and programming. Graduates receive a Bachelor of Science Degree in Computer Science.  
180 Quarter Credit Units – 2100 Hours (180 Weeks)

Course	Course Title	Units	Course	Course Title	Units
<b>Quarter One</b>			<b>Quarter Seven</b>		
C170	Computer Theory I	10	C205	Principles of Web Technology	6
C171	Computer I Lab	1.25	C206	Web Technology	6
MT190	College Algebra I	5	MT410	Calculus II	5
<b>Quarter Two</b>			<b>Quarter Eight</b>		
N110A	Computer Networks I	7.5	C210	Computer Database Systems I	7.5
N110B	Computer Networks I Lab	2.5	C211	Computer Database Systems I Lab	2.5
GE101	English Composition	3	GE110	Written Communication	3.5
MT202	College Algebra II	5	<b>Quarter Nine</b>		
<b>Quarter Three</b>			C320	Computer System II	8
N120A	Computer Networks II	8	C321	Computer System II Lab	2.5
N120B	Computer Networks II Lab	2.5	MT460	Probability & Statistics	4
PSY301	Psychology	3	<b>Quarter Ten</b>		
HST260	American Civilization	3	C430	Network Security	8
<b>Quarter Four</b>			C431	Network Security Lab	3.5
N130A	Computer Networks III	11	<b>Quarter Eleven</b>		
N130B	Computer Networks III Lab	1	C440	Advanced Computer Security	6
N140A	Computer Networks IV	4	C441	Advanced Computer Security Lab	6
N140B	Computer Networks IV Lab	2.75	C450	Computer Architecture	4.5
<b>Quarter Five</b>			<b>Quarter Twelve</b>		
N150A	Computer Networks V	8.5	GE320	Speech	2.5
N150B	Computer Networks V Lab	1.5	PH300	Physics	4
MT301	Calculus I	5	MT470	Complex Variables	4
<b>Quarter Six</b>			<b>TOTAL UNITS</b>		<b>180</b>
C202	Data Communication I	4			
C203	Data Communication II	4			
C204	Data Communication II Lab	4			

# MBA Graduate Program

## MASTER OF BUSINESS ADMINISTRATION

The MBA Program is designed to build upon the work experience of each student in an experiential learning environment focusing on the application of theory. It provides the practical management skills required to compete in the changing global marketplace and helps individuals grow personally and professionally. The program is designed for those who have working experience or show sufficient knowledge of business practices. The aim of the program is to prepare working professionals for increased responsibility in business. Students gain insight into group dynamics and their own management style. Graduates receive a Master of Business Administration Degree.

48 Quarter Credit Units - 480 Hours

<b>Course</b>	<b>Course Title</b>	<b>Units</b>
<b>M520</b>	<b>Human Behavior in Organizations</b>	<b>4</b>
<b>M530</b>	<b>Statistics and Research Methods</b>	<b>4</b>
<b>M540</b>	<b>Price Theory and Industrial Policy</b>	<b>4</b>
<b>M550</b>	<b>Accounting for Managers</b>	<b>4</b>
<b>M560</b>	<b>National Income Policy and Corporate Response</b>	<b>4</b>
<b>M570</b>	<b>Quantitative Methods</b>	<b>4</b>
<b>M580</b>	<b>Managerial Finance</b>	<b>4</b>
<b>M590</b>	<b>Marketing Management</b>	<b>4</b>
<b>M600</b>	<b>Organization Theory and Management</b>	<b>4</b>
<b>M610</b>	<b>Legal, Political, Ethical &amp; Regulatory Issues of Management</b>	<b>4</b>
<b>M620</b>	<b>Elective Graduate Directed Studies*</b>	<b>4</b>
<b>M630</b>	<b>Business Strategy</b>	<b>4</b>
		<b>48</b>

\*Elective Graduate Directed Studies course work depends on the assignment of the faculty.

# Course Descriptions

## **C150 COMPUTER OPERATION SYSTEM LAB**

2.25 Units

This course is a fundamental course on computer operating system covering the essential commands and directory structure used in computers.

## **C170 COMPUTER THEORY I**

10 Units

In this course students study PC components, Microprocessor, Power Supplies, Ram, Motherboards & BIOS, Expansion Bus, Floppies, Hard Drives, SCSI, Modems, Video, Printers, Current Operating Systems, DOS Memory Mgt., Testing Power, Portable PCs, Networks, and Multimedia. They build standard computer systems from the frame up, diagnose a system and upgrade it.

## **C171 COMPUTER THEORY I LAB**

1.25 Units

This lab allows the student to receive practical hands-on experience with computer hardware. Computer systems are torn down and upgraded to give the student an understanding of computer hardware. Prerequisite: C170

## **C202 DATA COMMUNICATION I**

4 Units

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

## **C203 DATA COMMUNICATION II**

4 Units

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

## **C204 DATA COMMUNICATION II LAB**

4 Units

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

## **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.

## **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.

## **C210 COMPUTER DATABASE SYSTEMS I \***

7.5 Units

This course includes Principles of Data Base SQL, managing the physical data base structure and managing data base object.

## **C211 COMPUTER DATABASE SYSTEMS I LAB**

2.5 Units

This course gives the student an opportunity to apply his/her knowledge of SQL in a lab setting. Prerequisite: C210

## **C300 COMPUTER SYSTEMS I**

7.5Units

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.

Prerequisite: C150 or C170

## **C301 COMPUTER SYSTEMS I LAB**

2.5 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.

## **C320 COMPUTER SYSTEMS II\***

8 Units

C programming and introduction to C++. Course topics include: classes, dynamic memory allocation, user-defined conversions, virtual functions, polymorphism, and introduction to templates. Prerequisite: C150 or C170

## **C321 COMPUTER SYSTEMS II LAB\***

2.5 Units

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. Prerequisite: C320

## **C430 NETWORK SECURITY**

8 Units

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. Prerequisite: C210

### **C431 NETWORK SECURITY LAB**

3.5 Units

This course gives the students an opportunity to apply their knowledge of Computer Security Professional II in a lab setting. Prerequisite: C210

### **C440 ADVANCED COMPUTER SECURITY**

6 Units

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. Prerequisite: C430

### **C441 ADVANCED COMPUTER SECURITY LAB**

6 Units

This course gives the students an opportunity to apply their knowledge of Advanced Computer Security in a lab setting. Prerequisite: C440

### **C450 COMPUTER ARCHITECTURE**

4.5 Units

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. Prerequisite: C170 and C171

### **C492 COMPUTER PROGRAMMING USING MATLAB**

8 Units

Students work with the Matlab and learn all the important programming concepts using matlab. Students are taught how to work with the components of a computer, numbers, machine code, software hierarchy, MATLAB Windows, variables and assignment statement, basic plotting, built in functions, generating waveforms, sound replay (load and save), arguments and return values, M-files, formatted console input-output, string handling, conditional statements (if, else, elseif) and repetition statements (while and for).

### **C493 COMPUTER PROGRAMMING USING MATLAB**

3.5 Units

This lab course has the students use the MATLAB Windows package and programming concepts in computer programming. Prerequisite: C490

### **EL100 CIRCUIT CONSTRUCTION**

3 Units

This course familiarizes the students with schematic diagrams, soldering techniques and theory. It teaches the students understanding of the right tools for the analog and digital circuits, soldering failure analysis and use how to use test equipments to test the board, circuit construction quality.

### **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.

### **EL102 DC LAB**

1 Unit

Students learn to construct simple DC circuits, observe safety precautions, make component value determination, test circuits with a meter and start working with schematics. Prerequisite: EL101

### **EL120 AC THEORY**

3 Units

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. Prerequisite: EL101

### **EL121 AC LAB**

0.75 Units

Students learn to construct simple AC circuits, test circuits with a meter and oscilloscope and continue working with schematics. This course deals with AC sine waves, their methods of measurement, and how reactive components react to AC. Prerequisite: EL120

### **EL140 SEMICONDUCTOR THEORY I**

4 Units

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.

Prerequisite: EL120

**EL141 SEMICONDUCTOR LAB I**

1.5 Units

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. Prerequisite: EL140

**EL160 DIGITAL CONCEPTS**

3 Units

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. Prerequisite: EL120

**EL161 LOGIC CIRCUIT LAB**

0.5 Units

This course teaches digital construction techniques through the construction of many projects including an alarm system, digital dice, basketball game, traffic light control system, microwave timer, digital clock, and other "hands on" projects. Prerequisite: EL160

**EL170 LOGIC CONTROL**

5 Units

This course will introduce programmer logic control concept, ladder diagram, latch, counters, number systems PLC- programming, interfacing circuit, relays.

Prerequisite: C150

**EL172 PLC LAB**

1 Unit

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.

Prerequisite: EL-170

**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.

**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.

**EL203B MOTOR CONTROL LAB**

2 Units

Motor control labs related to the topics on EL-191a. Safety in the lab is enforced.

Prerequisite: EL203A

**EL212 ANALOG DEVICES AND APPLICATIONS**

4 Units

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. Prerequisite: EL140

**EL213 SEMICONDUCTOR LAB II**

0.75 Units

This lab course provides the student the opportunity to work with devices taught in EL212. They construct and test Operational Amplifiers circuits such as comparators, inverting and non-inverting amps, summing amps, differential amplifiers and a 555 timer oscillators. Prerequisite: EL212

**EL214 ELECTRONIC CIRCUIT TROUBLESHOOTING**

4 Units

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. Prerequisite: EL212

**EL215 ELECTRONIC CIRCUIT TROUBLESHOOTING LAB**

4.5 Units

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. Prerequisite: EL214

**EL220 ADVANCED DIGITAL APPLICATIONS**

3 Units

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). Prerequisite: EL160

**EL221 ADVANCED DIGITAL LAB I**

0.75 Units

During this course, a light display circuit, and a roulette wheel are built to demonstrate the principles learned in the lecture.  
Prerequisite: EL220

**EL320 PROCESS CONTROL**

5 Units

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. Prerequisite: MT301 and IE330 or RE210

**EL321 PROCESS CONTROL LAB**

1 Unit

This lab provides the students with the opportunity to utilize the concepts learned in Process Control.  
Prerequisite: EL320

**EL410 CIRCUIT ANALYSIS I**

5.5 Units

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. Prerequisite: MT301 and IE330 or RE240

**EL450 DIGITAL DESIGN I (elective)**

7.5 Units

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. Prerequisite: IE330 or RE210 or EL220

**EL460 CIRCUIT ANALYSIS II**

5 Units

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. Prerequisite: EL410

**EL470 DIGITAL DESIGN II (elective)**

2.5 Units

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. Prerequisite: EL450

**EL471 DIGITAL DESIGN II LAB**

2.5 Units

This lab course involves utilizing advanced digital circuitry to design and develop individual assignments. Prerequisite: EL470

**EL495 ELECTRONIC COMMUNICATIONS**

5 Units

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.  
Prerequisites: IE330 and MT410

**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.

**GE110 WRITTEN COMMUNICATIONS**

3.5 Units

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

**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.

**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.

**IE310 INDUSTRIAL FUNDAMENTALS (elective)**

4 Units

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. Prerequisite: EL212 and EL220

**IE320 SENSORS, TRANSDUCERS, & SWITCHES (elective)**

4 Units

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.

Prerequisite: EL310

**IE330 INDUSTRIAL CONTROLLERS (elective)**

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.

Prerequisite: EL210

**IE331 INDUSTRIAL ELECTRONICS LAB (elective)**

0.5 Units

This course enables the student to apply industrial control circuitry to accomplish work. The student will use various methods to insure the proper sequence of operation in the lab. They utilize, processes, and control knowledge to design, construct, and calibrate a process. Prerequisite: EL320

**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.

**MT120 COLLEGE MATHEMATICS II**

4 Units

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. Prerequisite: MT101

**MT190 COLLEGE ALGEBRA I**

5 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. Prerequisite: MT120

**MT202 COLLEGE ALGEBRA II**

5 Units

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. Prerequisite: MT190

**MT301 CALCULUS I\***

5 Units

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. Prerequisite: MT202

**MT410 CALCULUS II\***

5 Units

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. Prerequisite: MT301

**MT460 PROBABILITY AND STATISTICS\***

4 Units

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. Prerequisite: MT190 and MT202

**MT470 COMPLEX VARIABLES\***

4 Units

Introduction to analytic functions of several complex variables. The d-bar problem, Cousin problems, domains of holomorphy, and complex manifolds Prerequisite: MT202

**N110A COMPUTER NETWORKS I (PART I)(Windows 2000 Professional)**

7.5 Units

This course covers the attended and unattended installation and configuration of the client based operating system Windows 2000 Professional. Topics include administration of resources, printing, filing systems, configuration of disks, hardware devices, managing user profiles, form and function of networking hardware, associated protocols, and in-depth hands on administration and troubleshooting of WIN 2000. Prerequisite: C170 and C171

**Part II (Windows Server)**

This course will concentrate on minor upgrade scenarios, network services pertinent to the successful operation of lesser to greater networks such as DHCP, DNS, DFS, WINS, etc. Server will also cover domain configuration, security, encryption, redundancy, name resolution TCP/IP implementation, and troubleshooting. Prerequisite: N110 (Part I)

**N110B COMPUTER NETWORKS I LAB**

2.5 Units

This is a lab that supports the concepts and provides "hands on" experience with the networks, as it relates to N110A. Prerequisite: N110A

**N120A COMPUTER NETWORKS II (Part I) (Directory Services Infrastructure)**

8 Units

This course will cover the installation, configuration, management, and troubleshooting of the active directory. Topics including integration of services, defining group policies, and configuration of the RIS service is discussed.

Prerequisite: N110A

**Part II (Administration of a Network Infrastructure)**

This course covers domain naming system configuration and management, managing remote access, protocol, implementation and configuration, remote network security, WINS implementation, IP routing configuration, and Internet connection sharing. Prerequisite: N110A and N120A (Part I)

**Part III (Managing a Windows 2000 Network Environment)**

This course prepares the student to administer, support and troubleshoot information systems that incorporate Microsoft Windows 2000. Prerequisite: N110A and N120A (Part I)

**N120B COMPUTER NETWORKS II LAB**

2.5 Units

This is a lab that supports the concepts and provides "hands on" experience with the networks, as it relates to N120A. Prerequisite: C120A

**N130A COMPUTER NETWORKS III (Part I) (Exchange Server)**

11 Units

This course involves the implementation and management of Microsoft Exchange Server 2000. Students learn to install, configure and administer Microsoft Exchange 2000. Prerequisite: N110A

**Part II (Windows 2000 Directory Services Infrastructure)**

Students learn to design a Microsoft Windows 2000 directory services infrastructure in an enterprise network. Students learn to identify the information technology needs of an organization and then design an Active Directory. Prerequisite: N110A and N130A (Part I)

**N130B COMPUTER NETWORKS III LAB**

1 Unit

This is a lab that supports the concepts and provides "hands on" experience with the networks, as it relates to N130A. Prerequisite: C130A

**N140A COMPUTER NETWORKS IV (Basic Network Router & Advanced Routing)**

4 Units

This course covers the basic function and operation of a network router and then goes on to include more advanced features of network routers.

Prerequisite: N110A OR C170

**N140B COMPUTER NETWORKS IV LAB (Basic Network Router & Advanced Routing)**

2.75 Units

This lab allows students to utilize basic function and operation of a network router and the more advanced features of network routers.

Prerequisite: N140A

**N150A COMPUTER NETWORKS V (Switching, Remote Access, And Cisco Inter TS)**

8.5 Units

Students gain an understanding of switching, remote access and other features that prepare the student to become a certified network professional. Prerequisite: N140

**N150B COMPUTER NETWORKS V LAB (Switching, Remote Access, And Cisco Inter TS)**

1.5 Units

This lab gives students the opportunity to work with the concepts taught in N150A. Prerequisite: N150A

**PH300 PHYSICS**

4 Units

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. Prerequisite: MT202

**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 demonstrate how psychology impacts our lives at home and at work.

**RE300 ROBOTICS ENGINEERING**

4 Units

This course covers Robotics basics, Cartesian coordinates, robotics, control components, speed controllers, servos, synchros, stepper motors, and motor drive control circuits. Prerequisite: EL212 and EL220

**RE305 ROBOTIC COMPUTER INTERFACING**

2 Units

This module covers the control of robotic arms, manipulators, etc., through the use of interface cards, and the design of custom user interfaces. Prerequisite: RE210

**RE306 ROBOTIC LAB**

2 Units

This lab applies robotics basics, Cartesian coordinates, robotics, control components, speed controllers, servos, synchros, stepper motors, and motor drive control circuits. Prerequisite: RE210 and RE220

# MBA Classes

## **M520 HUMAN BEHAVIOR IN ORGANIZATIONS**

4 Units

Students learn to apply the behavioral sciences to management issues through integration of conceptual and experiential approaches to self-awareness, perception, communication, motivation, productivity, group behavior processes, leadership, organizational change, diversity, ethical issues, career planning, and the management of personal and organizational stress. Development of oral and written communications skills is emphasized. In addition to the regular class session, a required residential workshop assists student in attaining an accurate understanding of their patterns of communicating and relating to others.

## **M530 STATISTICS AND RESEARCH METHODS**

4 Units

This course places emphasis on the application of research methodology and statistical techniques to typical business problems encountered by management. Upon successful completion of the course, students understand and are able to apply basic research design methodology and appropriate descriptive and inferential statistics and interpret the results. Students learn to read and understand research literature in the field of business and management and prepare written and oral communications that document the results of a research project.

## **M540 PRICE THEORY AND INDUSTRIAL POLICY**

4 Units

The course examines the creation and distribution of goods and services as guided by the price system, the impact of the domestic economic environment and technological change on the behavior of business firms, and producers and consumer behavior in competitive and monopolistic markets. Additional topics include antitrust policy, pollution, poverty, comparative advantages for the firm and global issues.

## **M550 ACCOUNTING FOR MANAGERS**

4 Units

The objective of this course is to provide students with an opportunity to understand the complex accounting data they will receive as operating managers. Both financial and managerial accounting topics are covered. Financial accounting topics include financial analysis, financial reporting, and ethical issues in accounting. Students learn how to use accounting data as an effective management tool for coordinating managerial and organizational activities. Managerial accounting topics include manufacturing costs, budgets, and costs relevant to decision making.

## **M560 NATIONAL INCOME POLICY AND CORPORATE RESPONSE**

4 Units

This course deals with economic theories and social philosophies underlying contemporary issues and policies as they affect the modern business enterprise. The course covers the problems of inflation, unemployment, the domestic and global economic environments of organizations, fiscal and monetary policy, financial markets, productivity, and economic progress. Additional topics include alternative economic philosophies with particular emphasis on the free market system, public policy, industrial relations, collective bargaining, and social and geopolitical issues of economics. Prerequisite: M540

## **M570 QUANTITATIVE METHODS**

4 Units

This course covers topics both in theory and with a demonstration of appropriate quantitative analysis techniques such as modern decision modeling and applied probability, simulation techniques, linear programming, network synthesis, PERT-CPM, and forecasting techniques. Prerequisite: M530

## **M580 MANAGERIAL FINANCE**

4 Units

The course teaches students to define, comprehend, and apply a market-driven theory in analyzing business opportunities and developing problem-solving strategies as ethical financial decision makers. Important issues such as the amount of investment, selecting assets to invest in, and how to make financing decision so as to increase the value of the shareholder's stake in the firm is addressed in an uncertain and changing environment.

Topics explored include: financial markets, financial reporting, the cost of capital, portfolio analysis, capital structure, and the valuation of debt, dividend policy, options, cash management, and international finance. Prerequisite: M550

## **M590 MARKETING MANAGEMENT**

4 Units

Included in this course are analyses of the environment, including global, ethical, political, social, legal and regulatory issues and strategies relevant to the creation and distribution of goods and services; exploration of buyer behavior, marketing research, and marketing information from a managerial perspective; and analysis of product, pricing marketing communications, and distribution decisions in marketing planning and marketing program implementation. Emphasis is on the practical application of marketing concepts to case problems and students' current employment experiences.

## **M600 ORGANIZATION THEORY AND MANAGEMENT**

4 Units

This course examines the interactions among human resources, technologies, organization design, external forces, and management practices from a macro-organization perspective. Study concentrates on General System Theory (GST); organizations as systems; and managerial, technical, structural, and cultural subsystems as they relate to the broader environment. The course also examines the concepts of organization character, ethics, group behavior, life cycle, socio-technical systems design, work design, the impact of increasing diversity, and management theory. Development of oral written communications skills is emphasized in this course. Prerequisite: M520

**M610 LEGAL, POLITICAL ETHICAL AND REGULATORY ISSUES OF MANAGEMENT**

4 Units

This course develops and utilizes critical thinking skills in examining legal, political, and regulatory processes as they pertain to profit and nonprofit organizations and their impact on management decisions in relation to the general public employees, customers, competitors, suppliers, and the wider national and international community. Emphasis also is given to specifics of formulating, negotiating, and enforcing contracts; anticipating neutralizing, and defending against liabilities; evaluating the various forms of business ownership and investment modes; incorporating government regulations and decisions; and working with attorneys and the legal/regulatory system.

**M620 ELECTIVE GRADUATE DIRECTED STUDIES**

4 Units

Directed study is based on guided reading and independent research, supervised by one member of the faculty. The study must be approved prior to commencing research and must expand upon the subjects of the core curriculum. (Requires a minimum of 40 Hours research)

**M630 BUSINESS STRATEGY**

4 Units

This course examines the running of an enterprise from the chief executive officer's point of view. It helps students conduct external and internal assessments of an organization, identify its key strategic issues, identify and chose from alternative strategies, and defend those decisions. Students learn to conduct a strategic analysis and make sound, ethical strategic decisions. Integrating most of what has been covered previously in the program, the course uses a variety of experiential methods, including case studies and a strategic project on a real company, to test application of the course concepts. Development of oral and written communications skills, and global, social, political, and environmental issues are stressed in this course. Prerequisites M580 and M590