



2017-
2018



San Jose Polytechnic University

Catalog

San Jose Polytechnic University

CATALOG 2017 - 2018

1631 North 1st Street, Suite 100

San Jose, CA 95112

Telephone: 408-564-6389 Fax: 408-886-9293

Email: info@sjpuca.us

Web site: www.sjpuca.us

Copyright © 2017 San Jose Polytechnic University

All Right Reserved

Table of Contents

| | Page |
|---|-------------|
| Academic Calendar 2017 - 2018 | 5 |
| Message from the President..... | 7 |
| University Mission | 8 |
| University Objectives | 8 |
| Student Learning Outcomes | 8 |
| Approvals and Accreditation | 9 |
| Accriditation Status | 10 |
| Corporate Status | 10 |
| Governing Board | 10 |
| Board of Trustees | 11 |
| Filling a Complaint with Bureau..... | 11 |
| Admission Requirements..... | 12 |
| Ability to Benefit: | 12 |
| Transfer Credit Policy: | 13 |
| Application for Degree Programs | 13 |
| Application for Certificate Programs | 14 |
| Application Procedures | 14 |
| Application Deadlines | 15 |
| Application Decisions | 15 |
| Application Deferment..... | 16 |
| Readmission | 16 |
| Academic Information | 17 |
| Academic Integrity | 17 |
| Principles for Faculty/Student Conflict of Interest | 18 |
| Class Schedule | 18 |
| Graduate Core..... | 18 |
| Academic Advising | 18 |
| Registration | 19 |
| Enrollment Agreement | 19 |
| Attendance Requirements | 19 |
| Standards of Grades and Credits..... | 19 |
| Satisfactory Academic Progress (SAP) Monitoring..... | 20 |
| Academic Probation | 20 |
| Disqualified and Dismissal | 20 |
| Grading System | 21 |
| Incomplete Grades (I Grade)..... | 21 |
| Withdraw Grades (W Grade)..... | 22 |
| Withdraw with Failing Grades (WF Grade)..... | 22 |
| Pass/No Pass Grade (P/NP Grade) | 22 |
| In-Progress Grade (IP Grade) | 22 |
| Request for Examining Grades..... | 23 |
| Changing Program of Study..... | 23 |
| Repeating Courses..... | 23 |
| Withdrawal from Courses..... | 23 |
| Withdraw from the Program of Study..... | 23 |
| Leave of Absence | 24 |

| | |
|---|----|
| Withdrawal from the University..... | 24 |
| Courses Transferred from Other Universities | 24 |
| Readmission | 24 |
| Student Records | 25 |
| Maximum Program Length | 28 |
| Graduation Requirements | 28 |
| Petition for Graduation..... | 29 |
| Financial Information | 30 |
| Financial Aid Policy..... | 30 |
| Fees and Estimated Expenses | 30 |
| Health Insurance..... | 32 |
| Tuition Refund Policy | 32 |
| Withdrawal From Course | 32 |
| Student Tuition Recovery Fund (STRF) | 33 |
| Academic Programs and Reauirements | 35 |
| Unit/Clock Hour Conversion..... | 35 |
| Academic Requirements for Degree Programs | 35 |
| Academic Requirements for Certificate Programs..... | 35 |
| English as a Second Language (ESL) Certificate Programs..... | 36 |
| University Policies and Student Services | 38 |
| Policy of Housing Information | 38 |
| Policy of Grievance Procedures | 38 |
| Policy of Sexual Harassment | 38 |
| Policy of Resolution of Academic Complaints | 40 |
| Policy of Personal Conduct | 41 |
| Policy of Student Rights and Responsibilities | 41 |
| Policy of Academic Freedom | 43 |
| Policy of Student Services | 44 |
| Policy of Non-Discrimination..... | 44 |
| Policy for Withdrawal from University Due to Health Reasons..... | 44 |
| Policy of Using Campus Computing and Electronic Resources | 45 |
| Policy of Changing Grade..... | 45 |
| Department Descriptions and Curriculum | 46 |
| Department of VLSI Engineering..... | 46 |
| Master of Science in VLSI Engineering (MSVE) Program Overview | 46 |
| Missions and Purposes..... | 46 |
| Student learning Objectives..... | 46 |
| Student Educational Outcomes | 46 |
| MSVE Degree Requirements | 47 |
| MSVE Core Courses | 47 |
| VLSI Engineering Concentration | 47 |
| Graduate Transfer Credit..... | 48 |
| Department of Mobile Computing | 48 |
| Master of Science in Mobile Computing (MSMC) Program Overview..... | 48 |
| Missions and Purposes..... | 48 |
| Student Learning Objectives..... | 48 |
| Student Educational Outcomes | 48 |
| MSMC Degree Requirements | 49 |
| MSMC Core Courses | 49 |
| Mobile Application Concentration | 49 |

| | |
|---|----|
| Mobile Multimedia Concentration | 50 |
| Graduate Transfer Credit | 50 |
| Certificate Programs in VLSI Engineering Overview | 50 |
| Missions and Purposes..... | 50 |
| Program Objectives | 50 |
| Certificate of Completion Requirements | 51 |
| Certificate Program Courses in VLSI Engineering..... | 51 |
| Certificate Program in English as a Second Language (ESL) Overview..... | 51 |
| Missions and Purpose | 52 |
| Program Objectives | 52 |
| Certificate of Completion Requirements | 54 |
| Certificate Program Courses in ESL..... | 54 |
| Course Curriculum | 56 |
| Master of Science in VLSI Engineering (MSVE) | 56 |
| Courses Description | 56 |
| Core Courses (VE 500 to VE 509)..... | 56 |
| Concentrating Electives in VLSI Engineering (VE 510 to VE 529) | 57 |
| Special Topics, Research Project, Curricular Practical Training (VE 590 to VE 599) .. | 60 |
| Master of Science in Mobile Computing (MSMC)..... | 62 |
| Courses Description | 62 |
| Core Courses (MC 500 to MC 509)..... | 62 |
| Concentrating Electives in Mobile Applications (MC 510 to MC 529) | 63 |
| Concentrating Electives in Mobile Multimedia (MC 510 to MC 539)..... | 65 |
| Special Topics, Research Project, Curricular Practical Training (MC 590 to MC 599) .. | 67 |
| Certificate Programs in VLSI Engineering | 68 |
| Courses Description | 68 |
| Certificate Programs in English as a Second Language (ESL) | 69 |
| Courses Description | 69 |
| University Facilities..... | 71 |
| University Administration | 73 |
| University Faculty Members..... | 74 |
| School of Engineering | 74 |
| University Location | 76 |

Effective Dates of this Catalog

January 01, 2017 thru December 31st, 2017

This catalog pursuant to section 94909 of the California Education Code, shall be updated annually. Annual updates will be made by the use of supplements or inserts accompanying the catalog. If changes in educational programs, educational services, procedures, or policies required to be included in the catalog by statute or regulation are implemented before the issuance of the annually updated catalog, those changes will be reflected at the time they are made in supplements and posted bulletins and inserts accompanying the catalog.

 ACADEMIC CALENDAR 2017 - 2018

Summer Semester 2017

| | | |
|----------------|-----------------|---|
| May 1-5 | Monday-Friday | Registration period |
| May 5 | Friday | New student orientation |
| May 8 | Monday | Summer semester classes begin |
| May 19 | Friday | Last days to add/drop classes |
| May 29 | Monday | Memorial Day holiday (campus closed) |
| June 26-July 1 | Monday-Saturday | Midterm exams and course review |
| July 4 | Tuesday | Independence Day holiday (campus closed) |
| July 10 | Monday | First day of OPT application |
| July 21 | Friday | Last day for graduation petition in August 2017 |
| July 24 | Monday | Begin registration for the 2017 Fall semester |
| August 11 | Friday | 2017 fall registration end |
| August 12 | Saturday | Summer semester classes end |
| August 14-19 | Monday-Saturday | Final exams and course review |
| August 21 | Monday | First day of trimester recess |
| August 25 | Friday | Summer semester final grades due |
| August 28 | Monday | Last day of OPT application |

Fall Semester 2017

| | | |
|----------------|-----------------|---|
| Aug 28-Sept 1 | Monday-Friday | Registration period |
| September 1 | Friday | New student orientation |
| September 4 | Monday | Labor Day holiday (campus closed) |
| September 5 | Tuesday | Fall semester classes begin |
| September 15 | Friday | Last day to add/drop classes |
| October 23-28 | Monday-Saturday | Midterm exams and course review |
| November 6 | Monday | First day of OPT application |
| November 17 | Friday | Last day for graduation petition in December 2017 |
| November 20 | Monday | Begin registration for the 2018 spring semester |
| November 23-24 | Thursday-Friday | Thanksgiving holiday (campus closed) |
| December 8 | Friday | 2018 spring registration end |
| December 9 | Saturday | Fall semester classes end |
| December 11-16 | Monday-Saturday | Final exams and course review |
| December 18 | Monday | First day of trimester recess |
| December 22 | Friday | Fall semester final grades due |
| December 25 | Monday | Christmas holiday (campus closed) |
| December 29 | Friday | Last day of OPT application |
| January 1 | Monday | New Year Holiday (Campus Closed) |

Spring Semester 2018

| | | |
|--------------|-----------------|---|
| January 1-5 | Monday-Friday | Registration period |
| January 5 | Friday | New student orientation |
| January 8 | Monday | Spring semester classes begin |
| January 19 | Friday | Last day to add/drop classes |
| February 19 | Monday | Presidents day holiday (campus closed) |
| Feb 26-Mar 3 | Monday-Saturday | Midterm exams and course review |
| March 5 | Monday | First day of OPT application |
| March 16 | Friday | Last day for graduation petition in April 2018 |
| March 19 | Monday | Begin registration for the 2018 summer semester |
| April 6 | Friday | 2018 summer registration end |
| April 14 | Saturday | Spring semester classes end |
| April 16-21 | Monday-Saturday | Final exams and course review |
| April 23 | Monday | First day of trimester recess |
| April 27 | Friday | Spring semester final grades due |
| April 30 | Monday | Last day of OPT application |

Summer Semester 2018

| | | |
|-----------------|-----------------|---|
| April 30-May 4 | Monday-Friday | Registration period |
| May 4 | Friday | New student orientation |
| May 7 | Monday | Summer semester classes begin |
| May 18 | Friday | Last days to add/drop classes |
| May 28 | Monday | Memorial Day holiday (campus closed) |
| June 25-June 30 | Monday-Saturday | Midterm exams and course review |
| July 4 | Wednesday | Independence Day holiday (campus closed) |
| July 9 | Monday | First day of OPT application |
| July 20 | Friday | Last day for graduation petition in August 2018 |
| July 23 | Monday | Begin registration for the 2018 Fall semester |
| August 10 | Friday | 2018 fall registration end |
| August 11 | Saturday | Summer semester classes end |
| August 13-18 | Monday-Saturday | Final exams and course review |
| August 20 | Monday | First day of trimester recess |
| August 24 | Friday | Summer semester final grades due |
| August 27 | Monday | Last day of OPT application |

MESSAGE FROM THE PRESIDENT

Bringing beneficial changes to society with developed thoughts and creativity is always a passion for me as an educator. Establishing a university is a serious and long-term mission. To provide outstanding academic system for our next generation is a goal that I have always carried in my heart. In an old saying, “Education is the root of our future.” If it takes ten years for a tree to grow, it will take much longer for a person to pursue a completed education. Some people doubt about my faith while money is not the motivation for me to establish a university. But, I truly believe if I can establish excellent education program to our offspring, the fortune and resource will come after. Therefore, San Jose Polytechnic University is bored with four philosophies.

Enthusiasm along with dedication is the key to success. I am engaged with these young and energetic students to ensure their success with more than 17 years industry background in the Silicon Valley; a professor and administrator in two different universities for more than 15 years. Being an educator with student in practical field after they graduate, I feel fulfilled with satisfaction and joyfulness from the bottom of my heart when my students apply their knowledge to work. Goal of establishing this university is to provide the intellectual environment to students and give back to the community.

Our program will provide highest **quality** of education to students. Quality of an academic program determines the future of a university. Thus, our academic program focuses not only in specialized subjects, but also in general knowledge of industry and marketing trends. We emphasize systematic education: from fundamental notion to a general overall concept. In addition, we attract and retain outstanding faculty and administrative who are well known in their field. I believe the strength and expertise of our professors are the keys to the success of our students.

Endurance **development** is the key to sustainability of our university. With continuously improved academic environment with school infrastructure and software will ensure efficiency and effectiveness of school administration. We will continuously have stable financial resources from private sponsors and public sectors to benefit more educational needs in our school.

We will establish good **connections** channel between students and professionals which is essential in the business field. The collaborative and innovative exchange with various industries will maximize the resources usage with efficiency to enhance the opportunity for all faculty and students.

I am proud to say that we are on the right path toward success. I believe the beauty of hard work will show in the near future.

UNIVERSITY MISSION

The mission of San Jose Polytechnic University is to provide the advanced education opportunities in graduate-level degree and certificate programs that enable full-time and working adult students to develop the necessary knowledge and skills to achieve their professional goals, improve the productivity of their organizations, and provide the leadership and service to their communities.

UNIVERSITY OBJECTIVES

The **Institutional Objectives** of SJPU are accomplished by leveraging SJPU's expertise in the technology sectors to:

- Provide students with faculty who are experts in their field and are currently working in the high tech industry and global business sectors;
- Provide students with a learning environment that utilizes the latest available technology in use in the work place;
- Prepare students with the practical skills necessary for performing at the highest levels in their chosen profession;
- Develop the capacity for independent and critical thinking;
- Promote entrepreneurship by encouraging new ideas for product development;
- Develop an understanding of the need to be a "life long learner".

STUDENT LEARNING OUTCOMES

Graduates of SJPU engineering programs will be able to:

1. **Evaluate** the effectiveness of a designed experiment and the implications of the resulting data.
2. **Verify** and **justify** the solution to a complex computer engineering problem, including the use of **appropriate tools and techniques**.
3. **Develop** and **evaluate** new, advanced technical knowledge in a specialized area of computer engineering.
4. **Synthesize** and **explain** the relevance and application of new, advanced technical knowledge in both technical and non-technical terms.

Educational Outcomes are also expressed throughout the SJPU Catalog as follows;

| | | |
|----------------------|--|---------|
| Degree Programs | Master of Science in VLSI Engineering (MSVE) | Page 56 |
| | Master of Science in Mobile Computing (MSMC) | Page 62 |
| Certificate Programs | VLSI Engineering | Page 68 |
| | ESL | Page 69 |

APPROVALS AND ACCREDITATION

“San Jose Polytechnic University is a private institution approved to operate by the California Bureau for Private Postsecondary Education (BPPE). Approval to operate means the institution is compliant with the minimum standards contained in the California Private Postsecondary Education Act of 2009 (as amended) and Division 7.5 of Title 5 of the California Code of Regulations.”

The complete San Jose Polytechnic University General Catalog is available on the SJPU website or in print from the Office of Admission. The catalog is the official publication containing the University’s policies and procedures, and students are expected to be familiar with its contents. All University policies and procedures are contained in the catalog for the information of prospective and current students. If you have any questions regarding the contents of the General Catalog, do not hesitate to speak with the Academic Dean.

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

The San Jose Polytechnic University catalog, pursuant to section 94909 of the California Education Code, shall be updated annually. Annual updates may be made by the use of supplements or inserts accompanying the catalog. If changes in educational programs, educational services, procedures, or policies required to be included in the catalog by statute or regulation are implemented before the issuance of the annually updated catalog, those changes shall be reflected at the time they are made in supplements or inserts accompanying the catalog.

"Any questions a student may have regarding this catalog that have not been satisfactorily answered by the institution may be directed to the Bureau for Private Postsecondary Education at 2535 Capitol Oaks Drive, Suite 400, Sacramento, CA 95833 or P.O. Box 980818, West Sacramento, CA 95798-0818, www.bppe.ca.gov, (888) 370- 7589 or by fax (916) 263-1897”

ACCRIDITATION STATUS

San Jose Polytechnic University is not an accredited university

Prospective students should be aware that as graduates of an unaccredited school you may face restrictions that could include difficulty in obtaining employment positions in or outside of California and difficulty in obtaining a teaching job or appointment at an accredited college or university. It may also be difficult to find work positions for some federal government or other public agencies. All the following may apply;

- (A) Whether a graduate of the degree program will be eligible to sit for the applicable licensure exam in California and other states.
- (B) A degree program that is unaccredited or a degree from an unaccredited institution is not recognized for some employment positions, including, but not limited to, positions with the State of California.
- (C) That a student enrolled in an unaccredited institution is not eligible for federal financial aid programs.

CORPORATE STATUS

San Jose Polytechnic University is a 'for-profit,' privately owned institution legally incorporated in the State of California.

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

GOVERNING BOARD

SJPU is governed by its Board of Trustees. The Board members consist of industry leaders, educators, and President and CEO of SJPU. They provide service and receive remuneration as SJPU is a profitable educational institution.

BOARD OF TRUSTEES

Andrew Feng Bi

Founder and CEO, SVI Group, Inc
San Jose, California
Chairman of the Board
Secretary of the Board

Song M. Liu

Founder and CEO, Kens Investement, Inc
San Jose, California
Treasurer of the Board

Dr. Teng Moh

Professor, San Jose State University
San Jose, California
Director of the Board

Dr. Eugene Chang

Chief Architect, Intel Corporation
San Jose, California
Director of the Board

Dr. Leagong Chen, Director of the Board

President and CEO, San Jose Polytechnic University
San Jose, California

FILLING A COMPLAINT WITH BUREAU

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

SPECIAL NOTICE OF FINANCIAL STATUS

This institution has not had a pending petition in bankruptcy, is not operating as a debtor in possession and has not filed a bankruptcy petition within the last five years. It has not had a petition in bankruptcy filed against it within the preceding five years that resulted in reorganization under chapter 11 of the United States Bankruptcy Code.

ADMISSION REQUIREMENTS

San Jose Polytechnic University does not accept international students requiring a VISA for admission and as such, does not provide any VISA services nor will it vouch for the VISA status of a prospective students.

All courses in the master's degree and certificate program are taught in the English Language.

International applicants (or those educated in a foreign country but living in the United States) are required to demonstrate competency in the English skills needed for success in their chosen program. These applicants must submit minimum scores on the Test of English as a Foreign Language (TOEFL) of 550 for the paper based test, 213 for the computer based test or 79 for the internet based test (iBT) and the currently reported mean score for the Test of Spoken English (TSE). Please note that the Admissions Department may waive these requirements if English Language competency is satisfactorily demonstrated during the application or interview process.

Information and applications for TOEFL or IELTS tests can be reached by contacting the followings:

TOEFL
Educational Testing Services
P. O. Box 6151
Princeton, NJ 08541-6151
Website: www.TOEFL.org
E-mail address: TOEFL@ets.org

IELTS International
825 Colorado Blvd, Suite 112
Los Angeles, CA 90041
Website: www.IELTS.org
E-mail address: IELTS@IELTSintl.org

Ability to Benefit:

California Education Code (CEC) §94811 defines an ability-to-benefit (ATB) student as a student who does not have a certificate of graduation from a school providing secondary education, or a recognized equivalent of that certificate. Under CEC §94904 (a), an institution is required, prior to executing an enrollment agreement with an ATB student, to have the student take and pass an independently administered examination from the list of examinations prescribed by the United States Department of Education (USDE). San Jose Polytechnic University requires a completed Bachelor's degree for admission to its engineering degree and certificate programs, the ESL Certificate Programs requires either a High School Diploma or GED for admission and thus Ability to Benefit (ATB) students do not meet this requirement and are not admitted into the programs.

Transfer Credit Policy:

The University may grant transfer credits on a course-by-course basis for courses taken previously, provided:

1. The coursework was completed at an institution accredited by an agency recognized by the U.S. Department of Education. Such coursework may transfer directly to the University of San Jose Polytechnic University.
If the coursework was completed at a foreign institution; all foreign coursework must be evaluated by an educational evaluation agency in the U.S. to determine its U.S. equivalency at the student's expense. Evaluations need to be made by a member agency of the National Association of Credential Evaluation Services (NACEA)
2. The course name, credits, and available course descriptions must indicate that the coursework is similar in content and class/contact hours similar to classes offered at SJPU.
3. Each transfer course must be completed with a grade of B (3.0) or better. The cumulative GPA for all transfer courses listed on the Transfer Credit form must be 3.0 (B) or better.
4. Courses need to be completed within the previous ten (10) years. If courses were completed more than ten (10) years ago, students have the option of repeating the courses or taking challenge examinations (please see the Challenge Examination policy in the catalog). Students may also petition to transfer credit for coursework over (10) years old if they can prove that they have been continually active in the related field for that period of time.
5. Courses taken at non-accredited institutions are non-transferable.

Transfer credit requests are reviewed and approved by the Academic Department, and the President. The guidelines for transfer credits are as follows:

Credit shall be awarded only for actual coursework at the **graduate level** completed in the specified area of the curriculum. Official transcripts must be provided to SJPU.

The credit hours of the completed course must be equal to or greater than the credit hours of the course for which transfer credit is granted. The outcome of the prior education and experience must be equivalent to that of an average student who has completed the same subject(s) at the university and must meet the curricular standards and graduation requirements of the SJPU.

The final grade in the transferred course must be not less than "B." (3.0 on a 4.0 scale).

San Jose Polytechnic University does not grant credit for military training, corporate training, experiential training, or by portfolio assessment.

San Jose Polytechnic University does not currently have an articulation or transfer agreement with any other college or university.

Application for Degree Programs:

A completed application for admission into the Master of Science degree programs at San Jose Polytechnic University (SJPU) requires the successful completion of a Bachelor's degree from an accredited university in the U.S recognized by the U.S. Department of Education or a Bachelor's degree granted from a university that has been recognized by the appropriate government agency in that country.

International applicants who have received a bachelor's degree from a non-English speaking country must submit original transcripts evaluated by a NACES approved transcript evaluation agency and current scores from the Test of English as a Foreign Language (TOEFL) or the International English Language

Testing Systems (IELTS) examination. Test scores over three years old will not be accepted as a graduate admission decision. These applicants must submit scores on the Test of English as a Foreign Language (TOEFL) of 550 for the paper based test, 213 for the computer based test or 79 for the internet based test (iBT) and the currently reported mean score for the Test of Spoken English (TSE). Please note that the Admissions Department may waive these requirements if English Language competency is demonstrated during the application or interview process.

Applicants into the Master of Science Degree or Certificate programs at SJPU must have successfully achieved an acceptable score on the Graduate Record Examination (GRE) in the last three years.

GRE information and registration is available from the website indicated below:

www.ETS.org/GRE

Application Procedures:

1. A completed Application for Admission along with the US\$50.00 non-refundable application fee.
2. Two (2) Letters of Recommendation
3. Personal Essay describing the importance of obtaining a graduate degree
4. Official Academic Transcripts and Transcript Evaluations* (if necessary) from each college of university attended. These Official Transcripts must be sent directly from the sending institution directly to the SJPU Office of Admission. If the transcripts are from a country where English is not the primary language, if necessary, they must be translated and course by course evaluated by an approved evaluation service such as World Education Service (WES). All domestic official transcripts must be received no later than the first day of class of the entering semester. Official foreign transcripts and evaluations may be accepted prior to the end of the first semester of enrollment; however, an unofficial transcript must be received prior to the first day of class.
5. Two Passport-size Photograph
6. Resume or curriculum vitae listing previous occupations, positions held, previous education, with start and finish dates;
7. Interview with the Academic Dean and/or Program Director.

Application for Certificate Programs

A completed application for admission into the certificate courses offered at San Jose Polytechnic University (SJPU) require the successful completion of a Bachelor's degree from an accredited university in the U.S recognized by the U.S. Department of Education or a Bachelor's degree granted from a university that has been recognized by the appropriate recognized government agency in that country.

The certificate programs at San Jose Polytechnic University (SJPU) are mainly designed for local residents who do not desire a degree and choose not to be a full time student.

International applicants who have received a bachelor's degree from a non-English speaking country must submit original transcripts evaluated by a NACES approved agency and current scores from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing Systems (IELTS) examination. Test scores over three years old will not be accepted as a graduate admission decision. These applicants must submit scores on the Test of English as a Foreign Language (TOEFL) of 550 for the paper based test, 213 for the computer based test or 79 for the internet based test (iBT) and the currently reported mean score for the Test of Spoken English (TSE). Please note that the Admissions Department may waive these requirements if English Language competency is demonstrated during the application or interview process.

Applicants into the Master of Science Degree or Certificate programs at SJPU must have successfully achieved an acceptable score on the Graduate Record Examination (GRE) in the last three years.

GRE information and registration is available from the website indicated below:

www.ETS.org/GRE

Certificate Program in English as a Second Language (ESL) Application Overview

Admission requirements

An applicant to the English as a Second Language (ESL) program at SJPU must have completed at least a high school education or GED.

Admission Procedures

Students applying for admission to the ESL Program must observe the following admission procedures:

1. Complete and submit the application form to the SJPU Admissions Office. The application form is available in the Admissions Office.
2. Submit an official copy of high school diploma. In the absence of a high school diploma, submit an attestation statement and documentation evidencing completion of high school education such as an official transcript or GED.
3. Pay the \$50 application fee to the SJPU Admissions office. The application fee is non-refundable.

All inquiries about application or admissions process should be directed to:

San Jose Polytechnic University
Office of Admissions
1631 North 1st Street, Suite 100
San Jose, CA 95112
Tel: (408) 564-6389 Fax: (408) 886-9293

Applications will not be processed and reviewed by the Graduate Admission Committee until all documents have been received along with the application fee.

Application Deadlines

Deadlines for graduate admission applications are listed below:

| | |
|--|-------------------------|
| For 2017 Fall trimester admission deadline: | August 11, 2017 |
| For 2018 Spring trimester admission deadline: | December 8, 2017 |
| For 2018 Summer trimester admission deadline: | April 6, 2018 |

Application Decisions

The admission decisions of graduate and certificate programs are based on the following factors:

- (a) Academic Ability: Undergraduate official academic records showing GPA 2.5 or above on a 4.0 scale
- (b) GRE Score: For Master of Science degree seeking students.
- (c) GMAT Score: For Master of Business Administration degree seeking students

- (d) Demonstrated Potential to Complete Advanced Degree: Two letters of recommendation from prior institutions or companies.

Once accepted, the prospective students will receive the following official documents from the Graduate Office:

- (a) Letter of Acceptance: that states the candidate has officially been accepted to the graduate school. This document is signed by the Academic Dean of the university.
- (b) Admission Certificate: that states the Admission Date, Degree Program/Certificate Program, Program Starting Date, Contact Name of Graduate Advisor, Pre-requisite courses if any, English Language Requirement if any, Document needed if any. This document is signed by University Registrar.

Application Deferment

For whatever any reason, candidates admitted to the degree program or certificate program may request admission deferment to a subsequent trimester. If a deferment request is accepted and honored, candidates may be granted a deferment up to two trimesters (including summer trimester) beyond that for which they were originally accepted.

During the first enrollment, the candidates must meet the requirements of the curriculum in effect instead of the originally admitted trimester.

Admission deferment over two trimesters must formally reapply for graduate admission and readmission is not guaranteed.

Readmission

Students admitted to the degree or certificate program who withdraw from the university over two trimesters or never register and never file a request for deferment, must formally reapply for graduate admission.

Applicants readmitted must meet the requirements of the admission standards and curriculum in effect at time of readmission. There will no deferment granted for readmitted students. Students must enroll for the respective trimester.

ACADEMIC INFORMATION

“NOTICE CONCERNING TRANSFERABILITY OF CREDITS AND CREDENTIALS EARNED AT OUR INSTITUTION”

The transferability of credits you earn at San Jose Polytechnic University is at the complete discretion of an institution to which you may seek to transfer. Acceptance of the Master of Science in VLSI Engineering (MSVE) or Master of Science in Mobile Computing (MSMC) or Certificate Programs in VLSI Engineering and ESL you earn in San Jose Polytechnic University is also at the complete discretion of the institution to which you may seek to transfer. If the Master of Science in VLSI Engineering (MSVE) or Master of Science in Mobile Computing (MSMC) or Certificate Programs in VLSI Engineering and ESL that you earn at this institution are not accepted at the institution to which you seek to transfer, you may be required to repeat some or all of your coursework at that institution. For this reason you should make certain that your attendance at this institution will meet your educational goals. This may include contacting an institution to which you may seek to transfer after attending San Jose Polytechnic University to determine if your Master of Science in VLSI Engineering (MSVE) and Master of Science in Mobile Computing (MSMC). Certificate Programs in VLSI Engineering and ESL will transfer.”

San Jose Polytechnic University does not currently have an articulation or transfer agreement with any other college or university.

The degree and certificate programs offered at SJPU are not designed to lead to licensure in a profession, occupation, trade or career field in this or any other state.

“San Jose Polytechnic University is not an accredited university”

- A) As a graduate from an unaccredited program, you may not be able to sit for the applicable licensure exam in California or other state, if one is required.
- B) Prospective students should be aware that as graduates of an unaccredited school you may face restrictions that could include difficulty in obtaining employment positions in or outside of California and difficulty in obtaining a teaching job or appointment at an accredited college or university. It may also be difficult to find work positions for some federal government or other public agencies.
- C) Students enrolled at an unaccredited institution are not eligible federal financial aid.

Academic Integrity

The Academic Honor Code is a highest standard that every San Jose Polytechnic University (SJPU) student expected to uphold to maintain the academic integrity of the university. The uncompromising standard of excellence in teaching, research, learning and scholarship are expected to maintain by all faculty members, students and staff.

Standards of student conduct that govern student life at SJPU can be stated as:

All students taking courses in the SJPU agree; individually and collectively, that they will neither give nor receive unauthorized aid in examination or other coursework that is to be used by the instructor as a basis of grading.

Students and faculty members are both responsible for the honor code. Faculty members are responsible for explaining the student conduct code clearly and using procedures that minimize temptations to violate the code. Students are responsible for behaving honorably, and for being responsive to violations. Alleged violations should be reported to the office of Academic Dean.

Principles for Faculty/Student Conflict of Interest

San Jose Polytechnic University is committed to the development of excellent Academic Freedom Environment between faculty members and between faculty and students. The faculty members make their best efforts to promote such an open and collaborate community and to prevent conflict of interest or any conflicts from developing with enrolled graduate students.

The following guidelines apply:

- (a) The purpose of education in classroom at San Jose Polytechnic University are foremost and supersede any commercial interests
- (b) Student coursework or any material developed by the student during the coursework is regarded as the intellectual property of the student. A written permission must be obtained from the student prior to use outside the classroom.
- (c) Neither faculty nor students shall be asked to sign a Non-disclosure Agreements for course related work.
- (d) Any general or specific information that is openly discussed and disclosed during the coursework cannot be considered as confidential, either implicitly or explicitly.
- (e) San Jose Polytechnic University will not allow any financial and business relationships between faculty and students while they are conducting classes and/or enrolling in a course together.

Class Schedule

ESL classes are conducted between 9:30 am till 1:00 pm, Monday through Friday.

Most degree classes and certificate courses are conducted in the following schedule: from 3:00 pm till 6:00 pm or from 6:30 pm till 9:30 pm, Monday through Friday. Some degree classes or certificate courses are conducted on Saturdays, either from 9:30 am till 12:30 pm or from 1:00 pm till 4:00 pm.

Graduate Core

All graduate programs have their own core courses of 18 credit hours as listed in the descriptions of each Department. The core courses provide students with fundamental principles and knowledge of each discipline and serve as the foundations for concentration specializations. Students are encouraged to complete core courses as early as possible and must obtain grade with minimum of C- or above in order to fulfill graduation requirements. Graduate core course grade below C- will not be counted toward degree requirements and must be repeated for maximum of two times.

San Jose Polytechnic University will not accept transfer credits of core courses from other institutions or universities in order to assure quality of our graduates.

Academic Advising

Graduate Advisors are responsible for monitoring students' academic progress and will be available for all students with questions regarding choosing courses, transfer credits, study plan and their study progress. Students should make appointment with the Academic Advisor in order for the advisor to prepare in advance.

Registration

Each trimester, a registration window of two weeks is held to allow all graduate students to enroll in classes. Students are assigned a time slot to register according to their student ID number. Prior to registering classes, a student must get his/her graduate advisor approval for the courses he/she is intended to enroll. Student must resolve any registration holds, such as missing official transcripts, missing photocopy of diploma, course deficiencies, or unpaid tuition balance, etc., that have been placed on his/her student record. Students will not be permitted to add/drop/swap any classes until their student records are clear. New students are encouraged to clear any holds by the end of first trimester.

Enrollment Agreement

Student will sign an Enrollment Agreement form with the university during registration when enrolling courses. The Enrollment Agreement is a legally binding instrument when signed by the student and accepted by the university. As a prospective student, you are encouraged to review this catalog prior to signing an enrollment agreement. You are also encouraged to review the School Performance Fact Sheet, which must be provided to you prior to signing an enrollment agreement.

Student signature on this agreement acknowledges that the student has been given reasonable time to read and understand the content and that have been given: (a) a written statement of the refund policy, (b) a catalog including a description of the course or educational service including all material facts concerning the university and (c) the program or course of instruction which are likely to affect student's decision to enroll. Immediately upon signing the Enrollment Agreement, student will be given a copy of it to retain.

In addition, San Jose Polytechnic University will provide a translator to those students who are unable to understand the terms and conditions of the enrollment agreement due to English not being their primary language, and if recruitment was not conducted in English.

Attendance Requirements

Students are required to attend all classes during the trimester sessions. No student is allowed to miss more than 20% of the class which is three classes. Faculty members will check students' attendance in every class and make records on their grade reporting form. The university registrar will assign a WF grade to those students who could not meet this requirement.

Standards of Grades and Credits

Courses in which student has earned of grades A, B, C with plus (+) or minus (-) variations can be counted for the master's degree requirements. The student must earn a cumulative Grade Point Average (GPA) of 3.0 in the approved 36 credits to be awarded a Master of Science or a Master of Business Administration degree.

Maximum transfer credits from other accredited institutions or universities to SJPU are 9 credits that can be counted for master degree requirements. The grades will not be transferred if the transferred courses will be assigned a Passing Grade (P) shown on the student academic record.

Satisfactory Academic Progress (SAP) Monitoring

San Jose Polytechnic University graduate office monitors students' academic progress every trimester to make sure all students maintain Satisfactory Academic Progress (SAP) while they are enrolled at each academic program.

The Normal Program Length (NPL) is determined when the student was admitted to the graduate program that is the required credits to complete a master's degree at San Jose Polytechnic University. The Maximum Program Length (MPL) is equal to the number of credits multiply by 1.5 of the normal program length to complete the master's degree, i.e., $MPL=1.5*NPL$

The following conditions are considered to meet the SAP standard:

- (a) The student maintains GPA on or above 3.0 in every trimester.
- (b) After completing 25% of the MPL, the student Cumulative GPA (CGPA) is on or above 2.50.
- (c) After completing 50% of the MPL, the student Cumulative GPA (CGPA) is on or above 2.75.
- (d) Student must earn a Cumulative GPA (CGPA) on or above 3.0 within the given limit of NPL or within the specified limit of MPL to be awarded a master degree.

Academic Probation

Academic probation is the time period during which the academic progress or conduct improvement is closely monitored by the Graduate Advisor.

A student will be placed on academic probation for any one of the following conditions:

- (a) A Cumulative GPA (CGPA) does not meet the specified SAP standard.
- (b) Seriously violate student conduct code
- (c) Deficient in professional or ethical conduct.

The student will be served with an official notification in writing from Academic Dean for the Academic Probation Reason, Probation Period and Required Correction Actions and Conditions. Copies of the letter will be placed in the student file and recorded on the student electronic record.

Removal of academic probation is not automatic until the required correction actions and conditions are fulfilled by the student and obtained final approval from the Academic Dean.

Disqualified and Dismissal

Disqualified from the program or dismissal from the university is defined as the condition for which the student is not allowed to continue studying at San Jose Polytechnic University due to following reasons:

- (a) Committed crime either within or outside the university premises
- (b) Failure to comply with the terms and conditions specified in the Academic Probation notification
- (c) Failure to complete the required procedures for applying Leave of Absence from the university.
- (d) Provide falsified credentials to the university, such as altered transcript, nonexistence diploma of the degree.
- (e) Repeated violation of student conduct code or ethical conduct.
- (f) Failure to maintain Attendance Requirements for more than two trimesters.

The student who has been disqualified or dismissed from the university will not be admitted to the degree program within next two years of period.

Grading System

Final examinations, or the equivalent, are required for each course. Mid-term examinations, as well as quizzes and/or other classroom assignments, are administered at the discretion of the instructor.

The grading systems used at SJPU follows the general accepted regulation as indicated in the following table:

| Score Range | Grade | Grade Point |
|-------------|-------|-------------|
| 92-100 | A | 4.0 |
| 90-91.9 | A- | 3.7 |
| 88-89.9 | B+ | 3.3 |
| 82-87.9 | B | 3.0 |
| 80-81.9 | B- | 2.7 |
| 78-79.9 | C+ | 2.3 |
| 72-77.9 | C | 2.0 |
| 70-71.9 | C- | 1.7 |
| 68-69.9 | D+ | 1.3 |
| 62-67.9 | D | 1.0 |
| 60-61.9 | D- | 0.7 |
| Below 59.9 | F | 0.0 |

Only those grades and grade points above C- will be counted and used in computing master degree requirements. Grades below C- cannot be counted to satisfy master degree requirements. However, those grades and grade points will be used in computing cumulative GPA.

Incomplete Grades (I Grade)

A student may be assigned an Incomplete Grade (I Grade) under the following uncontrollable emergency situations:

- (a) Serious illness and hospitalized with physician report from licensed medical doctor in US hospital which indicated that the student cannot participate final examination or not be able to finish essential portion of the coursework.
- (b) Family emergency situation either death of family member or relatives with proof of death certificate.
- (c) Female student whose expected deliver date is very close to the final examination date and not be able to attend the final examination.

Student must file a petition to apply for an Incomplete Grade (I Grade) option one week before the scheduled final examination date and obtain approval from the Academic Dean. It is the responsibility of the student to clear up the I Grade within two trimesters after the student registered the particular course. Incomplete grade will become Failure grade (F grade) if the student did not clear up the I Grade within the given time limit.

Withdraw Grades (W Grade)

Students may change their course registered up to seventh week's Friday of that particular trimester. There is a W grade shown on the transcript for the course dropped after third week and a Failure grade (F grade) will be shown on the transcript for the unauthorized dropping the course without formal approval from the graduate advisor.

Dropping courses after eighth week is not permitted and will result in loss of tuition refund. Under qualified emergency conditions beyond the control of the student, an Incomplete Grade (I Grade) may be assigned to the course upon receiving Petition for Incomplete from the student with approval from the Graduate Advisor.

Withdraw with Failing Grades (WF Grade)

A Withdraw with Failing grade (WF) might be assigned to the student grade report for the course enrolled under the following conditions:

- (a) Withdraw a class beyond the course drop deadline which is seventh week of the class with authorization from the graduate advisor. The course will be assigned a WF grade.
- (b) Repeat a failed course (D grade or F grade) and obtain a grade on or above C-. The grade of the original failed course will be replaced by a WF grade.

Pass/No Pass Grade (P/NP Grade)

The Pass/No Pass (P/NP) grade is assigned to the student under the following conditions:

- (a) Students enrolled in the certificate program with satisfactory completion of requirements of such course will receive a P grade.
- (b) Approved transferred courses into degree program will be assigned a P grade
- (c) Students who audit a course and fulfill all course requirements set by the instructor will receive a P grade.

The P/NP grade point will not be used in computing GPA toward degree requirements. Changing P/NP grade to letter grade, i.e., A, B, C, is not automatic. Students must pass a Comprehensive Examination of that particular course in order to receive a letter grade after P/NP grade has been assigned to the student.

In-Progress Grade (IP Grade)

This grade is a temporary grade assigned to all students and showing that the grade from the instructor has not assigned to the course yet. However, all instructors are expected to turn in the student grade report two weeks after the final examination. IP grade will not be shown in the official transcript when all grades have been reported from the instructor.

Request for Examining Grades

It is the student right to examine his/her grade If, after completing a course, a student receives a grade that he/she wishes to dispute. Students must follow the procedures in order to proceed:

- (a) Student must fill out “Grade Examine Request Form” available from the Graduate Office
- (b) The Graduate Advisor will review the student’s grade report submitted by the faculty member and resolved the issue with the student.
- (c) If a changing grade is needed due to miscalculation by the faculty member, the instructor will submit a “Grade Change Form” and approved by the Academic Dean to the Registrar Office to be recorded. The instructor is the only person who can authorize such a grade change.
- (d) If there is no mistake in calculating the grade from the instructor, the grade is considered to be final.

Changing Program of Study

Student has the option to change program of study during enrollment at San Jose Polytechnic University. An Application for Changing Major form will be submitted by the student along with \$35 application fee. After evaluating the qualifications and deficiencies of the applicant for the new program requirements, the student will be given a Certificate of Admission for the new program of study. The course(s) credits earned at SJPU will be re-evaluated and determined by the graduate advisor if such course(s) could be transferred to the new program of study.

Repeating Courses

Repeating course is in general not permitted. Only courses with grade below C- are allowed to repeat after obtaining approval from the Graduate Advisor. Students can only be allowed to repeat a course twice, the credits from a repeated course can be counted only once in fulfilling degree requirements. The grade received from the first or second attempt will be assigned a Withdrawal with Failing (WF) grade and will not be used in computing cumulative GPA, however, all attempts are reflected on the student’s academic records and transcripts.

Withdrawal from Courses

Students can withdraw courses within the given time limit. Withdrawal courses between first and third week shows no record on the transcript. Withdrawal courses between fourth and seventh week, a W grade will be recorded on the transcript. Withdrawal courses after eighth week is prohibited, except under qualified emergency situations beyond students’ control. An I grade will be assigned to that particular course. However, it is the responsibility of the student to clear up then I grade within two trimesters. Failure to do so will result in a F grade for that course.

Withdraw from the Program of Study

A student may withdraw from the current program he/she is pursuing after a written notification has been submitted to the Graduate Office. The student is responsible for dropping all courses enrolled in that particular trimester according to the course dropping procedures and policies. The process is not considered officially completed until the student clears all obligations with the university.

Leave of Absence

A leave of absence request must be made in writing to the Graduate Office. A leave of absence may be granted for a maximum of two trimesters, but not more than one year. Leave of Absence is included in the six-year program completion requirement.

If the approved period for the Leave of Absence is exceeded and the student did not come back to continue his/her study or did not apply for an extension, the student must reapply for readmission to the program and considered to be a new applicant.

Withdrawal from the University

To withdraw from the university, student must submit a written document to the graduate office indicating his/her decision to withdraw from the university. The student is responsible for dropping all courses enrolled in that trimester and clears financial obligations with the university.

Withdrawal from the university is not officially complete until the student returns all school properties checked out before, i.e., library books, licensed software, equipment, etc.

It is the student's responsibility to request for tuition reimbursement according to tuition refund policy of the university and refund checks for approved graduate courses withdrawal will be issued to the student within 30 days of approved withdrawal.

Courses Transferred from Other Universities

SJPU accepts transfer credits up to maximum of 9 graduate level credits from other accredited universities in US under the following conditions:

- (a) The course was functionally equivalent to course offered by SJPU's Master degree program.
- (b) The course was a graduate level course and had been awarded graduate credit.
- (c) The grade of the course was equivalent B or better.
- (d) The course and credit was part of Master degree program and had not been used to obtain Master degree prior to application to SJPU graduate program.
- (e) Graduate transfer credit is not automatic and is granted on a course by course basis only.
- (f) Extension or continuing education courses may not be transferred.
- (g) Only the credit will be transferred to SJPU with a P grade assigned to the transferred course.
- (h) An official transcript is required to complete the transfer credit process with the final approval from Graduate Advisor.

Students must fill out a "Transfer Credit Application Form" and submit to the Graduate Office along with the official transcript from other institutions for graduate advisor to review and approve.

Readmission

Students admitted to the degree or certificate program who withdraw from the university over two trimesters or never register and never file a request for deferment, must formally reapply for graduate admission.

Applicants readmitted must meet the requirements of the admission standards and curriculum in effect at time of readmission. There will no deferment granted for readmitted students. Students must enroll for the respective trimester.

Student Records

The Student Registration Management Module used by SJPU is a database of basic personal information such as name, address, phone, email, etc. It also tracks completion of admissions documents requirements and identifies admission date to determine and track the required curriculum according to graduation requirements of the applicable year. The system also tracks current validity of CPR certification and academic status (Enrolled, Probation, Leave, Drop and Graduated). SJPU also utilizes the system to monitor graduation requirements, including the successful completion of the Comprehensive Graduation Examination, the completion of required didactic curriculum and clinical practicum and the Financial Aid exit interview.

SJPU also continues to maintain hard copy files for all students. The Admissions Officer/Registrar is responsible for compiling and arranging these student files. The files contain, in part, the student application, transcripts, essay, and transfer credit evaluations (if applicable), and other relevant documents. These files are available for review by the President, Academic Dean and Registrar for purposes of counseling, academic advising and monitoring financial obligations. When preparing physical files for a newly matriculated student, the Registrar attaches a checklist form which tracks all items related to academics and financial aid. There is also a documentation checklist that the student receives, a copy of which is placed in the student's file. All files are routinely checked each trimester.

FAMILY EDUCATION RIGHTS AND PRIVACY ACT OF 1974 (Notice to Students of Privacy Rights)

The Family Educational Rights and Privacy Act (FERPA) of 1974 is a federal law governing access to student education records. FERPA stipulates conditions for release of information from education records and affords students the opportunity to review and seek revision of those records. In addition, the federal law states: (a) that a written institutional policy must be established; and (b) that a statement of adopted procedures covering the privacy rights of students must be made available. The law provides that the institution will maintain the confidentiality of student education records. San Jose Polytechnic University (SJPU) accords all the rights provided by the law, and reserves for itself the right to use and release student education records under the conditions specified by the law.

Education records, as defined by FERPA, include admission, academic, financial aid, and placement records, and other information directly related to students, with the exception of records created by the university police for the purpose of law enforcement, student health records that are created and used solely in connection with the provision of health care, employment records that relate exclusively to individuals in their capacities as employees, and alumni or other post-attendance records. FERPA regulations apply only to records held for institutional use concerning students who enroll at the university; they do not govern records of applicants who are denied admission or who choose not to attend the university. Nor do they govern records kept by a university official that are the sole possession of the maker and are not normally revealed to anyone else except a temporary substitute (e.g., temporary reminder notes).

FERPA stipulates that institutions may not disclose personally identifiable information contained in education records without a student's written consent, except under conditions specified by FERPA. Information is considered personally identifiable if it contains a student's name or the name of family members, a student's local or family address, an identification number, or descriptions or data sufficient to identify an individual.

FERPA permits access to student education records for school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic, research, or other staff position (including those in law enforcement and health care); a person

serving on the Board of Trustees; or an individual or organization with whom the university has contracted to serve as its agent or to provide services in support of its operations (examples include attorneys, auditors, collection agents, and the National Student Clearinghouse). Student employees, students serving on official committees, and students serving in other positions in which they assist a university employee in performing her or his official tasks are also considered school officials. A school official has a legitimate educational interest in a student education record if the official needs to review the record in order to fulfill his or her professional responsibilities or official tasks.

With certain exceptions allowed by the law and listed below, no persons outside the university shall have access to, nor will the institution disclose any information from, a student's education record without the written consent of the student. FERPA permits information to be released from education records without written consent of the student to the following officials and agencies:

- Officials of other institutions to which students are applying to enroll
- Persons or organizations providing financial aid
- Individuals and organizations charged with oversight of the university, or of federal or state programs in which the university participates
- Accrediting agencies
- Parents of any student under the age of 21, regardless of the student's dependency status, in cases where the student has violated laws or university rules governing alcohol or controlled substances
- Persons as directed by a judicial order or lawfully issued subpoena, provided the university makes a reasonable attempt to notify the student in advance of compliance (unless directed by judicial authorities not to disclose the existence of an order or subpoena)
- Any person where there is an articulable and significant threat to the health or safety of a student or other individuals
- The Immigration and Naturalization Service under the terms and provisions of immigration law
- An ex parte court order obtained by the United States Attorney General (or designee not lower than an Assistant Attorney General) concerning investigations or prosecutions of any offense listed in United States Code (USC) 18-2332 or an act of domestic or international terrorism as defined in USC 18-2331.

With the exception of alcohol and drug violations, SJPU does not release information from student education records to parents without the written consent of students.

At its discretion, San Jose Polytechnic University (SJPU) may publish or release *directory information* in accordance with the provisions of FERPA. Directory information includes student name, university and permanent home address and telephone number, a photograph, , dates of attendance, class, major fields of study, previous institutions attended, awards and honors (including honor roll), degrees conferred (including dates), participation in officially recognized sports and activities, and heights and weights of members of athletic teams.

By selecting the FERPA restriction to Directory Information on your student account, no information can be released regarding your student record. The FERPA restriction takes precedence over any "Release of Information" forms that you may have submitted. Therefore, if applicable, we will no longer be able to discuss your student records, including account information, with any family member that you may have previously indicated we can release information.

With the FERPA restriction in force, you must come in person with picture identification before SJPU office can release any information. If you call a SJPU office you will not be provided any information over the phone. SJPU employees will only be able to respond, "We do not have any information available". In

addition, if you make the SJPU honor roll, your name cannot be published on the web or in your hometown newspaper.

FERPA provides students with the right to inspect and review information contained in their education records, to challenge the content and accuracy of those records, to have a hearing if the outcome of the challenge is unsatisfactory, and to submit explanatory statements for inclusion in their files if they disagree with the decisions of the hearing panel. The Office of Student Life has been designated by San Jose Polytechnic University to establish procedures by which students may review their education records.

Students wishing to review their education records should submit a written request, clearly specifying the records of interest, to the official responsible for maintaining those records. The Student Life office will assist in identifying the appropriate official. The responsible official will then make arrangements for the student to inspect the records within forty-five days of the request, and will notify the student of the time and place of inspection. The Student office is located in 2001 Gateway Place, Ste 150, San Jose CA 95110

You may contact them by phone at:

Students may have copies made of their records with certain exceptions (e.g., students may not have a copy of academic records for which a financial “hold” exists, or a transcript of an original or source document produced by another institution or by a person not employed by (SJPU). Copies will be made at the student’s expense at prevailing rates, which are listed in the office of the Registrar.

Only records covered by FERPA, as delineated in the above paragraph defining “education records,” will be made available for inspection. (However, students may have their health records reviewed by their own physicians.) Furthermore, the university is permitted or required to withhold from students the following sorts of records: financial information submitted by their parents, confidential letters of recommendation to which students have waived their rights of inspection, and education records containing information about more than one student. In the latter case, the institution will permit access only to the parts of education records that pertain to the inquiring student. Nor is the university required to permit students to inspect and review confidential letters and recommendations placed in their files prior to January 1, 1975, provided those letters were collected under established policies of confidentiality and were used only for the purpose for which they were collected.

Students who believe their education records contain information that is inaccurate, misleading, or held in violation of privacy rights or other rights, may ask the university to amend a record. In such cases, the student should write the university official responsible for the record, identify the parts of the record the student believes should be changed, and indicate the reasons it should be changed. If university officials agree with the student’s request, the appropriate records will be amended. If the university decides not to amend the record as requested by the student, the student will be notified and advised of her or his right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing. FERPA confers the right to challenge grades only in cases where the grade has been mis-recorded. However, SJPU has other procedures for appealing of grades.

Student requests for a formal hearing must be made in writing to the Student Life office, who, within a reasonable period of time after receiving such a request, will inform the student of the date, place, and the time of the hearing. Students may present evidence relevant to the issues raised and may be assisted or represented at the hearings by one or more persons of their choice, including attorneys, at their own expense. The hearing panels that adjudicate such challenges are appointed by the Student Life office. The decisions of the hearing panel will be based solely on the evidence presented at the hearing and are final. They will consist of written statements summarizing the evidence and the reasons for the decision, and will

be delivered to all parties concerned. If the decision is in favor of the student, the education records will be corrected or amended in accordance with the decision of the hearing panel. If the decision remains not to amend the student's education record, the student has a right to insert a statement in her or his record commenting on the information therein. This statement will be maintained as a permanent part of the record and must be included when the record is disclosed to an authorized party.

Students who believe the adjudications of their challenges were unfair, or not in keeping with the provisions of FERPA, may request the assistance of the Office of the President of San Jose Polytechnic University. Students who believe their FERPA rights have been violated may also file complaints with The Family Policy Compliance Office, U. S. Department of Education, 400 Maryland Avenue S.W., Washington, DC 20202-4605 (<http://www.ed.gov/offices/OM/fpco/>).

Retention of Student Records

A detailed system of records is maintained by the University for each student. Each student's file shall contain application documents, admissions credentials, records of attendance, grades earned, satisfactory academic progress records, transcripts, written communication with the student, and any disciplinary actions taken. Fireproof, locking storage is provided for the safekeeping of student records including records of graduation and degrees granted. Such records shall be considered the permanent property of the University and shall not be available for loan or release to others without the written consent of the appropriate student.

Hard copies of student records are stored in fireproof locking file cabinets and in electronic format on a thumb drive on campus for a period of five years from the last date of attendance. Academic records of each student will be stored permanently from date of graduation electronically on a thumb drive with the President of SJPU acting as the Custodian of Records and are accessible by contacting the President;

Dr. Leagong Chen
1631 North First Street, Suite 100, San Jose, CA 95112
Telephone: (408) 564-6389 Fax: (408) 886-9293 Web site: www.sjpuca.us

Maximum Program Length

Maximum Program Length is equal to 36 credits hours for Normal Program Length of a Master degree requirement for the student to complete multiply by 1.5, which is 54 credit hours.

Students are expected to complete the Master degree within six years of graduate admission, including leave of absence. Request for an extension beyond six-year completion requirement must make in writing to the Academic Dean's office and approval of the extension request is at the discretion of the Graduate Advisor.

Graduation Requirements

All graduate candidates need to satisfy all graduation requirements that are in effect at the time of their admission to the University unless compliance with new rules or requirements imposed by a regulating agency is required. Students must achieve total combined minimum of 75% on all quizzes and exams and satisfactory completion of all other course requirements.

Degree Programs: Students seeking a Master of Science degree from San Jose Polytechnic University must meet the following requirements as set by the Board of Trustees and Graduate Committee Members:

- (a) Satisfactory completion of all required course work including a minimum of 36 credit hours of coursework, consisting of 18 credit hours of core courses and 18 credit hours of elective concentrations.
- (b) Maintain through completion a cumulative grade point average (CGPA) of 3.0 or above.
- (c) Clear all financial obligations, including mandatory graduation fees.
- (d) Clear all unreturned school property, i.e., office key, library book, computer from computer laboratory, school licensed software, etc.
- (e) Complete Graduate Petition Form with approval from the Academic Dean.

Certificate Programs: Students seeking a Certificate of Completion from San Jose Polytechnic University must meet the following requirements as set by the Board of Trustees and Graduate Committee Members:

- (a) Successfully complete all required course work including a minimum of 36 credit hours of coursework, including 18 credit hours of core courses and 18 credit hours of elective concentrations.
- (b) Maintain through completion a cumulative grade point average (CGPA) of 3.0 or above.
- (c) Clear all financial obligations, including mandatory graduation fees.
- (d) Clear all unreturned school property, i.e., office key, library book, computer from computer laboratory, school licensed software, etc.
- (e) Complete Graduate Petition Form with approval from the Academic Dean.

Petition for Graduation

It is the student's responsibility to file a Petition for Graduation with the University Registrar no later than the last day to petition for graduate degree as indicated in the university academic calendar. There is a graduation fee due at the time the petition is filed. Student must specify clearly the name should appear in the degree diploma in the Petition for Graduation. The university is not responsible for any discrepancy of the name appeared in the diploma except the mistake was made by the university.

The petition will be reviewed by the Academic Dean for approval. The student will be notified for any course deficiency or other program requirements needed to successfully accomplish the program of study. Student must clear any deficiencies before the petition is approved by the Academic Dean.

FINANCIAL INFORMATION

Financial Aid Policy

SJPU does not have financial aid programs from the state or federal government.

The School will refund money collected from a third party on the student's behalf if the school cancels or discontinues the course in which the student is enrolled, or if the student drops out. If any portion of the tuition was paid from the proceeds of a third party, the refund will be sent to the lender or agency that guaranteed the funds. Any remaining amount will first be used to repay any student financial aid programs from which the student received benefits, in proportion to the benefits received. Any remaining amount of money will be paid to the student.

If you the student obtain a loan to pay for your educational program, you will have the responsibility to repay the full amount of the loan plus any interest, less the amount of the amount of any refund, and that, if you have received federal student financial aid funds, you the student are entitled to a refund of the moneys not paid from federal student financial aid program funds.

Tuition

The board of trustees, upon the recommendation of the president and academic dean, sets the annual academic year tuition per credit for all programs, including academic program and certificate program. Students will be charged with total tuition based on number of credits enrolled approved by the graduate advisor.

Tuition rate change will be publicly announced one trimester prior to the new tuition charged to students. Master of Science Degree Program tuition per trimester credit (1 credit = 15 contact hours) is \$375.

Certificate Program tuition per trimester credit (1 credit = 15 contact hours) is \$375

English as a Second Language (ESL) Program per contact hour \$6.63

Fees and Estimated Expenses

Fees are charged according to the following listed items:

| | |
|---|-------|
| Non-Refundable Application for Admission Fee | \$50 |
| Non-Refundable Readmission Application Fee | \$35 |
| Non-Refundable Change Major/Study Program | \$35 |
| Non-Refundable Registration Fee | \$50 |
| Non-Refundable Late Course Add/Drop Fee (Per Course) | \$25 |
| Non-Refundable Late Registration Fee | \$50 |
| Non-Refundable Student Association Fee | \$15 |
| Non-Refundable Returned Check Fee | \$25 |
| Non-Refundable Student ID Replacement Fee | \$10 |
| Information Service Fee (Digital Library, Computer Lab, Wireless Internet, and Licensed Software Tools) | \$85 |
| Refundable Document Service Fee | \$10 |
| Refundable Academic Transcript Application Fee | \$5 |
| Comprehensive Examination Fee for Certificate Program (Per Course) | \$100 |
| English Placement Test/Institutional TOEFL Test Fee | \$50 |

| | |
|---|--------|
| Tutoring | \$0.00 |
| Assessment Fee for Transfer of Credits (Per Course) | \$100 |
| Transfer Credit Fee (Per Course) | \$30 |
| Graduation Fee (Including Diploma, Official Transcript and Commencement) | \$200 |
| Non-Refundable Student Tuition Recovery Fund (STRF) Fee (an assessment of (\$0.00) per one thousand dollars (\$1,000) of university charges) | \$0.00 |
| Textbooks (approximately \$360/trimester or more) | |
| Health Insurance (approximately \$300/trimester or more) | |
| ESL Learning Materials | \$150 |

For the degree program, based on a graduate student needs to take minimum 9 credit units per trimester and the entire educational program requires total 36 credit units, the estimated charges are:

Total charges for the current period of attendance: \$3,375
 Total charges the student is obligated to pay upon enrollment: \$3,425
 Estimated total charges for the entire educational program: \$16,000

| Program | Total Cost of Program |
|---|-----------------------|
| Master of Science in Mobile Computing 36 Units/540 Hours Tuition: \$13,500.00 Books: \$2,160.00 Tools: \$510.00 Application & Registration Fees: \$50.00 | \$16,520.00 |
| Master of Science in VLSI Engineering 36 Units/540 Hours Tuition: \$13,500.00 Books: \$2,160.00 Tools: \$510.00 Application & Registration Fees: \$50.00 | \$16,520.00 |

For the Certificate program, based on a student only taking one course (assume 3 credit units per course) at a time, the estimated charges are:

Total charges for the current period of attendance: \$1,125 Total charges the student is obligated to pay upon enrollment: \$1,175
 Estimated total charges for the entire educational program: \$1,175

| Program | Total Cost of Program |
|--|-----------------------|
| IC Physical Design 45 Hours | \$1,175.00 |
| IC Layout Design Certificate 90 Hours | \$2,350.00 |

For the ESL certificate program:

Total charges for the current period of attendance: \$1,790
 Total charges the student is obligated to pay upon enrollment: \$1,790
 Estimated total charges for the entire educational program: \$7,160

| Description | Amount |
|---|-------------------|
| ESL Program - \$1590 12 week Beginner (240 hours)+\$50 Application Fee + \$150 Textbooks & Supplies | \$1,790.00 |
| ESL Program - \$1590 12 week Intermediate (240 hours)+\$50 Application Fee + \$150 Textbooks & Supplies | \$1,790.00 |
| ESL Program - \$1590 12 week High Intermediate (240hours)+\$50 Application Fee + \$150 Textbooks & Supplies | \$1,790.00 |
| ESL Program - \$1590 12 week Advanced (240 hours)+\$50 Application Fee + \$150 Textbooks & Supplies | \$1,790.00 |

Note:

- (1) Fees and charges are subject to change in accordance with the economic index without prior notice.**
- (2) Students are responsible for the purchase, return or exchange of their textbooks. Once a student has enrolled in a course, he/she will be given a list of textbooks required for the curriculum.**

Health Insurance

San Jose Polytechnic University requires that students enroll into a health insurance plan with valid proof from the health insurance carrier. Registration process is not considered complete without valid health insurance document. Health insurance is voluntary for all domestic students, either US Citizen, Permanent Residence or H1/H4 visa.

Tuition Refund Policy

The Student has the right to cancel their enrollment agreement and obtain a refund of charges paid through attendance on the first day of class, or the seventh (7th) day after enrollment, whichever is later. Cancellation occurs when the student gives written notice of cancellation to the Director, at the address of the School, shown on this agreement. The Student can also mail, hand deliver, fax or telegram the cancellation. The written notice of cancellation, if sent by mail, is effective when deposited in the mail, properly addressed with prepaid postage.

Cancellation notices are to be addressed to: SJPU 1631 North First Street, Suite 100, San Jose, CA 95112

WITHDRAWAL FROM COURSE:

The Student has the right to withdraw from School at any time. If the Student withdraws from the course of instruction after the cancellation period, the School will remit a pro-rata refund for the unused portion of the tuition and other refundable charges if the student has completed up to 60% of training or less of the instruction within 30 days. The amount of the refund is determined by deducting the registration fee from the total tuition charge, then dividing the remainder by the number of hours in the course to calculate the hourly charge. The refund is the amount in excess of what the student owes for total hours of instruction completed, excluding the non-refundable \$50.00 Registration fee.

The refund shall be a prorated refund as shown in the refund schedule below;

| Total Hours Enrolled | Hourly Tuition Charged | Total Tuition Paid By Student | Total Hours Completed | Total Refund Due Student |
|-----------------------------|-------------------------------|--------------------------------------|------------------------------|---------------------------------|
| 100 | \$20. | \$2,000. | 50 | \$1,000. |

HYPOTHETICAL REFUND EXAMPLE: Students have a right to a full refund of all charges, less the \$50 registration fee, if the student cancels the enrollment agreement on the first day of class or on the seventh day after enrollment/signing this agreement. The amount retained by the school will not exceed the \$50 (fifty dollars) registration fee.

If a student withdraws from the program after instruction has begun, the student will receive a pro rata refund for the unused portion of the tuition and other refundable charges if the student has completed 60% or less of the instruction. The date of withdrawal is the date of cancellation and is determined as the date the student notifies the school of the decision to cancel, or the last date of attendance if the student fails to notify the school. The student will be charged for all hours attended. For example, if the Student completes 50 hours of a 100-hour course and paid \$2,000 for tuition-in-full, the student would receive a refund of \$1,000.

The School will refund money collected from a third party on the student's behalf if the school cancels or discontinues the course in which the student is enrolled, or if the student drops out. If any portion of the tuition was paid from the proceeds of a third party, the refund will be sent to the lender or agency that guaranteed the funds. Any remaining amount will first be used to repay any student financial aid programs from which the student received benefits, in proportion to the benefits received. Any remaining amount of money will be paid to the student.

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

If the student defaults on a federal or state loan, both the following may occur:

- (1) The federal or state government or a loan guarantee agency may take action against the student, including applying any income tax refund to which the person is entitled to reduce the balance owed on the loan.
- (2) The student may not be eligible for any other federal student financial aid at another institution or other government financial assistance at another institution until the loan is repaid.

If you the student obtain a loan to pay for your educational program, you will have the responsibility to repay the full amount of the loan plus any interest, less the amount of the amount of any refund, and that, if you have received federal student financial aid funds, you the student are entitled to a refund of the moneys not paid from federal student financial aid program funds.

Student Tuition Recovery Fund (STRF)

You must pay the state-imposed assessment for the Student Tuition Recovery Fund (STRF) if all of the following applies to you:

- (a) You are a student in an educational program, who is a California resident, or are enrolled in a

residency program, and prepay all or part of your tuition either by cash, guaranteed student loans, or personal loans, and

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

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

1. You are not a California resident, or are not enrolled in a residency program, or
2. our total charges are paid by a third party, such as an employer, government program or other payer, and you have no separate agreement to repay the third party."

"The State of California created the Student Tuition Recovery Fund (STRF) to relieve or mitigate economic losses suffered by students in educational programs who are California residents, or are enrolled in a residency programs attending certain schools regulated by the Bureau for Private Postsecondary and Vocational Education. You may be eligible for STRF if you are a California resident or are enrolled in a residency program, prepaid tuition, paid the STRF assessment, and suffered an economic loss as a result of any of the following:

- a) The school closed before the course of instruction was completed.
- b) 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.
- c) 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.
- d) There was a material failure to comply with the Act or this Division within 30 days before the school closed or, if the material failure began earlier than 30 days prior to closure, the period determined by the Bureau.
- e) An inability after diligent efforts to prosecute, prove, and collect on a judgment against the institution for a violation of the Act."

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

Any question regarding STRF can be directed to:

Mailing Address:

Bureau for Private Postsecondary Education

P.O. Box 980818

West Sacramento, CA 95798-0818

Physical Address:

Bureau for Private Postsecondary Education

2535 Capitol Oaks Drive, Suite 400

Sacramento California, 95833

Phone: (916) 431-6959 Toll Free: (888) 370-7589

ACADEMIC PROGRAMS AND REQUIREMENTS

San Jose Polytechnic University (SJPU) California offers Master of Science degrees (letter grades) and certificate programs (P/F grades). The certificate programs contain the same curriculum as the degree programs and require students to comply with the same academic and nonacademic policies as degree seeking students.

SJPU does not offer any part of the programs offered via distance education.

Unit/Clock Hour Conversion

One semester credit is granted for each 15 hours of classroom contact plus appropriate outside preparation or the equivalent; for each 30 hours of supervised laboratory or clinical instruction plus appropriate outside preparation; and for each 45 hours of clinical externship or independent study.

Academic Requirements for Degree Programs

The Master of Science degrees offered by the SJPU School of Engineering are: **Master of Science in VLSI Engineering (MSVE)** and **Master of Science in Mobile Computing (MSMC)**. These degree programs are designed to extend the technical breadth and depth of knowledge and skills in computer science and engineering and prepare the students with capabilities in high-tech professional careers.

The Master of Science degree programs must include no less than 36 trimester credits of required course work with a cumulative GPA of 3.0 on a 4.0 scale (B average). Students are required to complete a minimum of 27 trimester credits of their graduate program course work at SJPU. A maximum of 9 credits of relevant graduate level coursework may be transferred from other accredited institutions that have not been used towards obtaining a degree. The acceptance of transfer credits is at the discretion of the graduate advisor. All credits applied toward the master degree, including those transfer credits from other institutions must be earned within a six-year period.

The curriculum for the Master of Science in VLSI Engineering (MSVE) degree includes 18 credits of Computer Hardware Engineering fundamentals in the core area and 18 credits of concentration electives in VLSI Systems Design area totaling 36 credits for degree completion.

The curriculum for the Master of Science in Mobile Computing (MSMC) degree program includes 18 credits of Mobile Engineering fundamentals in the core area plus 18 credits of concentration electives in Mobile Application and Mobile System areas.

Academic Requirements for Certificate Programs

San Jose Polytechnic University (SJPU) California offers certificate programs in several professional disciplines. These certificate programs are designed to provide interested students with intensive knowledge and skills in a focused area at the graduate level. Certain certificate program courses are in-line with the graduate degree curriculum but the time required to complete the certificate is much shorter than an advanced degree required.

Certificate programs are suitable for those professionals currently working in high-tech industry or global business sectors who wish to update their knowledge or enhance their skills or those who are interested in changing their careers.

Students must maintain a minimum grade of 2.0 (C) or above in each course if the student chooses the option of Pass/No Pass (P/NP) grade in order to earn a Certificate of Completion issued by SJPU. The P grade may be changed to a letter grade if the student chooses to take the comprehensive examination of that particular course for a letter grade.

Courses completed in the certificate program with a letter grade of 3.0 or above may earn graduate credits that may be transferred into a MS degree program at SJPU, upon approval of the Graduate Admission Committee.

English as a Second Language (ESL) Certificate Programs

The San Jose Polytechnic University (SJPU) ESL program exists to assist those individuals whose first language is not English in acquiring proficiency in the English language, including reading, writing, listening, and speaking, as well as achieving individually determined educational, professional, vocational, and/or personal goals.

Furthermore, SJPU offers specific programs designed to:

Help *professionals* acquire sufficient English proficiency for employment and/or global business negotiations

Help *new residents* in the United States become competent in the English language in order to live, work, and if so desired, gain citizenship.

English as a Second Language (ESL) – Beginner Level

General Performance Objectives

Students can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). Students can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Students can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.

Credit Hours: 240

Completion Time: One Semester (60 class days), or approximately 20 hours per week for 12 weeks.

English as a Second Language (ESL) – Intermediate Level

General Performance Objectives

Students can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialization. Students can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Students can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.

Credit Hours: 240

Completion Time: One Semester (60 class days), or approximately 20 hours per week for 12 weeks.

English as a Second Language (ESL) – High Intermediate Level

General Performance Objectives

Students can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialization. Students can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Students can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options. Build on objectives from ESL Level 3.

Credit Hours: 240

Completion Time: One Semester (60 class days), or approximately 20 hours per week for 12 weeks.

English as a Second Language (ESL) – Advanced Level**General Performance Objectives**

Students can understand with ease virtually everything heard or read. Students can summarize information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Students can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in the most complex situations.

Credit Hours: 240

Completion Time: One Semester (60 class days), or approximately 20 hours per week for 12 weeks.

UNIVERSITY POLICIES AND STUDENT SERVICES

Policy of Housing Information

(a) San Jose Polytechnic University does not have any type of dormitory facilities under its control. (b) There is an abundance of varied housing in a wide range of pricing immediately surrounding the campus. The range of housing is usually between \$800-\$1,200 depending on the number of bedrooms and if shared. (c) The University bears no responsibility in finding or assisting students in finding housing. The University does, however, have a bulletin board for student use to communicate opportunities for shared housing or for other community and professional listings. The Admissions Officer is available to make suggestions and help with resources to find housing, but it is the responsibility of the student to find acceptable housing within their own circumstances and needs.

The University does not offer on-campus housing. The city of San Jose and the neighboring communities of Santa Clara, Cupertino and Mountain View have extensive rental apartments and housing in all price ranges. The University is also within commuting distance from a number of other residential communities including Los Altos, Saratoga, Campbell, San Jose, Milpitas and Fremont.

Policy of Grievance Procedures

Students may file a complaint to an instructor or an administrator in writing. The recipient of the complaint will transmit the complaint to the Academic Dean. Students may also directly speak with the Academic Dean.

The Academic Dean will investigate the complaint thoroughly, including interviewing all pertinent individuals and reviewing all documents that relate or may potentially relate to the complaint. The Academic Dean will then report to the President the nature of the complaint and findings.

Students who feel aggrieved with the University, policies, practices and procedures, or faculty and staff may submit grievances in writing to the Academic Dean who will act upon or direct the complaint to the President for action which may result in an investigatory hearing and appropriate action. A response will be sent as quickly as possible. Due process will be an integral part of all dispute resolutions. Any questions or problem which have not been satisfactorily answered or resolved by the University may be directed to the:

Mailing Address:

Bureau for Private Postsecondary Education

P.O. Box 980818

West Sacramento, CA 95798-0818

Physical Address:

Bureau for Private Postsecondary Education

2535 Capitol Oaks Drive, Suite 400

Sacramento California, 95833

Phone: (916) 431-6959 Toll Free: (888) 370-7589

Web site: www.bppe.ca.gov E-mail: bppe@dca.ca.gov

Policy of Sexual Harassment

San Jose polytechnic University strives to provide an environment in which the dignity and worth of the members of the school community are based on mutual respect. Sexual harassment is considered unprofessional conduct by employees and students and is unacceptable behavior. It will not be tolerated. San Jose Polytechnic University is committed to an employment and academic environment that

encourages excellence. This environment includes freedom from all forms of harassment for students, faculty, staff, and applicants who seek to join the University. Sexual harassment violates SJPU policies as well as local, state, and federal law. It is a violation of University policy for anyone to retaliate against an employee, student, or applicant who makes a claim of sexual harassment. Any person violating University policy on sexual harassment is subject to disciplinary action such as reprimand, suspension, or termination of employment or enrollment. The type of disciplinary action imposed will depend on the severity of the offense.

General Definition of Sexual Harassment

Sexual harassment is an unwelcome sexual advance, request for sexual favors, verbal or physical conduct of a sexual nature directed towards a student, employee, or applicant seeking to join San Jose Polytechnic University. When an individual is in a position to influence the education, employment, or participation in a school activity of another person, even apparent consensual sexual relationships often constitute sexual harassment. Sexual harassment occurs when any of the following circumstances exist:

1. Submission to such conduct is made, either explicitly or implicitly as a term or condition of a person's status in a program for academic, employment, or admission decision.
2. Submission to or rejection of such conduct is used as the basis for academic decisions or employment decisions, or
3. Such conduct has the purpose or effect of "unreasonable interfering" with an employee's work or student's academic performance or creating an intimidating, hostile, coercive, and offensive work or educational environment. For purposes of this policy, "unreasonable interfering" is defined as improper, unjustifiable behavior going beyond what is appropriate, warranted, or natural.
4. Sexual harassment is not limited to action by a supervisor or instructor but can include conduct by a co-worker or student.

Resolution of Discrimination and Sexual Harassment Complaints

Any applicant for admission, enrolled student, applicant for employment, or employee of San Jose Polytechnic University who believes s/he has been discriminated against (on the basis of such things as race, gender, disability, sexual orientation, or age) or who believes s/he is a victim of sexual harassment may lodge a formal institutional grievance according to the following procedure:

Step 1: Informal Meeting -- In an attempt to informally resolve the concern, the complainant may request a meeting with the individual believed to have committed the discriminatory or sexual harassment act or with the appropriate supervisor, as determined by the University administration office. The time period for informal resolution of concerns shall not exceed thirty days from the time the concern is lodged.

Step 2: Official Hearing -- If not satisfied by the results of the informal meeting or if the informal meeting has been waived, the complainant may request in writing a meeting with the dean of academic affairs.

The request for an official hearing must be made in writing and set forth the specific grievance raised by the complainant.

Within thirty calendar days of receiving the written request, the appropriate officer (identified in Step 2) shall arrange a meeting to hear the complaint. It shall be at the discretion of the complainant to determine whether the person to whom the complaint has been directed shall meet with the complainant and officer separately or in a single meeting. If the complainant requests a single meeting, the meeting shall be attended by the complainant, the person to whom the complaint is directed, and the officer, who shall chair the meeting.

Following the hearing and within thirty calendar days of receiving the written request, the officer will report his/her findings in writing to both the complainant and the person to whom the complaint has been directed.

Step 3: Presidential Appeal -- If the complaint is not resolved as a result of the hearing conducted by the officer in Step 2, either the complainant or the person to whom the complaint has been directed may request an appeal to the university president.

The request must be made in writing within ten days after receipt of the written result of the official hearing.

Within fifteen days after receiving the request, the college president or the president's designee will conduct the presidential appeal hearing and report the findings in writing to both the complainant and the person to whom the complaint is directed.

Attendance at the presidential appeal hearing shall be limited to the college president or his/her designee, the officer who conducted the formal hearing, the complainant, and the person to whom the complaint is directed, unless otherwise mutually agreed by the parties. The college president or his/her designee shall preside.

Either the complainant or the person to whom the complaint is directed may call witnesses, at the direction of the person presiding.

The written findings of the presidential appeal will be considered final. No further intra-institutional appeal exists.

If desired, inquiries or appeals beyond the institutional level may be directed to;

Regional Civil Rights Director
Office for Civil Rights, Region IX
U.S. Department of Education
221 Main Street, 10th Floor
San Francisco, California 94105
(415) 227-8020 TTY(415) 227-8124

Policy of Resolution of Academic Complaints

Step 1. Students with concerns about academics must first submit their concerns directly to the instructor or officer involved.

Step 2. If there is no satisfactory resolution, the complaint should then be filed in writing to the Dean of academics, who will act as mediator to resolve the grievance.

Step 3. If a satisfactory resolution cannot be obtained, then, the student may submit an additional written request citing the specific issues. Within 1 week, the dean will convene a Grievance Committee hearing. The SJPU Grievance Committee will consist of two administrative, one faculty, and one student representative with the Dean serving as the chair. The committee will hear the matter and make a decision within 5 working days of the hearing date.

Step 4. If the Grievance Committee's decision does not produce a satisfactory resolution, a formal appeal for review can be made to the office of the President. All decisions of the President are final. If the Grievance is about the President, the student's written appeal will go to the Board of directors for consideration

Step 5. If a student is not satisfied with the outcome, the student may contact the following agency:

Bureau for Private Postsecondary Education (BPPE)
P.O. Box 980818
West Sacramento, CA 95798-0818

Physical Address:

2535 Capitol Oaks Drive, Suite 400
Sacramento California, 95833
Phone: (916) 431-6959

Policy of Personal Conduct

Each student is expected to be an example of proper conduct. This includes the student's attitudes, actions, appearance, and attire. The University's administration has the authority to take appropriate action through the Student Body Association or administrative disciplinary measures if this code of conduct is not adhered to. It is the policy of the University to prohibit smoking except in designated areas and prohibits unlawful possession or use of controlled substances or alcoholic beverages. Firearms possession anywhere on campus is STRICTLY PROHIBITED.

Policy of Student Rights and ResponsibilitiesCode of Conduct

The disciplinary standards outlined in this catalog include rules and enforcement measures. These are the basic guidelines for conduct on the premises of the University, at any school sponsored activity and, under certain circumstances, behavior in the outside community. At any time, the University reserves the right to exclude students whose conduct is deemed undesirable or prejudicial to the University community's best interests. All amendments of the standards must be approved by the Dean in conjunction with the Executive Council. These standards are subject to amendment at any time with notices being posted on the campus bulletin boards and/or with the amendments prominently displayed in the campus newsletter.

The disciplinary standards described herein afford procedural fairness to the accused student and flexibility for the administration to exercise sanctions based on the individual circumstances of each case. Behavior resulting in disciplinary action may involve, but is not limited to, one or a combination of those listed below:

- Possession of alcoholic beverages on campus or at any school activities at any time
- Intoxication of the student
- No student will threaten another student, faculty, staff or administrator
- Falsification of University documents, records, or identification
- Dishonesty in any form, including plagiarism, illegal copying of software, or knowingly furnishing false information to the University
- Cheating or compromising test materials
- Removal of library materials without permission
- Disruption of class or academic activities
- Usage of abusive language to another student, faculty, staff, or administrator
- Theft or damage of University property or fellow student's property
- Illegal intoxication with controlled substances physical assault for any reason except clear self-defense
- Vandalism of University property
- Conviction for a crime beyond normal traffic violations
- Aiding and/or abetting in any of the above situations
- Possession of firearms or illegal weapons as defined by state and federal guidelines
- Violation of any state policies or regulations governing student's relationship with the University.

Students accused of improper conduct shall be given adequate notice of the charges and an opportunity to appeal the case to the grievance committee. Written notice of specific charges made against a student shall

be given at least 15 (fifteen) days before the student is to appear before the committee. While disciplinary action against a student is pending, the student's status does not change unless it is found that the student poses a significant threat to the University community. Hearings are private. The accused student is afforded the opportunity to rebut all charges. The University establishes the charges by a preponderance of the evidence. The student has the right to appeal the disciplinary actions to the Academic Dean, but on the grounds that fair procedure was not followed by the committee or that the evidence in the record does not justify the decision or the sanction. A record will be kept of the disciplinary action taken and the basis for this decision. The disciplinary action taken may be reflected on the student's permanent record as part of the disciplinary punishment. Disciplinary action invoked by the committee may involve, but is not limited to, one or a combination of the alternatives listed as follows:

Dismissal

Separation of the student from the University is on a permanent basis.

Suspension

Separation of the student from the University is for a specific length of time.

Probation

Status of the student indicating that the relationship with the University is tenuous and that the student's record will be reviewed periodically to determine suitability to remain enrolled.

Specific limitations and restrictions on the student's privileges may accompany probation. University policy stipulates that a student dismissed by disciplinary action, from either the University or a course, will receive a refund of tuition or other applicable fees according to SJPU refund policy. Students dismissed from the University for disciplinary reasons must exclude themselves from the University classes, activities, facilities, and buildings. Any exception must be approved by the President.

A student who is dismissed may reapply for admission after two semesters from the dismissal.

University Catalog

It is the responsibility of the student to be familiar with the information presented in this catalog and to know and observe all policies and procedures related to the program the student is pursuing. Regulations will not be waived nor exceptions granted because a student pleads ignorance of these policies or procedures. While academic advisors will assist students in every way possible, the responsibility for following all policies, procedures, requirements, and deadlines will rest with the student. A student is expected to satisfy the requirements of the catalog in effect at the time the student is admitted to the University and begins course work in a degree program. However, a student may elect to graduate under the catalog in force at the time of graduation provided the student complies with all requirements of the later catalog.

Classroom Conduct

Instructors are responsible for presenting appropriate material for courses and students are responsible for learning the material. The academic performance of a student is evaluated in the determination of grades; however, student conduct is important in the academic setting. Enrollment in a class may be terminated due to unsatisfactory student conduct, undue disrespect toward an instructor or administrator, or academic dishonesty. Each student is responsible for maintaining standards of academic performance established for each course in which the student is enrolled.

Drug, Alcohol and Smoking Policies

It is the policy of the Board of Trustees that the learning environment be free of prohibited or controlled substances. Specifically, all members of the University community which includes administration, faculty, staff, students, and guests, must abstain from the consumption of alcohol, narcotics, and/or misuse of prescription drugs while on University property and on any field trip sponsored as part of the instructional program. Violation of this policy may lead to suspension, expulsion, termination, and in the context of criminal activity, referral to law enforcement agencies. Employees and students having difficulties with addictive substances can seek confidential advisement from the Student and Alumni Services Coordinator for referrals to agencies providing assistance with alcohol or drug related problems.

It is the policy of SJPU that smoking is prohibited in all University facilities. At the discretion of the administration, an outside area may be set aside within the University facilities to accommodate students, staff members, and faculty who smoke.

Violation of the smoking policy may result in suspension or termination of academic status or employment.

Campus Security

In accordance with the Higher Education Act of 1965 as amended by Public Laws 101- 542, 102-26, 102-325 and 103-208, all related to the Student Right-To-Know and Campus Security Act, the University makes available to current students, prospective students, employees, and prospective employees, information about campus safety policies and procedures and statistics concerning whether certain crimes took place on campus. The latest report will be posted on the campus bulletin board, and is available upon request by contacting the Student and Alumni Services Coordinator or by writing to the administrative office.

Any incidence is a cause of concern to the University. Therefore, students, faculty, and staff are encouraged to report any crimes or suspected crimes to the Director of operations who will immediately notify appropriate local law enforcement agency. In the absence of the Director of operations and other officials, the individual should directly notify the local law enforcement agency.

Policy of Academic Freedom

San Jose Polytechnic University is committed to provide all faculty members and students with environment of excellence in teaching, learning and scholarship. All members of the community have a responsibility to promote and maintain that standard. Academic integrity and academic freedom are the core value of SJPU while in the process of searching truth.

The university considers the core of academic freedom in terms of the followings:

- (a) The right to express opinions and ideas freely without being harassed or retaliated.
- (b) The right to search truth and form academic opinions
- (c) The right of using university provided resources equally
- (d) The right of being treated equally under university policies
- (e) The right to analyze academic topics objectively based solely on the available facts.
- (f) The right of being judged fairly based solely on the quality of academic performance
- (g) The right of accessing course contents and course materials in the process of pursuing degree at the university
- (h) The right of inquiry during class or after class regarding academic issues

Policy of Student Services

San Jose Polytechnic University provides the following student services to the current and graduated students:

- (a) Academic Counseling Services: Tutorial session will be provided to those students in need of after-class instruction from voluntary students, graders or instructors.
- (b) Professional Development Services: Workshops about resume writing, job placement, and interview skills will be held at each trimester.
- (c) Student Association Services: Organizing students in participating local community activities or visiting nearby high-tech companies or business sectors.
- (d) SIPU Alumina Associations Services: Establishing a network for SJPU graduates to share experiences and enhance their social interactions.
- (e) Internship Services: SJPU will constantly seek internship opportunities from local companies and encouraging qualified students to participate company sponsored projects before students graduating from the school.

San Jose Polytechnic University does not provide job assistance. SJPU provides students the skill sets for emerging technology markets which is very dynamic and volatile. Therefore, there is no predictable mechanism to properly secure job opportunities for students.

Policy of Non-Discrimination

San Jose Polytechnic University' decision about student recruitment, placement, admission, retention, participation in programs or activities, financial assistance will not be based on race, color, national origin, gender, age, sexual orientation, religious creed, mental disability, medical conditions, marital status, citizenship status, Vietnam veteran status or other status protected by law.

ANY QUESTIONS OR PROBLEMS CONCERNING STUDENT GRIEVANCES WHICH HAVE NOT BEEN SATISFACTORILY ANSWERED OR RESOLVED BY THE UNIVERSITY OFFICER SHOULD BE DIRECTED TO:

Mailing Address:
Bureau for Private Postsecondary Education
P.O. Box 980818
West Sacramento, CA 95798-0818
Physical Address:
Bureau for Private Postsecondary Education
2535 Capitol Oaks Drive, Suite 400
Sacramento California, 95833
Phone: (916) 431-6959 Toll Free: (888) 370-7589
Web site: www.bppe.ca.gov E-mail: bppe@dca.ca.gov

Policy for Withdrawal from University Due to Health Reasons

In the event of uncontrollable medical emergency conditions experienced by the students, such as serious illness and hospitalized, injury or psychological situations which require medical treatment, students may need time away from the university and restore functioning. Student has the option to apply for withdrawing from the university.

The university will consult with the appropriate staff members and medical health professionals to implement this policy and procedures as regarding to permanent withdrawal from the university or reenrollment after recovery.

Policy of Using Campus Computing and Electronic Resources

The computer laboratory, digital library, e-mail system and wireless access and other electronic resources at San Jose Polytechnic University are provided solely for the support of faculty members, students and staff in the pursuit of academic activities and administrative works. In using these resources at SJPU, community members are expected to follow the principles of etiquette, fairness and legality. Users of these electronic resources are abide by State and Federal Law in terms of intellectual property law and copyright law.

Policy of Changing Grade

After the final grade has been submitted to the Registrar's Office by the instructor, student's grade is locked and change of grade is not automatic. Only under declared administrative error made by the clerical work or calculating and recording error made by the instructor, can the grade be changed. The change of grade must follow the procedures stated below:

- (a) Student must fill out "Grade Examine Request Form" available from the Graduate Office
- (b) The Graduate Advisor will review the student's grade report submitted by the faculty member and resolved the issue with the student.
- (c) If a changing in grade is needed due to miscalculation by the faculty member, the instructor will submit a "Grade Change Form" approved by the Academic Dean to the Registrar Office to be recorded. The instructor is the only person who can authorize such a grade change.
- (d) If there is no mistake from the instructor, the grade is considered to be final.

If there is an error in recording grade made by clerical work from the Registrar, the Academic Dean shall examine the original grade report submitted by the instructor.

DEPARTMENT DESCRIPTIONS AND CURRICULUM

STUDENT LEARNING OBJECTIVES

Graduates of SJPU Master of Science in VLSI engineering program will be able to:

1. **Evaluate** the effectiveness of a designed experiment and the implications of the resulting data.
2. **Verify** and **justify** the solution to a complex computer engineering problem, including the use of appropriate tools and techniques.
3. **Develop** and **evaluate** new, advanced technical knowledge in a specialized area of computer engineering.
4. **Synthesize** and **explain** the relevance and application of new, advanced technical knowledge in both technical and non-technical terms.

| |
|---------------------------------------|
| Department of VLSI Engineering |
|---------------------------------------|

Master of Science in VLSI Engineering (MSVE) Program Overview

Missions and Purposes

The San Jose Polytechnic University (SJPU) Master of Science in VLSI Engineering (MSVE) degree is a graduate-level program designed for students who choose to pursue the advanced knowledge and the hands-on experience in the fields of hardware and VLSI systems. We will provide the best learning environment for graduate students to acquire the most up-to-date skills and knowledge in designing, developing, and supporting VLSI systems and applications.

Student Learning Objectives

The VLSI Engineering program has two main goals: (1) to develop breadth of understanding in the fundamental aspects of VLSI Engineering through core course work, and (2) to focus depth of state-of-the-art technology and industry needs through concentrating electives in VLSI Systems studies. The VLSI Engineering concentration covers the overall understanding of the VLSI design process. With the completion of the program, the students will gain a comprehensive understanding of the entire IC design flow methods and steps and know how each phase to support the development of a VLSI product.

Student Educational Outcomes

The San Jose Polytechnic University program educational objectives for the MSVE engineering program describe accomplishments that graduates are expected to have attained upon graduation. Graduates will have applied their expertise to contemporary problem solving, be engaged professionally, have continued to learn and adapt, and have contributed to their organizations through leadership and teamwork. More specifically, the objectives are **expertise, engagement, learning, leadership** and **teamwork**.

- Graduates will be able to demonstrate peer-recognized **expertise** together with the ability to articulate that expertise and use it for contemporary problem solving in the analysis, design, and evaluation of electrical and electronic devices and systems.
- Graduates will be able to demonstrate **engagement** in the engineering profession, locally and globally, by contributing to the ethical, competent, and creative practice of engineering or other professional careers.

- Graduates will be able to demonstrate sustained **learning** and adapting to a constantly changing field through graduate work, professional development, and self-study.
- Graduates will be able to demonstrate **leadership** and initiative to ethically advance professional and organizational goals, facilitate the achievements of others, and obtain substantive results.
- Graduates will be able to demonstrate a commitment to **teamwork** while working with others of diverse cultural and interdisciplinary backgrounds.

MSVE Degree Requirements

Thirty-six credit hours of course work with cumulative GPA 3.0 or above are required to award a MSVE degree by San Jose Polytechnic University. Students are required to complete 18 credit hours of core curriculum courses plus 18 credit hours of concentration electives in a specific related area. Core courses requirements will prepare students with general background in VLSI Engineering practices. Concentration electives will prepare students in particular functional areas. Currently SJPU MSVE degree program offers the concentration area, namely VLSI Engineering. To declare a concentration, students are required to complete 18 credits of course work in a designated area beyond core course requirements. Students do not have to select a concentration or, once chosen and started, do not necessarily have to complete the concentration in order to graduate.

MSVE Core Courses

All MSVE degree seeking students are required to complete 18 credits of core course to meet graduation requirements stated in the following:

| | |
|--|-------------------------|
| VE 500 Computer Architecture | (3 Credit Hours) |
| VE 501 Distributed Computing | (3 Credit Hours) |
| VE 502 Computer Networks | (3 Credit Hours) |
| VE 503 VLSI Design | (3 Credit Hours) |
| VE 504 Embedded Systems Design | (3 Credit Hours) |
| VE 505 Parallel Computing Systems | (3 Credit Hours) |
| VLSI Engineering Concentration | |

Students declaring VLSI Engineering Concentration must complete a minimum of 18 credit hours and a maximum of 18 credit hours of course work in VLSI Systems electives. The available electives of VLSI Systems concentration are:

| | |
|---|-------------------------|
| VE 510 SoC Design | (3 Credit Hours) |
| VE 511 Digital Logic Design Using Verilog | (3 Credit Hours) |
| VE 512 Logic Synthesis | (3 Credit Hours) |
| VE 513 IC Physical Design | (3 Credit Hours) |
| VE 514 Fundamental IC Layout Design | (3 Credit Hours) |
| VE 515 Advanced IC Layout Design | (3 Credit Hours) |
| VE 516 Physical Verification for Manufacturing | (3 Credit Hours) |
| VE 517 FPGA Design and Implementation | (3 Credit Hours) |
| VE 518 Low Power Systems Design | (3 Credit Hours) |
| VE 519 Wireless Design | (3 Credit Hours) |
| VE 520 Nano Structures and Quantum Devices | (3 Credit Hours) |

Graduate Transfer Credit

SJPU accepts transfer credits up to a maximum of 9 qualified graduate level credits from other accredited universities located in US under the following conditions:

- (a) The course was functionally equivalent to course offered by SJPU's MSVE degree program.
- (b) The course work appears on an Official Transcript as per admissions requirements.
- (c) The course was a graduate level course and had been awarded graduate credit.
- (d) The grade of the course was equivalent B or better.
- (e) The course and credit was part of MSVE degree program and had not been used to obtain MSVE or other master degree prior to application to SJPU MSVE program.
- (f) Graduate transfer credit is not automatic and is granted on a course by course basis only.

| |
|---------------------------------------|
| Department of Mobile Computing |
|---------------------------------------|

Master of Science in Mobile Computing (MSMC) Program Overview

Missions and Purposes

The San Jose Polytechnic University (SJPU) Master of Science in Mobile Computing (MSMC) degree is the graduate-level program designed for students to pursue the advanced knowledge and the hands-on experience in the fields of mobile computing systems engineering and applications development. We will provide the best learning environment for graduate students to acquire the most up-to-date skills and knowledge in designing, developing, and supporting mobile computing systems and applications.

Student Learning Objectives

Graduates of the San Jose Polytechnic University MSCM program will process a) An ability to apply knowledge of mathematics, science, and mobile computer engineering;^{[[SEP]]}(b) An ability to design and conduct experiments, as well as to analyze and interpret relevant data;^{[[SEP]]}(c) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;^{[[SEP]]}(d) An ability to function on multidisciplinary teams;^{[[SEP]]}(e) An ability to identify, formulate, and solve MC engineering problems;^{[[SEP]]}(f) An understanding of professional and ethical responsibility;^{[[SEP]]}(g) An ability to communicate effectively;^{[[SEP]]}(h) The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;^{[[SEP]]}(i) A recognition of the need for, and an ability to engage in life-long learning;^{[[SEP]]}(j) A knowledge of contemporary issues;^{[[SEP]]}(k) An ability to use the techniques, skills, and modern engineering tools necessary for an advanced mobile computing engineering practice.

Student Educational Outcomes

Graduates of The San Jose Polytechnic University MSMC program will be able to:

- a) Graduates will be able to apply principles of mathematics, science and engineering as it relates to Mobile Computing.
- b) Graduates will be able to identify, formulate and solve relevant dynamic engineering problems.
- c) Graduates will be able to design, execute the experiments to analyze and interpret data.
- d) Graduates will be capable of designing electronics systems as per the needs of the Mobile Computing industry.

- e) Graduates will be able to visualize and work on laboratory and multidisciplinary tasks.
- f) Graduates will be able to demonstrate skills to use modern engineering tools, methodologies and software to analyze problems.
- g) Graduate will be able to exhibit the professional knowledge and accepting ethical responsibility to the problems of industry and society.
- h) Graduates will be able to communicate effectively in verbal and written forms with colleagues, technical audience and general public.
- i) Graduates will be able to understand the impact of engineering solutions on the society and will be aware of contemporary developments outside the work environment.
- j) Graduates will be able to develop confidence for self-education for lifelong learning of advancements being happened around the world.
- k) Graduates will be capable in appearing competitive examinations for the jobs in the public and private sectors.

MSMC Degree Requirements

Thirty-six credit hours of course work with cumulative GPA 3.0 or above are required to award a MSMC degree by San Jose Polytechnic University. Students are required to complete 18 credit hours of core course plus 18 credit hours of concentrating electives in a specific area. Core courses requirements will prepare students with general background in Mobile Computing Systems practices. Concentration electives will prepare students in particular functional areas. Currently SJPU MSMC degree program offers two concentration areas, namely Mobile Applications and Mobile Systems. To declare a concentration, students are required to complete 12 credits of course work in a designated area beyond core course requirements. Students do not have to select a concentration or, once chosen and started, do not necessarily have to complete the concentration in order to graduate.

MSMC Core Courses

All MSMC degree seeking students are required to complete 18 credits of core course to meet graduation requirements stated in the following:

| | |
|---|-------------------------|
| MC 500 Introduction to Mobile Computing | (3 Credit Hours) |
| MC 501 Android OS and Open Source Development | (3 Credit Hours) |
| MC 502 Mobile System Architecture Design Using UML | (3 Credit Hours) |
| MC 503 Mobile Software Development with Java | (3 Credit Hours) |
| MC 504 Mobile System User Interface | (3 Credit Hours) |
| MC 505 Software Integration and Testing | (3 Credit Hours) |

Mobile Application Concentration

Students declaring Mobile Application concentration must complete a minimum of 18 credit hours and a maximum of 18 credit hours of course work in Mobile Application electives. The available electives are:

| | |
|---|-------------------------|
| MC 510 Networking and Mobile Communication | (3 Credit Hours) |
| MC 511 Mobile Graphics | (3 Credit Hours) |
| MC 512 Mobile Location Based Services | (3 Credit Hours) |
| MC 520 Mobile Web Applications | (3 Credit Hours) |
| MC 521 Mobile Applications Security | (3 Credit Hours) |
| MC 522 Mobile Enterprise Applications | (3 Credit Hours) |
| MC 523 Introduction to Cloud Computing | (3 Credit Hours) |

Mobile Multimedia Concentration

Students declaring Mobile Multimedia concentration must complete a minimum of 18 credit hours and a maximum of 18 credit hours of course work in Mobile System Engineering electives. The available electives are:

| | |
|---|-------------------------|
| MC 510 Networking and Mobile Communication | (3 Credit Hours) |
| MC 511 Mobile Graphics | (3 Credit Hours) |
| MC 512 Mobile Location Based Services | (3 Credit Hours) |
| MC 530 Mobile Multimedia Applications | (3 Credit Hours) |
| MC 531 Mobile Game Applications | (3 Credit Hours) |
| MC 532 Mobile Augmented Reality | (3 Credit Hours) |
| MC 533 Mobile Imaging Systems | (3 Credit Hours) |

Graduate Transfer Credit

SJPU accepts transfer credits up to maximum of 9 graduate level credits from other accredited universities located in US under the following conditions:

- (a) The course was functionally equivalent to course offered by SJPU's MSMC degree program.
- (b) The course work appears on an Official Transcript as per admissions requirements.
- (c) The course was a graduate level course and had been awarded graduate credit.
- (d) The grade of the course was equivalent B or better.
- (e) The course and credit was part of MSMC degree program and had not been used to obtain MSMC or other master degree prior to application to SJPU MSMC program.
- (f) Graduate transfer credit is not automatic and is granted on a course by course basis only.

| |
|--|
| Certificate Programs in VLSI Engineering Overview |
|--|

Missions and Purposes

San Jose Polytechnic University (SJPU) in California offers certificate programs in several professional disciplines. The certificate programs in VLSI Engineering are designed to provide interested students with intensive knowledge and skills in a focused area at the graduate level. Certain certificate program courses are in-line with the graduate degree curriculum but the time required to complete the certificate is much shorter than an advanced degree required.

Program Objectives

The certificate programs in VLSI Engineering has two main goals: (1) to develop breadth of understanding in the fundamental aspects of VLSI Engineering through the class work, and (2) to focus depth of state-of-the-art technology and industry needs through concentrating electives in different VLSI topics. The certificate programs in VLSI Engineering concentration cover various sections of the VLSI design process. With the completion of the program, the students will gain the understanding of the particular IC design flow methods and steps and know how the selected phase to support the development of a VLSI product.

Certificate of Completion Requirements

Students must obtain a minimum grade of C or above in each course if the student chose the option of letter grade or receive a Pass (P) grade if the student chose the option of Pass/No Pass (P/NP) grade in order to earn a Certificate of Completion issued by SJPU. The P grade can be changed to letter grade if the student passes the comprehensive examination of that particular course with a grade of 3.0 or higher

Courses completed in the certificate program with grade B or above may earn graduate credits that might be transferred into a MS degree at SJPU subjected to approval by the Graduate Admission Committee.

Certificate Program Courses in VLSI Engineering

IC Layout Design Certificate Program

This certificate program is designed for students planning to enter into IC Layout Design high-tech profession and the total program length is 90 contact hours with the successful completion of the following courses at SJPU;

| | |
|--|---------------------------|
| VE 514 Fundamental IC Layout Design | (45 Contact Hours) |
| VE 515 Advanced IC Layout Design | (45 Contact Hours) |

IC Physical Design Certificate Program

This certificate program is designed for students plan to enter into IC Physical Design Place-and-Route high-tech profession, the total program length is 45 contact hours as the student must successfully complete the following graduate level courses at SJPU.

| | |
|--|---------------------------|
| VE 513 IC Physical Design (Place-and-Route) | (45 Contact Hours) |
|--|---------------------------|

| |
|---|
| Certificate Program in English as a Second Language (ESL) Overview |
|---|

Admission requirements

An applicant to the English as a Second Language (ESL) program at SJPU must have completed at least a high school education or GED.

Admission Procedures

Students applying for admission to the ESL Program must observe the following admission procedures:

1. Complete and submit the application form to the SJPU Admissions Office. The application form is available in the Admissions Office.
2. Submit an official copy of high school diploma. In the absence of a high school diploma, submit an attestation statement and documentation evidencing completion of high school education such an official transcript or GED.
3. Pay the \$100 application fee to the SJPU Admissions office. The application fee is non-refundable.

Admission evaluation

Prospective students' applications will be reviewed and decided for admission on an individual basis and the student may be asked to provide additional evidence of academic proficiency.

Post-Admission Procedures

Once a student is admitted to the ESL program, he or she will be enrolled in the ESL level appropriate to his or her current English proficiency as evaluated by the ESL Coordinator.

US Residents do not need an F-1 Student Visa to study in the US. Neither do students who want to study part-time for a short period of time (less than 90 days). Other visa holders may be eligible to study full-time or part-time. We understand that the visa restrictions are complicated and we are here to help you decide which program is the right one for you while meeting all of the restrictions of your visa. The good news is that the application process for each of these visas is exactly the same and very simple. We are always here to help you through it.

Students are required to take a placement test before registering for an ESL course at SJPU. The placement test measures the student's performance in four skill areas:

- a. Listening comprehension,
- b. Grammatical knowledge,
- c. Vocabulary range
- d. Reading comprehension

In addition to the placement test, students will also be asked for a short writing sample. Shortly thereafter, students will meet individually with the Academic Coordinator to register for their course. The Academic Coordinator will review the results of the placement test, as well as the writing sample. Although the placement test results generally dictate which level a student is placed into, the Academic Coordinator reserves the right to change that level if he or she feels that the student's writing sample and spoken responses significantly differ from what would be expected from a student at that level.

Once a student's level has been determined, the Academic Coordinator will point out to the student the different courses that they are eligible to take. Lower-level students are excluded from taking anything other than the appropriate beginner course, while higher-level students also have the advanced classes available to them.

Missions and Purpose

This ESL certificate program is designed for U.S. resident students whose native language was not English and want to enter into SJPU graduate degree program.

Students whose TOEFL score (Minimum 71 for Internet Based Test) or IELTS score (Minimum 6.0) do not meet the minimum scores for admission into SJPU are required to attend an ESL program at their determined level, depending their score of TOEFL or IELTS. When they have successfully complete ESL-Advanced level, students may be admitted to the graduate school of their choice and are permitted to enroll the graduate level courses.

Program Objectives

San Jose Polytechnic University provides an English Language program that has been designed to meet curriculum needs of a culturally diverse population. Its primary function is to facilitate and implement multi-level English instructions in a culturally diverse environment and to enhance students' learning by providing leveled academic instruction in a structured classroom setting. The secondary function is to assist students with resources, which emphasize cultural awareness, and aids in American cultural assimilation. SJPU's intensive language program promotes the successful acquisition of the following critical English language skills:

SJPU's intensive language program promotes the successful acquisition of the following critical English language skills:

- (a) Grammar: Through participating in a variety of interpersonal and intrapersonal communication exercises and activities, students acquire a high level of language proficiency in both speaking and writing, using standard American English Grammar.
- (b) Composition: At the beginning levels students obtain the knowledge to understand the basic concepts, word order, and sentence structure, in order to effectively create complete sentences and ultimately form a coherent paragraph. Upon completion of the advanced levels, students should not only be able to differentiate between different styles of essays but should be able to produce structured coherent essays, beginning with a thesis, followed by sound support and smooth transitions, and ending with a clear concise conclusion.
- (c) Reading: Students are to cultivate critical reading skills through practical exposure to a variety of fictional and non-fictional literary texts covered throughout each course. Students should acquire the skills necessary to identify the main and supporting ideas, summarize and paraphrase information, differentiate between fact and opinion, compare and evaluate different points of view, hypothesize and predict future actions/results, and form logical conclusions and inferences.
- (d) Vocabulary: Students will not only acquire basic everyday vocabulary, but will also learn the academic words necessary for college level students, idiomatic expressions, and common slang and colloquial expressions. Their vocabulary will not only be increased through memorization and application, but they should acquire the skills necessary to obtain meaning through context and inference.
- (e) Listening: Listening comprehension is essential for the development of effective communication and conversation skills. Students will increase their listening comprehension through a variety of activities in order to be able to understand, summarize, and evaluate aural works and material.
- (f) Speaking: Students should not only acquire the skills necessary to effectively communicate in daily casual life from giving directions to seeking advice, but also will be able give formal oral presentations, make clear speeches and arguments, and effectively debate current issues.
- (g) Pronunciation: Students should be able to recognize and reproduce the correct American English pronunciation, as well as the common spoken American English including sound, stress, and intonation.
- (h) Through participating in a variety of interpersonal and intrapersonal communication exercises and activities, students acquire a high level of language proficiency in both speaking and writing, using standard American English Grammar.
- (i) Composition: At the beginning levels students obtain the knowledge to understand the basic concepts, word order, and sentence structure, in order to effectively create complete sentences and ultimately form a coherent paragraph. Upon completion of the advanced levels, students should not only be able to differentiate between different styles of essays but should be able to produce structured coherent essays, beginning with a thesis, followed by sound support and smooth transitions, and ending with a clear concise conclusion.
- (j) Reading: Students are to cultivate critical reading skills through practical exposure to a variety of fictional and non-fictional literary texts covered throughout each course. Students should acquire the skills necessary to identify the main and supporting ideas, summarize and paraphrase information, differentiate between fact and opinion, compare and evaluate different points of view, hypothesize and predict future actions/results, and form logical conclusions and inferences.
- (k) Vocabulary: Students will not only acquire basic everyday vocabulary, but will also learn the academic words necessary for college level students, idiomatic expressions, and common slang and colloquial expressions. Their vocabulary will not only be increased through memorization and application, but they should acquire the skills necessary to obtain meaning through context and inference.

- (l) **Listening:** Listening comprehension is essential for the development of effective communication and conversation skills. Students will increase their listening comprehension through a variety of activities in order to be able to understand, summarize, and evaluate aural works and material.
- (m) **Speaking:** Students should not only acquire the skills necessary to effectively communicate in daily casual life from giving directions to seeking advice, but also will be able give formal oral presentations, make clear speeches and arguments, and effectively debate current issues.
- (n) **Pronunciation:** Students should be able to recognize and reproduce the correct American English pronunciation, as well as the common spoken American English including sound, stress, and intonation.

Assessment: Language evaluation (placement test) will be given to new students on the first day of school. Students will be promoted to the next level with a grade C or better and/or approval of instructor.

Grading & Attendance: ESL classes are non-credit courses but must be taken for a letter grade. ESL classes may not be taken for C/NC. Students must attend class on a regular basis, unless otherwise previously arranged with the instructor. Assessment, progress, and letter grades will be given based on midterm and/or final examination given by the class instructor.

Certificate of Completion Requirements

Students must obtain a minimum grade of C (2.0 on a 4.0 scale) or above in each course if the student chose the option of letter grade or receive a Pass (P) grade if the student chose the option of Pass/No Pass (P/NP) grade in order to earn a Certificate of Completion issued by SJPU.

Certificate Program Courses in ESL

The purpose of the San Jose Polytechnic University English as A Second Language program is to provide the highest quality English instruction in a dynamic, caring, student-centered environment.

The San Jose Polytechnic University (SJPU) ESL program exists to assist those individuals whose first language is not English in acquiring proficiency in the English language, including reading, writing, listening, and speaking, as well as achieving individually determined educational, professional, vocational, and/or personal goals.

Furthermore, SJPU offers specific programs designed to:

- Help professionals acquire sufficient English proficiency for employment and/or global business negotiations
- Help new residents in the United States become competent in the English language in order to live, work, and if so desired, gain citizenship.

There are four levels of ESL programs provided by SJPU as follows:

A. ESL- Beginner Level (240 Contact Hours)

Students will be placed in this level if their TOEFL /IELTS score are in the following range:

| TOEFL (Paper Based Test) | TOEFL (Computer Based Test) | TOEFL (Internet Based Test) | IELTS |
|--------------------------|-----------------------------|-----------------------------|------------|
| 310 to 343 | 33 to 60 | 9 to 18 | 1.0 to 1.5 |

This level of ESL prepares students with capabilities of communication using conventional statements, integrating student’s life in a new environment, writing simple sentences and context following written or oral instructions and making requests related to personal needs.

B. ESL- Intermediate Level**(240 Contact Hours)**

Students will be placed in this level if their TOEFL /IELTS score are in the following range:

| TOEFL (Paper Based Test) | TOEFL (Computer Based Test) | TOEFL (Internet Based Test) | IELTS |
|--------------------------|-----------------------------|-----------------------------|------------|
| 347 to 433 | 63 to 120 | 19 to 40 | 2.0 to 3.5 |

This level of ESL prepares students with capabilities of communication skills and engagement with native English speaker by reinforcing students English grammatical structures. This course will be concentrated in listening and speaking capabilities to build confidence of students.

C. ESL- High Intermediate Level**(240 Contact Hours)**

Students will be placed in this level if their TOEFL /IELTS score are in the following range:

| TOEFL (Paper Based Test) | TOEFL (Computer Based Test) | TOEFL (Internet Based Test) | IELTS |
|--------------------------|-----------------------------|-----------------------------|------------|
| 437 to 473 | 123 to 150 | 41 to 52 | 4.0 to 4.5 |

This level of ESL will prepare students with capabilities of reading and writing skills about reading strategies and writing solid paragraphs, identifying major topic of a conversation, engaging in conversation by responding with appropriate answer.

D. ESL-Advanced Level**(240 Contact Hours)**

Students will be placed in this level if their TOEFL /IELTS score are in the following range:

| TOEFL (Paper Based Test) | TOEFL (Computer Based Test) | TOEFL (Internet Based Test) | IELTS |
|--------------------------|-----------------------------|-----------------------------|------------|
| 477 to 515 | 153 to 180 | 53 to 64 | 5.0 to 5.5 |

This level of ESL will prepare students with capabilities of English presentations, English compositions both academic and literary, using internet web sites for research projects, collecting and organizing data for multimedia presentations.

Course Curriculum

| |
|---|
| Master of Science in VLSI Engineering (MSVE) Courses Description |
|---|

Core Courses (VE 500 to VE 509)

VE 500 Computer Architecture (3 Credit Hours)

The **purpose** of this course is to introduce students to the general topics in Computer Organization and to study the MIPS architecture and design philosophy in particular.

Topics covered in this course are: performance measurement, computer architecture design and tradeoffs, computer arithmetic and implementation, MIPS assembly language, MIPS Instruction Set Architecture (ISA), hierarchical memory architecture, and storage system.

Learning outcomes of this course are to have students to understand 3 major topics: (1) MIPS instruction set and assembly language programming, (2) Instruction set architecture theory, data path, performance measurement, and design tradeoffs, (3) Hierarchical memory architecture fundamentals and the performance of multi-layer cache. This course also includes hands-on experiments using MIPS architecture simulators on PC.

Prerequisite of this course: Graduate Standing

VE 501 Distributed Computing (3 Credit Hours)

The **purpose** of this course is to provide the graduate students a solid introduction to the mathematical foundations and theory of distributed computing, highlighting common themes and basis techniques.

Topics covered in this course are: Overview of Distributed Systems, Basic Algorithms in Message-Passing Systems, Leader Election in Rings, Mutual Exclusion in Shared Memory, Fault-Tolerant Consensus, Causality and Time, A Formal Model for Simulations, Broadcast and Multicast, and Randomization.

Learning outcomes of this course are to have students to understand (1) basic algorithms in message-passing systems, (2) leader election in rings, (3) mutual exclusion in shared memory, (4) fault-tolerant consensus, (5) causality and time, (6) formal model for simulations, (7) broadcast and multicast, (8) randomization, and (9) implement new distributed algorithms based on the above techniques.

Prerequisite of this course: Undergraduate operating systems.

VE 502 Computer Networks (3 Credit Hours)

The **purpose** of the course is to provide students with fundamental knowledge of computer networking technologies and infrastructure that is required by modern information professionals. Students will have detailed description of each layer of ISO/OSI reference model, including physical, data link, network and application protocols and functionality of each layer of TCP/IP reference model.

Topics covered in this course are: Network Hardware and Software, Network Standardization, The Physical Layer: Data Communication, Transmission Media, Wireless Transmission, Communication Satellites, The Data Link Layer: Design and Interface Issues, Error Detection and Correction, Data Link Layer Protocol and Verification, Medium Access Control: Channel Allocation, Multiple Access Arbitration, Network Layer: Design Issues, Routing Algorithms, Congestion Control Algorithms, Internetworking Technology, IP Protocol, The Transport Layer: Internet Transport Protocols, UDP and TCP, Performance Issues, The Application Layer: Domain Name System, Client/Server Model, Socket Programming, Electronic Mail, World Wide Web, Wireless Networks, Network Security and Management.

Learning outcomes of this course are: students are able to demonstrate use of computer network hardware, hubs, switches and routers and use of computer network software, networking operating systems. Students will also demonstrate an understanding of major components of computer networks

based on ISO/OSI reference model and layered communication architectures. Students will also be familiarized with current topics, such as network security and network management.

Prerequisite of this course: Graduate Standing

VE 503 VLSI Design (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the basic introduction of VLSI Design and the complete coverage of CMOS design requirements.

Topics covered in this course are: Microelectronics evolution, VLSI design flow, MOS transistor theory, CMOS fabrication technology, layout design introduction, design rules, stick diagrams, circuit performance estimation, CMOS design flow methods, circuit simulation, physical design introduction, timing analysis & optimization, power, clock distribution, design verification, and antenna check theory.

Learning outcomes of this course are to have students to gain the fundamentals of VLSI technology and have the basic knowledge on MOS transistor switches, fabrication process, CMOS logic gate design, layout, timing optimization, and verification. The students also learn how to support the VLSI design using the Cadence tools.

Prerequisite of this course: Graduate Standing.

VE 504 Embedded Systems Design (3 Credit Hours)

The **purpose** of this course is to introduce the graduate students to the fundamentals of embedded system hardware and firmware design.

Topics covered in this course are: embedded processor selection, hardware/firmware partitioning, glue logic, circuit design and layout, hardware debug, firmware development and debug tools, firmware architecture and design, and platform debug.

Learning outcomes of this course are to apply the embedded hardware and firmware design theories in lab projects. Students will design and program micro-controller based hardware devices to solve real-world problems in the final project.

Prerequisite of this course: VE500, VE 501

VE 505 Parallel Computing Systems (3 Credit Hours)

The **purpose** of this course is to teach graduate students both the architecture of modern multi-core processors and the parallel programming principles to exploit the computational power of multi-core processors.

Topics covered in this course are: multi-core architecture, multi-core programming, CUDA and other off-the-shelf GPGPU processor, Stream processors, Vector processors, Data-level parallelism and the associated programming patterns, Thread-level parallelism and the associated programming patterns, and future trends.

Learning outcomes of this course are that students will learn the parallel computer architecture and programming models. They will learn both the theory and practice of parallel computing through lecture, discussion, and experiments based on PC simulation.

Prerequisite of this course: VE 500, VE 501.

Concentrating Electives in VLSI Engineering (VE 510 to VE 529)

VE 510 SoC Design (3 Credit Hours)

The **purpose** of this course is to introduce the graduate students to System-on-Chip design and development process, including architecture design, processor & memory, IP integration, and platform development.

Topics covered in this course are: Hardware Description Language (HDL), SoC architecture design and planning, Processors, Memory design, on chip interconnection network, IP selection, verification, and integration, SoC platform development.

Learning outcomes of this course are students will be proficient in fundamental concepts of SoC design and implementation, including SoC architecture, basic building blocks for SoC, design language & tools, IP, and platform development consideration.

Prerequisite of this course: C programming language.

VE 511 Digital Logic Design Using Verilog (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamental aspects of logic design systems, verilog constructs and hardware modeling techniques.

Topics covered in this course are: digital design specification, sub-systems logic design, design integration, design validation, and verilog model design including language elements, data types, structural, dataflow & behavioral modeling, and common constructs & coding consideration.

Learning outcomes of this course are to understand the logic design concepts such as speed, area, power, cost, and testability. The students are required to implement a complete digital system project from specification to validation. It also requires the students to implement verilog modeling of digital logic.

Prerequisite of this course: VE 503.

VE 512 Logic Synthesis (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamentals of gate-level synthesis of VLSI circuits. This class also presents the logic synthesis techniques for the automation of VLSI design flow.

Topics covered in this course are: logic synthesis concepts and methods, design partitioning, technology library, design constraints setup, gate-level optimization, timing analysis, and library management.

Learning outcomes of this course are to understand the concepts and role played of logic synthesis in VLSI design flow and use the Synopsys tools to synthesizing high-level hardware description languages such as Verilog or VHDL to implement the gate-level netlist.

Prerequisite of this course: VE 503

VE 513 IC Physical Design (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamentals of Place and Route (P&R) knowledge and skills and also analyzed its role played in VLSI design flow.

Topics covered in this course are: Process Technology file generation, Macro LEFs creation, floor planning, placement, power planning, DEF generation, timing optimization, clock tree synthesis, global & detail routing, RC extraction, static timing analysis, IR drops, signal integrity, and ECO flow.

Learning outcomes of this course are utilizing the basic concept of P&R flow to implement the in-class industry project exercises using Cadence SoC Encounter tool. The students can also learn how to automate and analyze P&R flow process by using scripts.

Prerequisite of this course: VE 503.

VE 514 Fundamental IC Layout Design (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamental aspects of CMOS IC layout from concepts, methodologies, tools, and design flow points of view.

Topics covered in this course are: Basic transistor concept, CMOS theories, CMOS process, CMOS logic gates, layout design rules, logic reduction using K-map, DRC/LVS verification, resistor & capacitor theory, latch-up prevention concept, substrate/well taps, ESD theory, and bipolar & analog layout theories.

Learning outcomes of this course are to understand the CMOS IC layout concept and layout drawing skills. The students can learn how to implement the full-custom and standard cells design using Cadence Virtuoso Layout tool and also learn how to resolve the layout design issues.

Prerequisite of this course: Graduate Standing.

VE 515 Advanced IC Layout Design (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with more advanced CMOS IC layout knowledge and skills. The intensive hands-on labs also train students independently implement the chip-level industry layout project.

Topics covered in this course are: memory theory, Pcell design, balanced layout design, layout design using VXL, DRC/LVS debugging, spice netlist creation, pad cell and ESD layout structure, bipolar & analog layout design, chip floor planning, power grid consideration, and vi editor.

Learning outcomes of this course are to gain more advanced layout design knowledge and tool skills. The students are required to implement a chip-level SRAM project design using Cadence Opus tool and also have the capability to debug the DRC/LVS issues.

Prerequisite of this course: VE 514.

VE 516 Physical Verification for Manufacturing (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamentals of physical verification and know how's to design layout for manufacturing with high yield.

Topics covered in this course are: Introduction to semiconductor manufacturing, process technology rule creation, design rule check, antenna check, electrical rule check, layout versus schematic, parasitic resistance and capacitance extraction, post-layout chip integration, design for manufacturing checks.

Learning outcomes of this course are utilizing the basic concept of IC physical verification to practice the advanced physical design rule checks and implement industry-standard IC layout verification project using Calibre tools. The students also learn how to automate IC integration flow and ensure DFM success.

Prerequisite of this course: VE 514.

VE 517 FPGA Design and Implementation (3 Credit Hours)

The **purpose** of this course is to enable the graduate students to design and implement the custom computing systems with field programmable gate arrays (FPGAs).

Topics covered in this course are: computing methods comparison, VHDL introduction, FPGA architectures fundamentals, FPGA placement and routing, FPGA configuration, reconfigurable computing architectures, reconfigurable computing applications, high-level compilation, and hardware & software partitioning.

Learning outcomes of this course are to have students to gain the different technologies to implement the digital computing systems, to know various FPGA architectures, and to learn the automated design flow to support designs with FPGAs. This course also provides the design tools to support the FPGA-based system designs and their applications in reconfigurable computing.

Prerequisite of this course: VE 503.

VE 518 Low Power Systems Design (3 Credit Hours)

The **purpose** of this course is to provide the graduate students the practical aspects of engineering high-performance computer systems where power consumption is a major consideration at every stage of the design.

Topics covered in this course are: The ARM 32-bit RISC microprocessor, a world-leading processor for power-sensitive applications, and covers many aspects of designing power-efficient systems around ARM cores.

Learning outcomes of this course are to understand the principles of low-power RISC processor design, and to apply a systematic methodology to memory hierarchy design.

Prerequisite of this course: Undergraduate microprocessor design.

VE 519 Wireless Design (3 Credit Hours)

The **purpose** of this course is to provide the graduate students a solid introduction to the design of wireless communication systems, highlighting common themes and basis techniques.

Topics covered in this course are: A typical wireless project involves multiple components to be integrated such as, RF/microwave circuitry, antenna, electronic circuits, microprocessors circuit/programming, digital signal processing (DSP) and communication system analysis and design.

Learning outcomes of this course are to work in a team environment design and built a wireless communication system.

Prerequisite of this course: VE502 and VE503.

VE 520 Nano Structures and Quantum Devices (3 Credit Hours)

The **purpose** of the course is to provide students with theoretical background of nanostructures based on quantum mechanical origin. The quantum mechanical concepts applied to model and analyze nanoscale devices are also presented.

Topics covered in this course are: Nano World and Quantum Mechanics, Wave Functions in Nanoscale, Layered Nanostructures and Tunneling, Quantization in Nanostructures, Density of States in Quantum Box, Quantum Wells, Quantum Wires and Quantum Rings, Electron Transport in Nanostructures, Coulomb Blockade and Single Electron Tunneling, Nanostructure Devices, Mesoscopic Superlattices, Spintronics and Quantum Optical Devices.

Learning outcomes of this course are: students are able to learn theoretical methods of analyzing electronic and optical properties of low-dimensional heterostructures. Also students are able to model microelectronic devices and ultimately toward nano electronic and nano optical devices.

Prerequisite of this course: College Physics

Special Topics, Research Project, Curricular Practical Training (VE 590 to VE 599)**VE 590 Special Topics in VLSI Engineering (3 Credit Hours)**

The **purpose** of the course is to provide students with information and knowledge about various state-of-the-art subjects in computer systems engineering. Students enroll in this course will learn up-to-date innovation concept and technology development in high-tech industry.

Topics covered in this course are: Various topics in computer systems design engineering, such as VLSI design engineering and embedded system design engineering. This course can be repeated if topics differ.

Learning outcomes of this course are: students are able to gain the current knowledge and skills of computer systems engineering in the real world practice such that it helps the student future career growth in computer systems engineering professionalism.

Prerequisite of this course: Graduate Standing

VE 595 Research Project-I in VLSI Engineering (3 Credit Hours)

The **purpose** of the course is to provide students with an opportunity to work with faculty member in specific research area of computer systems engineering that is of mutual interest in order for students to gain engineering knowledge and research methodology from graduate research. This course can be repeated once under different course number upon obtaining approval from the graduate advisor.

Topics covered in this course are: Specific research topic in the VLSI design engineering or embedded systems design engineering. Students will meet with research advisor at least 4 contact hours during this research period. Students are required to submit bi-weekly progress report through e-mail, present interim report to the advisor in the middle of the trimester, present research results and conclusions in the last week of the trimester and submit a final research project report to the faculty advisor for evaluation and grading purpose.

Learning outcomes of this course are: students are required to submit a research report that documents research findings and results from this work. The format of the report should follow standard research report style, including, Title Page, Acknowledgement, Table of Contents, Abstract, Introduction, Method of Approach, Results, Conclusions, Future Developments and Suggestions, and References.

Prerequisite of this course: Graduate Standing

VE 596 Research Project-II in VLSI Engineering (3 Credit Hours)

The **purpose** of the course is to provide students with an opportunity to work with faculty member in specific research area of computer systems engineering that is of mutual interest in order for students to gain engineering knowledge and research methodology from graduate research.

Topics covered in this course are: Specific research topic in the VLSI design engineering or embedded systems design engineering. Students will meet with research advisor at least 4 contact hours during this research period. Students are required to submit bi-weekly progress report through e-mail, present interim report to the advisor in the middle of the trimester, present research results and conclusions in the last week of the trimester and submit a final research project report to the faculty advisor for evaluation and grading purpose.

Learning outcomes of this course are: students are required to submit a research report that documents research findings and results from this work. The format of the report should follow standard research report style, including Title Page, Acknowledgement, Table of Contents, Abstract, Introduction, Method of Approach, Results, Conclusions, Future Developments and Suggestions, and References.

Prerequisite of this course: Graduate Standing

VE 598 Curricular Practical Training-I (CPT-I) in VLSI Engineering (3 Credit Hours)

The **purpose** of the course is to provide graduate students with the opportunity to apply skills and methodologies learned from the university as they acquire real world working experience. Students are allowed to participate company's projects for maximum of 9 months on a 20 hours per week basis after they have completed 9 credits of graduate level course work at the university with GPA greater than 3.0. This course can be repeated once under different course number.

Procedures of applying Curricular Practical Training (CPT) are: Students must obtain a job offer letter from the local company that specifies the number of hours of work per week with a part-time employment status and the duration of this work with minimum three months in duration. Students must meet all SEVIS requirements and comply with SEVIS regulations to be eligible for CPT after they have completed a CPT request/agreement form from the university and authorized by the university to be eligible for off-campus work. The work must be related to the curriculum and degree that students are pursuing at the university.

Learning outcomes of this course are: students are required to submit a written curricular practical training (CPT) report that documented the project scope, project processes, project findings and project achievements. This report should not contain any proprietary information owned by the company and should be approved by the project supervisor for public distribution. Credits earned will not count toward degree requirements but the grade will be used for cumulative GPA calculation.

Prerequisite of this course: Graduate Standing

VE 599 Curricular Practical Training-II (CPT-II) in VLSI Engineering (3 Credit Hours)

The **purpose** of the course is to provide graduate students with the opportunity to apply skills and methodologies learned from the university as they acquire real world working experience. Students are allowed to participate company's projects for maximum of 9 months on a 20 hours per week basis after they have completed 9 credits of graduate level course work at the university with GPA greater than 3.0.

Procedures of applying Curricular Practical Training (CPT) are: Students must obtain a job offer letter from the local company that specifies the number of hours of work per week with a part-time employment status and the duration of this work with minimum three months in duration. Students must meet all SEVIS requirements and comply with SEVIS regulations to be eligible for CPT after they have completed a CPT

request/agreement form from the university and authorized by the university to be eligible for off-campus work. The work must be related to the curriculum and degree that students are pursuing at the university.

Learning outcomes of this course are: students are required to submit a written curricular practical training (CPT) report that documented the project scope, project processes, project findings and project achievements. This report should not contain any proprietary information owned by the company and should be approved by the project supervisor for public distribution. Credits earned will not count toward degree requirements but the grade will be used for cumulative GPA calculation.

Prerequisite of this course: Graduate Standing

| |
|---|
| Master of Science in Mobile Computing (MSMC) Courses Description |
|---|

Core Courses (MC 500 to MC 509)

MC 500 Introduction to Mobile Computing (3 Credit Hours)

The **purpose** of this course is to introduce students to the general topics in Mobile Computing System architecture.

Topics covered in this course are: mobile computing infrastructure, mobile hardware device introduction, mobile communication basics, mobile computing security, mobile application architecture, mobile development environment, and mobile development management.

Learning outcomes of this course are to have students be proficient in 3 major areas in mobile computing: (1) mobile computing hardware, (2) mobile communication infrastructure, (3) mobile software applications.

Prerequisite of this course: Graduate Standing

MC 501 Android OS and Open Source Development (3 Credit Hours)

The **purpose** of this course is to introduce students how to leverage Android open source software to develop Android-based products.

Topics covered in this course are: Android Software Development Kit (SDK) & Native Development Kit (NDK), Android Build System, Android kernel, Android runtime environment, Android Debug Bridge (ADB), Android porting, and Open Source development environment and tools.

Learning outcomes of this course are to have students be proficient in 3 major areas of the Android OS: (1) Android Operating Systems and kernels, (2) Android application and development environment including Android SDK and NDK, (3) Open Source development tools and processes.

Prerequisite of this course: Graduate Standing

MC 502 Mobile System Architecture Design Using UML (3 Credit Hours)

The **purpose** of this course is to provide students with concepts, principles, processes, tasks, and mobile system architecture design using standard Unified Modeling Language (UML) modeling diagrams. The software design theories will be applied to developing mobile computing applications.

Topics covered in this course are: Mobile system architecture, Android application design principles, Unified Modeling Language (UML) standards, object oriented design and modeling, software development process and models, use case modeling and requirements, Class diagrams, State diagrams, Sequence diagrams, software design specifications.

Learning outcomes of this course are: students are able to apply the Objected Oriented analysis and design concepts and methodologies for mobile software design and developments. Students will also build capabilities of using Unified Modeling Language (UML) to support the software design and prepare Objected Oriented Analysis and Design documents for a given task.

Prerequisite of this course: Graduate Standing

MC503 Mobile Software Development with Java (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamental aspects of Java programming from the basic to the advanced language features.

Topics covered in this course are: Java fundamentals (basic language syntax & constructs), Java's implementation (classes, data, inheritance, array, and functional access control), GUI, object orientation design, 2D and 3D graphics drawing, event handling, Java class library, collection framework, XML, Eclipse for Java development, and Java debugging.

Learning outcomes of this course are students will be proficient in utilizing the basic concepts of Java programming to apply in Mobile computing, including graphics, multimedia, network, wireless, and enterprise applications.

Prerequisite of this course: C programming language.

MC 504 Mobile System User Interface (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamental concepts of user interface designs, and the Android libraries to support UI implementation.

Topics covered in this course are: User interface composition, Information display, Control and confirmation in user interface, Labels and indicators, Text and character input, Interactive controls, Input and selection, Audio and vibration, Screen, lights, and sensors.

Learning outcomes Students are able to acquire proficiency in 3 major areas in mobile system user interface: (1) information display, (2) information inputs, and (3) interactive controls.

Prerequisite of this course: MC500, MC501, MC502, MC503.

MC 505 Software Integration and Testing (3 Credit Hours)

The **purpose** of this course is to provide students with fundamental relationships between software testing and software quality assurance with an emphasis on testing as a part of software development life cycle. Students will learn methods of testing, practice verification and validation techniques such that they will develop comprehensive understanding of software quality and methodologies of quality assurance.

Topics covered in this course are: Cloud environment, Cloud enabled software testing, Context aware software testing, Performance analysis, Genetic algorithms, Web service testing, Continuous integration testing, Test vector generation, Large scale testing, Scalability, Mobile testbed.

Learning outcomes of this course are: Students are able to acquire proficiency in 4 major areas in mobile software testing: (1) cloud architecture, (2) context aware software testing, (3) web service testing, and (4) mobile application testbed.

Prerequisite of this course: MC500, MC501, MC502, MC503.

Concentrating Electives in Mobile Applications (MC 510 to MC 529)**MC 510 Networking and Mobile Communication (3 Credit Hours)**

The **purpose** of the course is to provide students with fundamental knowledge of mobile communication and networking technologies, and the practical Android development environment and libraries for networking and communication applications.

Topics covered in this course are: overview of key wireless technologies: voice, data, cordless, paging, fixed and mobile broadband wireless systems, and beyond; modulation, equalization, diversity, channel coding, and speech coding; wireless networking standards such as 802.11a/b/n; wireless communication standards, including GSM, W-CDMA, CDMA2000, GPRS, UMTS, EDGE, LTE; Android telephony API's; Android networking API's.

Learning outcomes of this course are to have students be proficient in 2 major areas: (1) the fundamentals of wireless networking and mobile communication theories; (2) the implementation of networking and communication in Android systems for voice and data applications.

Prerequisite of this course: MC500, MC501.

MC 511 Mobile Graphics (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamental concepts of computer graphics, the OpenGL graphics library standards, and their applications in mobile computing.

Topics covered in this course are: Computer Graphics introduction, graphics pipeline, world and object coordinates, lighting, rasterization, scene graph, Java graphics library, OpenGL ES standards, Android graphics library.

Learning outcomes of this course are to have students be proficient in 3 major areas: (1) basics concepts in computer graphics; (2) the OpenGL ES graphics library; (3) the Android graphics library.

Prerequisite of this course: MC504, MC505.

MC 512 Mobile Location Based Services (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamental concepts as well as the architecture and design of Location Based Services (LBS) in mobile applications.

Topics covered in this course are: LBS overview, Positioning technologies, Mapping, Content options, Consumer applications, Mobile platforms and API, Server-side integration, Connectivity issues, Privacy issues, Database.

Learning outcomes of this course are to have students be proficient to in 3 major areas: (1) basic technical concepts in location based services; (2) the LBS application architectures and design; (3) the Android LBS & mapping library.

Prerequisite of this course: MC504, MC505.

MC 520 Mobile Web Applications (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamental knowledge of Web service and application architecture for both servers and clients. Students will also learn various population Web based application and the mobile device client implementation.

Topics covered in this course are: Mobile web overview, Mobile browsers, Development tools, Architecture, Markup standards, HTML5, Device detection, Multimedia, CSS, Javascript, Geolocation, Native and installed apps.

Learning outcomes of this course are: Students will learn and become proficient on 4 topics: (1) mobile web and browsers basics, (2) Mobile web architecture, (3) HTML5, and (4) other web tools such as CSS and JavaScript.

Prerequisite of this course: MC504, MC510.

MC 521 Mobile Applications Security (3 Credit Hours)

The **purpose** of this course is to provide students with basic knowledge of security systems and its implementation in mobile device hardware and software.

Topics to be covered in this course are: Android system software, Android hardware platform, Android SDK, Android Debug Bridge, Android file system, Android device, data, and application security, Android forensic techniques, Permission, Cryptography, and Secure Server.

Learning outcomes of this course are to have students be proficient in 3 major areas: (1) security essentials, (2) Android system forensics, and (3) Android system security.

Prerequisite of this course: MC500, MC501.

MC 522 Mobile Enterprise Applications (3 Credit Hours)

The **purpose** of this course is to introduce students to the fundamental concepts and design issues in Mobile Enterprise applications.

Topics to be covered in this course are: Mobile strategy, Mobile vs native apps, Mobile architecture, Building mobile websites, HTML5 and jQuery mobile, Responsive mobile sites, Mobile application patterns, iOS, Android, Windows development, PhoneGap, Web application frameworks.

Learning outcomes of this course are to have students be proficient in 4 topics: (1) overview of mobile and web architecture, (2) requirements of the mobile enterprise applications, (3) mobile enterprise application design patterns, and (4) implementation techniques for different mobile OS.

Prerequisite of this course: MC520, MC521.

MC 523 Introduction to Cloud Computing (3 Credit Hours)

The **purpose** of this course is to introduce students to the fundamental concepts and design issues in Cloud Computing.

Topics to be covered in this course are: Cloud based mobile apps, Mobilizing apps, Building mobile apps, Building apps in the cloud, Cloud architecture, Enhancing user experience, Hybrid apps, Photo-blogging app, Cloud development services, Social apps, App stores.

Learning outcomes of this course are to have students be proficient in 3 major areas: (1) cloud architecture, (2) building and testing apps in the cloud, and (3) various types of apps: hybrid apps, photo-blogging apps, social apps.

Prerequisite of this course: MC520, MC521.

Concentrating Electives in Mobile Multimedia (MC 510 to MC 539)

MC 510 Networking and Mobile Communication (3 Credit Hours)

The **purpose** of the course is to provide students with fundamental knowledge of mobile communication and networking technologies, and the practical Android development environment and libraries for networking and communication applications.

Topics covered in this course are: overview of key wireless technologies: voice, data, cordless, paging, fixed and mobile broadband wireless systems, and beyond; modulation, equalization, diversity, channel coding, and speech coding; wireless networking standards such as 802.11a/b/n; wireless communication standards, including GSM, W-CDMA, CDMA2000, GPRS, UMTS, EDGE, LTE; Android telephony API's; Android networking API's.

Learning outcomes of this course are to have students be proficient in 2 major areas: (1) the fundamentals of wireless networking and mobile communication theories; (2) the implementation of networking and communication in Android systems for voice and data applications.

Prerequisite of this course: MC500, MC501.

MC 511 Mobile Graphics (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamental concepts of computer graphics, the OpenGL graphics library standards, and their applications in mobile computing.

Topics covered in this course are: Computer Graphics introduction, graphics pipeline, world and object coordinates, lighting, rasterization, scene graph, Java graphics library, OpenGL ES standards, Android graphics library.

Learning outcomes of this course are to have students be proficient in 3 major areas: (1) basics concepts in computer graphics; (2) the OpenGL ES graphics library; (3) the Android graphics library.

Prerequisite of this course: MC504, MC505.

MC 512 Mobile Location Based Services (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamental concepts as well as the architecture and design of Location Based Services (LBS) in mobile applications.

Topics covered in this course are: LBS overview, Positioning technologies, Mapping, Content options, Consumer applications, Mobile platforms and API, Server-side integration, Connectivity issues, Privacy issues, Database.

Learning outcomes of this course are to have students be proficient to in 3 major areas: (1) basic technical concepts in location based services; (2) the LBS application architectures and design; (3) the Android LBS & mapping library.

Prerequisite of this course: MC504, MC505.

MC 530 Mobile Multimedia Applications (3 Credit Hours)

The **purpose** of the course is to provide students with fundamental knowledge of mobile multimedia technologies, and the practical Android development environment and libraries for imaging and multimedia applications.

Topics covered in this course are: Android imaging, Android video, Android audio, Android graphics, Image editing and processing, Audio capture, Background and networked audio, Advanced video, Video capture, Video codec, Media consumption.

Learning outcomes of this course are to have students be proficient on 4 topics: (1) Android imaging and camera applications, (2) Android audio and music application, (3) Android graphics and touch events, and (3) Android video applications.

Prerequisite of this course: MC510, MC511.

MC 531 Mobile Game Applications (3 Credit Hours)

The **purpose** of this course is to introduce students to the fundamental techniques and design issues in Mobile Game applications.

Topics covered in this course are: Android overview, Android game framework, Game development, OpenGL ES 2D, OpenGL ES 3D, 2D game design, 3D game design.

Learning outcomes of this course are to have students be proficient on 4 topics: (1) mobile game design basics, (2) Android game framework, (3) 2D game design and development, and (4) 3D game design and development.

Prerequisite of this course: MC504, MC511, MC530.

MC 532 Mobile Augmented Reality (3 Credit Hours)

The **purpose** of this course is to introduce students to the fundamental techniques and design issues in Mobile Augmented Reality (MAR) applications.

Topics covered in this course are: MAR applications, MAR on Android, Overlays, Artificial horizon, Location-based app, Navigational app, 3D MAR, MAR browsers.

Learning outcomes of this course are to have students be proficient in 4 major areas: (1) definition of MAR, (2) MAR technology types: marker and markerless, (3) MAR applications, and (4) MAR browsers.

Prerequisite of this course: MC512, MC530.

MC 533 Mobile Imaging Systems (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with fundamental knowledge of mobile camera imaging system design and development including the computation theory, key components, and system integration.

Topics covered in this course are: Digital image processing, OpenCV overview, Android camera, Image processing in OpenCV, Marker based MAR, Markerless MAR, Structure from motion, Number plate recognition, Face detection, Face tracking, Face recognition, 3D head pose estimate.

Learning outcomes of this course are to have students be proficient in the 3 basic areas: (1) Digital Imaging Processing concepts, (2) Computer Vision problems and theories, and (3) how to use OpenCV to solve Computer Vision problems.

Prerequisite of this course: MC511, MC530.

Special Topics, Research Project, Curricular Practical Training (MC 590 to MC 599)

MC 590 Special Topics in Mobile Computing (3 Credit Hours)

The **purpose** of the course is to provide students with information and knowledge about various state-of-the-art subjects in mobile computing. Students enroll in this course will learn up-to-date innovation concept and technology development in high-tech industry.

Topics covered in this course are: Various topics in mobile computing, such as mobile computing for enterprise and mobile database systems. This course can be repeated if topics differ.

Learning outcomes of this course are: students are able to gain the current knowledge and skills of mobile computing in the real world practice such that it helps the student future career growth in mobile system development.

Prerequisite of this course: Graduate Standing

MC595 Research Project-I in Mobile Computing (3 Credit Hours)

The **purpose** of the course is to provide students with an opportunity to work with faculty member in specific research area of mobile computing that is of mutual interest in order for students to gain engineering knowledge and research methodology from graduate research. This course can be repeated once under different course number upon obtaining approval from the graduate advisor.

Topics covered in this course are: Specific research topic in the software system design or database systems design engineering. Students will meet with research advisor at least 4 contact hours during this research period. Students are required to submit bi-weekly progress report through e-mail, present interim report to the advisor in the middle of the trimester, present research results and conclusions in the last week of the trimester and submit a final research project report to the faculty advisor for evaluation and grading purpose.

Learning outcomes of this course are: students are required to submit a research report that documents research findings and results from this work. The format of the report should follow standard research report style, including, Title Page, Acknowledgement, Table of Contents, Abstract, Introduction, Method of Approach, Results, Conclusions, Future Developments and Suggestions, and References.

Prerequisite of this course: Graduate Standing

MC 596 Research Project-II in Mobile Computing (3 Credit Hours)

The **purpose** of the course is to provide students with an opportunity to work with faculty member in specific research area of mobile computing that is of mutual interest in order for students to gain engineering knowledge and research methodology from graduate research.

Topics covered in this course are: Specific research topic in the software system design or database systems design engineering. Students will meet with research advisor at least 4 contact hours during this research period. Students are required to submit bi-weekly progress report through e-mail, present interim report to the advisor in the middle of the trimester, present research results and conclusions in the last week of the trimester and submit a final research project report to the faculty advisor for evaluation and grading purpose.

Learning outcomes of this course are: students are required to submit a research report that documents research findings and results from this work. The format of the report should follow standard research report style, including Title Page, Acknowledgement, Table of Contents, Abstract, Introduction, Method of Approach, Results, Conclusions, Future Developments and Suggestions, and References.

Prerequisite of this course: Graduate Standing

MC 598 Curricular Practical Training-I (CPT-I) in Mobile Computing (3 Credit Hours)

The **purpose** of the course is to provide graduate students with the opportunity to apply skills and methodologies learned from the university as they acquire real world working experience. Students are allowed to participate company's projects for maximum of 9 months on a 20 hours per week basis after they

have completed 9 credits of graduate level course work at the university with GPA greater than 3.0. This course can be repeated once under different course number.

Procedures of applying Curricular Practical Training (CPT) are: Students must obtain a job offer letter from the local company that specifies the number of hours of work per week with a part-time employment status and the duration of this work with minimum three months in duration. Students must meet all SEVIS requirements and comply with SEVIS regulations to be eligible for CPT after they have completed a CPT request/agreement form from the university and authorized by the university to be eligible for off-campus work. The work must be related to the curriculum and degree that students are pursuing at the university.

Learning outcomes of this course are: students are required to submit a written curricular practical training (CPT) report that documented the project scope, project processes, project findings and project achievements. This report should not contain any proprietary information owned by the company and should be approved by the project supervisor for public distribution. Credits earned will not count toward degree requirements but the grade will be used for cumulative GPA calculation.

Prerequisite of this course: Graduate Standing

MC 599 Curricular Practical Training-II (CPT-II) in Mobile Computing (3 Credit Hours)

The **purpose** of the course is to provide graduate students with the opportunity to apply skills and methodologies learned from the university as they acquire real world working experience. Students are allowed to participate company's projects for maximum of 9 months on a 20 hours per week basis after they have completed 9 credits of graduate level course work at the university with GPA greater than 3.0.

Procedures of applying Curricular Practical Training (CPT) are: Students must obtain a job offer letter from the local company that specifies the number of hours of work per week with a part-time employment status and the duration of this work with minimum three months in duration. Students must meet all SEVIS requirements and comply with SEVIS regulations to be eligible for CPT after they have completed a CPT request/agreement form from the university and authorized by the university to be eligible for off-campus work. The work must be related to the curriculum and degree that students are pursuing at the university.

Learning outcomes of this course are: students are required to submit a written curricular practical training (CPT) report that documented the project scope, project processes, project findings and project achievements. This report should not contain any proprietary information owned by the company and should be approved by the project supervisor for public distribution. Credits earned will not count toward degree requirements but the grade will be used for cumulative GPA calculation.

Prerequisite of this course: Graduate Standing

| |
|---|
| Certificate Programs in VLSI Engineering Courses Description |
|---|

VE 513 IC Physical Design (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamentals of Place and Route (P&R) knowledge and skills and also analyzed its role played in VLSI design flow.

Topics covered in this course are: Process Technology file generation, Macro LEFs creation, floor planning, placement, power planning, DEF generation, timing optimization, clock tree synthesis, global & detail routing, RC extraction, static timing analysis, IR drops, signal integrity, and ECO flow.

Learning outcomes of this course are utilizing the basic concept of P&R flow to implement the in-class industry project exercises using Cadence SoC Encounter tool. The students can also learn how to automate and analyze P&R flow process by using scripts.

Prerequisite of this course: VE 503.

VE 514 Fundamental IC Layout Design (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with the fundamental aspects of CMOS IC layout from concepts, methodologies, tools, and design flow points of view.

Topics covered in this course are: Basic transistor concept, CMOS theories, CMOS process, CMOS logic gates, layout design rules, logic reduction using K-map, DRC/LVS verification, resistor & capacitor theory, latch-up prevention concept, substrate/well taps, ESD theory, and bipolar & analog layout theories.

Learning outcomes of this course are to understand the CMOS IC layout concept and layout drawing skills. The students can learn how to implement the full-custom and standard cells design using Cadence Virtuoso Layout tool and also learn how to resolve the layout design issues.

Prerequisite of this course: Graduate Standing.

VE 515 Advanced IC Layout Design (3 Credit Hours)

The **purpose** of this course is to provide the graduate students with more advanced CMOS IC layout knowledge and skills. The intensive hands-on labs also train students independently implement the chip-level industry layout project.

Topics covered in this course are: memory theory, Pcell design, balanced layout design, layout design using VXL, DRC/LVS debugging, spice netlist creation, pad cell and ESD layout structure, bipolar & analog layout design, chip floor planning, power grid consideration, and vi editor.

Learning outcomes of this course are to gain more advanced layout design knowledge and tool skills. The students are required to implement a chip-level SRAM project design using Cadence Opus tool and also have the capability to debug the DRC/LVS issues.

Prerequisite of this course: VE 514.

**Certificate Programs in English as a Second Language (ESL)
Courses Description**

ESL- Beginner Level

The **purpose** of this course is to provide the students with capabilities of communication using conventional statements, integrating student's life in a new environment, writing simple sentences and context, following written or oral instructions and making requests related to personal needs.

Topics covered in this course are: Speaking, Pronunciation, Reading, Writing, Listening and Conversation.

Learning outcomes of this course are to have students to write simple sentences and communicate with people using conventional statements.

Prerequisite of this course: based on TOEFL/IELTS scores.

ESL- Intermediate Level

The **purpose** of this course is to provide the students with capabilities of communication skills and engagement with native English speaker by reinforcing students English grammatical structures. This course will be concentrated in listening and speaking capabilities to build confidence of students.

Topics covered in this course are: Speaking, Pronunciation, Reading, Writing, Listening and Conversation.

Learning outcomes of this course are to have students to build confidence on communication skills using correct English grammatical structures.

Prerequisite of this course: ESL- Low Level or based on TOEFL/IELTS scores.

ESL- High Intermediate Level

The **purpose** of this course is to provide the students with capabilities of reading and writing skills about reading strategies and writing solid paragraphs, identifying major topic of a conversation, engaging in conversation by responding with appropriate answer.

Topics covered in this course are: Speaking, Pronunciation, Reading, Writing, Listening and Conversation.

Learning outcomes of this course are to have students to carry solid reading and writing skills. Also this class makes sure that students can engage in conversation with the appropriate answer.

Prerequisite of this course: ESL- Medium Level or based on TOEFL/IELTS scores.

ESL- Advanced Level

The **purpose** of this course is to provide the students with capabilities of English presentations, English compositions both in academic and literary, using internet web sites for research projects, collecting and organizing data for multimedia presentations.

Topics covered in this course are: Speaking, Pronunciation, Reading, Writing, Listening and Conversation.

Learning outcomes of this course are to have students with capabilities of English presentations, English compositions both in academic and literary.

Prerequisite of this course: ESL- High Level or based on TOEFL/IELTS scores.

UNIVERSITY FACILITIES

General Information

The San Jose Polytechnic University (SJPU) will occupy space in a Class A office building. The facilities will be established through the state-of-the-art computer network infrastructure, computer systems, and high-speed internet access.

The university facilities will support regular administrative functions, academic teaching, academic research, and development activities. The buildings are equipped with central heating/air conditioning systems. Basically, the facilities will include classrooms, a computer lab, a library, an administration office, an IT development office, conference rooms, a faculty lounge, a student lounge, a lunchroom, and the tutorial area.

The University will also provide students with a secure and safe environment. The classrooms and laboratories comply with the requirements of various government building codes and Fire Marshal regulations. Students are responsible for their own security and safety.

Classrooms are equipped as follows; CD Projectors, Ergo dynamic chairs and desks, White Boards and markers, Overhead projectors, CD players, and television sets available for classroom use, Teaching charts and diagrams, Wireless access and electricity sources for computer use in classrooms.

Electronic Design Automation Laboratory

The San Jose Polytechnic University's (SJPU's) teaching and research laboratory facilities will be equipped with most-up-to-date hardware and software tools. The university computer facilities will provide different design tools to faculty and students. For the Department of VLSI Engineering, Cadence and Synopsys electronic design automation (EDA) tools using workstations and PC will be applied to the classes based on different course requirements. For the Department of Mobile Computing, the smartphones (Samsung Galaxy S3/S4, iPhone4s/5s, and HTC One) and tablets (Samsung Note 8/10, iPad3/4, and Asus TF700) for mobile device will be used for classes. Those hardware and software tools are provided to the students for the education and hands-on training purpose, specifically related to their concentration areas of study.

The laboratory is opened Monday through Friday from 10:00am to 10:00pm, Saturday hour is from 10:00am to 5:00pm. The library is closed on Sunday and all school holiday. Students should check with administration office for current access hours during each particular term.

Computer Networks

There will be a variety of high-performance computers on campus to support teaching, learning, and research including high-capacity servers, modern PCs, and advanced workstations. The wireless access and high-speed internet are provided to the students on campus. The campus network allows faculty and students free to access the electronic mail, the file transfer, and the internet. Each student and faculty member also has an individual computer account and an e-mail address.

Library Learning Resources

The San Jose Polytechnic University (SJPU) will have an on-site library with the collections covered on Engineering, Computer Science, Business, and General Education areas to support the academic programs. The university library will serve students and faculty at no cost and you are allowed to check out the books or use the resources by obeying the library policy.

The university also encourages students to use on-line learning resources. The followings are digital library resources for our degrees and certificate programs. The sources for digital library require fees of

\$85.00 (paid by student) and all the services can be accessed through web browsers including IExplorer, Firefox, and Chrome.

Digital Library (paid for by student):

- a. ACM: <http://dl.acm.org/dl.cfm>
- b. IEEE: <http://ieeexplore.ieee.org/Xplore/home.jsp>
- c. SPIE: <http://www.spiedl.org/>
- d. Springer: <http://rd.springer.com/>
- e. Safari: <http://techbus.safaribooksonline.com>
- f. Knovel: <http://www.knovel.com/web/portal/main>
- g. AMA: <http://www.marketingpower.com/AboutAMA/Pages/DigitalPublications.aspx>

The laboratory is opened Monday through Friday from 11:00am to 9:00pm, Saturday hour is from 11:00am to 5:00pm. The library is closed on Sunday and all school holiday. The librarian assistant is available for general questions and assistance during open hours.

Library Policies

1. Library Environment: Loud talking, running, and game playing are not permitted in the library. Writing, underlining, marking, leaving paper clips or post-it notes in library materials is strictly prohibited.
2. Checkout Period: The regular items can be checked out for 4 weeks. The textbooks and reference books listed in the course syllabus can be checked out for only 2 weeks.
3. Renewal policy: Each checked out item can only be renewed once.
4. Checkout limit: The maximum number of items you can check out at any time is 6.
5. Penalty: Any of late return item (within 7-day grace period) will be charged. For regular items, \$0.50/per day for each item. For text and reference books, \$2/per day for each book. All library materials they have checked-out and not returned after a seven (7) day grace period from the date the item was due will be subjected to a replacement cost. Such materials will therefore be declared as a lost and the office will be notified to assess the following fees per each item:
 - If the item is still available from the publisher, the student will be charged the regular cost of that item.
 - If the item is not available from the publisher and is deemed to be out-of-print, the student will be charged by the following additional standard fees per volume: (a). Paperback books: \$70.00; (b) Hardback books: \$90.00

UNIVERSITY ADMINISTRATION

Office of President

Dr. Leagong Chen

President and CEO

Office of Academic Affairs

Dr. Eugene Chang

Chief Academic Dean

Dr. Ronald Sokolsky

Director of Institutional Development and Accreditation Compliance

Ms. Carol Chen

Chief Administrator

Office of Operation and Finance

Mrs. Chiwen Lu

CFO of Operation and Finance

Office of Student Service and Administrations

Mrs. Cindy Liu

Director of Student Service and Administration

Office of Development and Support

Mrs. Chris Wang

Director of Development and Support

UNIVERSITY FACULTY MEMBERS

School of Engineering**Department of VLSI Engineering****Chang, Eugene (Yuh-Lin) – Associate Professor**

Ph.D. in Computer Engineering, University of Texas, Austin, TX (1993)
MS in Electrical Engineering, University of California, Santa Barbara, CA (1988)
BS in Electrical Engineering, National Taiwan University, Taiwan (1984)
Expertise: Digital Image Processing, Embedded System Design, System on Chip.

Chen, Leagong – Associate Professor

Doctor of Engineering in Electrical Engineering, Lamar University, Beaumont, TX (1994)
MS in Electrical Engineering, Southern Illinois University, Carbondale, IL (1989)
Expertise: CMOS VLSI Design, Logic Synthesis, IC Physical Design (Place-and-Route), Static Timing Analysis, CMOS IC Layout, IC Layout Verification and Extraction.

Moh, Teng – Professor

Ph.D. in Computer Science, University of California, Davis, CA
MS in Computer Science, University of California, Davis, CA
MSE. Information Engineering, National Taiwan University, Taiwan
BS in Applied Mathematics, Fu Jen Catholic University, Taiwan
Expertise: Machine Learning, Web Mining, Database management Systems, Distributing Computing, Software Engineering, VLSI CAD, and Combinatorial and Non-Linear Optimization.

Dubey, Rahul – Associate Professor

Ph.D. in Electrical Engineering, Indian Institute of Technology Roorkee (2006)
MS in Electrical Engineering, LD College, GUJ University (1993)
BS in Electrical Engineering, Gorakhpur University (1991)
Expertise: Computer Architecture, Digital System Design, IoT Edge Devices, FPGA and Embedded system design.

Patra, Amulya Kumar – Adjunct Professor

MS in Electrical Engineering, IIT Madras (1998)
Expertise: 17 Years of experience in VLSI Engineering Field (ASIC design, FPGA Prototyping, ASIC Emulation, RTL Coding using verilog, Post Silicon validation, High Speed Board design, Mixed signal design and debug).

Ho, Jack – Adjunct Professor

Master of Business Administration, University of Massachusetts, Amherst (2011)
Master of Science in Electrical Engineering, Santa Clara University (1999)
Bachelor of Science in Electrical Engineering, Rensselaer Polytechnic Institute (1996)
Expertise: ASIC design, Logic Design, VLSI Design, Computer, Networks/Architecture, Computer Programming.

Department of Mobile Computing

Chang, Eugene (Yuh-Lin) – Associate Professor

Ph.D. in Computer Engineering, University of Texas, Austin, TX (1993)
MS in Electrical Engineering, University of California, Santa Barbara, CA (1988)
BS in Electrical Engineering, National Taiwan University, Taiwan (1984)
Expertise: Digital Image Processing, Embedded System Design, System on Chip.

Yao, Jason – Associate Professor

Ph.D. in Electrical and Computer Engineering, University of California, Santa Barbara (1992)
MBA, Finance Concentration, Santa Clara University (2003)
MS in Electrical and Computer Engineering, University of California, Santa Barbara (1988)
BS in Electrical Engineering, National Taiwan University, Taiwan (1984)
Expertise: Digital Signal Processing, Software Engineering, Data Analytics, Cloud Computing.

Sheu, JJ – Adjunct Professor

MS in Computer Science, University of Texas, Austin, TX (1985)
BS in Computer Science (Minor in Electrical Engineering), National Chiao-Tung University, Taiwan (1978)
Expertise: Computer Networks, Computer Security, Wireless System, Computer Architecture, Embedded System Design, Object Oriented Design, Software Engineering, Android Development, Operating System, Algorithms, Web Design and XML, and Robotics.

Tsay, Johnson – Adjunct Professor

MS in Computer Science, Utah State University, Utah (1986)
BS in Electronic Engineer, Chung-Yuan University, Taiwan (1978)
Expertise: iOS, Android mobile apps development, Graphical User Interface, Object-oriented programming, Real time process control.

Certificate Programs in VLSI Engineering

Chen, Leagong - Associate Professor

Doctor of Engineering in Electrical Engineering, Lamar University, Beaumont, TX (1994)
MS in Electrical Engineering, Southern Illinois University, Carbondale, IL (1989)
Expertise: CMOS VLSI Design, Logic Synthesis, IC Physical Design (Place-and-Route), Static Timing Analysis, CMOS IC Layout, IC Layout Verification and Extraction.

Certificate Program English as a Second Language (ESL)

Hsu, Wei-Jen, Instructor

MS in English, National Taiwan University, Taiwan, ROC BS in English, National Taiwan University, Taiwan, ROC Expertise: ESL, Chinese

UNIVERSITY LOCATION

San Jose Polytechnic University (SJPU) is located in the center of Silicon Valley. The main campus in San Jose is surrounded by a high-technology industry and many professional and business development activities. In this area, you may find the world class Stanford University nearby and San Francisco, Oakland, and Berkeley are less than an hour travel by a car or the public transportation. In addition, the Pacific beaches of Santa Cruz are about 30 miles away and also the San Jose International Airport is just few minutes drive away from the campus.

The University is close to freeways I-87, I-101, and I-880 and those freeways are easily accessed through the main street - North 1st Street. The abundant parking areas are fully landscaped to provide convenient traffic flow and easy building access.

All class are held at the Gateway Place campus.

University Address:

1631 North 1st Street, Suite 100, San Jose, CA 95112

Telephone: (408) 564-6389 Fax: (408) 886-9293 Web site: www.sjpuca.us

Notice to Prospective Degree Program Students

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

- Become institutionally accredited by an accrediting agency recognized by the United States Department of Education, with the scope of the accreditation covering at least one-degree program.
- Achieve accreditation candidacy or pre-accreditation, as defined in regulations, by (date two years from date of provisional approval), and full accreditation by (date five years from date of provisional approval).

If this institution stops pursuing accreditation, the following will happen: ·

The institution must stop all enrollment in its degree programs, and Provide a teach-out to finish the educational program or provide a refund.

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

Institutional Representative Initials: _____ Date: _____

Student Initials: _____ Date: _____