

California South Bay University



CATALOG 2011

1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089

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Website: www.csbu.us; Email: info@csbu.us

2011 Academic Calendar

Traditional Trimester Scheduling

Traditional Trimester Scheduling consists of three 15-week terms scheduled throughout the academic year.

Spring Term 2011

(January 10, 2011 – April 29, 2011)

January 3 – January 8	Registration
January 8	Orientation
January 10	Classes begin
January 17	Last day for Late Registration
January 24	Last day for withdrawing from classes
April 4	Advanced Registration for Summer Term
April 11	Last day to file for graduation for this term
April 25 – April 29	Finals

Summer Term 2011

(May 9, 2011 – August 26, 2011)

May 2 – May 7	Registration
May 7	Orientation
May 9	Classes begin
May 16	Last day for Late Registration
May 23	Last day for withdrawing from classes
July 25	Advanced Registration for Fall Term 2010
July 29	Last day to file for graduation for this term
August 22 – August 26	Finals

Fall Term 2011

(September 5, 2011 – January 6, 2011)

August 29 – September 3	Registration
September 3	Orientation
September 6	Classes begin
September 12	Last day for Late Registration
September 19	Last day for withdrawing from classes
November 28	Advanced Registration for Spring Term
December 2	Last day to file for graduation for this term
December 12 – December 16	Finals

This publication is an announcement of the current programs and course offerings provided by California South Bay University. It is for information only and is subject to change without notice. Courses, faculty assignments, prerequisites, graduation or completion requirements, standards, tuition and fees, and programs may change from time to time. The same courses are not necessarily offered every term.

California South Bay University reserves the rights to change requirements regarding admission, the courses and their contents, the organization of curricula, retention, awarding of degrees, and other necessary rules and regulations. Such regulations shall be effective whenever determined by the appropriate faculty and administrative bodies; they may govern both old and new students.

Every effort, however, has been made to assure that all regulations and curriculum information contained in this *Catalog* are correctly updated as of January 1st, 2011



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A MESSAGE FROM THE PRESIDENT

By selecting California South Bay University (CSBU), you are choosing an education institute that will make a positive life full of opportunities and will grant you knowledge and platform to grasp greater control of your destiny.

Situated in Sunnyvale in California's Silicon Valley neighborhood, CSBU's educational goal is to capture the dynamic of Silicon Valley's industry development so those students are well equipped to meet the needs of the workforce. In addition, technology & communications innovation in Silicon Valley enable CSBU to expand its education realm to a wider range of students in extensive geographic areas.

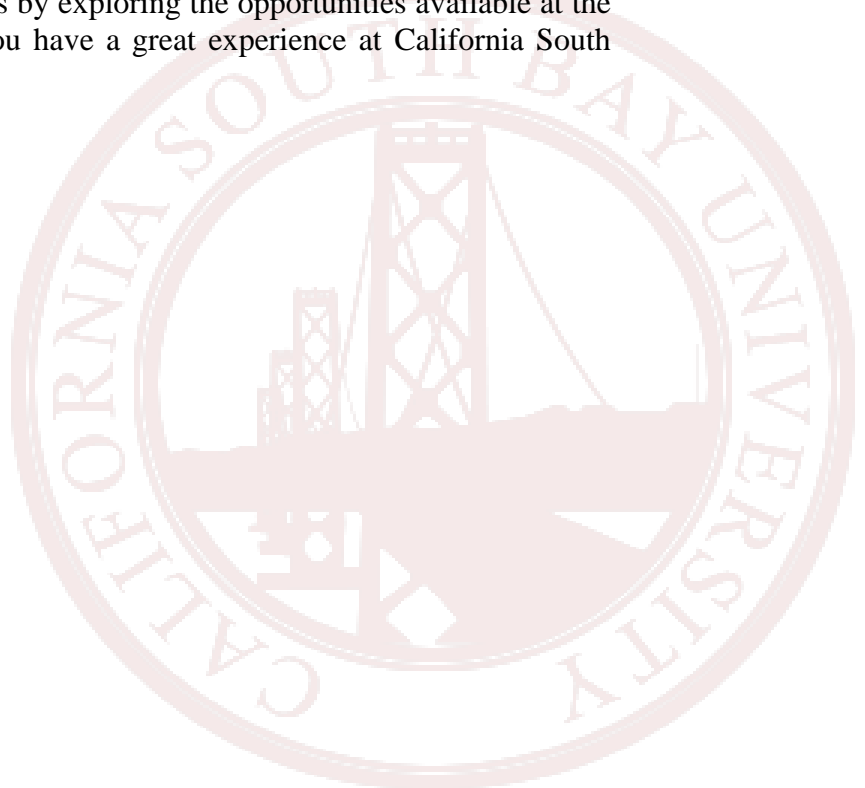
The CSBU utilizes the latest technologies in its efforts to bring the best possible education to students all over the world. We seek to challenge our students, and, in doing so, provide our students with the services and opportunities necessary to prepare them to become intelligent hi-tech and business professionals.

I would like to invite you to invest your academic future and professional success by exploring the opportunities available at the CSBU and wish you have a great experience at California South Bay University.

Ling Li



President



INSTITUTIONAL PHILOSOPHY

Welcome to California South Bay University! California South Bay University is a pioneer in offering quality academic programs with flexible course schedules designed to meet the needs of working adults. Also, we are committed to providing a challenging and exciting intellectual environment in which adult learners can reach their full potential and achieve their educational goals.

At CSBU, we pride ourselves both on the quality of our education and its relevance to today's professional world; especially in hi-tech business management. Each program within the university is designed to ensure that all of the acquired knowledge and skills be valuable to its graduates, offering a practical and solid foundation for the students' future. We make sure that our educational training would help enhance students' basic knowledge, skills, critical thinking, and problem-solving ability in order to bring them closer to accomplishing their professional goals.

In addition to enriching students' capability of developing their own career, CSBU embraces the notion of innovation and is dedicated to capture the newest trend of technology and industries. Students are encouraged to be creative in learning advanced knowledge and to bring such a spirit into their life. We believe once students internalize the spirit of innovation through participating in our learning community, it will become their life-long assets.

With our passion to provide excellent education to people who love to learn, we sincerely invite you to join us in our many professional programs in the fields of computer science, business management, electronic engineering, health care and green energy. A wise decision today, translates to a bright future tomorrow.

Statement of Mission, Purpose and Objectives

California South Bay University is a learning community that seeks to serve society by educating the leaders of tomorrow and extending the frontiers of knowledge.

The mission of California South Bay University is to provide a synthesis of innovative and traditional education leading to outstanding professional opportunities for adult learners. California South Bay University aims to bring qualified faculty who have had active careers in high-tech industries and business into interacting with highly motivated students in a stimulating learning environment. With the fast-changing global business and technological industries, California South Bay University adapts its curricula to those needs. Presently, California South Bay University focuses on graduate degree programs at the master level in Computer Science (MSCS), Business Administration (MBA), Electronic Engineering (MSEE), Green Energy (MSGE), Biotechnology Management (MSBM) and on the program of English as Second Language (ESL).

Our educational goal is to give students a solid background in general studies as well as specialized knowledge in a chosen field. Although we realize the necessity of offering the student a large portion of basic information, we believe that our primary task is to teach the students not only concepts but the process of discovery, analysis, and application of these concepts.

At California South Bay University, education encompasses continuous striving for excellence with the contexts to learning so that knowledge is gained not only for its own sake, but for the sake of modern society which the people for California South Bay University are a part of.

- Programs and courses at CSBU are designed to support both full-time and part-time students.
- Courses are created in accordance with the speed of newly developed technological innovations and advances in the Silicon Valley.
- Courses are designed on a competency-based, and are taught using innovative instructional methods.
- Proficiency in public speaking and technical writing is an integral part of degree requirements.
- The curricula emphasize technologies and studies pertaining to environmental protection.
- A strong application component is integrated into the curriculum and often into each class.
- Special attention is given to practical engineering research problems.
- An Advisory Board consisting of leaders in industry from Silicon Valley is closely involved in shaping the nature and content of the programs offered by CSBU.

The Objective of CSBU

California South Bay University provides a unique educational culture and learning environment for students because California South Bay University has recruited a strong pool of talented individuals from Silicon Valley to teach, conduct research, and provide students services.

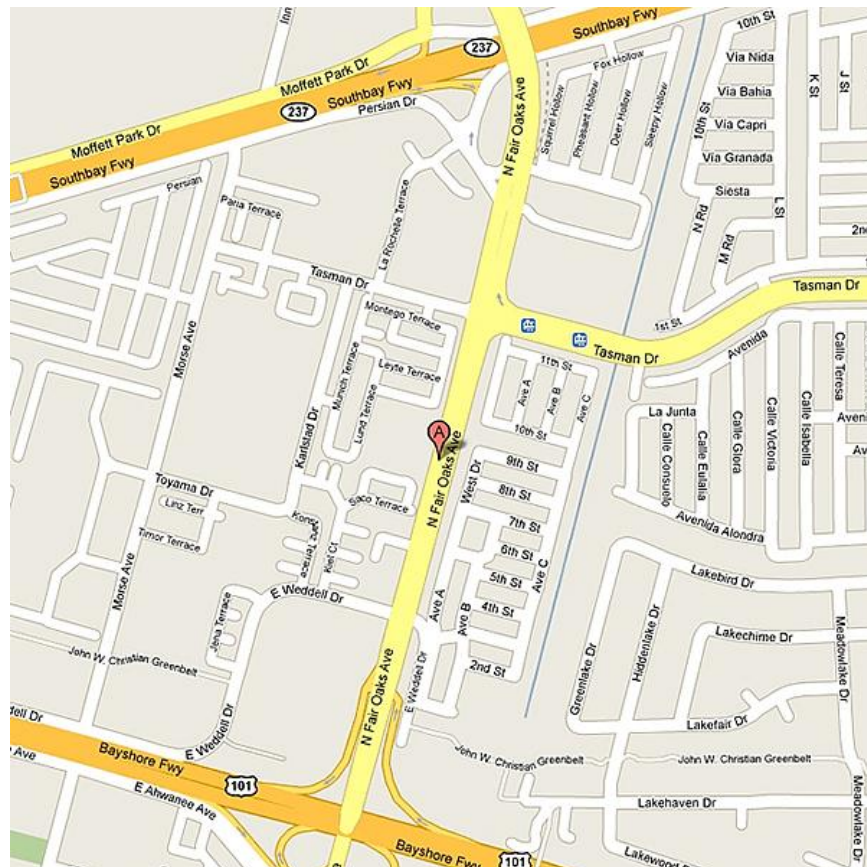


UNIVERSITY LOCATION

California South Bay University is located in the heart of Silicon Valley, just 50 miles south of San Francisco and is in the center of the world's greatest concentration of hi-tech, professional and scientific activity- Silicon Valley. There are many firms around a five mile radius of CSBU—such as HP, Intel, Microsoft, AMD, ATMEL, Sun Microsystems, NASA and IBM— global leaders in computer science technology. San Francisco, Marin County, Berkeley, Oakland, and the beaches are all within one-hour's travel by bus, train, or car. The Monterey Peninsula, Carmel and the famous Napa Valley wine country are all less than two hours away. San Jose International Airport is about nine miles from campus.

University Address:

California South Bay University
1107 N. Fair Oaks Ave.
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DIRECTIONS TO CALIFORNIA SOUTH BAY UNIVERSITY

Coming from San Francisco (approximately 30 minutes):

By Car:

- Take US-101 South towards I-80 E/Oakland/San Jose
- Slight right to merge onto US-101 S toward I-80 E/Oakland/San Jose
- Take exit 396B to merge onto CA-237 E toward Alviso/Milpitas
- Take exit 4 toward Fair Oaks Ave
- Turn right at Persian Dr
- Turn left at Fair Oaks Way
- Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089 on the right side of the road

By Public Transportation:

- Take Caltrain (direction: San Francisco to San Jose), exit at Mountain View Caltrain Station
- Take Light Rail Train 902 (direction: Mountain View – Winchester), exit at Fair Oaks Station
- Walk towards Fair Oaks and Tasman Drive
- Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089 on the right side of the road

Coming from San Jose (approximately 15 minutes):

By Car:

- Take CA-87 N and take exit onto US-101 N towards San Francisco
- Take exit 395 for Fair Oaks Avenue
- Make a U-turn
- Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089 on the right side of the road

By Public Transportation:

Option A

- Take Light Rail Train 902 (direction: Winchester - Mountain View), exit at Fair Oaks Station
- Walk towards Fair Oaks and Tasman Drive
- Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089 on the right side of the road

Option B

- Take Bus 522 towards WB Rapid Palo Alto Transit Center, exit at El Camino & Wolfe
- Take Bus 26 towards WB Lockheed Martin Transit Center, exit in Fair Oaks & Tasman

- Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089 on the left side of the road

Coming from Hayward (approximately 20 minutes):

By Car:

- Take I-880 S exit towards San Jose
- Then keep left at the fork to continue towards I-880 S and merge onto I-880S
- Take the exit onto CA-237 W toward Mountain View and take exit 3B towards Sunnyvale
- Turn left at North Mathilda Ave and turn left at San Aleso Ave
- Take right and Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089

By Public Transportation:

- Take a Metro rail from Hayward station (direction: Fremont) exit at Fremont station.
- Take VTA Bus 180 (direction: 180SB Express Great Mall), exit at Great Mall / Main Transit center
- Walk to Great Mall Station, take LRT 901 (Alum Rock – Santa Teresa), exit at Tasman Station
- Take Light rail 902 Mountain View (Direction: LRT Winchester-Mountain View), exit at Fair Oaks station
- Walk towards North Fair Oaks
- Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089 on the right side of the road



ACADEMIC CALENDAR

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ADMISSION POLICIES

- CSBU admits all qualified individuals into the university without regard to race, religion, sex, ethnic origin, or physical handicap.
- CSBU makes education available to all individuals who need the qualifications for entrance into CSBU

Trimester Admissions

The academic year is divided into three trimester terms each year: January, May and September. Applicant may apply for admission into any of the three Trimester Terms. Applications itself are accepted throughout the year.

The CSBU Admissions Committee provides individualized admission evaluation service and follows the approved credit transfer policy to transfer credit for each application.

Applications Requirements

All CSBU Applications must include:

- Completed CSBU Application Form (hardcopy can only be submitted once every academic year).
- Copy of photo ID
- Non-refundable Application
- Submit official transcripts from all previous colleges attended and certified English translation if transcripts are from non-English countries.
- Submit a TOEFL score within the last two years to verifying your English Proficiency if English is not your first language. (IELTS might be acceptable upon evaluation)
- Recommendation letters (optional)

Official Transcripts

All official transcripts must be received before the admission evaluation. Late submissions are permitted only with the approval of the Admission Committee. Student enrolled in courses at another institution at the time of application will have 60 days after the completion of the course to provide CSBU the updated transcript. Failure to submit official transcript on time may result in placement of the applicant in a non-degree status.

English Proficiency Requirement

Class will be taught in the English language. Applicants who have completed high school education or an undergraduate degree program in an English speaking country or school are considered meeting the entrance English requirement.

Applicants whose preparatory education was principally in a language other than English must prove sufficient skills in English to be considered for admission. English proficiencies can be assessed either by a standardized test, such as TOEFL or IELTS or register to take ESL class on-campus. The exam results will indicate the student's English proficiency level in listening, grammar, reading, conversation and writing. TOEFL has been administered by

Educational Testing Service in various forms: paper based, computer based and internet based. The scoring systems for three forms are different.

Applicants must receive a minimum score of 550 on the paper-based Test of English as a Foreign Language (TOEFL PBT), or 79 on the Internet Based Test (iBT), or a 6.0 on the International English Language Test (IELTS).

TOEFL Institution Code for CSBU is 0256

English as Second Language (ESL Classes)

The ESL curriculum at CSBU is designed to serve student whose English assessment results require them to take the classes to improve their English proficiencies before starting their graduate level courses. At CSBU, ESL classes are offered in 4 different levels. Students will be placed into appropriate class based on their placement examination results.

The ESL classes are offered with the same trimester schedule as the degree courses. The subjects cover listening comprehension, grammar, pronunciation and accent reduction, vocabulary development, reading, conversation writing and presentation skills. Student placed in the highest levels of ESL classes may be allowed to concurrently take a limited number of degree classes at CSBU with the approval of education committee, provided that this optimizes their learning objective.

Admission Procedures

- The applicants are encouraged to consult our admission counselors before submitting their application.
- The applicants will complete the Admission Application package and submit the application package to our admission office.
- The applicant need successfully complete the placement test.
- The applicants will provide official academic transcripts and diplomas of any high schools or higher educational institutions they attended. The transcripts and diplomas are subject to be evaluated by our Academic Office.
- The applicants will be informed with a letter by our admission office once our admission office reaches any decisions.
- An advisor will be assigned to the admitted applicants to complete the enrollment process before the class starts. The applicants need to:
 - a. Sign the Enrollment Agreement
 - b. Be notified of the Notice of Student's Rights
 - c. Read the School Policy

Enrollment Agreement

Upon joining CSBU, a student is presented an Enrollment Agreement form which indicates the student's program, length of study, estimated costs, refund policy, and other information. The student should read the information provided on the form. Both the student and the admissions staff will sign the form.

Cancellation of Admission and Readmission

If an applicant is accepted into a degree program for a given semester and does not begin classes in that semester, admission will automatically be cancelled. The prospective student's application records (transcripts from previous colleges and American language proficiency records) are kept on file for a period of six

months from the semester start date. If the applicant then wishes to be considered for readmission in a later semester, he/she will be required to resubmit 1) an application form, and 2) pay a readmission fee. A re-evaluation of admission will be made for the applicant.

Entry Status

Unless otherwise determined by the Admissions Committee, all newly admitted students are to have “Entry Status” at CSBU. After the successful completion of two terms, or 18 credit units, students will automatically become “Full Status” students.

Transfer Credit

- Credit units earned at other universities, colleges and educational institutions may be transferred into CSBU as evaluated by the Admission Committee.
- Awards of academic credit may be granted to students who demonstrate competency in a subject area based on their academic, occupational, as evaluated by the Admissions Committee individually.

Master’s Degree

The minimum requirements for admission are as follows:

- Evidence of baccalaureate degree or an equivalent diploma in keeping with the documentation practices of applicants’ home countries or demonstration of equivalent skills, training and experience as evaluated by the Admissions Committee.
- Students seeking to transfer credit will be evaluated based upon the documents customarily maintained by the institutions of their home countries as well as their individual, educational and experienced-based background as evaluated by the Graduate Admissions Committee. A maximum 9 units of graduate-level courses may be transferred from a graduate school or an equivalent foreign institution for the Master’s degree program.
- The Graduate Record Examination (GRE) general test or GMAT for MBA applicants is preferred, but not required.

The minimum requirement of a Full Time master’s enrollment is as follows:

- Enrolling in 9 credit units in two out of the three trimester terms throughout one year of study per 12 month period, starting from the student’s first day of class attendance.

FINANCIAL INFORMATION

Tuition and Fee per Trimester:

Application fee (domestic students) (One-time fee, nonrefundable, sent with each application form)	\$ 100.00
Tuition for graduates (per credit unit for all courses & thesis)	\$320.00
Tuition for ESL program (per credit unit)	\$140.00
Registration fee	\$ 50.00
Late registration fee ¹ (Trimester Scheduling only)	\$100.00
Student association membership (per trimester)	\$ 10.00
Late payment fee	\$ 50.00
Class Drop Fee	\$ 20.00
Class Add Fee	\$ 20.00
Fee for filing petition for incomplete grade	\$ 50.00
Fee for course examination under <i>Challenge Test Option</i>	\$ 100.00
Graduation fee (when file in for graduation request)	\$ 280.00
Cooperative education fee (per graduate credit unit)	\$ 320.00
Academic transcript fee (per copy)	\$ 10.00
Returned check fee	\$ 20.00
Student ID Fee	\$ 10.00

¹*Nonrefundable, regardless of the number of credit hours registered*

Financial Obligations and Refunds

Students may formally withdraw from a class by handing in a completed *Course Drop Form* obtained from the office. If a student withdraws from a course, he/she may be eligible to receive a refund, the amount of which will be in accordance with the following chart. The student must return all the checked out items such as library books and equipment prior to refund. The detailed refund schedule for a typical 3 credit unit class is as follows:

<u>Date of Withdrawal</u>	<u>% of tuition refundable</u>
Before the first day of a trimester	100%
Before the 2nd meeting of class Or the 4 th class hour	90%
Before the 3rd meeting of class Or the 7 th class hour	75%
Before the 4 th meeting of class or the 10th class hour	60%
After 4 th meeting of class Or the 12 th class hour	no refund

Financial Assistance

California South Bay University (CSBU) offers many options in financial aid to help you pay for your educational costs. Within this page you will find relevant information about these options, applying for financial assistance, costs, types of aid/scholarships, and more.

What is financial aid?

At CSBU, state, institutional, and private fund(s) used to assist eligible students in funding their education. Financial aid can be a combination of scholarships, grants, waivers, and student employment. Scholarships and grants are considered “free money” and the student is not required to repay; however, loans and student employment are considered self-help aid and most loans require repayment when a student becomes enrolled less than half time or graduates. CSBU is associated with numbers of private loan companies, and will help student in connecting those networks, such as Beneke Financial Group, and etc. Student employment includes both work-study positions and part-time employment positions, either on- or off- campus.

If you believe financial assistance would benefit your future financial management in your educational expense, we strongly encourage you to apply for financial aid in various options. We will try our best to help you manage an investment in your higher education at CSBU.

CSBU Scholars Fund

All CSBU students are eligible to apply for the CSBU Scholarship, which offers a limited number of tuition waiver scholarships and graduate assistantships each year. Various loan programs are also available. Please check with our financial specialist and you will be assisted cordially.

Student Employment & Assistantships

Assistantships are appointed either for a trimester or for an academic year consisting of two or three trimesters as specified by the individual appointment. It could be in lieu of Teaching Assistant, Research Assistant. In addition, there might be other options available, such as tutoring program, administrative assistant training program, and etc. Recipients are expected to commit 20 hours per week of services for a part-time appointment. For a part-time teaching, research, or administrative assistantship, the stipend is monetary compensation or a fully/partially tuition fee waiver. For tuition waiver scholarships, partial or full tuition fees waivers may be granted based on a combination of an individual applicant’s potential to succeed, proven track record and/or financial need as evaluated by the School.

Application Information

The financial aid is awarded depend primarily on the academic promise and scholarly achievement of the applicants. Consideration will be abstracted from the comprehensive academic performance and background of students based on an equality basis, such as extracurricular awards and achievements; work history; GPA; Letters of recommendation; Socio-economic and cultural background, and etc. Scholarships are not restricted to any particular field of study.

Student Protection Policy

State of California student tuition recovery fund

The state of California created the student tuition recovery fund (STRF) to relieve or mitigate economic losses suffered by California residents who were students attending schools approved by or registered to offer short- term career training with the bureau for private postsecondary and education. You may be eligible for STRF if you are a California resident, prepaid tuition, paid the STRF fee, and suffered an economic loss as a result of any of the following:

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

- 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.
- 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.
- The school's breach or anticipatory of the agreement for the course of instruction.
- There was a decline in the quality of the course of instruction within 30 days before the school closed, or if the decline began earlier than 30 days prior to closure, a time period of decline determined by the bureau.
- The school committed fraud during the recruitment or enrollment or program participation of the student.

You may also be eligible for STRF if you were a student tuition recovery fund (STRF) if all of the following applies to you:

- You are a student, California resident and prepay all or part of your tuition either by cash, guaranteed student loans, or personal loans.
- 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 fee if either of the following applies:

- You are not a California resident.
- Your total charges are paid by a third party, such as an employer, government.



ACADEMIC INFORMATION

Study Plan

Upon admission to a degree program, the new student receives a copy of his/her admission evaluation form which also includes the graduation requirements.

Academic Advising & Counseling

Each student will be assigned an academic advisor in the program in which the students seek a degree. The academic advisor will assist in planning a program of study that both fits the needs of the student and satisfies the program requirements. *Advisor approval is required for registration.*

Adding and Dropping Courses

Unless otherwise determined by the Academic committee, students are not allowed to add any courses after the sixth week of instruction. Students that wish to drop a course must do so before the fourth week of instruction to not have it affect their grades. Dropping a course after the fourth week of instruction will result in a grade of WP or WF, depending on whether the student passed or failed the course before the time of dropping. Refund of tuition will be issued for a dropped course as stated in the Financial Obligations and Refunds section.

The deadline for dropping an On-Demand course is before the 12th instructional hour of class (or its equivalent in lab hours, practicum hours, or a combination). Refund of tuition will be issued for a dropped On-Demand course as stated in the Financial Obligations and Refunds section.

Holders of fellowships, assistantships, tuition and fee waivers, and student visas must maintain the required number of credit hours or risk losing their tuition and fee waiver for the term. Students who lose their waivers must pay the full cost of tuition by themselves.

Withdraw from CSBU

A student is considered “withdrawing” from CSBU when either of the following occurs:

- Student submits a “Request for withdrawal from CSBU”
- Student drops/withdraws from all courses enrolled when student required to remain enrolled to maintain academic status
- Student is terminated due to disciplinary issue, unsatisfactory academic performance or violation of regulations required for international students.

Continuation and Probation Rules

Students are considered to be in good standing if they:

- Have achieved Full Status
- Are not on probation
- Are making satisfactory progress towards degree requirements, including a project or thesis if required.

Course Load

Graduate students who enroll for at least 9 credit hours will be considered to be full time students.

Evaluation Points in the Academic Program

CSBU academic committee will assess the academic progress of all its students at the end of each term. The academic committee can be formed by one or more academic counselor.

Academic Probation

The following students are placed on academic probation:

- If after attempting at least 18 credit hours, the student's GPA is less than 2.0 or the student has earned less than 9 credit hours.
- If after attempting at least 27 credit hours, the student's GPA is less than 2.0 or the student has earned less than 18 credit hours.

Students on academic probation who change programs or seek additional degrees will remain on academic probation and their previous CSBU academic record will be used to determine the satisfactoriness of their academic progress.

Dismissal

Students who reestablish satisfactory progress will be removed from academic probation. Students who fail to clear their academic probation within five academic terms will be dismissed.

To address special circumstances, students may appeal by filing petitions to the school's Academic committee.

Classes – Scheduling Hours

Classes at CSBU are conducted between 8 a.m. and 10.30 p.m. weekdays, or on the weekend between 9 a.m. and 3 p.m., meeting one day per week. (For more details please contact front desk).

Credit Hours for Courses

Academic units are measured in terms of credit hours. One credit hour is equivalent to one trimester term hour, where one trimester credit hour is equivalent to 15 classroom hours of lecture. Additional, one semester credit hour equals 30 laboratory hours and one semester credit hour equals 45 practicum hours.

Grading System

The following grades are used:

Grade		Grade Point
A	Excellent/Distinction	4.00
A-	Intermediate grade	3.67
B+	Intermediate grade	3.33
B	Above Average	3.00
B-	Intermediate grade	2.67
C+	Intermediate grade	2.33
C	Average/Minimal	2.00
C-	Intermediate grade	1.67
D+	Intermediate grade	1.33
D	Minimal Pass / Below Average	1.00
D-	Intermediate grade	0.67
F	Failure	0.00
W	Withdrawal	

S	Satisfactory (pass-fail option)
U	Unsatisfactory (pass-fail option)
NCR	No Credit
E	Deferred Grade
R	Deferred Grade-Project/Thesis
TR	Transfer credit
CR	Credit by passing challenge examination (Grade equals C or better)
IP	In process
AU	Audit
I	Student Incomplete
X	Instructor Incomplete

Course	Course Designations
100-399	Freshman, sophomore, junior level courses
400-499	Senior level and mezzanine graduate courses
500-799	Graduate level courses

GPA calculation: All GPA's are calculated by the following formula: grade points times' course credit=course grade points; total course grade points for the term divided by total calculable units for the term=grade points average for the term. The term GPA is based on all courses with calculable in a term; the cumulative GPA is based on all courses with calculable grades. Students may retake any course at any grade level below an "A". All grades will be recorded, but only the first retake grade recorded will be computed on the final graduation record. Retakes are noted by "R".

A grade of at least C- or P is required for master's degree programs. However, all registered credit hours are counted as attempted credit hours and all grades except I, P, NP, WP, WF, AUD and NR are used in computing the GPA. A graduate student must earn a cumulative 2.0 or above GPA to be eligible for the master's degree.

All courses require letter grades except those specifically designated. For deficiency courses, a letter grade should be given although not counted in the student's overall GPA. A grade of C- or better constitutes a passing grade for a deficiency course. All deficiency courses can be completed at other accredited institutions.

If a student takes the failed course more than once, the higher grade will be used in calculating the cumulative GPA (CGPA). However, all credit hours, whether the subject is original or the repeated course, are included as units attempted.

Examination

Course Examination

All courses at CSBU have at least one examination a semester: final exam. This examination can consist of information found in the textbook, outside reading and in the lectures. The structure of examination can be a combination of essay, multiple-choice answers and short answer.

Examination for Challenging a Course

CSBU acknowledge that exceptional graduate student, by reason of independent studies, overlapping course work or work experience, may have achieved the learning objectives of a course. In this regards, student can request to receive credit for the course by completing a "Challenge Examination."

Registration

Registration procedures and class offerings can be found in the Class Schedule or on the school website each semester. Students are responsible for the complete and accurate processing of their registration according to the guidelines.

New students may register during the designated period at the beginning of their first term or during the late registration period. Currently enrolled students should register during the pre-registration period in the previous term or the registration period of the current term. Continuing students who wait to register at late registration will be assessed a late registration fee.

Repetition of Courses

Students can repeat a course for credit if:

- The course is designated with the phrase “May be repeated for credit.”
- The course is the one in which a grade of I, D, F, WF or WP was received. In such cases, the course can be repeated and counted only once toward the degree requirements if the student passes the class.
- Or with the permission of the Academic committee on a case-by-case basis.

Limits on Transfer Credit

The specific number of credit hours accepted for transfer is determined on an individual basis and is not automatic. For graduate degrees, no more than 25 percent of the credit hours can be transferred unless otherwise determined by the Academic committee. This limit includes courses taken as a non-degree student. Transfer units for individual courses are accepted only when the student has received a grade of B or above.

Auditing Courses

Students wishing to audit a class must provide a form bearing the approval of the instructor and the administration office and file it with the Office of Admissions and Records.

Policy for Incomplete Grade

In order to receive a grade of "I", the student must file a petition with the Registrar prior to the final examination week after obtaining written approval from the instructor of the course he/she wishes to receive a grade of "I" in. The grade "I" is used only for circumstances or situations beyond the student's control. An "I" that is not removed by the deadline will remain on the student's record as an "I", with no credit earned, and will not be computed in the student's GPA.

Placement Test Option

CSBU recognizes that exceptional students, for various reasons may have already achieved the learning objective of a course, so a *Placement Test Option* is provided. At the discretion of the instructor and the Academic committee, CSBU offers a *Placement Test Option* for students to see if they have the proper background and prerequisites for the advanced courses. If a student fails this test, he/she cannot retake the test for this course again and must enroll and pass

the corresponding course. The results of the Challenge Test will be recorded in the transcript.

Attendance Policies

Absence --- Absence will be considered excused under the following circumstances: illness, death, or birth in the immediate family, and other valid reasons substantiated in writing and at the discretion of the school director. All other absences will be considered unexcused. Students who have three or more than three absences will be automatically dropped from the class.

Tardiness --- Tardiness is a disruption of a good learning environment and is to be discouraged. Tardiness without legitimate reason on three occasions in one class will be considered as one unexcused absence.

Cutting Classes --- Cutting of classes will be considered as unexcused absences

Make-Up Work --- Make-up work may be required for any absence. However, hours of make-up work cannot be accepted as hours of class attendance.

Leave of Absence --- Written requests for leaves of absence will be considered and such leaves may be granted to students at discretion of the school.

Education Records

Education records are all files, records, or documents maintained by the school, which contain information directly related to students. These include student education files, placement files, and financial aid files. It is the policy to monitor educational records to ensure that they do not contain information that is inaccurate, misleading or inappropriate. The school may destroy records that are no longer useful or pertinent to the student's circumstances.

Graduation

As student approaches the end of his study, student must initiate review process for the record officer to verify his/her eligibility for graduation. Student needs to fill out the application for graduation and afterward the records staff will then make a graduation evaluation. The university graduation fee is charged to each graduation application.



UNIVERSITY REGULATIONS

Academic Grievance Procedures

An academic grievance procedure refers to an administrative process through which students or employees may seek resolution of complaints or grievances arising from a decision made about them.

A student or an employee who has a complaint or request is expected first to resolve the complaint informally. The effort must include discussions with the specific faculty member, teaching assistant or staff member involved. A demonstrated lack of good faith by any side in attempting to resolve complaints informally may be considered with all other factors in reaching an ultimate decision on the merits of any grievance.

Formal Procedure

If the situation is unable to be resolved through any reasonable informal method, a student or employee may escalate it to a grievance. A formal grievance must be filed within 45 days from the time the student or employee believes, or reasonably should have known, that an occurrence has affected his/her status. This period of 45 days includes all informal efforts to resolve the grievance. The student must fill in and submit the grievance form to the Administration Office and a proper administrator will conduct an investigation of the grievance and may interview the student and other people related with the grievance for further clarification. After the investigation, the administrator will either grant or deny the students suggested resolutions or provide other means of resolution. The decision will be notified no later than 14 days following receipt of the written grievance. If the administrator does not resolve the situation in a way that is satisfactory to the student, the student has 14 days to appeal the decision to president of the university upon written receipt of the appeal. The president then has 14 days to notify the student of his decision, either grant or deny the redress sought or provide other resolutions. The president's decision is final. The student will be further advised that any unresolved grievances may be directed to the Bureau for Private Postsecondary Education, 2535 Capitol Oaks Drive, Suite 400, Sacramento, CA 95833.

Academic Integrity

CSBU is dedicated to learning and research, and is committed to truth and accuracy. Integrity and intellectual honesty in scholarship and scientific investigation is, therefore, of great importance. These standards require intellectual honesty in conducting research, writing of research results and relations with colleagues. Academic misconduct includes cheating, plagiarism, falsification of data, etc.

Confidentiality of Student Records

CSBU complies fully with the Faculty Educational Rights and Privacy Act of 1974, and may release directory information, including name, phone number, address, and major field of study to any person on request unless a student requests in writing that his/her directory information be kept confidential. CSBU will safely keep student records for an indefinite period of time. Certain records are excluded by law from inspection. Specifically, those created or maintained by a physician, psychologist or psychiatrist, in connection with the treatment or counseling of a student. Students may ask for a copy of their records in the Office of Admissions and Records. Students may direct complaints regarding their academic records to the Registrar.

Nondiscrimination Policy

The commitment of CSBU to the most fundamental principles of academic freedom, equality of opportunity, and human dignity requires that decisions involving students and employees be based on individual merit and be free from invidious discrimination in all its forms, whether or not specifically prohibited by law.

The policy of CSBU is to comply fully with applicable federal and state nondiscrimination and equal opportunity laws, orders and regulations. CSBU will not discriminate in programs and activities against any person because of race, color, religion, sex, national origin, ancestry, age, marital status, handicap, unfavorable discharge from the military, or status as disabled veteran or veteran of Vietnam era. This nondiscrimination policy applies to admission, employment, and access to and treatment in University programs and activities.

Complaints of invidious discrimination prohibited by university policy shall be resolved exclusively within existing CSBU procedures.

Sexual Harassment Policy

Sexual harassment is defined by federal and state laws and regulations, including but not limited to any unwanted sexual gesture, physical contact, or statement that is offensive, humiliating, or any interference with required tasks or career opportunities at CSBU.

CSBU will not tolerate sexual harassment of students or employees and will cooperate with governments, public services or agents, and legal enforcement departments to provide remedies when such harassment is discovered.

Encumbrance of Registration and Records

Students who owe any money to CSBU will not be permitted to register, will not be entitled to receive an official transcript of their units, will not be entitled to receive their diplomas, and will not be entitled to receive certification for practical training for foreign students until their indebtedness has been paid.

DEGREE PROGRAMS & REQUIREMENTS

CSBU's graduate programs are designed to prepare students for the practice of computer science and business administration at a professional level. In addition to courses teaching the fundamentals, each degree curriculum is designed to incorporate Silicon Valley's major industries in computer engineering, enterprise management, and global business development.

As Silicon Valley is a dynamic and fast changing high-technology hub where fierce competition among businesses is the norm, employers are more demanding on workers' qualifications. Job seekers in the Valley are required to be well prepared in their background training as well as continued education.

CSBU's curriculum committees in various disciplines hold regular meetings to ensure that the curriculum design and facility support in hardware and software can meet the industry standards. Further, faculty members must have had previous or current industry experience and are equipped with up-to-date knowledge and skills in their teaching subjects.

Degree Titles and Specialization

- 1.) Masters of Business Administration (MBA)
- 2.) Master of Science in Biotechnology Management (MSBM)
- 3.) Master of Science in Computer Science (MSCS)
- 4.) Master of Science in Electronic Engineering (MSEE)
- 5.) Master of Science in Solar Power Technology and Management (MSGE)



SCHOOL OF BUSINESS

CSBU School of Business offers Master Degree programs in Business Administration. This educational program gives the leaders of tomorrow a competitive advantage since it delivers the management skills, technical understanding and global perspective that are needed to succeed in global, diverse and dynamic environment.

MBA program focuses on developing an individual's interdisciplinary problem solving skills, interpersonal and communication skills, ability to adapt to changing information technology and business environment, spirit of entrepreneurial innovation, and ethical and professional values. Successful completion requires not only an understanding of the important functional skills in accounting, financial management, marketing, business law, and business and project management, but also an understanding of modern information systems, internet technology pertinent to e-commerce and e-business applications.

CSBU School of Business acknowledges the importance of integrating real-world experience of enterprise resource-planning tools to its MBA Curriculum. Our faculty will guide the students to practice using enterprise resource-planning tool such as SAP software and its applications in an enterprise environment.

Faculty

CSBU's emphasis on a community of scholars and integrated education-attracts faculty who are committed to their students' intellectual and skills development. With at least hold master degree, more than fifty percent of faculties hold Ph.D., CSBU faculties are more than capable to advise, instruct, teach and provide students with advance knowledge in business discipline. All of business faculty members also bring their extensive work experience and enthusiasm in teaching and helping the students to solve problems and to increase student's academic learning experience.

Objectives

Problem Solving: Each student will be able to systematically diagnose problems and/or opportunities, especially in business settings, and develop alternative courses of actions to resolve the problems or take advantage of the opportunity.

Strategic Thinking: Each student will have an understanding of long-range/strategic management and will be able to develop, implement, assess, and refine a strategic plan in a business setting.

Organizational Change: Each student will be able to systematically diagnose an organization's environment and operations to identify needed changes and to develop plans to successfully implement those changes in ways that achieve the organization's goal(s).

International/Global: Each student will have an understanding of global influences on business decisions/plans and/or develop plans for managing a business in a global environment.

Workgroup Functioning: Each student will be able to contribute to the success of his/her workgroup by occupying a leadership role and/or as a team member.

Master of Business Administration (MBA)

Objectives

The broad objective of the program is to provide students with the foundations in content and competencies that will support student's career development in the business field.

Specifically, CSBU MBA program is designed to provide students the opportunity:

- (1) to understand the business as integrated systems by providing a knowledge base of both interdisciplinary business theories and techniques
- (2) to train and to develop students' practical management skills in a chosen concentrated area for career development
- (3) to develop the students' problem solving skills including the ability to analyze uncertain situations, utilize facts and evidence in drawing conclusions, apply decision making theories, and adapt and innovate to face the face the challenge of the dynamic business world staged with diverse, multicultural, and global business settings.

Graduation Requirements

A minimum of 36 units is required, 12 from each of the following categories, Basic courses, Electives, Area of Concentration and Master's Project. Students must also makeup for any background deficiencies by taking additional courses even if 400A level courses may be used as elective units. A grade of "B-" or better must be earned in all basic courses and area of concentration, and a grade of "C-" must be earned for all elective courses. GPA 3.0 or better is required, and students must be in good standings - clear financial, library and other school records - with the university. After fulfilling the requirements stated above, the student may file a petition for graduation and if approved, may graduate.

Concentration of Study and Career Planning

CSBU MBA program provides an opportunity for student to choose between two areas of concentration including (a) the project management and (b) global business and marketing.

All graduate students is required to choose a concentration area of study to gain in-depth understanding of the chosen field and plan for his/her professional career track. Students in the MBA program at CSBU are advised to plan for their studies and choose a concentration area early. Before or upon completing 12 units in graduate course work, the student must choose a concentration area. Students are suggested to discuss his/her study plan with the academic counselor as well as to discuss business trend and job market. The students are also encouraged to work with Student Services counselors to prepare their resumes and participate in job search activities when they are ready for such a pursuit.

Master's Project

The capstone project is designed to integrate the knowledge and skills that the student has acquired from the basic course, concentration area of study and elective coursework. Under the guidance of the course instructor, student performs practical project. The instructor guides during development of project plan, determines the project goal and scope and also implementation of the methodology. This learning experience prepares student to pursue his/her career path in the challenging global business arena. Students should pay attention to the requirements for completing the project.

Changes in Degree Requirements

CSBU policies and requirements are subject to change, and changes may not be immediately reflected on campus websites or publications. New degree requirements, however, will not imposed retroactively on continuing students unless agreed upon by the students. If degree requirements are changed, students may complete their degree programs under the requirements in effect at the time of their initial enrollments (readmission, if they have discontinued degree status). They have the option of electing to be governed by the new requirements if they are so desired and provide that all requirements of one catalog are met.

MBA Background Preparation

Students admitted to the MBA degree program are required to have proper business background preparation for taking the graduate level coursework. The student must clear all deficiencies before being allowed to take the degree required courses. A student with deficiency in any required background subject must clear it by either 1) taking courses for units at CSBU and earning a grade of at least C- or higher or 2) taking and passing the appropriate preparatory module of studies. With advance approval by the academic review committee, the student may be allowed to take proficiency exams to clear his/her background requirements. In addition, English proficiency is also required. (Please refer to the section on "English Proficiency Requirement" under the chapter of Admission Policies for details).

The following are the required background subjects:

- Management and Business Law (MGT320, MGT461A, MGT491A, MGT511, MGT 516, MGT 520, MGT525, MGT540, MGT550, Law 420)
- Economics and Marketing (MKT514, MKT551)
- Accounting and Finance (ACC320, FIN 410, FIN520)
- Quantitative Analysis and Information Technologies

MBA Curriculum

The MBA program requires a minimum of 36 semester units of graduate study. A maximum of four 400A level courses are allowed to count towards graduation units. Before the student takes any one the courses below he/she must meet the prerequisite requirements.

1.) Basic Courses (12.0 units)

The basic courses provide a base for interdisciplinary business theories and techniques and decision-making methodology. A student must take the following courses to complete the required graduate course requirement:

MGT511 Human Resources Management

BUS520 Quantitative Methods for Business
MGT516 Production and Operations Management
FIN520 Financial Management

2.) Area of Concentration (12.0 units)

Apart from required graduate courses in section 1, students must additionally select an area of concentration and complete at least 12 units (4 courses) in the chosen concentration area. This is to ensure the student is competent in the selected area. The courses taken to fulfill the concentration requirement must not overlap the courses taken for the above Foundation Courses requirement. As new courses are also offered between publications of the university catalogs, the students are advised to refer to the "Concentration Area Course Tables" published with each release of the semester class schedule to select courses for meeting the concentration area requirements.

Area A. Project Management

(Prerequisites: Advanced graduate standing)

Required courses:

MGT520 Project and Risk Management
MGT540 Managing for Quality Improvement
MGT552 Technology Product Management and Marketing
MGT554 Global Outsourcing Project Management

Area B. Global Business and Marketing

Required courses:

MKT460A Marketing Management
MKT551 Strategic Marketing
MKT552 International Marketing
MKT555 International Trade & Operations

3.) Electives (9.0 Units)

Students may elect graduate-level courses 4XXA or 500-level, and higher courses in any discipline as electives to meet the elective requirements. Prerequisite requirements must be met when taking any course.

4.) Master's Project (3.0 Units)

Required course:

MBA608 Master's Project



SCHOOL OF LIFE SCIENCE

CSBU School of Life Science offers Master Degree programs in Biotechnology Management. In the School of Life Science, we are actively engaged in advancing research and education and integrated business perspective on our courses of study. CSBU's programs are aimed to equip graduates with the knowledge and skills they need to stay abreast of the exciting development of life sciences.

Classroom-knowledge aside, student will also gain hands-on experience in the school's laboratories and even get the chance to work on both in-house as well as commercial research project.

With this degree, graduates can look forward to pursuing an enormous diversity of careers in research and in clinical laboratories as well as biomedical, pharmaceutical and biologics industries.

Faculty

Our enthusiastic faculty is committed to advancing scientific knowledge and to educating, training, and fostering the career development of our graduate students. We currently offer master degree with concentrations in Biotechnology Management. With at least hold master degree, more than fifty percent of faculties hold Ph.D., CSBU faculties are more than capable to advise, instruct, teach and provide students with advance knowledge in business discipline. All of business faculty members also bring their extensive work experience and enthusiasm in teaching and helping the students to solve problems and to increase student's academic learning experience.



School Of Life Science

Master of Science in Biotechnology Management (MSBM)

Biotechnology, in the broadest sense, involves the use of living organisms or cell processes to make useful products. The major thrust of the biotechnology industry has been in area of drug development, human and animal nutrition, agricultural chemicals and environmental protection.

Biotechnology applications are now reaching into industries such as forestry, fisheries, agriculture, clinical medicine, diagnostic medicine, home health care, forensics, paternity testing, food preparation, and ranching. This new program will provide students with hands-on experience in this emerging high-tech area and prepare them to work in area industries, or to go on to medical, professional or academic programs. Biotechnology is concerned with many areas but the primary course work for this program will be centered around cellular chemistry, heredity and genetics. This will be expanded into areas such as biochemistry, antibodies, gene expression, protein synthesis and recovery, amino-acid and DNA sequencing, gene manipulation and modification, PCR technology and molecular genetics.

Objective

The biotechnology major is well suited for careers in business development, marketing, and finance in biotech and pharmaceutical companies. The comprehensive understanding of the industry's unique business and technical issues also supports careers in life-science driven consulting, banking, and venture capital. Students are advised to complement their industry education with a functional major such as marketing, finance, or management and strategy.

Specifically, CSBU MSBM program is designed to provide students the opportunity:

- (1) To have a comprehensive training in the state-of -the-art techniques and methodologies used in biotechnology
- (2) To think independently and solve problems
- (3) To prepare for further graduate studies
- (4) To prepare for supervisory level positions in the biotechnology industry.

Graduation Requirements

A minimum of 36 units is required, from each of the following categories, Basic courses, Electives, Area of Concentration and Master's Project. Students must also makeup for any background deficiencies by taking additional courses even if 400A level courses may be used as elective units. A grade of "B-" or better must be earned in all basic courses and area of concentration, and a grade of "C-" must be earned for all elective courses. GPA 3.0 or better is required, and students must be in good standings - clear financial, library and other school records - with the university. After fulfilling the requirements stated above, the student may file a petition for graduation and if approved, may graduate.

MSBM Background Preparation

Students admitted in to the MSBM degree program are required to have the following background preparation. A student with any deficiency is required to

clear it by either (1) taking the course at other schools and earning a grade of at least C or higher or (2) taking and passing a proficiency before attempting to enroll in graduate level courses.

1) BIOLOGY SUBJECTS:

MSBM 500 Protein Engineering
MSBM 501 Molecular Biology

2) TECHNOLOGY SUBJECTS:

MSBM 506 Principles and Practice of Biotechnology
MSBM 504 Biotechnology Operations

MSBM Curriculum

A minimum of 36 semester units of graduate study are required for the MSBM program. Students must complete 12 credit hours in basic courses, 12 credit hours in area of concentration, 10 credit hours in faculty mentored research, and 2 credit hours in seminar for a total of 36 credit hours. The curricular order and a brief description of courses are specified below. The student must meet prerequisite requirements when taking any of the following courses.

1.) Basic Course (12.0 units)

A student must take the following four courses to complete the required graduate course requirement. These four courses cannot be used to meet concentration course work requirements.

MSBM 501	Molecular Biology
MSBM 502	Biotechnology I—Genetic Engineering
MSBM 520	Advanced Cell Biology
MSBM 512	Biotechnology II—Protein Structure & Function

2.) Area of Concentration (12.0 units)

In addition to the four required graduate courses in section 1.), a student must select an area of concentration area. This is to ensure the students competence in a selected area. As new courses are also offered between publications of school catalogs, the students are advised to refer of the "Concentration area course tables" published with each release of the semester class schedule to select courses for meeting the concentration area requirements.

Area Biotechnology Management

Required Courses:

MSBM 571	Techniques in Biotechnology I
MSBM 572	Techniques in Biotechnology II
MSBM 503	Business of Biotechnology: Fundamentals
MSBM 504	Biotechnology Operations

3.) Faculty Mentored Master Thesis Research (10.0 Units)

An independent research project that is designed by the student with assistance from the Thesis advisor and acceptable to the Thesis committee.

Master's Thesis Project:

MSBM 600	Thesis Proposal
MSBM 600	Master Thesis

Publication: Each Master of Biotechnology graduate is encouraged to publish their research papers either online in the public domain or through professional journals and periodicals worldwide.

- 4.) Seminars (2.0 Units)
 - MSBM 591 Seminar I
 - MSBM 592 Seminar II

MSBM TOTAL REQUIREMENTS (36 units)



SCHOOL OF ENGINEERING

The master's degree programs in the School of Engineering are designed for students who intend to become professional engineers in the high-technology electronics or computer industry, as well as for those who desire a modern, general education based on the problems and the promises of a technological society. The environment in which students are educated is as important in shaping their future as their classroom experiences. The School of Engineering offers a friendly atmosphere and a variety of academic programs that have made CSBU engineering graduates highly valued in high-tech firms and the Bay Area communities.

Faculty

All CSBU engineering faculty members possess the following qualities: advanced degrees earned in engineering and science disciplines, high-tech work experiences, and enthusiasm in teaching and helping the students. Engineering is not a homogeneous discipline; it requires many special talents. Some faculty members in the School are goal-oriented designers, concerned with teaching students how to solve problems -- how to synthesize relevant information and ideas and apply them in a creative, feasible design. Other engineering faculty members function more typically as method-oriented scientists, using the techniques of their disciplines in their teaching and research to investigate various natural and artificial phenomena.

Objectives

To provide each student a goal-oriented education by tailoring each student's study plan based on the student's background and interests.

To provide in-depth professional training in a range of state-of-the-art specialty areas in electrical engineering, computer systems engineering, and computer science, equipping the student with both a theoretical background and practical experience in these disciplines.

To provide relevant laboratory experience throughout each program as an integral part of the education, emphasizing extensive use of simulation and hands-on practice in the learning process.

To nurture a learning environment which leads to professional values recognizing high quality and integrity in truly complete engineers.

To provide further advanced training and professional development for graduate students who wish to practice their profession with increased competence.

Graduation Requirements

A minimum of 36 units of graduate-level course work are required for all master's degree programs. Additional coursework may be required for a student whose undergraduate degree program was in a discipline other than that of the master's degree program.

In each master degree engineering program, there are four categories of course requirements:

1. Required graduate courses
2. Area of Concentration courses
3. Courses for breadth of study
4. Advanced electives

The following are required for graduation:

- A graduate student entered with under graduate deficiencies must clear the deficiencies in the first few semesters after joining CSBU. The student may clear a subject by either taking the course and earning a passing grade or passing a proficiency exam on the subject.
- Earn a grade of “B-” or better in all required and concentration area courses.
- Earn a grade of “C-” or better in all elective courses.
- Maintain overall G.P.A of 3.0 or better
- Maintain good standing with the university
- The student is approved to graduate after filing a petition for graduation courses numbered in 500’s and above are graduate courses.

Concentration Area and Career Planning

All graduate students pursuing engineering degrees at CSBU are advised to plan for their studies and choose a concentration area early. Upon completing 12 units in graduate course work, the student must choose a concentration area. Academic counselors are on-hand to assist the students to make their study plans and assess the technology trend and job market. The students are encouraged to utilize the online e-career center and work when they are ready for such a pursuit.

Master’s Project / Thesis

Master’s degree students interested in research and development work may choose to take a 3 units master’s project or a 3-unit master’s thesis to fulfill the graduation requirement. Academic officers are available to answer questions regarding the information concerning the project/thesis requirements.

Advisors

A faculty member serves as the project/thesis advisor to offer guidance to the student. The master’s thesis course may be registered as a two-part course, taking a total of two semesters to complete. A student unable to complete the project/thesis in the semester he/she is enrolled in the course is required to continue to enroll in the course the following semester until completion of the project or thesis. The student receives either an “s” or letter grade for satisfactory performance and earns the units or an “NP” grade for unsatisfactory performance without earning credit in each semester the project is being conducted. Extra units earned for repeatedly taking the project/thesis course cannot substitute for other course requirements.

Master of Science in Electrical Engineering (MSEE)

Background Preparation

Students admitted in to the MSEE degree program are required to have the following Background preparation. A student with any deficiency is required to clear it by either (1) taking the course at CSBU or earning a grade of at least C or higher or (2) taking and passing a proficiency exam on the subject. The student is advised clear all deficiencies before attempting to enroll in graduate level courses.

1. ELECTRICAL ENGINEERING SUBJECTS:

- Circuit theory and analysis (EE400, EE420)
- Digital circuits and logic design (EE206, EE450)
- Analog Circuits (EE431)

2. COMPUTER SCIENCE SUBJECTS:

- Programming language and logic (CS414); Students choosing Embedded Engineering concentration also require a background in CS 460, CS470.
- Unix/linux operating system (CS440); Students choosing Embedded Engineering concentration also requires a background in CS490.

MSEE Curriculum

A minimum of 36 semester units of graduate study are required for the MSEE Program. A maximum of four (4) 4xx courses (400 level courses with a designation taken as elective courses) are allowed to count towards graduation units. The student must meet prerequisite requirements when taking any of the following courses.

1. Basic Courses (12.0 Units)

The required courses emphasize understanding the mathematics and modeling Techniques for circuits and other engineering systems, and the design of Modern Computers. A student must take the following courses to complete the required Graduate course requirement.

EE460	System Analysis and Simulations
EE468	Modern Software Techniques for Electrical Engineering
EE524	Advanced Computer Organization and Structure
EE525	Digital IC Design

2. Core Requirements (12.0 Units)

In addition to the required graduate courses in section 1, a student must select an area of concentration and complete at least 12 units (four courses) listed in one chosen concentration area. This is to ensure the students competence in a selected area.

Required Courses:

EE536	Advanced Digital IC Design
EE538	Advanced FPGA Design & Implementations
EE547	Analog/Mixed Signal IC Design
EE562	Application Specific Integrated Circuit Design

3. Electives (9.0 Units)

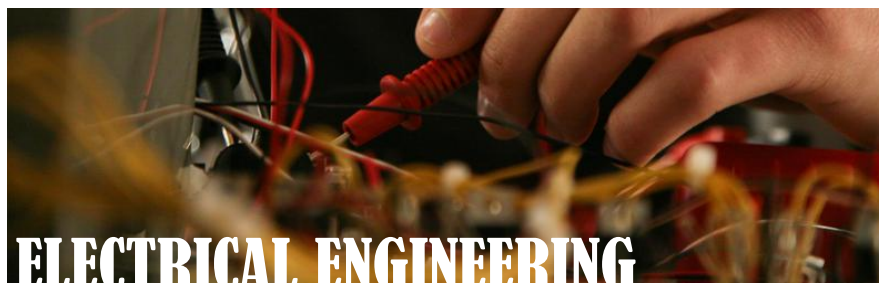
The student may elect graduate-level courses in any discipline, in or outside the Chosen concentration area, to meet the elective requirements. Prerequisite requirements must be met when taking any courses. The student must observe the limits on the Number of 4XXA level courses with a designation.

4. Master's Project (3.0 Units)

Required course:

EE607 Master's Project

MSEE TOTAL REQUIREMENTS (36 units)



Master of Science in Computer Science (MSCS)

Background Preparation

Students admitted in to the MSCS degree program are required to have the following background preparation. A student with any deficiency is required to clear it by either (1) taking the course at CSBU and earning a grade of at least C-or higher or (2) taking and passing a proficiency exam on the subject. The student is advised to clear all deficiencies before attempting to enroll in graduate level courses.

1. ENGINEERING MATHEMATICS:

- MATH 210, MATH 220

2. COMPUTER SCIENCE SUBJECTS:

- Programming languages and Data structures (CS414, CS460A, CS470A);
- Operating systems (CS440, CS490A)

MSCS Curriculum

A minimum of **36 semester units of graduate study** are required for the MSCS program. A maximum of four (4) 4xxA courses (400 level courses with a designation taken as elective courses) are allowed to count towards graduation units. The student must meet prerequisite requirements when taking any of the following courses.

1. Basic Courses (12.0 Units)

The required courses emphasize understanding of (1) the principles and architecture of Computer networks and (2) the design of modern operating systems. A student must take the following two courses to complete the required graduate course requirement. These two courses cannot be used to meet concentration coursework requirements.

CS500	Network Engineering and Management
CS511	Computer Architecture
CS540	Java Programming & Internet Applications
CS546	Operating System Design

2. Core Requirements (12.0 Units)

In addition to the three required graduate courses in section 1, a student must complete 12 units (four courses) required.

CS542	Software Engineering
CS543	Advanced Computer Networks
CS572	Advanced Java Programming
CS560	NET Web Programming

Select two other graduate courses in this concentration area.

3. Electives (9.0 Units)

The student may elect graduate-level courses in any discipline, in or outside the chosen Concentration area, to meet the elective requirements. The students must observe the limits on the number of 4XXA level courses with a designation.

4. Master's Project (3.0 Units)

Required course:

CS 607 Master's Project

MSCS TOTAL REQUIREMENTS (36Units)



SCHOOL OF GREEN ENERGY

The main purpose of the School of Green Energy (SGE) is to create manpower through education in renewable energy technology and management, as well as fulfill educational elements that build the ability to think, analyze and evaluate. Currently SGE offers master degree program in Solar Power Technology and Management with concentration area in solar photovoltaic technologies. By 2010 the school hopes to add more specializations in areas such as fuel cell systems and technologies, and bio-fuels and bio-energy. With a friendly school atmosphere and the unique multi-discipline program, our graduates are well prepared as future leaders in the rapidly growing green-energy industry.

Faculty

Our faculty members are first and foremost committed to facilitating and communicating with students for the sake of each student's success. They possess the following qualities: advanced degrees earned in engineering and science disciplines, high-tech work experiences, and enthusiasm in teaching and helping the students. Green-energy technology is not a homogeneous discipline; it requires many special talents. Some faculty members in the school are goal-oriented designers, concerned with teaching students how to solve problems, how to synthesize relevant information and ideas and apply them in a creative, feasible design. Others are method-oriented scientists, using the techniques of their disciplines in their teaching and research to investigate various natural and artificial phenomena.

Objectives

The school strives to foster and promote an environment conducive to teaching and learning as well as excellence particularly in green-energy technologies. The objectives of the school are as follows:

- To develop program of study relevant to industrial and national needs
- To produce skilled graduates in green-energy technology and management with a theoretical background and practical experience
- To provide relevant laboratory experience throughout each program as an integral part of the education, emphasizing extensive use of simulation and hands-on practice in the learning process
- To train graduates who have strong fundamentals in relevant areas but at the same time are competent in his or her chosen field of study
- To equip the students with the necessary knowledge and skills in problem solving and analytical thinking
- To provide each student a goal-oriented education by tailoring each student's study plan based on the student's background and interests.
- To provide a well-rounded and balanced undergraduate education through required studies in engineering, natural science, communications, and social science.

Graduation Requirements

A minimum of 36 units of graduate-level course work is required for the master degree program, in which 18 units are from core courses, 9 from electives, and 9 from project/thesis. Students must also makeup for any background deficiencies by taking additional courses. A grade of "B-" or better must be earned in all core

courses, a grade of "C-" must be earned for all elective courses, and a grade of –pass- is required for project/thesis. GPA 3.0 or better is required, and students must be in good standings with the university. After fulfilling the requirements stated above, the student may file a petition for graduation and if approved, may graduate.

Concentration Area and Career Planning

All graduate students pursuing engineering or management degrees at CSBU are advised to plan for their studies and choose a concentration area early. Upon completing 18 units in core course work, the student must choose a concentration area. Academic counselors are on-hand to assist the students to make their study plans and assess the technology trend and job market. The students are encouraged to utilize the online e-career center and work when they are ready for such a pursuit.

Advisor

A faculty member serves as the project/thesis advisor to offer guidance to the student. The master’s thesis course may be registered as a two-part course, taking a total of two semesters to complete. A student unable to complete the project/thesis in the semester he/she is enrolled in the course is required to continue to enroll in the course the following semester until completion of the project or thesis. The student receives either an “s” or letter grade for satisfactory performance and earns the units or an “NP” grade for unsatisfactory performance without earning credit in each semester the project is being conducted. Extra units earned for repeatedly taking the project/thesis course cannot substitute for other course requirements.

About Green Energy Program

Our green energy program will help students to be part of a thriving green energy industry. Join California South Bay University program in Solar Power Technology and Installation, and we will help you to prepare for the Entry Level Certificate of Knowledge Exam for the North American Board of Certified Energy Practitioners (NABCEP). Passing the exam indicates industrial approval of professional knowledge of a PV system. Most importantly, our green energy school is accredited by Interstate Renewable Energy Council (IREC). And we always facilitate high quality education to our students for their professional training education.

California South Bay University is accredited by: IREC



Master of Science in Green Energy Technology (MSGE)

Background Preparation

Students admitted in to the MSGE degree program are required to have the following background preparation. A student with any deficiency is required to clear it by either (1) taking the course at CSBU and earning a grade of at least C or higher, or (2) taking and passing a proficiency before attempting to enroll in graduate level courses. With advance approval by the academic review committee, the student may be allowed to take proficiency exams to clear his/her background requirements. The following are the required background subjects:

1. PHYSICS SUBJECTS:

- a. PHYS210; PHYS211

2. MATHEMATICAL SUBJECTS:

- a. College level Mathematics in engineering majors (MATH211; MATH220)

3. ENGINEERING SUBJECTS:

- a. EE206; EE340; EE420

MSGE Curriculum

Students need a total of 36 school units for graduation. The program consists of 4 required courses (Basic Courses), 3 core course (Concentration A/B), 2 elective courses, and a project-design thesis. Each course counts for 3 units, and the project-design thesis possesses 9 units.

1. Basic Courses (12 units)

The Basic courses provide a base for interdisciplinary in solar energy theories and techniques and system designs. A student must take the following courses to complete the graduate course requirement:

- MSGE501 Introduction to Solar Energy Technologies
- MSGE502 Principles of Electric Circuits and Electrical Power Systems
- MSGE503 Physics of Solar Cells
- MSGE504 Photovoltaic Technology Development, Measurement, & Characterization

2. Area of Concentration (9 units):

In addition to the four basic graduate courses in section 1, a student must select an area of concentration and complete at least 6 units (two courses) listed in one chosen concentration area. This is to ensure the students competence in a selected area. As new courses are also offered between publications of school catalogs, the students are advised to refer to the “Concentration area courses tables published with each release of the semester class schedule to select courses for meeting the concentration area requirements.

Concentration A: Photovoltaic Technology

- MSGE505 Solar Power System: Design, Analysis, and Installation
- MSGE506 Photovoltaic Manufacturing and R&D
- MSGE602 Thin Film Photovoltaics

Concentration B: Renewable Energy Economics and Management

- MSGE603 Solar Thermal Technologies
- MSGE604 Solar Cell Electronic Materials and Devices
- MSGE605 Energy Economics, Management, and Policy

3. Elective Courses (6 units)

Currently seven courses are available for election. As new courses are offered between publications of the university catalogs, the students are advised to refer to the “Concentration Area Course Tables” published with each release of the semester class schedule to select courses.

- MSGE505 Solar Power System: Design, Analysis, and Installation
- MSGE506 Photovoltaic Manufacturing and R&D
- MSGE601 High-Performance Photovoltaics
- MSGE602 Thin Film Photovoltaics
- MSGE603 Solar Thermal Technologies
- MSGE604 Solar Cell Electronic Materials and Devices
- MSGE605 Energy Economics, Management, and Policy

4. Project/Thesis (9 units)

The Thesis/Project is carried out in the last two sessions of the MSGE degree course for full-time students. Six hours per week in the first session, and twelve hours per week in the second session are devoted to directed laboratory and research work on an approved subject under guidance of members of the lecturing staff. Part-time students may need to attend the University full-time in their final session or attend for one further part-time session, if facilities are not available for the thesis to be done at work. Generally, the thesis involves the design and construction of experimental apparatus together with laboratory tests. A written thesis report must be submitted at the end of each session. Current listed projects are:

- Device Physics: Solar Cell Structure
- Remote Area Power Supply Design
- Hybrid System Design
- Photovoltaic Water Pumping
- Grid Interactive Photovoltaic System
- Building Integrated Photovoltaic
- Economic Issues for Photovoltaics
- Government Policy Issues for Photovoltaics
- Photovoltaic for Developing World

MSGE TOTAL REQUIREMENT (36 UNITS)

CSBU COURSE DESCRIPTION

Notes of course number:

Course No.	Description	Course No.	Description
100-199	Freshmen level courses	200-299	Sophomore level courses
300-399	Junior level courses	400-499	Senior level courses
400-499	Mezzanine courses for graduates	500-799	Graduate level courses

Instructor's consent/approval: prerequisite containing the phrase of "instructor's consent" or "instructor's approval" is an option for the student to request the instructor to assess the student's ability and background in the listed prerequisite subjects when the student has acquired the background through other means, such as work or other experience.

Graduate standing: Graduate students who have started to take graduate level courses.

Advanced graduate standing: Graduate students who have completed at least two trimesters' graduate coursework

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Accounting

ACC320 Principles of Accounting (3.0 Units)

This course teaches students the basic foundations for accounting principles. The 6 main topics are: an introduction to basic elements of financial accounting, setting up and using a general journal, how to record and analyze financial transactions, various types of accounts and how to use them, and accounting methods for different types of business. SAP R/3 concepts will be introduced. Students may also use certain kinds of accounting software.

Prerequisite: Instructor's Consent

ACC321 Accounting Lab (2.0 Units)

This course is an introduction to Quickbooks. The main objective of this course is to introduce students to the basic features in QuickBooks and give students an opportunity for hands-on practice. Students will learn about the types of information needed to be tracked in business or on the job, and students will see how to enter that information and track it in QuickBooks.

Prerequisite: Instructor's Consent

ACC410 Cost Accounting (3.0 Units)

Students taking this course are taught the relationships among cost, volume, and profit, the process and job-order methods; standard costs, activity based costing, variance analysis, quantitative method and models used in management. It also teaches the students how to use their fundamental knowledge in decision making in a business.

Prerequisite: ACC320 or instructor's consent

ACC460A Intermediate Accounting - I (3.0 Units)

This course is only for students who are interested in becoming accounting professionals. This course builds on the knowledge obtained in Principles of Accounting series. Students are taught how to understanding financial accounting and accounting standards, required disclosures, financial statement preparation, and an in depth study of current assets, how to calculate revenues and fixed assets. Students will be taught how to use popular accounting tools for both homework and exercises.

Prerequisite: ACC320 and FIN410 or instructor's consent

ACC490A Intermediate Accounting - II (3.0 Units)

This course is a continuation of Intermediate Accounting - I (ACC460A). Students are taught about current and long-term liabilities, investments, stockholders' equity, post-retirement benefits, leases and cash flow statements.

Prerequisite: ACC460A or instructor's consent

ACC510 Introduction to Taxation (3.0 Units)

This course covers taxation concepts applied to individual's income, deductions, units, property transactions, and tax accounting methods. An understanding of the concepts will enable students to prepare quality individual income tax returns as a professional. The course will also cover taxation rules governing financial planning.

Prerequisite: ACC320 or instructor's consent

ACC520 Advanced Accounting (3.0 Units)

This course is designed for accounting track graduate students who want to have a complete understanding of the concept of consolidation requirements, consolidated financial statements, and accounting techniques relating to particular types of business and non-business entities. The student will also explore various tax aspects of consolidated financial statements and participate in case studies.

Prerequisite: ACC460A or instructor's consent

ACC522 Federal Taxation of Business Enterprises (3.0 Units)

This course is designed to give students an understanding of the concepts of federal taxation of corporations, partnerships, estates and trusts. An understanding of the concepts will enable students to prepare corporation and partnership tax returns in a professional environment. Also covered are rules governing estates and trusts.

Prerequisite: ACC500 or instructor's consent

ACC530 Accounting for the Global Firm (3.0 Units)

This course aims to expose student to international business structures from accounting perspective. Both, financial and managerial accounting aspects will both be considered. Currency translation, taxation, intercompany transfer pricing and tax units are also covered.

Prerequisite: ACC460A or instructor's consent

ACC540 Auditing (3.0 Units)

In this course, students learn auditing techniques with an emphasis on the Electronic Data Processing environment, audit procedures, practice and programs; working paper preparation and report writing. The students will experience using electronic auditing software to work on their homework and projects.

Prerequisite: ACC212 or instructor's consent

ACC550 Accounting Information Systems (3.0 Units)

This course provides a conceptual framework for contemporary accounting information systems and accounting cycles. It covers database concepts, internal control, transaction cycle and business process, expenditure cycle, conversion cycle, general ledger, and enterprise resource-planning systems. Students may be introduced to SAP R/3 for data manipulation and report generation.

Prerequisite: ACC212 or instructor's consent

Business

BUS400 Business Communication (3.0 Units)

The course aims at improving students' active listening, speaking and nonverbal communication skills. Students will be given the idea of how business communication skills are essential for daily business and professional activities. The lecture will teach students various business writings encompassing professional memo writing, e-mail format and filing, business letters and correspondence, and business reports.

Prerequisites: Placement by English exam or successful completion of advanced ESL classes.

BUS420 Principles of Public Relations (3.0 Units)

The primary goal of this course is to familiarize students with the basic concepts and principles of public relations. As public relations has become more and more important in contemporary society, taking this course will give you an overview of how public relations as a managerial function contributes to organizational effectiveness. The lectures and exercises/assignments will help you understand how public relations serves as a communicative venue in nurturing a good relationship between an organization and its various publics, thereby facilitating organizations' effort in accomplishing their ultimate goals.

Prerequisites: Instructor's approval

BUS430 Organizational Communication/PR Management (3.0 Credit)

The primary goal of this course is to advance students' understanding of the nature and role of public relations in contemporary society. This course takes a theoretical approach in examining important issues related to public relations, including issues management, crisis communication, media relations, public policy, and international public relations etc. The theoretical foundation you will establish through readings and class discussion will broaden your view of public relations and will enhance your critical thinking and integration ability when analyze PR problems or activities. By the end of the course, students should be able to understand and critique various viewpoints in current PR issues; apply theories to PR practice through case analyses; and write a research paper examining a public relations issue or case.

Prerequisites: BUS320 or instructor's approval

BUS440A Internship - I (4.0 Units)

The course provides the students the opportunities to develop on-site job skills. Student will be exposed to the internship, and participate in real-world business activities. Internship reports by employer and student are required. Students are allowed to enroll in one internship course each semester. At most three internship courses are allowed within a program of study.

Prerequisites: Advance approval from the internship coordinator.

BUS440B Internship - II (4.0 Units)

The course is the second internship course in Business series. Student must take BUS340A before enrolling in this course. Only one internship course each semester and three internship courses are allowed within a program of study. Prerequisites: Advance approval from the internship coordinator.

BUS450A Public Relations Campaigns (3.0 Units)

The course provides students with fundamental knowledge and skills of how to conduct public relations campaign projects. It requires students to accomplish a written plan book for an actual organization. The purpose of the course is to examine in depth the steps in research, planning, implementing and evaluating public relations campaigns and programs through working with real world cases. The emphasis on campaign process is designed to reinforce the public relations role from a management rather than a technician perspective. Prerequisites: BUS320 or instructor's approval

BUS460A Professional Development (3.0 Units)

This course aim at helping student develops his/her professional career. Topic cover personality assessment, professional ethics, understanding the business professional world, recognizing company culture and organizational structure, how to survive office politics, career paths and pitfalls, resume writing and cover letters and interview techniques. Prerequisites: ENGL101 or instructor's approval

BUS520 Quantitative Methods for Business (3.0 Units)

The focus of the course will be dedicated to quantitative methods of management science and operations research, using quantitative analysis software for management problems. The instructor will introduce the modern business decision-making methodology and develop student's ability to analyze complex systems. The students learn how to format models from real-world problems so they can be solved using computer techniques, how to check for errors in problem formulation and data input to minimize erroneous solutions, and how to apply the techniques to real-world problems. Prerequisites: graduate standing or instructor's consent

BUS600 Special Topics (3.0 Units)

Special topics courses are offered to students in business administration programs by current faculty members or invited guest speakers. The aim is to expose the students to special topics related to their studies. These courses are conducted the same way as regular courses. Prerequisites: BUS520 or instructor's approval

Computer System Engineering

CS360 Computer Fundamentals (3.0 Units)

This is an introductory computer literacy course introducing the students to the basics of computer hardware structure, the World Wide Web, and MS Windows software tools. Topics include introduction to computer components, iCSBUt/output, data storage, the Internet and the WWW, operating systems, data management and databases, software program development and programming languages, and ethics for technical professionals. Students also learn to use the latest Microsoft Office tools Word, Excel, Access, Powerpoint, MS Visual Basic, and the use of the Internet and browsers. Hands-on exercises are required.

Prerequisite: instructor's consent

CS370 Computer Organization (3.0 Units)

This course is designed to provide a fundamental understanding of the issues and challenges involved in designing and implementing modern computer systems. The primary goal is to help students become more skilled in their understanding of computer systems, including how the hardware and software interact with each other. This course will also provide an understanding of where computers came from and where they are going, as well as understanding their strengths and weaknesses, such as why compiled code will always execute faster than JAVA code. Subjects will include: RISC vs. CISC CPU design approach, instruction sets, pipelining, instruction scheduling (branch prediction, speculative and out-of-order execution, etc), cache and storage hierarchy design. Additional key focuses will be on modern I/O architectures such as PCI, PCI-X, SATA, SCSI, USB, etc., and their importance on performance and compatibility.

Prerequisite: instructor's consent

CS 414 Program Design and Analysis in C (4.0 Units)

This course is designed to teach C language syntax rules and the analysis of a structured programming language, with emphasis on practical applications in engineering and business problems. Methods of testing and debugging well-structured programs in C are also covered. Topics include problem specification and analysis, writing-editing-compiling-linking a C program, data types, operators and expressions, selection and repetition, arrays, pointers, functions, text files, dynamic memory allocation, strings, structures and unions, binary files, and bitwise manipulation and preprocessor directives. Hands-on exercises are required and the weekly lab session is an integral part of this course.

Prerequisite: CS360

CS420 Data Structures (3.0 Credit)

This course teaches efficient use of data structures and algorithms to solve problems. Main topics will be the logical relationship between data structures associated with a problem and the physical representation. Topics include introduction to algorithms and data organization, arrays, stacks, queues, single and double linked lists, trees, graphs, internal sorting, and hashing and heap structures.

Prerequisite: CS414

CS 440 Introduction to Unix/Linux (3.0 Units)

This course is designed to familiarize the students with the UNIX/Linux environment. Topics include concepts of the UNIX/Linux operating system,

Shell commands, Visual editor, file manipulation and securities, UNIX utility commands, Shell features and environment, online manual, controlling user processes and managing jobs, introduction of Regular Expression and its usage with grep, sed, and awk UNIX power utilities, basic Shell programming techniques, large file management, and the user programming environment customization. Hands-on exercises are required.

Prerequisite: CS360 or instructor's consent

CS 460A Data Structure (3.0 Units)

The topic of this course includes introduction to algorithms and data organization, arrays, stacks, queues, single and double linked lists, trees, graphs, internal sorting, hashing, and heap structures. The course is designed to teach efficient use of data structures and algorithms to solve problems. Students study the logical relationship between data structures associated with a problem and the physical representation. Hands-on exercises are required.

Prerequisite: CS414 or instructor's consent

CS 470A Object-Oriented Programming in C++ (3.0Units)

This course is designed to develop the students' abilities to design, code, and document application programs using object-oriented design and analysis concepts and methodology. Emphasis is on establishment of design objectives, criteria and specifications, processes of synthesis, analysis, construction, testing, and evaluation of open-ended problems. Topics include an introduction to general object-oriented programming as implemented in C++, data types, expression, statements, functions, program scope, run-time memory allocation, function overloading, template functions, class mechanism, derivation, inheritance, and migration from C to C++. Labs may accompany lectures in partial class meetings during the semester. Hands-on exercises are required.

Prerequisite: CS460A or instructor's consent

CS 480A Compiler Design (3.0 Units)

This course is designed to provide students with a fundamental knowledge of compilers and interpreters for modern computer languages. Topics include a study of modern computer languages, regular expressions, lexical analysis, parsing techniques, context-free grammars and syntax-directed translation.

Prerequisite: CS420

CS 490A Introduction to Operating Systems (3.0 Units)

This course is designed to introduce students to basic concepts of modern operating systems; topics include processes, threads, microkernel, concurrency, memory management, file system. Hands on exercises are required.

Prerequisite: CS360 & CS460A or EE206 or instructor's approval

CS 500 Network Engineering and Management (3.0 Units)

This course is designed to prepare student to meet the current industry demands for network designs and the development of new network applications and services for business enterprises and the network providers that serve them. It offers theoretical and applied study of the design, configuration, and management of converged communication networks. Course will also provide student with through understanding of the technical and operational aspects of networks communication and network management.

Prerequisite: CS414 or instructor's consent

CS 510 Network Engineering and Management (3.0 Units)

This course designed to prepare student to meet the current industry demands for network designs and the development of new network designs and the

development of new network applications and services for business enterprises and the network providers serve them. It offers theoretical and applied study of the design, configuration, and management of converged communication networks. Student will gain a thorough understanding of the technical and operational aspects of networks as well as the foundational theory of network communications and network management.

Prerequisite: CS414 or Instructor's Consent

CS 511 Computer Architecture (3.0 Units)

This course focuses on the techniques of quantitative analysis and evaluation of modern computing systems, such as the selection of appropriate benchmarks to reveal and compare the performance of alternative design choices in system design. The emphasis is on the major component subsystems of high performance computers: Pipelining, instruction level parallelism, memory hierarchies, iCSBUt/output, and network-oriented interconnections. Students will undertake a major computing system analysis and design project of their own choosing.

Prerequisite: Instructor's Consent

CS 527 Database Design (3.0 Units)

This is the first of a series designed to teach relational database concepts, design, and applications. Topics include database architecture, relational model, structured query language (SQL), data manipulation (DML), data definition language (DDL), database design, ER modeling, database normalization, demoralization, and physical database design. Popular database systems, such as Oracle and Microsoft SQL server, are used for hands-on exercises and projects.

Prerequisite: CS414 or Instructor's Consent

CS 530 Computer Networks (3.0 Units)

This course is designed to give students a global picture of computer networks. Topics include network layered models (OSI, TCP/IP), data communication basics, circuit switching, packet switching, routing and internetworking. Hands-on exercises are required.

Prerequisite: CS490A or instructor's consent

CS540 Java Programming and Internet Applications (3.0 Units)

This course introduces students to the Java language, programming with object-oriented construct, GUI design and graphics programming and core Java libraries. Students will learn Java language basics such as syntax and classes, inheritance, interfaces, reflection, graphics programming, event handling, user-interface components with Swing, Java applets, exception handling, stream, and files. Hands-on exercises are required.

Prerequisite: CS470A or instructor's consent

CS 542 Software Engineering (3.0 Units)

This course is designed to demonstrate the engineering approach to the development of large, high-quality software projects. Topics include software life cycle, development process, requirement specifications, design and testing techniques, verification and validation, and software management. Students learn to use project management tools, principles, and environment to facilitate development of software programs/systems. Hands-on exercises and projects are required.

Prerequisite: CS470A or instructor's consent

CS 543 Advanced Computer Networks (3.0 Units)

This is the sequel to CS520, Computer Networks, and is designed for an in-depth study of computer networks. Emphasis is on modern Internet technologies and implementations. Topics include a review of computer networks, OS reference model, a study of emerging Ethernet technologies (Fast, Gigabit), client and server implementation with socket programming, local and wide area networks, TCP/IP, routing, network protocol and architecture, Internet protocol, and IP addressing. Projects are required.

Prerequisite: CS530 or instructor's consent

CS 546 Operating System Design (3.0 Units)

This course offers graduate students an in-depth understanding and hands-on experience in modern operating system design and implementation. Topics include process, memory, file system, I/O, deadlocks, case studies of operating system implementations, modern distributed and network system architectures, communication and synchronization in distributed systems, threads and processor allocation, scheduling in distributed operating systems, distributed file systems, and case studies of modern distributed operating system design. Projects are required

Prerequisite: CS490A or instructor's consent

CS 550 Unix/Linux System Programming (3.0 Units)

This course is designed for students to gain fundamental knowledge of and hands on experience with programming in unix/linux environment. Students will learn to program in c with unix/linux system calls and other advanced topics such as unix file system, process control, signals and inter process communications. Upon completion of this course, students should be able to develop real world unix/linux applications.

Prerequisite: CS440 or instructor's consent

CS 555 Unix/Linux Network Programming (3.0 Units)

This course is designed for graduate students to gain hands on experience in unix/linux programming. The students will learn to develop unix/linux network applications using a number of unix/linux network programming interface techniques including sockets, XTI, RPC. Topics include: an overview of transport layer, TCP sockets, UDP sockets, threads and client server design, XTI, RPC and Streams.

Prerequisite: CS440 or instructor's consent

CS 560 Net Web Programming (3.0 Units)

This course provides students with the knowledge and skills needed to develop dynamic web-based applications using ASP.NET and gain an understanding of the new architecture behind ASP.NET. Topics include creating ASP.NET pages, creating Web custom controls and Web user controls, using validation controls and composite controls, using ADO.NET to access data from various data sources, configuring and securing a Web application, state management, error handling and debugging, and migrating existing web applications to ASP.NET.

Prerequisite: CS470A or instructor's consent

CS 567 Net Windows Programming (3.0 Units)

The goal of this course is to provide students with the knowledge and skills they need to develop C# applications and components for the Microsoft .NET Platform, including Visual C#.NET Windows application development with Windows Forms and controls; user interfaces and navigation; error handling and debugging; data binding; consuming and manipulating data; components and .NET assemblies; Windows services; Remote; testing and debugging;

application deployment and configuration. Hands-on practice is required.
Prerequisite: CS470 or instructor's consent

CS 570 Algorithms (3.0 Units)

This course provides an in-depth analysis and efficient use of algorithms to solve problems. Well-structured programs are studied; modular, top-down design is emphasized. Topics include the use of data structures techniques to design efficient algorithms and analyze their complexity, efficient implementation of combinatorial algorithms, sorting, searching, and geometric problems, and branch and bound algorithms.
Prerequisite: CS360 or instructor's consent

CS 572 Advanced Java Programming (3.0 Units)

This course is designed to give the students an in-depth understanding of Java programming techniques. The course focuses on advanced Java language features and packages which are essential for building a variety of application architectures. Topics include Java techniques of WAP, XML, JNI, thread, network programming, Servlet, JSP, JDBC, and internalization. Upon completion of this course, the students should be well prepared to create enterprise-wide, Java-centric solutions to client/server problems involving Java and networks. Each technology topic will cover its uses, implementation, and language issues. Students are required to implement a project for each Java technique. Hands-on exercises are required.
Prerequisite: CS540 or instructor's consent

CS 580 Database Administration (3.0Units)

This course provides an in-depth understanding of the Oracle Database Management System. Emphasis is on the latest Oracle database architecture, database configuration and administration. Topics include logical/physical database layout, database server processes, database creation, various database physical objects; client/server configuration, multi-threaded server configuration, database storage management, database security, database utilities, database monitoring, partitions, and database backup/recovery methods. Hands-on practices are required.
Prerequisite: CS527 or instructor's consent

CS 587 Advanced Database Design and Development (3.0 Units)

This course is intended for graduate students to further explore database server development and database tuning. The course specifically details procedural extensions to SQL to develop stored procedures, functions, packages and database triggers. In addition, it covers database performance tuning from application development point of view by exploring query optimizer, database hints, and various database access methods. Hands-on exercises are required.
Prerequisite: CS527 or instructor's consent

CS 588 Database and Internet Server Programming (3.0 Units)

This course introduces current client/server data access concepts on the Internet. It covers the fundamental concepts of the 3-tier model, Internet database access, and major tools and techniques utilized in application development. Topics include N-tier model, JDBC with database applications, Java Servlet, JSP and JavaBean, WML, and XML. Hands-on exercises are an integral part of the course.
Prerequisite: CS527 or instructor's consent

CS 589 Mobile Computing for Android Mobile Devices (3.0 Units)

Google's Android mobile phone software platform recognized as the next major opportunity for application software developers, as it has the potential for removing the barriers to successful development and sales of a new generation of mobile phone application software. Android will create a new market for mobile applications by providing a standard mobile phone application environment. This course focuses on developing applications for Android, including map-based applications, camera-based applications, SMS, etc. Advanced development topics are also covered, including security, IPC, and certain advanced graphics and user interface techniques.

Prerequisite: CS543 or instructor's consent

CS590 Developing Applications for Windows Mobile Environment (3.0 Units)

This course focuses on the unique challenges, methods, tools, and technologies for using Windows Mobile to develop software applications for wireless and mobile devices, such as personal digital assistants (PDA) and smart mobile phones. Topics include user interface design for small-screen, multi-channel devices, programming techniques and memory management for devices with limited memory and processing power, data synchronization for mobile databases, and wireless network programming.

Prerequisite: CS543 or instructor's consent

CS 592 Special Topics (3.0 Units)

Special topics courses are offered to graduate students in Computer Science program by current faculty members or invited guest speakers to expose the students to emerging technologies related to their studies. These courses are conducted the same way as regular courses.

CS 607 Master's Project (3.0 Units)

The course is designed to develop the creativity of graduate students in Computer Science through the exercise of the design effort on a self-selected project. The design project must be open-ended, whereas the design approach must employ the modern design techniques and methodologies in the related fields. Completion of the design project entails 1.) Formulation of a design problem statement including realistic constraints such as economic factors, safety, and reliability issues, 2.) Design specifications, 3.) Consideration of alternate solutions, 4.) Manufacturing procedures and 5.) Operation instructions. The research topic and proposal must be approved by the project advisor. The report format must be in accordance with CSBU's Project Style Guide and be approved by the advisor and tech writer. Upon completion of the project, the student is required to conduct an open-forum presentation of the project.

Prerequisite: instructor's consent

CS 609B Master's Thesis-II (3.0 Units)

This is a continuation of the first part of the master's thesis course. At the beginning of the semester, the student should draw a conclusion on the research and development work for the project and begin to write a thesis report following the required format. The student should make an analysis of the project work and results. Through this process, the student will gain in-depth knowledge of the selected subject and develop independent thinking and research capabilities. The report must be approved by the advisor and a tech writer. Upon completion of the project, the student is required to conduct an open-forum presentation of the project.

Prerequisite: instructor's consent

CS 647 XML and Web Service Development (3.0 Units)

Markup language (XML) is rapidly becoming the standard information description language, and has been used in almost all areas related to computer and information technologies, such as Internet, semiconductor, bioinformatics, etc. Its usage will continuously grow. Web Services refer to the infrastructure that supports a rapidly emerging style for developing applications that rely on the Internet and WWW for portions of their functionality.

Prerequisite: instructor's consent

CS 688 Network Security in Wireless Systems (3.0 Units)

This is the third in the Network Security series. A secure network is the fundamental requirement for network communication. Network security issues have become ever more important for any organization with network systems. This class mainly addresses the security issue in accessing the network, including the security in wireless access. Many new proposals and technology have been developed in this field. The objectives of the class are to teach students the fundamentals in cryptography, the concept of security, and the practical use of virtual private networks (VPN). Topics include IPsec (IP Security), Web Security, VPN, and wireless network security. Some important RFCs will also be covered for the students to understand its development process in the network industry.

Prerequisite: CS543 or instructor's consent

Electrical Engineering

EE206 Digital Circuits and Laboratory (3.0 Units)

This course is a 3 hour lecture and 2 hour laboratory. It is designed to be the first of the digital circuit series. Students will be taught the fundamentals of digital electronics, and it includes hands-on experience with digital logic elements and testing and measuring equipment. Laboratory experiments will accompany the class topics.

Prerequisite: CS360 or instructor consent

EE-340 Materials Engineering (3.0 Units)

This course covers atomic and crystal structures; imperfections; diffusion and relation between microstructure; the properties of engineering materials such as metals, polymers, ceramics and composites; phase equilibrium and transformations; mechanical, electrical, thermal, magnetic and optical properties; corrosion; and material degradation.

Prerequisite: Instructor's consent

EE400 Circuit Theory-I (3.0 Units)

This course is the first of a 2-part series on the fundamentals of electrical circuits. Topics include analysis of circuits containing resistors, capacitors, inductors, and controlled sources; Kirchoff's Laws; simple resistive circuits; node-voltage method, mesh-current method; Thevenin's and Norton's theorems; operational amplifier and its applications; transient analysis of first and second order circuits, and SPICE simulation.

Prerequisite: instructor's consent

EE420 Circuit Theory-II (3.0 Units)

This course is the second of a 2-part series on electrical circuits that covers advanced topics, including sinusoidal steady-state circuit analysis using phasors, power calculations in AC circuits, balanced three-phase circuits, Laplace transform and its application in transient circuit analysis, frequency select

circuits and filters, Fourier series and Fourier transforms, and two-port networks.

Prerequisite: EE 400 or instructor's consent

EE431 Analog Circuits and Laboratory (3.0 Units)

It is a course of two hours lecture and one hour laboratory. It is the first of a series on the basis in analysis and design of analog circuits. Hands-on experimentation will accompany the course to demonstrate and verify the subjects covered and to assist understanding of the design techniques and theories. Topics include a review of circuit analysis techniques, operational amplifier applications, and device models (BJT and CMOS). Laboratory experience includes work on transistor amplifiers with feedback, discrete components, differential amplifier, op-amps and their applications, active filters and oscillator, regulated power supplies, class AB power amplifiers, and AM and FM communications.

Prerequisite: EE400 or instructor's consent

EE432 Analog Circuit Design (3.0 Units)

This course provides students with the opportunity to use the knowledge and experience acquired in previous circuit courses to further understand the design aspect of analog circuits and conduct analysis and design of differential amplifiers, current mirrors, frequency response of electronic circuits, feedback circuit analysis, output stages, integrated circuits, filters and oscillators.

Prerequisite: EE420

EE450A Logic Design (3.0 Units)

This course is intended to provide the students the opportunity to use the knowledge and experience acquired in previous digital circuit courses to further understand the design aspect of digital integrated circuits and devices. Hands-on design experience is provided in digital and logic circuits and their applications. The course focuses on various logic design techniques to design a variety of combinatorial and sequential circuits. Timing considerations are analyzed for asynchronous and synchronous circuit designs with emphasis on state machine design approaches. Students will be introduced to modern design techniques using HDL languages and concentration on verification of circuit designs. Simulation tools include Altera MAX + plus II, Xilinx various projects.

Prerequisite: EE206 or instructor's consent

EE460A System Analysis and Simulations (3.0 Units)

This course is an introduction to the basic concepts and principles of signals and systems. Both analog and digital signal processing techniques will be covered.

Topics include analog signals and systems, digital signal and systems, LTI systems, Fourier transform, Z-transform, FFT, system stability, digital filter design, network.

Prerequisite: instructor's consent

EE465A Signals and Systems (3.0 Units)

This course is an introduction to basic concepts and principles of signals and systems. Both analog and digital signal processing techniques will be covered. Topics include analog signals and systems, digital signals and systems, LTI systems, Fourier transform Z-transform, FFT, system stability, digital filter design, Network. Matlab software will be used to implement some of the DSP algorithms.

Prerequisite: Instructor's consent

EE468A Modern Software Techniques for Electrical Engineering (3.0 Units)

This course is designed to provide the MSEE students with a hands-on experience in Unix/ Linux environment and necessary skills in C/C++ programming languages. This course will cover the essentials of the logic of a structured computer language, Unix/Linux shell programming and Hspice for circuit simulation. This course will be taught with extensive practical applications in hardware design.

Prerequisite: EE450A or Instructor's consent

EE470A Digital Signal Processing (3.0 Units)

This course is a study of the concepts in deterministic and statistical techniques for describing, analyzing, and characterizing generic signals and their applications. Topics include signal processing, continuous and discrete Fourier analysis, and fundamentals of methods. Additional coverage includes the fundamentals of the algorithms and computational methods for digital FIR/IIR filter design and basic signal analysis techniques. Simulation exercises using Matlab / C Language are required.

Prerequisite: EE465A or instructor's consent

EE480A Digital Design and HDL (3.0 Units)

This course develops the students' ability to design commonly used basic building blocks of modern digital systems and provides them with a fundamental knowledge of the state-of-the-art design methodology, design considerations, and verification strategies for complicated digital hardware design. Topics include Verilog HDL basics, Logic modeling, state machine design and memory modeling using Verilog HDL. Additional topics on FPGA architectures, device vendors, FPGA design tools, FPGA applications and latest trend in the programmable logic industry are also covered. Students can use Verilog tools such as Synopsys VCS, Mentor Modelsim, Cadence NC Verilog, and Silo III Verilog Simulator from SimuCAD for their homework and design projects. Students are encouraged to take the HDL based sequence of courses EE480A, EE511 and EE562 to gain knowledge and experience in semi-custom IC design using industry grade EDA design tools.

Prerequisite: EE450A or instructor's consent

EE481A Verilog HDL and Digital Design (3.0 Units)

This course develops the students' ability to design the basic building blocks of modern digital systems and provides them with a fundamental knowledge of the state-of-the-art design methodology, design considerations, and verification strategies for complicated digital hardware design. Topics include Verilog HDL basics, simulation, Synthesis of digital systems using Verilog HDL. The students practice using the tools for design projects on UNIX system or Windows system. Mentor Modelsim for HDL Simulation, Cadence Verilog-XL, and Silo III Verilog Simulator from SimuCAD are available in the Labs. Hands-on practices are required.

Prerequisite: EE450A or instructor's consent

EE486A Microelectronics Circuit Design and Analysis (3.0 Units)

This course provides student with the opportunity to use the knowledge and experience acquired in previous circuit and analog circuit courses to further understand the design aspect of analog circuits and conduct analysis and design of differential amplifiers, current mirrors, frequency response of electronic circuits, feedback circuit analysis, output stages, integrated circuits, filter and oscillators.

Prerequisite: EE450A or instructor's consent

EE494A Senior Design Project (3.0 Units)

(Research and Laboratory Work)

In this course, student expected to develop their creativity through developing a project under close supervision of a project advisor from engineering faculty. The design project must be open-ended, whereas the design approach must employ modern design techniques and methodologies in the related fields.

This project must entails: formulation of a design problem statement including realistic constraints such as economic factors, safety, and reliability issues; design specifications; consideration of alternative solutions; manufacturing procedures; and operation instructions.

A research topic and proposal must be approved by the project advisor. The student must follow the project guidelines throughout the period of research, implementation, testing, report writing and related procedures and meet with the advisor regularly.

Prerequisite: Instructor's consent

EE524 Advanced Computer Organization and Structure (3.0 Units)

This course is designed to further investigate modern computer design. Topics include an in-depth study of multiprocessor architecture and interconnection networks, pipeline, data flow, algorithm structures, memory system design, cache memory design, and a comparison of the performance and design among various computer architectures. Hands-on project experience is required

Prerequisite: EE515 or instructor's consent

EE525 Digital IC Design (3.0 Units)

This is the first of the VLSI design series. The course begins with an introduction to state-of-the-art CMOS VLSI engineering with emphasis on the basic CMOS VLSI design principles and methodologies. Topics include basic MOSFET theories and characteristics, CMOS semiconductor fabrication processes, sub-micron design rules, combinational and sequential CMOS logic gate design styles, data path, interconnection, power and clock distribution, array and memory design. Widely used industry standard tools, such as Cadence's Opus, Composer, Virtuoso, Avant's HSPICE and Mentor's Calibre will be used for all homework assignments and design projects.

Prerequisite: Instructor's Consent or EE450A

EE536 Advanced Digital IC Design (3.0 Units)

This course is a continuation of the course EE515 and is designed to cultivate students' ability to design a Standard Cell Library, Data path and other special circuits that can be used as intellectual properties (IP) building blocks for ASIC, SOC (system on chip) and DSP (digital signal processing) applications. In addition to the design subject, students also learn how to generate different views of the circuits to facilitate system integration with various CAD tools for logic synthesis and physical implementations. Topics include standard cell design and characterization, technology mapping, design rules, layout, data path synthesis, memory compiler, IP development and architecture trade-off. Modern CAD tools such as Synopsys, OPUS, Composer, Virtuoso, HSPICE and Mentor's Calibre will be introduced and used for homework assignment and projects.

Prerequisite: EE525 or instructor's consent

EE538 Advanced FPGA Design and Implementations (3.0 Units)

Digital design using FPGAs is a very important activity in industries due to reduced cost, compared with ASIC design, and faster time-to-market. In order to

design a digital system using FPGA, the designers must understand architectures of the FPGA as well the accompanying CAD tools. The course will cover two major Xilinx FPGA architectures in detail. The student will learn to build various digital blocks such as combinational logic, sequential logic, finite state machines, RAM and DSP by studying the architectures of the FPGAs.
Prerequisite: EE536 or instructor's consent

EE547 Advanced Analog IC Design (3.0 Units)

This course is designed to cultivate the student ability to design analog integrated circuits. Topics include review of opamp networks, frequency response to Linear integrated circuits, level sensing amplifiers, phase detectors, voltage controlled oscillators, charge pumping techniques, and A/D,D/A converters, HSPICE, are used for assigned homework and projects.
Prerequisite: EE536 or instructor's consent

EE558 VLSI Physical Design-Place and Route (3.0 Units)

This course is the third in the VLDI Design series and it introduces ASIC place and route. The course introduces the students to state-of-the-art physical design automation tools and techniques. Topics include design flow, library review, tool graphical interface, floor planning, power planning, timing driven placement, static time analysis (STA), CT-Gen, special routing, final routing, and engineering change order (ECO), and run batch mode jobs. Hands-on exercises and projects are required.
Prerequisite: Senior standing or Instructor's Consent

EE562 Application Specific Integrated Circuit Design (3.0Units)

This course is designed for students who intend to become logic designers using HDL based design methodologies. Topics include ASIC/CPLD/FPGA Library modeling, Cell characterization, static timing analysis, place and route algorithms design for testability, fault modeling, industry standard formats for design information interchange, and a survey of the most popular EDA tools. Industry grade design tools such as Synopsys Design Compiler, Cadence Verilog-XL, Synopsys Design Time (under dc_shell), Synopsys Prime Time, Cadence Silicon Ensemble, Mentor Calibre LVS/DRC, and Synplicity Synplify are used for homework assignments and projects
Prerequisite: EE511 or instructor's consent

EE565 High-Speed Digital System Design (3.0 Units)

This course offers the concepts of advanced technology in high-speed digital system design. It focuses on the issue of signal integrity which is most critical in such system design. Topics include an overview of digital system engineering, modeling and analysis of interconnections, circuit analysis, power distribution in high-speed systems, noise in high-speed digital systems, Buffering model, digital timing analysis, and design methodologies.
Prerequisite: EE420 or instructor's consent

EE576 Power/Signal Integrity in Advanced IC Packaging and PCB Design (3.0 Units)

This course is an extension of the subjects covered in EE565. It covers the concepts of advanced Technology in high speed digital system design with emphasis on the applications of advanced PCB and high speed packaging design. The course objective is to develop the students' abilities to work on high speed PCB and packaging design.
Prerequisite: EE565 or instructor's consent

EE581 Data Compression (3.0 Units)

This course surveys current image, data and voice compression standards and studies key components in image, data and voice compression. The course emphasizes minimum redundancy coding, Huffman coding, arithmetic coding, statistical modeling, dictionary-based compression, sliding window compression, LZ78 compression, speech compression, lossy graphics compression, JPEG, wavelet methods, and archiving package. Matlab programming will also be introduced.

Prerequisite: EE470A or instructor's consent

EE585 Image Processing and Applications (3.0 Units)

This course offers the fundamentals of image processing. Besides introducing basic concepts and principles, the course takes a practical approach to emphasize various applications of digital image processing. Topics include image fundamentals, image transformations, image enhancement image restoration, information technology, data compression, image segmentation, image presentation and pattern recognition and interpretation. Matlab software is employee for implementing numerous algorithms.

Prerequisite: EE581 or instructor's consent

EE590 Special Topics (3.0 Units)

Special topics courses are offered to student in electrical engineering program by current faculty members or invited guest speakers to expose the students to emerging technologies related to their field of studies. These courses are conducted the same way as regular courses.

Prerequisite: instructor's consent

EE607 Master's Project (3.0 Units)

The project intended to integrate the knowledge and hands-on experience that the student has acquired from the basic, core, and elective coursework required for the program. Student works on a practical project under the guidance of the instructor. The instructor determines the project goal and scope based on the electrical engineering curriculum and technology trends. The instructor also guides the student to develop plan and implementation methodology. Upon completion of the project, the student is required to conduct and open-forum presentation of the project. It is suggested that student shall take this project course near the end of his/her program of study.

Prerequisite: EE538 or instructor's consent

EE608 System on Chip (SOC) Design (3 units)

System on Chip (SoC) is composed of many functional modules such as processor, memory, digital IPs, analog/mixed signal modules, RF and interfaces on a single chip. This course will focus on ARM based on-chip bus platform, digital IP verification, and the trend and integration of SoC.

Prerequisite: EE524 or instructor's consent

EE630 Design Verification (3 units)

This course is designed to cover the design verification methodologies commonly used in system-on-chip (SOC) design. Topics include design verification basics, introduction of various verification strategies, verification of soft and hard IP blocks, verification for networking/communication ASIC, verification for audio/video signal processing ASIC, how to build an efficient and effective verification platform, automation of verification flow, test case

coverage, how to create design models using PLI routine, and formal verification, etc. The students will also be informed that design verification is becoming the bottleneck in modern ASIC design cycle, especially in system on chip (SOC) design. The verification cycle could take up to 70% of the design cycle.

Prerequisite: EE524 or instructor's consent

EE624 Advanced VLSI Physical Design-Physical Synthesis and Low Power Design (3.0 Units)

This course is designed to further investigate ASIC front-to -back design automation. The course aims to develop the students' design ability in ASIC by using state-of-the-art EDA backend design tools and methodology (such as Cadence SE-PAK). It also introduces concepts in advanced industrial deep submicro backend design. Topics include library review, floor planning in SE, physical synthesis, CTPKS, timing closure, RCextraction, back annotated from back to front, non-default routing rule implementation, double-cut-via implementation for 0.13u and below technology, shielding, and route. Hands-on practices are required.

Prerequisite: EE558 or instructor's consent

EE691 Magnetoresistive Random Access Memory (3.0 Units)

This course is intended for advanced graduate students of electrical engineering. In this course the specific example of a leading candidate for next generation non volatile memory MRAM storage cell devices. Topics will include multilayer Magnetic nanostructures, exchange bias, ferromagnet and anti ferromagnet materials, magnetic domains, magnetic thin films, ultra fast manipulation of magnetization in the multilayer magnetic nanostructure by spin polarized electron currents and magnetic circular dichroism techniques.

Prerequisite: instructor's consent.

English

ENGL101 Expository Writing (3.0 Units)

This course focuses on basic concerns in writing, going from its processes to its forms, to the popular techniques writers have used to make their works outstanding. Students will learn to use grammar and punctuations correctly and to write effective essays in both academic and professional settings. It is a course of basic level of college writing and let students acquire knowledge and skills in written communication.

Prerequisite: instructor's consent

ENGL102 Critical Thinking (3.0 Units)

Student will learn to understand the intent of a message, to justify the soundness of a statement, and to evaluate the validity of the evidence. Rigorous training will help learners go beyond feelings and personal biases to clear, impartial, and accurate problem solving and decision making that are essential to all human communication: speaking, writing, debating, and persuading.

Prerequisite: ENGL101 or instructor's consent

ENGL110 Public Speaking (3.0 Units)

The course is intended to teach student the skills in communication speaking, formal presentations, and listening. Students will learn about nonverbal communication, cultural differences in communication, and research methodology.

Prerequisite: Placement by exam or successful completion of advanced ESL classes or instructor's consent

ENGL310 Academic Reading (3.0 Units)

The course seeks to build student's reading skills in a systemic and comprehensive way. Students will be trained to capture an essay's or a book's theses, follow its development, and recognize its arguments. Being equipped with advanced reading methods, and through exposure to materials from a wide range of subject areas, the student will be trained to become a total sponge of information.

Prerequisite: Placement by exam or successful completion of advanced ESL classes or instructor's consent

ENGL351 Academic Writing (3.0 Units)

The course help students to understand what they read, observe, or create, by writing clear, effective, and powerful prose in essays, reports, white papers, analysis studies, and other documents and presentations. It focuses on subjects of cultural character that includes language, literature, philosophy, history, science, and other fundamental humanities subjects of different breadth and contents.

Prerequisite: ENGL101 or instructor's consent

ENGL421 Intercultural Communication (3.0 Units)

Intercultural communication and relationship are the focuses in this course. Students will be guided to communicate in a diversified community.

Prerequisite: ENGL101 or ENGL110 or instructor's consent

ENGL431 Team Communication (3.0 Units)

By on-site practice, students will accomplish communication skills with a formation of team rehearsal, with hands-on experiences working in a team, and will understand theories and principles of how to adapt in a team when a decision be made and a problem be solved.

Prerequisite: ENGL101 or ENGL110 or instructor's consent

Finance

FIN 410 Fundamentals of Finance (4.0 Units)

Students taking this course will be introduced to the world of finance. Financial management is a technique used by corporation managers to raise and allocate capital in a manner that will maximize revenue and stabilize the firm's future cash flows. This course examines the concepts and techniques available to financial managers as they address various aspects of the financing and investment. Topics include financial background, financial statements, a review of accounting, and taxes; cash flow and financial analysis, time value of money, the financial system and interest, the characteristics of bonds, the valuation and characteristics of stocks, capital budgeting, risk and return, and also international finance. A case study will be applied to assist students' learning. SAP R/3 may be introduced.

Prerequisite: Instructor's Consent

FIN520 Financial Management (3.0 Units)

This class teaches students to apply the essentials of financial accounting to the practice of management. Students will understand the definition, behavior, concepts, and estimation of cost; and also about how cost accounting is applied in manufacturing and service organizations, the principles of planning and

control for cost-related management, cash flow statements, capital budgeting, and how to analyze financial statements.
Prerequisite: FIN410 or Instructor's Consent

FIN530 Investments (3.0 Units)

This course will cover the basis of investment and how to manage it. Students will be taught about theory and empirical evidence, related to market efficiency, portfolio theory, assess pricing models, factor models, and option pricing theory. Students are taught to combine market research results and electronic information sources to create investment strategies.
Prerequisite: FIN 520

Humanities

HU211 Introduction to Philosophy (3.0 Units)

This course gives student an introduction of philosophy, through using an historical approach. The class covers both Eastern and Western traditions from the pre-Socratic and Confucius to modern times.
Prerequisite: Instructor's Consent

HU251 Watercolor Painting for Beginners (3.0 Units)

This course is to fulfill the students' interests of painting by giving them an idea how to express their creation and idea by watercolor on a paper. Students will be taught to form their idea by shapes, colors, borders, and a combination of shapes. In addition, a color mixing and knowledge of brush will be taught.
Prerequisite: Instructor's Consent

HU306 Drawing (3.0 Units)

This course is to convey a foundation in fine art study. A basic skill of how pencil drawing works will be instructed. The skills includes: strokes, shapes, lighting, surface, texture, and other basic ones. Hands-on practice topics include plaster models, still life, landscapes, and figures.
Prerequisite: Instructor's Consent

HU311 Western Watercolor (3.0 Units)

This course is to convey a foundation in fine art study. A basic skill of how pencil drawing works will be instructed. The skills includes: strokes, shapes, lighting, surface, texture, and other basic ones. Hands-on practice topics include plaster models, still life, landscapes, and figures.
Prerequisite: Instructor's Consent

HU331 Fundamental Oil Painting (3.0 Units)

This course covers theories of oil paintings, including strokes, color mixing, texture, lighting, and other techniques. Hands-on practice topics include still life, floral, simple landscapes and figures.
Prerequisite: Instructor's Consent

HU351 Art Appreciation (3.0 Units)

This course gives an introduction of western art appreciation, encompassing ancient art to post-modernism art background that makes comparisons to the East, as well as the tools to analyze paintings through their own cultural point of view
Prerequisite: Instructor's Consent

HU361 Brush Painting (3.0 Units)

Students will be taught how to paint Chinese watercolor by Chinese brushes. It tells the basic skill of drawing and free style of brush painting.

Prerequisite: Instructor's Consent

HU411 Introduction to Contemporary American Art and Culture (3.0 Units)

The course will demonstrate the visual art and the cultural change in America from 1950 to the present. The student will be taught to understand and learn how to appreciate modern American artists in a visual art work.

Prerequisite: Instructor's Consent

HU426 Principles of Ethics (3.0 Units)

Student will be instructed to understand the principles of ethics and the issues applicable to their lives, including application of ethical principles, background and philosophical principles of ethics, ethical practices, and practical ethical problems and solutions.

Prerequisite: Instructor's Consent

Law

LAW420 Introduction to Business Law (3.0 Units)

This course introduces a general system of the U.S. business law. The course will address various potential legal regards to students during the operation of businesses. The course would teach student when and how to consult an attorney before taking legal action. The course will be initiated followed by an overview of the U.S. legal system, its fundamental structures, regulation and processes. We will focus on the performance of agencies, and will give a general introduction of some simple contract principles.

Prerequisite: Instructor's Consent

LAW424 Business Entities (3.0 Units)

This course begins with a brief discussion of business risk. It then deals with agency principles and considers whether a business ought to be organized as a corporation, partnership, or other entity (such as LLC or LLP). The course next considers the formation process, capital structure, and limited liability before moving on to cover questions of internal governance. If time permits, we then consider questions particularly relevant to large, publicly held corporations such as social responsibility, corporate accountability, and takeovers. This course does not involve the application of the federal securities laws. The topics are analyzed under common law principles, and the General Corporation Law of the State of Delaware.

Prerequisite: Instructor's Consent

LAW510 Introduction to Intellectual Property Law (3.0 Units)

This survey course covers the basic statutes and doctrines undergirding the three major federal forms of intellectual property: trademarks and unfair competition, copyrights and patents. It also touches upon state law doctrines such as right of publicity, misappropriation, trade secrets, state trademark law and other forms of unfair competition. Relying on a combination of cases and problems, students will develop a familiarity with the foundational principles of intellectual property law and practice.

Prerequisite: Instructor's Consent

LAW512 International Trade and Contract (3.0 Units)

A basic doctrine of international trade and an overview of WTO regulations will be given through comparative advantage and related corporate strategies, the impacts of emerging regional economic blocks, the institutions of the multilateral trading system, and trade barriers. Students will learn the mechanics of international payment, shipping, and distribution. This course also focuses on a new generation of model contracts. Student will be taught to find the model contracts and learn how to use them. Through this course, student will have an overview of know-how to help companies deal with the legal aspects of doing business internationally.

Prerequisite: LAW420 or Instructor's Consent

LAW571 Modern Law of Corporation (3.0 Units)

Legal issues in promoting, formation, operation, and dissolution of corporations, partnerships, and sole proprietorships will be illustrated in this course

Prerequisite: LAW424 or Instructor's Consent

MATH

MATH210 Calculus (4.0 Units)

This course gives basics in calculus designed for students to build up the fundamental background of calculus and to learn its applications to very basic problems. Topics include functions, limits, continuous functions, derivatives and applications, antiderivatives, composite functions and chain rule, graphing techniques using derivatives, implicit differentiation, finite integrals, and fundamental theorems of calculus.

Prerequisite: pre-calculus subjects.

MATH211 Calculus (4.0 Units)

This course is intended for students who are interested in engineering majors. It covers practical engineering mathematics and the applications. It gives basics in differential equations, linear algebra, Fourier analysis, numerical methods, optimization, probability and random processes, discrete mathematics, and fuzzy logics.

Prerequisite: MATH 210 or instructor's consent.

MATH212 Differential Equations and Linear Algebra (4.0 Units)

This course gives basics in calculus designed for students to build up the fundamental background of calculus and to learn its applications to very basic problems. Topics include basic differential equations, improper integrals, partial derivatives, series, sequence, integration techniques and their applications, L'Hopital's rule, and inverse trigonometric functions and derivatives.

Prerequisite: MATH 211 or instructor's consent.

MATH 220 Statistics (4.0 Units)

This course is designed for students to understand the concepts, theory and applications of probability and statistics. Topics include permutation, combination, random variables, distribution, means and variance, normal distribution, random sampling, estimation, confidence interval, hypothesis testing, linear correlation and regression.

Prerequisite: pre-calculus subjects or instructor's consent

MBA

MBA608 Master's Project (3.0 Units)

This course is designed to develop student's research abilities. The student or project group will conduct the project under the close supervision of a project advisor. The research and development approach must employ up-to-date information and methodologies. Students are required to: 1.) Make decisions on the subject and formulation of the objective, 2.) Plan the research and development procedures and practical approach, 3.) Set a time table and operation instructions, and generate a proposal, 4.) Carry out their plan 5.) Exam and write a report regarding the results at the end. The project topic and proposal must be approved by the project advisor. The format of the report must be in accordance with CSBU's project style guide and be approved by the advisor and tech writer.

Prerequisite: Advisor's approval

MBA 610 Case and independent study (3.0 Units)

Independent studies tailors to student special interest in business administration under the direction of an instructor who is knowledgeable in the field. It may consist of reading, homework, tests, projects or presentations determined the instructor.

Management

MGT320 Principles of Management (4.0 Units)

Students who take this course will learn the foundations and basic skills of management. Specifically, students learn organizational structure and environment, and develop skills in setting objectives in planning, leading, organizing, decision-making, controlling and motivating, communication and negotiating, and managing information for decision making. SAP R/3 may be introduced as demo software.

Prerequisite: instructor's Consent

MGT461A Organizational Behavior and Management (3.0 Units)

Students who take this course will explore the complex dimension of organizational behavior including examination of experiential and conceptual approaches to communication, self-awareness, motivation, perception and problem solving. Students explorer interpersonal and intrapersonal aspects to learn about the management of change, theories in leadership and organizational issues. Students will participate in real case projects.

Prerequisite: MGT 320 or Instructor's Consent

MGT491A Entrepreneurship and Venture Business (3.0 Units)

This course teaches students the full range of the entrepreneurial process including the evaluation, development, and creation of a successful business. It will help the potential entrepreneurs and professionals visualize and experience entrepreneurial development. The course explores the entrepreneurial approach to resources such as the development of an organizational structure, financing entrepreneurial ventures, market analysis, and screening venture opportunities. Individuals will experiment and evaluate what it takes to be an entrepreneur including developing the plan for a new business.

Prerequisite: Senior standing and MGT 461A or Instructor's Consent

MGT511 Human Resources Management (3.0 Units)

This course provides students and practicing managers with a comprehensive overview of essential personnel management concepts and techniques. The focus is on essential topics such as job analysis, candidate screening, interviewing, testing, hiring, evaluating, training, motivating, promoting, compensating and their associated legal constraints. Additional topics covered include global HR, diversity awareness and training, and sexual harassment legal requirements. Practical applications such as how to appraise performance and benefits and handle grievances are explored. Additionally, developing independent work teams that foster creativity and innovation will be discussed
Prerequisite: MGT461A or Instructor's Consent

MGT516 Production and Operations Management (3.0 Units)

This course is designed to teach students basic theories about production and operations management. Emphases will be on planning, organizing, controlling, and balancing quantitative aspects and behavioral applications in production/operations management; operations strategy will be the guide for topical integration. The students will learn about basic management processes, resource conversions, and behavioral applications within production/operations. Specific topics include operations management, operations strategies for competitive advantage, forecasting in operations, facility and layout planning, product and process design choices, scheduling, inventory control and quality control. The PP, MM, and QM modules of SAP R/3 will be used as demo software.
Prerequisite: Senior standing or Instructor's Consent

MGT520 Project and Risk Management (3.0 Units)

This course is designed for students who are interested in pursuing the project management area of study. Students will be introduced to the principles of project and program management, followed by the roles of project management, matrix organization and project management techniques, leading students to the efficiently execute and complete projects. Students will also learn how to identify and analyze project risks, and how to reduce or eliminate risk-related factors. These techniques are useful in project proposal development. Methods for ongoing risk assessment and project performance evaluation are included. SAP R/3 may be utilized for hands-on experience.
Prerequisite: MGT 461A or Instructor's Consent

MGT 521 Organizational Behavior (3.0 Units)

This course focuses on the challenges of managing complex systems. We will explore the leadership and motivational skills relevant to performing as an effective manager, and discuss the different roles associated with managing the individual, the unit, the organization, and the larger system.
Prerequisite: Advanced graduate standing or Instructor's Consent

MGT525 Supply Chain Management for E-Business (3.0 Units)

Students taking this course will learn about applying evolving methods in integrating the process of product distribution and supply chain management using electronic business skills. This course will teach students specific methods that will allow them to profitably and efficiently fulfill customer demand through the Internet.
Prerequisite: MGT516

MGT540 Managing for Quality Improvement (3.0 Units)

This course introduces the principles of quality management to students in the

context of organizational and cultural change dedicated to the continuous improvement of products and services. The course will focus on quality control and quality assurance in project execution and ongoing operation environment. Students will learn about quality planning and quality management through hands on practice, including quality plan development and execution, quality management processes and implementation. Many quality management techniques and methodologies will be introduced during the course, and students will be lectured about ISO 9000 and other quality standards.

Prerequisite: MGT461A or Instructor's Consent

MGT550 International Business Management (3.0 Units)

This class teaches students to review the classic five functions of management: planning, organizing, staffing, leading, and controlling. Students will compare managerial practices of many countries. The class will also cover the importance of quality and continuous improvement for gaining a competitive edge. Students will learn practical aspects of management from actual case studies, the strategic considerations for management in the international environment, and the roles of the latest information technologies, including computer networks, decision support systems, telecommuting, and CAD, CAM, CAE.

Prerequisite: Advanced graduate standing or Instructor's Consent

MGT552 Technology Product Management and Marketing (3.0 Units)

This course is designed to give students a practical experience in product development, and focuses on the management of engineering and technology activities. Topics include technology product design, planning, production, marketing, sales, and maintenance; technological product life cycle from research and development through new product introduction, marketing requirement documentation (MRD), product positioning, channel inventory management, outbound communications, and the organizational role of the product marketing manager. Case study and project presentations are required.

Prerequisite: Advanced graduate standing or instructor's consent.

MGT554 Global Outsourcing Project Management (3.0 Units)

Global outsourcing management is becoming one of the most important new management fields in the highly competitive global economy. In this course the students will learn the important issues related to global outsourcing management as well as the actual implementation mechanism for a successful global outsourcing management business. Throughout the course, cross-cultural and cross-border considerations and diversity management skills will be heavily emphasized. Case studies will be made on successful and failed global outsourcing projects or business.

Prerequisite: Advanced graduate standing or instructor's consent.

MGT611 Strategic Management (3.0 Units)

This is an advanced-level case study course that integrates the technical skills and concepts of accounting, finance, marketing management, statistics, and computer applications among others. The course first covers the concepts and techniques of strategic management, followed by case studies. Topics cover an overview of the strategic management process, the three strategy-making tasks, industry and competitive analyses, evaluating company resources and competitive capabilities, strategy and competitive advantages, matching strategy to a company's situation, evaluating the strategies of diversified companies, implementing strategy, and case studies.

Prerequisites: Advanced graduate standing or instructor's consent.

MGT613 Manpower Planning (3.0 Units)

This course begins with the discussion of the need for manpower planning and gives samples of plans developed for various types of organizations such as manufacturing, high-tech, small business, etc. This course would give students an opportunity to learn about and develop a manpower plan which is part of the Business Plan and also an ongoing dynamic document developed as a part of the Strategic Planning component of the organization. It also has to do with scheduling, rosters and succession planning which is a process of identifying a long-term plan for the orderly replacement of key employees. The course also explores cases of developing a manpower plan including developing a Gap Analysis to determine manpower needs and budgeting for the manpower needs. Developing new HR manpower configurations such as self-managed teams, telecommuting, outsourcing, temps-to-hire and other methods to make companies more flexible and offer economical solutions to the high cost of knowledge workers. The course includes case studies and actual writing of several manpower plans for various sizes of organizations.

Prerequisite: MGT511

Marketing**MKT320 Principles of Marketing (3.0 Units)**

This course introduces the major principles of marketing, marketing's role within the company and in the global economy. Studies will focus on how to find marketing opportunities with market segmentation, how to get information for marketing decisions, the elements of product planning and new product development, wholesalers and retailers and their strategies, pricing, and promotion.

MKT460A Marketing Management (3.0 Units)

This course studies marketing management by analyzing real-world cases. Students will learn to implement and execute the marketing process through situation assessment, strategy formulation, marketing planning, marketing implementation and evaluation.

Prerequisite: MKT320 or instructor's approval

MKT 514 Marketing (3.0 Units)

This course introduces students to the marketing strategies and tactics that provide competitive opportunities for healthcare organizations. The course focuses on the marketing elements of price, place, product and promotion, concepts that are the basis of constructing and implementing a marketing strategy. Other topics include market research, product strategy, new technology and MD's, branding, multi-cultural marketing and promotional decisions, including crisis communications. The class work includes cases, theory and an independent project.

Prerequisite: Advanced graduate standing or Instructor's Consent.

MKT 550 E-Commerce Marketing (3.0 Units)

This course instructs students achieving the goals of know-how to facilitate a rewarding e-commerce solution and gives students an overview about the e-commerce market operation. The course requires student to adapt the principles and rules of marketing applicable to an e-commerce market and learn how to maintain an achieving result of e-marketing objectives.

Prerequisite: MKT320 or instructor's approval

MKT 551 Strategies Marketing (3.0 Units)

This course teaches students fundamental concepts and practices in marketing research and data analysis, and use of the data and financial analysis to set strategic positioning strategies. Students will learn both the primary source (such as surveys) as well as secondary sources (Internet, publications, etc.) in research techniques and engage to their own marketing research projects. Emphasis will be on practical marketing research skills of development and basic analysis mechanism leading to strategic marketing. Although statistical analysis will be covered in the course, quantitative analysis skills will be the main focus. The course also supports an overview of quantitative and qualitative tools for strategic marketing, market segmentation process, strategic positioning, and channel marketing issues. Case studies and marketing requirements reports are required.

Prerequisite: MKT460A or instructor's approval

MKT552 International Marketing (3.0 Units)

This course considers how culture and environment of different countries affect marketing strategy, how to perform a comprehensive analysis of a country to support marketing plan formulation, the strategic implications of different market groups around the world, and special insights on international marketing from a study of special cases.

Prerequisite: MKT460A or instructor's consent.

MKT555 International Trade and Operations (3.0 Units)

The course is designed to develop the knowledge and understanding of the global marketing environment and of the concepts, tools, and theory that will prepare the students to take the responsibility for successful global market penetration for his/her business organization. The perspective of the course is managerial, i.e., the ability to identify opportunity, resolve problems, and implement solutions and programs.

Prerequisite: Graduate standing or instructor's consent.

MSBM

MSBM 480A Biochemistry (3.0 Units)

A course in biochemistry with emphasis on the structure and function of macromolecules. Topics covered will include protein and nucleic acid structure, enzymologist, selected aspects of intermediary metabolism, membrane structure, bioenergetics and control mechanisms. The course emphasizes understanding of principles and concepts that have broad application throughout the area of life sciences.

MSBM 500 Protein Engineering (3.0 Units)

This is design and engineering of optimized bimolecular emphasizing proteins, combinatorial methodologies, protein structure and function, and biophysical analyses of modified bio-molecules. Clinically relevant examples from the literature and industry.

Prerequisite: basic biochemistry.

MSBM 501 Molecular Biology (3.0 Units)

This course provides a comprehensive overview of the key concepts in molecular biology. Topics to be covered include nucleic acid structure and function, DNA replication, transcription, translation, chromosome structure and remodeling and regulation of gene expression in prokaryotes and eukaryotes. Extended topics to be covered include methods in recombinant DNA

technology, microarrays, and microRNA.

Prerequisite: Instructor's consent

MSBM 502 Biotechnology I—Genetic Engineering (3.0 Units).

Principles of molecular biology, recombinant DNA technology, transgenic organisms, AND cloning vectors.

Prerequisite: Instructor's consent

MSBM 512 Biotechnology II—Protein Structure & Function(3.0 Units)

Prerequisite: MSBM 487 Basics of protein structure from amino acid composition to tertiary structure and oligomerization. Topics include: protein folds & molecular modeling, protein ensembles and dynamics, the boltzmann equation, the unfolded state, protein folding and molecular origins of protein stability, catalysis, transition state theory, binding, organic and enzymatic reaction mechanisms, co-factors and redox reactions, steady state and pre-steady state enzyme kinetics, phylogenetics, protein relatedness, evolution of protein structure, mutation, adaptation, and structure-function relationships.

Prerequisite: MSBM 512 or instructor's consent

MSBM 520 Advanced Cell Biology (3.0 Units)

This course covers cell organization and subcellular structure. Students examine the evolution of the cell, chromosome and plasma membrane structures and behaviors, mechanics of cell division, sites of macromolecular synthesis and processing, transport across cell membranes, cell dynamics, organelle biogenesis, and cell specialization. Students also are introduced to the experimental techniques used in cell biology to study cell growth, manipulation, and evaluation.

Prerequisite: MSBM 480A or instructor's consent

MSBM 590 Introduction to Bioengineering Research (3.0 Units)

Bioengineering is an interdisciplinary field that leverages the disciplines of biology, medicine, and engineering to understand living systems, and engineer biological systems and improve engineering designs and human and environmental health. Topics include: imaging; molecular, cell, and tissue engineering; biomechanics; biomedical computation; biochemical engineering; biosensors; and medical devices.

Prerequisite: Instructor's consent

MSBM 503 Business of Biotechnology: Fundamentals (3.0 Units)

The Business of Biotechnology: Fundamentals is designed to give the Masters in Biotechnology student an understanding of the basic business principles and the workings of the primary functional areas of businesses. A basic assumption is that the student has had no formal business education and has not worked in a business management position. The main objective of this course is to prepare the student for the two following courses in The Business of Biotechnology.

Prerequisite: Instructor's Consent

MSBM504 Biotechnology Operations (3.0 Units)

This course is designed to provide students with an understanding of how a biotechnology company must operate to be successful and to develop a product for a targeted market. Students will learn about the specialties of nonclinical and clinical development, regulatory affairs, quality assurance, manufacturing, quality control, and program management, as well as their interdependency in support of a specific marketing plan. Students will learn how each of these

disciplines are coordinated and synchronized and will develop an appreciation of how the successful biotechnology firm becomes effective and efficient in operations. Students will participate in practical exercises, which include developing products to fill the corporate pipeline, adding value to their products, and generating revenue for their model firms.

Prerequisite: Instructor's Consent

MSBM 505 Advanced Biotechnology: Global Perspectives (3.0 Units)

This course is designed as a capstone experience in which students will integrate and apply knowledge and skills gained in M.S. in Biotechnology Program to achieve a new level of synthesis and depth of understanding about an important problem in biotechnology today.

Prerequisite: MSBM 503 or Instructor's Consent

MSBM 506 Principles and Practice of Biotechnology (3.0 Units)

Principles and Practices of Biotechnology (P&P) is a survey course that will serve as a foundation for further studies in the Master of Science in Biotechnology program. Students will develop a broad understanding of the scientific, political, and legal issues that have driven the development of the biotechnology industry. They will also develop an understanding of how these drivers interact with business and finance to influence the formation and growth of biotechnology companies. Students will be introduced to the ethical issues that help shape public policy regarding both agricultural and medical applications of biotechnology.

MSBM 510 Business of Biotechnology: Contemporary Challenges and Application (3.0 Units)

The course will focus on important business and managerial issues facing individuals in the biotechnology industries. One of the biggest challenges facing managers and executives in the biotechnology area is to constantly remain creative and innovative. The first session will present concepts and develop skills to encourage "thinking outside the box." While creativity and innovation are two significant proficiencies required in today's dynamic biotech environment, the course also recognizes the importance of many other functional needs related to identifying, obtaining, and organizing/managing resources in building and sustaining a successful organization. Specifically, the CCA series will present the challenges related to specific functional areas in an organization – namely, product development, marketing, finance and accounting, management and leadership.

Prerequisite: MSBM 503 or Instructor's Consent

MSBM513 Business of Biotechnology: Frontiers and Strategies (3.0 Units)

The course will focus on introducing business strategy, a variety of types of business strategy, and issues that affect the analysis, development, and application of strategy in today's competitive environment. The course will use a variety of delivery tools including in-class lecture, case analysis, problems, "role plays", readings, etc. Assignments will be assigned on a bi-weekly basis and described in greater detail later in this guide. Typically, participants will be required to read several articles before a session, post input to specific questions related to the session, and prepare several case analyses to the session topics.

Prerequisite: MSBM 503 or Instructor's Consent

MSBM 514 Biotechnology Law and Society (3.0 Units)

The course will include a combination of lectures, guest speakers, case studies, and in-class exercises. Students are expected to read assigned materials prior to

class and prepare discussion questions on individual materials and readings as a whole. Additionally, comments, questions and discussion will be posted by students and faculty in the interim times between sessions. These are expected to be more than questions for clarification.

Assignments will ask students to react to specific cases or questions utilizing assigned readings, in-class discussions and as appropriate, students' own work experience. Students are encouraged to cross-link material from other courses in the Program with this course. Likewise, discussions of challenges, conflicts arising from differing perspectives, opportunities for problem solving, creative thinking and good biotechnology management are encouraged.

Prerequisite: Instructor's Consent

MSBM 521 Immunology & Pathobiology (3.0 Units)

Advanced coverage of topics to include: molecular basis of generation of diversity, antigen recognition, cytokines and chemokines biology, xeno transplantation, vaccination, evolution of immune system, allergies and therapeutics, gene therapy, immunodeficiency. Introduction of Pathobiology that will cover an array of diseases in a systematic fashion. Mechanism of disease will be presented along with basic concepts of pathobiology.

This course will prepare students for future professional careers in biotechnology related fields, including Biomedical Research, Forensics Research, Pharmacology, Genetic Engineering, Recombinant DNA Technology, as well as other biomedical fields.

Prerequisite: MSBM 520 or Instructor's Consent

MSBM 571 Techniques in Biotechnology I (3.0 Units)

The first in a two semester laboratory series, this course includes a broad scope of protein, RNA and DNA protocols providing experience in the manipulation of macromolecules and transformation of microbes. Emphasis is on building the skills and intellectual framework necessary to work in the biotechnology field.

Prerequisite: Instructor's consents

MSBM 572 Techniques in Biotechnology II (3.0 Units)

This is the second course in a two semester laboratory series. This course includes numerous organism-specific techniques of culture, propagation, maintenance and study. These exercises provide training in bioinformatics, plant and animal genetic engineering, bioreactors and fermentation, research microscopy and cytogenetics, aquaculture, immunology and molecular diagnostics.

Prerequisite: MSBM 571 or Instructor's consents

MSBM 591 Seminar I (1.0 Units)

Department faculty give research presentations. Students read scientific papers related to the faculty research (literature review due at beginning of faculty research presentation). Students master critical reading of scientific papers.

Prerequisite: Instructor's consents

MSBM 592 Seminar II (1.0 Units)

Thesis draft preparation. Instruction in writing, organization, and presentation of master's thesis. Presentation of research to junior seminar class.

Prerequisite: Instructor's consents

MSBM 600 Thesis Proposal (5.0 Units)

Students wishing to complete a thesis may do so by embarking on a two semester thesis project, which includes MSBM 600 Thesis Proposal and MSBM 602 Master Thesis. This project must be a hypothesis-based original research

study. The student must complete MSBM 592 and fulfill the requirements of that course, including submission of project proposal, final paper and poster presentation, before enrolling in the subsequent thesis course.

Prerequisite: Instructor's consents

MSBM 600 Master Thesis (5.0 Units)

For the thesis course, students are required to submit a revised proposal (an update of the MSBM 600 Thesis proposal) for review and approval by the faculty advisor and biotechnology program committee one month prior to the beginning of the term. Students must meet the faculty advisor periodically for discussion of the project's progress. Graduation with a thesis is subject to approval by the thesis committee and program committee, and requires the student to present their project to a faculty committee both orally and in writing.

Prerequisite: Instructor's consents

Green Energy

MSGE 501 Introduction to Solar Energy Technologies (3.0 Units)

The course covers the advancement, capacity growth, and use of renewable energy sources. Modern interest in renewable energy development is linked to concerns about exhaustion of fossil fuels and environmental, social and political risks of extensive use of fossil fuels and nuclear energy. It is a form of energy development with a focus on renewable energy.

Prerequisite: Graduate standing or instructor's consent.

MSGE 502 Principles of Electric Circuits and Electrical Power System (3.0 Units)

The course covers electric circuits design methods, electrical laws, network simulation, linearization around operating point. Emphasis in subjects of alternating current, balancing network, digital circuit, circuit theory, impedance, load, mathematical methods in electronics network analyzer, schematic, series and parallel circuits, as well as power transmission grid system.

Prerequisite: Graduate standing or instructor's consent.

MSGE 503 Physics of Solar Cells (3.0 Units)

Main chapters include interaction of light with matter, energy bands in solids, doping in silicon, the p-n junction, photo excitation at p-n junction, illuminated p-n junction, the energy source, the efficiency limit, PV fundamental, and Si solar cell fabrication.

Prerequisite: Graduate standing or instructor's consent.

MSGE 504 Photovoltaic Technology Development, Measurement & Characterization (3.0 Units)

The course covers the topics of electronic materials and devices, cell and module measurements technologies, tools, and analytical microscopy, electro-optical characterization, and surface analysis. Crystalline silicon research, high-performance PV, and thin film PV technologies.

Prerequisite: Graduate standing or instructor's consent.

MSGE 505 Solar Power System: Design, Analysis & Installation (3.0 Units)

The course covers the topics of island or standalone system, hybrid system, grid-connected & grid-tied system, grid connected inverters, connection to a DC grid, small-scale PV solar systems, small scale DIY solar systems, mounting systems, trackers, system performance and optimization, as well as

standardization.

Prerequisite: Graduate standing or instructor's consent.

MSGE 506 Photovoltaic Manufacturing & R&D (3.0 Units)

The course covers the topics of current manufacturing procedures, deposition plant for the production of solar cells, substrate washing machine, back reflector machine, amorphous silicon alloy deposition machine, transparent conductor deposition machine, module assembly plant, potential improvements in manufacturing processes, ECD's multiple-band-gap, multiple-junction technology for stable high efficiency solar cells, ECD's microwave plasma assisted CVD technology for high rate deposition of amorphous silicon, optical enhancement, high quality doped layers, high quality intrinsic layer, device design, device current matching, as well as technical approach and time/cost estimate.

Prerequisite: Graduate standing or instructor's consent.

MSGE 601 High-Performance Photovoltaic (3.0 Units)

Discussed technologies are thin-film multi-junction cells, multi-junction concentrators, future-generation and Novel high-efficiency concepts, amorphous silicon, cadmium telluride, and copper indium diselenide. The course also includes emerging concepts, such as nano-sized — quantum dots || , as well as promise breakthroughs in PV efficiency and affordability which aim to double the sunlight-to-electricity conversion efficiency of PV devices while dramatically cutting the cost of solar energy.

Prerequisite: Graduate standing or instructor's consent.

MSGE 602 Thin Film Photoltaics (3.0 Units)

Thin-film technologies are also being developed as a means of substantially reducing the cost of photovoltaic systems. The rationale for this is that thin-film modules are expected to be cheaper to manufacture owing to their reduced material costs, energy costs, handling costs and capital costs. Thin-film technologies covered in this course are high precision thin film deposition on large substrates, thin-film deposition in Chemical Bath Deposition method, physical vapor deposition (PVD), thermal evaporation, electron beam deposition, cathodic arc deposition, chemical vapor deposition, spin coating, and metallo-organic decomposition.

Prerequisite: Graduate standing or instructor's consent.

MSGE 603 Solar Thermal Technologies (3.0 Units)

Topics are parabolic troughs technology, power towers, and dish/engine systems, hybrid solar lighting, solar water heaters, as well as solar thermal power cost and development issues.

Prerequisite: Graduate standing or instructor's consent.

MSGE 604 Solar Cell Electronic Materials & Devices (3.0 Units)

Te course of Electronic Materials and Devices studies semiconductor materials, device properties, and fabrication processes to improve the efficiency, stability, and cost of photovoltaic solar energy conversion. Our goal can be characterized three ways: 1) addressing current problems; 2) explore specific techniques and processes to develop and transfer technology improvements that industry will soon need; and 3) create new technologies and lead the development of the knowledge base and tools for the future of PV.

Prerequisite: Graduate standing or instructor's consent.

MSGE 605 Energy Economics, Management & Policy (3.0 Units)

The course covers the following subjects: Energy Introduction, Energy and the

Environment, Energy Demand, Energy Trading and Price Formation, Energy Taxation, The Oil Market and Business, OPEC, Oil Supplies and Prices, The Electricity Markets and Business, The Company Structure and Analysis, Environmental Economics, Restructuring of Energy Industries, and Energy - Economic Modeling and policy Analysis.

Prerequisite: Graduate standing or instructor's consent.

MSGE 610 Master Thesis

The master thesis is an original scholarly work by student as an opportunity for student to involve in the design and construction of experiment together with laboratory test. Upon completing the thesis, the student must submit written thesis report.

Prerequisite: Instructor's consent

Physics

PHYS210 Physics-I (4.0 Units)

This course is designed for 3 hour lecture and 2 hour laboratory. It covers the basic theory in physics for engineering students, including vectors, motion and Newton's laws, gravitation, work and energy, momentum, mechanics of rigid bodies, oscillations, kinetic theory of gases, and thermodynamics. Laboratory practices are conducted formally each week.

Prerequisite: MATH211 or instructor's consent

PHYS211 Physics-II (4.0 Units)

This course is designed for 3 hour lecture and 2 hour laboratory. It covers the secondary level theory in physics for engineering students, including Coulomb's law and electric fields, currents and DC circuits, magnetic fields, time-varying EM fields, AC circuits, waves and sound, optics, interference, and diffraction. Laboratory practices are conducted formally each week.

Prerequisite: PHYS210 or instructor's consent

FACILITIES

Instructional Facilities

California South Bay University is located in Sunnyvale, a city based in Silicon Valley in bay area in California. The University is in the center of business and technology of the world. The University is 40 minutes away from San Francisco Downtown, the financial center of the world, and it is 10 minutes away from San Jose, the technology center of the world. The University embraces a very convenient transportation, and it is close to highways 101 and 237, conveniently accessible via N. Fair Oaks Avenue. Many high-tech companies are around the campus, such as Google, Yahoo, Intel, Microsoft, and Cisco.

The school consists of classrooms, administrative offices, laboratories, libraries, student activity centers, cafeterias, computer centers, kitchens and restrooms. All the facilities on campus have teaching equipment sufficient to meet educational needs. Abundant parking lots are available for students use outside of the campus with free parking anytime.

Teaching and Research

CSBU's teaching, research, and laboratory facilities are equipped with state-of-the-art hardware and software tools. In keeping pace with the advancement of information technology, CSBU's IT Department provides a modern digital campus environment to the faculty, students, and administrative staff.

Based on the hardware and software requirements for each course, the classroom is set up accordingly at the beginning of each semester. A group of classrooms are equipped with computer systems and Internet facility for the students to use. Modern design, simulation, and testing tools are installed based on class requirements.

University Library Resources

CSBU has always sought to increase the vast reference support and library resources made available to CSBU students, particularly our Master Degree students who need the most up to date research data, most commonly found in expensive subscription-based computer databases. CSBU has its own independent library, which contains thousands of books and a lot of useful information for students. In addition, the Sunnyvale City library is just 3 minutes away.

All CSBU students access privileges include: obtaining a library card; checking out books, CD's, DVD's and other materials; utilizing the new e-library; complete support from the university librarian; telephone reference support during library hours; support for multi-lingual students (including students who speaking Mandarin, Cantonese, Korean or Japanese); and full wireless access with their laptops within the library, and/or DSL direct connection services for those without a wireless card to store legally downloadable research data obtained from the library.

Computer Laboratory

Computer facilities include IC Layout Design Lab and EDA Lab, Networking and Software Testing Lab with full wireless Internet connections. The labs are open from 10:00 PM to 6:00 PM Monday through Friday, and limited hours on Saturday and Sunday. Please check with the Registrar for current access hours

during each particular term. The use of computers at CSBU is an integral element of all programs. All students are highly encouraged to purchase and bring in their own laptop computers. Students are required to purchase and bring in their own digital-production-quality laptop.

Specific software programs for courses teaching circuit design and software design and applications are installed on computers in various classrooms and laboratories. Software licensing agreements are observed. Designated learning laboratories for the students to conduct after-class hands-on practice are available to the students daily. Practices focus on the following:

- VLSI/SOC design
- DSP/ Multimedia and interface design
- ASIC/FPGA design
- Embedded system design
- Computer networking, systems administration, and network security
- Database administration and database design
- Nanosystem design
- Bioinformatics and bioengineering design and analysis
- E-business, business logic design, and digital system development and implementation

In addition, we have VLSI/SOC Design Lab. This laboratory is a dedicated facility to support learning and research projects in the area of VLSI/SOC design and implementations. In this lab a SPARC server is loaded with industry-standard CAE/CAD tools for state-of-the-art sub-micron VLSI/SOC design and implementation. These tools are HSPICE simulators, Synopsys design compilers, the entire Cadence EDA tools suite, Mentor Graphics design tools, and etc.

Electronics and Physics Lab

The Electronics laboratory provides hands-on training accompanying digital and analog circuit classes. Students will practice fundamental engineering and physics related skills needed for future course work and research projects in digital/analog design, simulation, and analysis. The physical lab assistance sets up the lab weekly for the students use.

Biotechnology Laboratory

CSBU is equipped with sophisticated biotechnology laboratory located on-campus. The laboratory offers hands-on-training with techniques and state-of-the-art instrumentation encountered in the biotechnology industry. It provides student with opportunity to practice laboratory skills in biotechnology research, quality control or production. The laboratory can facilitate the practice of media preparation, production of recombinant molecules, isolation, quantification and electrophoresis of DNA, RNA, and protein, as well as experiments in proteomics includes protein expression, affinity, cell and tissue culture techniques and scanning electron microscopy and other procedures and protocols.

Accounting and Auditing Tools

Many accounting software programs and auditing software programs are set up in a group of computers for the students to gain hands-on experience with the tools.

Audio/Visual Aids for American Language Learning

Audio/visual materials for improving American language skills are available for all CSBU students who wish to improve their communication skills. Students may use the selected audio and videotapes and software programs and workstations to improve English programs and workstations to improve English pronunciation, grammar, spelling, conversation, and etc. Scheduled communication workshops and related activities conducted by English language instructors provide additional assistance to the interested students.

Online Course Management Program

California South Bay University offers a number of courses in online delivery mode as an alternative to that in in-class mode. These courses are open only to regularly admitted students. Online learning normally requires a great deal of self-discipline. Similar to regular courses, online course are different with regard to the type of activities and interaction required of the student.

The CSBU Online courses are designed for the students to learn similar to regular courses; all assignments and learning materials are laid out on a certain period of time and the students must complete the work on time according to the schedule agreed by students & instructors. To succeed, the individual must participate in all activities required for the online course. Online class participations also required and are recorded electronically by the online program and by the instructors. In addition to reading and homework assignments, other activities include discussion board, chat room, e-mail, Q&A, group study/project, and webcasting. The methods of examination for the course will be determined by the instructor.

As for international students, according to the government rules, he/she is not allowed to take more than one online course in any term, and the online course cannot be the only course taken by the student in any term.

Training and Workshops

Student Services of CSBU provides scheduled training activities and workshops to the students on job affairs, job placement, further education training, and seminars in different programs.

Audio and Video Tape

The University provides recording of lectures, video of lectures, seminar, training programs for students use.

Computer Networks

There are a variety of high-performance computers on campus to support teaching and learning, including high-capacity servers, advanced workstations, and modern PCs. Wireless computers as well as high-speed Internet access are provided to the students on campus. The campus networks have a node on the Internet, allowing faculty and student access to electronic mail, file transfer, and the World Wide Web.



STUDENT ACTIVITIES AND SERVICES

University Orientation

All new students are **required** to attend the new student orientation workshop offered before the beginning of each semester. On the Orientation Day, orientation packages are distributed to the new students; all administrative staff members and representatives from the faculty and the student body welcome the new students; both presentations and hands-on workshops are conducted to inform and to connect. The new students are informed of the staff's duties in order to receive proper administrative services, the facility and learning resources information to prepare them for classes, and important policies to stay focused on their academic objectives. Hands-on workshops may also be conducted to teach the new students how to use the university computer networks system, how to properly set up their accounts for printing services, how to access the CSBU Online Service Center to obtain online learning resources as well as make online requests for services, and how to access the university library online system to find library collection information. New students who have not registered in classes also receive academic advising and register for classes on the same day. International students are also provided a health insurance plan and information on particular regulations they must observe in compliance with the Federal regulations for international students. Those required taking an English placement test but could not take it on an earlier scheduled dates may take it on the orientation day before they can register in classes.

All CSBU students are welcome to attend the orientation to welcome the new students and receive current university information.

Academic Advisement

Each student is assigned an academic advisor, who will on a regular basis give academic advice regarding the student's progress.

Student Health, Safety, and Housing

All full-time students are required to have their own medical insurance coverage. CSBU will assist them in contacting appropriate insurance companies.

CSBU does not maintain housing for students, nor does it make specific recommendations regarding housing. However, public housing accommodations are available in the community. CSBU campus is located in a very convenience location. There are plenty of apartments and residences that close to campus. Average monthly rent of a single room ranges from \$500-\$800.

Student Governance

The CSBU Student Association offers students the opportunity to participate in the governing of the institution. Elected officers interact regularly with assigned faculty advisors to coordinate student functions, organize extra-curricular activities, and offer student input concerning university policy.

Student Organizations and Alumni Association

Students at CSBU are free to organize and to join associations whose stated purpose is consistent with the University's mission. All student organizations seeking CSBU support must be registered. The CSBU Alumni Association is operated under the Student Service Office of the University, keeping a current list of all alumni, and conducting alumni activities on a regular basis such as

class reunions and career counseling.

Academic Achievement Recognition

Faculty and student awards are given annually during commencement ceremonies to recognize the outstanding achievements of faculty, staff, and students.

Tutorial Program

A tutorial program will provide international students with assistance in English studies in addition to CSBU's regular tutorial classes for academic courses conducted by our teaching faculty and teaching assistants.

Student Tuition Recovery Fund

The Student Tuition Recovery Fund (STRF) was established by the Legislature to protect any California Resident who attends a private postsecondary institution from losing money if the student prepaid tuition and suffered a financial loss as a result of the school: closing; failing to live up to its enrollment agreement; or, refusing to pay a court judgment.

To be eligible, the student must be a "California resident" and reside in California at the time the enrollment is signed or when the student receives lessons at a California mailing address from an approved institution offering correspondence instruction. A student temporarily residing in California for the sole purpose of pursuing an education, specifically one holding a student visa, is not considered a "California resident."

To qualify for STRF reimbursement you must file a STRF application within one year of receiving notice from the council that the school is closed. If you do not receive notice from the council you have four years from the date of closure to file a STRF application. If a judgment is obtained you must file a STRF application within 2 years of the final judgment.

It is important that you keep copies of the enrollment agreement, financial aid papers, receipts or any other information that documents the monies paid to the school. Questions regarding the STRF may be directed to: Bureau for Private Post-Secondary Education, 2535 Capitol Oaks Drive, Suite 400. Sacramento California, 95833.

Sexual Assault

An allegation of sexual assault must promptly be reported to the Director of Student Services who will, in turn, report the allegation to the Police Department. The University will not attempt to adjudicate allegations of felonious acts.

Career Placement Services

As a key component of Student Services, career placement services help the students in the following areas: (1) Prepare resumes and sharpen interview skills, (2) Conduct career seminars and job fairs, (3) Identify the students' strengths and interests and provide career advice, (4) Provide internship opportunities to the students (5) Provide library materials and an online tool (via the CSBU online Service Center) for the students to gain access to various sources of job information. The Career Center in the library provides the students with access to a collection of books, articles, magazines, brochures, and videotapes about employment opportunities. The students may also use the computer facility in the Career Center for job search. Employment information can be found on the online job posting board through the e-Career Center in the

CSBU Online Service Center.

The service provides career planning and job search assistance prior to and after students' graduation.

All students are encouraged to begin working with a Student Services counselor on their resumes and career development plans in the early stages of their academic study.



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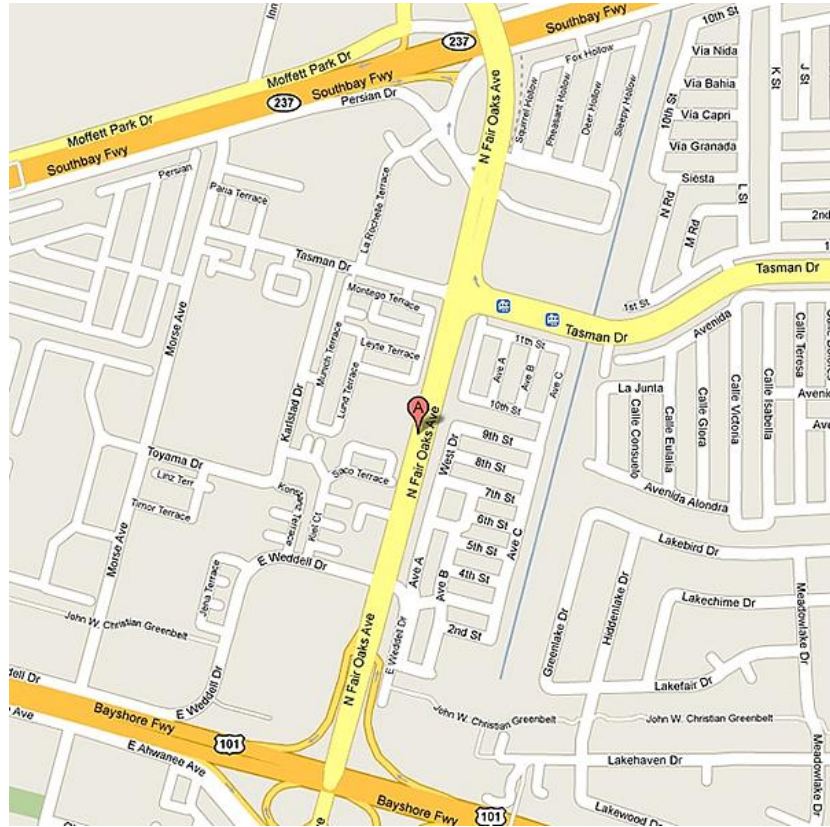
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DIRECTION

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DIRECTIONS TO CALIFORNIA SOUTH BAY UNIVERSITY

Coming from San Francisco (approximately 30 minutes):

By Car:

- Take US-101 South towards I-80 E/Oakland/San Jose
- Slight right to merge onto US-101 S toward I-80 E/Oakland/San Jose
- Take exit 396B to merge onto CA-237 E toward Alviso/Milpitas
- Take exit 4 toward Fair Oaks Ave
- Turn right at Persian Dr
- Turn left at Fair Oaks Way
- Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089 on the right side of the road

By Public Transportation:

- Take Caltrain (direction: San Francisco to San Jose), exit at Mountain View Caltrain Station

- Take Light Rail Train 902 (direction: Mountain View – Winchester), exit at Fair Oaks Station
- Walk towards Fair Oaks and Tasman Drive, approximately 3 minutes walk
- Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089 on the right side of the road

Coming from San Jose (approximately 15 minutes):

By Car:

- Take CA-87 N and take exit onto US-101 N towards San Francisco
- Take exit 395 for Fair Oaks Avenue
- Make a U-turn
- Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089 on the right side of the road

By Public Transportation:

Option A

- Take Light Rail Train 902 (direction: Winchester - Mountain View), exit at Fair Oaks Station
- Walk towards Fair Oaks and Tasman Drive, approximately 3 minutes walk
- Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089 on the right side of the road

Option B

- Take Bus 522 towards WB Rapid Palo Alto Transit Center, exit at El Camino & Wolfe
- Take Bus 26 towards WB Lockheed Martin Transit Center, exit in Fair Oaks & Tasman, approximately 3 minutes walk
- Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089 on the left side of the road

Coming from Hayward (approximately 20 minutes):

By Car:

- Take I-880 S exit towards San Jose
- Then keep left at the fork to continue towards I-880 S and merge onto I-880S
- Take the exit onto CA-237 W toward Mountain View and take exit 3B towards Sunnyvale
- Take exit 5 for Lawrence Expressway and merge onto Lawrence Expressway
- Take right and Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089

By Public Transportation:

- Take a Metro rail from Hayward station (direction: Fremont) exit at Fremont station.
- Take VTA Bus 180 (direction: 180SB Express Great Mall), exit at Great Mall / Main Transit center
- Walk to Great Mall Station, take LRT 901 (Alum Rock – Santa Teresa), exit at Tasman Station
- Take Light rail 902 Mountain View (Direction: LRT Winchester-Mountain View), exit at Fair Oaks station
- Walk towards North Fair Oaks, approximately 3 minutes walk
- Visit us at 1107 N. Fair Oaks Avenue, Sunnyvale, CA 94089 on the right side of the road

