MS-CMPE Student Handbook

(Revised June, 2018)

1. Department and Program Highlights

The MS in Computer Engineering program provides students with an educational experience that combines electrical engineering and computer science with the best of academia, the high-tech industry, and the Silicon Valley. The high-tech industry increasingly requires engineers to be equipped with both hardware and software development knowledge and skills. The program provides in-class theory with hands-on hardware design and software development exercises to give students the skills necessary to create contemporary microelectronic products that are typically embedded computing systems containing both hardware and software. Graduates with an MS in Computer Engineering can expect to find significant opportunities in digital and computer hardware design and verification, system-level software development, and prototyping and testing as well as technical support and marketing.

- Founding member of the national Cybersecurity Research Center (TRUST) and of the NISA Center
- World finalist team in the Microsoft Embedded Systems Challenge
- Supported by Intel, Cadence, Xilinx, Cisco, Oracle, Sun, BEA, IBM, Microsoft, and more

2. MS-CMPE Program Learning Outcomes

(a) Be able to demonstrate an understanding of advanced knowledge of the practice of computer engineering, from vision to analysis, design, validation, and deployment.
(b) Be able to tackle complex engineering problems and tasks using contemporary engineering principles, methodologies and tools.
(c) Be able to demonstrate leadership and the ability to participate in teamwork in an environment with different disciplines of engineering, science, and business.
(d) Be aware of ethical, economic, and environmental implications of their work, as appropriate.
(e) Be able to advance successfully in the engineering profession and sustain a process of life-long learning in engineering or other professional areas.
(f) Be able to communicate effectively in both oral and written forms.

3. University Learning Goals

San José State University graduates will have developed:

- **Specialized Knowledge**
  - Depth of knowledge required for a degree, as identified by its program learning outcomes.
- **Broad Integrative Knowledge**
  - Mastery in each step of an investigative, creative or practical project (*e.g.*, brainstorming, planning, formulating hypotheses or complex questions, designing, creating, completing, and communicating).
  - An understanding of the implications of results or findings from a particular work in a societal context (*e.g.*, social or economic implications of a scientific finding).

- o Students graduating with a baccalaureate degree will have demonstrated an understanding of critical components of broad academic areas, including the arts, humanities, social sciences, and sciences, and their integration.
- **Intellectual Skills**
    - o Fluency in the use of specific theories, tools, technology and graphical representation.
    - o Skills and abilities necessary for life-long learning: critical and creative thinking, effective communication, conscientious information gathering and processing, mastery of quantitative methodologies, and the ability to engage effectively in collaborative activities.
- **Applied Knowledge**
    - o The ability to integrate theory, practice, and problem-solving to address practical issues.
    - o The ability to apply their knowledge and skills to new settings or in addressing complex problems.
    - o The ability to work productively as individuals and in groups.
- **Social and Global Responsibilities**
    - o The ability to act intentionally and ethically to address a global or local problem in an informed manner with a multicultural and historical perspective and a clear understanding of societal and civic responsibilities.
    - o Diverse and global perspectives through engagement with the multidimensional SJSU community.

4. Program Scope

The MS-CMPE program currently has five areas of specialization:

1) System Design and Verification
2) Network Systems
3) Embedded Systems
4) Secure Systems
5) Data Science

A specialization must be declared during the first week of the semester in which the master's project (CMPE 295A), thesis (CMPE 299A), or comprehensive exam (CMPE 298) is taken. It may also be done at any earlier point by downloading and completing the form, CMPE Program of Study Form, located at cmpe.sjsu.edu/content/forms.

5. Application and Admission

5.1) Application Requirements
a) Academic Background
An applicant must have a degree or have a degree with supplemental post-baccalaureate coursework equivalent to a four-year U.S. undergraduate baccalaureate degree with a GPA of 3.0 (B) or higher (for consideration for admission, although a competitive system of admission is used whereby higher GPAs may be necessary, depending on the applicant pool) in computer-related fields such as computer engineering, electrical engineering, or computer science. Under special circumstances, applicants with other academic backgrounds will be considered but only if bachelor's level computer engineering or computer science knowledge and skills have been gained.

b) Standard Test Scores
An applicant who does not have a baccalaureate degree from an accredited university in the United States must meet SJSU's minimum requirements on an English-Language Proficiency Exam (TOEFL, IELTS, or PTE; please visit the website at www.sjsu.edu/graduateadmissions/admission-requirements/test-requirements/ for more information). GRE scores are used by the MS-CMPE program as an evaluation factor, on a competitive basis. They are required of all international applicants and of domestic applicants with bachelor's GPAs beneath 3.2. Those with five or more years of direct experience in programming and coding through employment may request a waiver of the GRE. The absolute cutoff for acceptance for the sum of the quantitative and verbal portions is 300, although higher scores may be required in some semesters, depending on the strength of the applicant pool. The minimum GRE writing score is 3.0 except where high English-language proficiency test scores have been obtained.

5.2) Application Procedure and Material Submission

All applications are online via Cal State Apply (calstate.edu/apply). The application process at SJSU is administered by the Graduate Admission and Program Evaluation (GAPE) Office. Please visit the GAPE website at http://www.sjsu.edu/graduateadmissions/ for general information and application instructions. When completing the online application pages, the applicant should (1) select Computer Engineering (MS) as the Major/Program Objective, and (2) route his or her TOEFL (or other English-language proficiency test) scores and GRE scores to San José State University, code=4687 (no department code is required). Official transcripts and other application materials should be mailed to SJSU's GAPE office, not to the Computer Engineering Department. Letters of recommendation and a statement of purpose can be helpful in borderline cases but are not required. They can be sent directly to the Graduate Advisor in the department until the CSU is able to integrate direct uploading to the application. This feature is expected within the coming

year. Note that because the CMPE Department conducts rolling admissions, late applications will not be reviewed after the program reaches its capacity.

5.3) Admission Conditions

Except for those who obtained their BS-CMPE degree at SJSU, all admitted MS-CMPE applicants are *conditionally* accepted. To become a *classified* MS-CMPE student, conditionally admitted students must either pass three waiver tests or take and pass their corresponding condition courses (there are also some additional requirements). Each test can be taken only once. Condition courses are graded on a credit (CR) or no credit (NC) basis. A condition course can be taken again to obtain a passing grade, but generally only two chances are given as conditions should be fulfilled within two semesters. The names of the three tests for the MS-CMPE program (not the MSSE program) and their corresponding condition courses are listed below. For test schedules, scope, and preparation, please visit the website at https://cmpe.sjsu.edu/content/test-new-ms-students.

Tests	Condition Courses
Digital and Microprocessor Test	CMPE 180D (can be substituted by passing CMPE 124 + CMPE 127 with B or better grades)
Object-oriented Programming and Data Structure Test	CMPE 180A (can be substituted by passing CMPE 50 + CMPE 126 with B or better grades)
Operating Systems Test	CMPE 180C (can be substituted by passing CMPE 142 with a B or better grade)

The tests are given in the first week of each Fall and Spring semester. Each can be taken only a single time, but tests untaken the first semester of matriculation can be taken in the second semester. Students must register 3 days in advance for each test in the department office . The department makes no exceptions, such as accepting transfer work for these courses, feeling that those whose background has provided the necessary knowledge to go forward into graduate-level courses should be able to pass the corresponding test.

5.4) Transfer Students

To transfer into the MS-CMPE program from another SJSU master's program, students must submit a *Change of Major Request Form* to the GAPE office (original

application materials, other than a new financial declaration, may not need to be resubmitted as GAPE keeps them on file for a year after entrance into the university); graduate students currently at other U.S. universities must apply via Cal State Apply, as described in *Section 5.2*: *Application Procedure and Material Submission*. Thus transfer from a program outside SJSU, including from other campuses of the CSU, is not permitted by CSU policy.

a) All applicants, including transfer students, will be evaluated on the basis of the same requirements as for new applicants. In addition, a 3.0 or higher GPA in the current graduate program is required, and GRE minimum scores are as indicated for new applicants.

b) For applicants newly admitted to a different graduate program at SJSU, the change-of-major request can be submitted during the first semester in their home program. However, the university will allow the actual transfer to occur only at the start of the following semester.

5.5) Transfer Credit

After being accepted by the MS-CMPE program, a student may submit a *Transfer Course Credit Request Form* to transfer courses taken before the student was enrolled in the MS-CMPE program at SJSU. The request will be evaluated by the MS-CMPE Graduate Advisor in consultation with the relevant faculty members with expertise in the particular area covered by the class. Up to two courses (6 units) can be transferred to the MS-CMPE program if the following conditions are met:

a) The courses must be at the graduate level.
b) The courses must be comparable (in level and contents) to MS-CMPE graduate courses.
c) The courses must have been taken within the last 7 years.
d) The courses must not be used to meet the requirements of another degree the applicant has obtained.
e) The courses must have been taken from U.S.-accredited universities (including SJSU Open University) or at non-MS-CMPE programs at SJSU, together with their prerequisite courses specified in the course descriptions.

Transfer of units from non-U.S. institutions is not permitted.

6. Degree Requirements

To obtain an MS-CMPE degree from SJSU, a student must meet the following requirements:

6.1) Classification Requirement

The student must be in a *classified* MS-CMPE status, as described in *Section 5.3: Admission Conditions*.

6.2) Course Requirements

The student must complete coursework in the following three categories:

a) Program core courses (courses that all MS-CMPE students are required to take): CMPE 200, CMPE 220, CMPE 240 (3 units each, total of 9 units).

b) Specialization Courses (total of 9 units within the student's declared specialization):

Specialization	Specialization Courses	Units per Course
System Design and Verification	CMPE 264, CMPE 212, and special topic courses (CMP 297s) in this area	3
Network Systems	CMPE 206, CMPE 207, CMPE 208, CMPE 209	3
Embedded Systems	CMPE 242, CMPE 243, CMPE 244, CMPE 245, CMPE 261, CMPE 262, CMPE 265	3
Secure Systems	CMPE 209, CMPE 279, CMPE 287	3
Data Science	CMPE 255, CMPE 256, CMPE 257	3

c) Technical elective courses (total of 6 units):
An elective course can be any graduate-level CMPE course (3 units each) **except the following:** CMPE 270, CMPE 271, CMPE 298, CMPE 298i, CMPE 295A, CMPE 295B, CMPE 299A, and CMPE 299B. With the MS-CMPE Graduate Advisor's approval and clear justification for the alternative course(s), a student can take up to two elective courses from other departments. Note that before registering for a non-CMPE course, the student must submit the *Take Non-CMPE Department or Program Course Request Form* to the CMPE Department. Without the Graduate Advisor's approval prior to registering for the course, non-CMPE courses will not be credited toward the student's degree program.

6.3) Project or Thesis or Additional Course Requirement

The student must satisfactorily complete one of the following:

Options	Courses	Total Units	Comments
Project	CMPE 295A and CMPE 295B	6	Must be completed in two consecutive semesters.
Thesis	CMPE 299A and CMPE 299B	6	Must be completed in two consecutive semesters.
Course Only (taking 2 additional courses and a comprehensive exam)	1) Two more CMPE electives (6 units), and 2) CMPE 298 (1-unit comprehensive exam covering CMPE program core and specialization fundamentals)	7 (minimum)	1) The 1-unit CMPE 298 is graded on a CR/NC basis. 2) The comprehensive exam is given twice a year (once in fall and once in spring), approximately a week before the last day of instruction).

Please note that the course-only option will be phased out beginning in Fall 2018. Students who matriculate in that Fall semester or after will not have this option. Those who were enrolled in the CMPE Department's MS programs prior to F18, and have not disenrolled and been re-admitted after F18, will maintain rights to exercise the option.

6.4) Writing Requirement

Students must fulfill SJSU's Graduate Writing Assessment Requirement (GWAR) by satisfactorily completing CMPE 294. Those who have satisfactorily completed technical writing courses, 100W or 200W, at SJSU have already met the GWAR. Those with publications (*e.g.*, previous master's thesis or single authored refereed journal article or patent in English) or have taken a CMPE 294-comparable technical writing course at another university may submit the *Waive Technical Writing Requirement* request for a GWAR waiver. Decisions on such requests will be made by SJSU's Graduate Studies office, not by the CMPE Department.

6.5) Document Requirement

Before graduation, the student must complete and submit the following documents:
1. The Petition for Advancement to Graduate Candidacy (*i.e.*, the *Candidacy Form*). The candidacy form and supporting materials should be submitted directly to the College of Engineering International Graduate Student Advisor in the Graduate Engineering Student Success (GESS) Center. Drop-in times will be made available for this purpose, or the student can make an appointment at https://ges.sjsu.edu/gess/ Along with completed candidacy form, you must submit your SJSU graduate transcripts, admission letter listing admission conditions (if conditionally accepted), evidence of completing conditions (aforementioned transcripts and emails from department indicating passage of conditional course waiver tests), departmental Plan (or Program) of Study, transfer course permissions (if any), permissions to take courses in other departments (if any), and

any other documentation needed to evaluate the accuracy of your submitted candidacy form.

2. The Application for Award of Master's Degree Form (*i.e.*, the *Graduation Application, access to which is now online through the student's MySJSU account*)

3. Thesis or project report (not for students who choose the course-only option). For project-option students, submission is done via the CMPE 295B class Canvas site. For thesis-option students, the thesis, once approved by the student's master's thesis committee, should be submitted to SJSU's Office of Graduate and Undergraduate Programs (GUP). Please visit the GUP website at www.sjsu.edu/gup/gradstudies/thesis/index.html for instructions on thesis preparation and submission.

6.6) GPA Requirement

Graduate students must maintain a 3.0 or higher GPA for all upper-division and graduate courses taken at SJSU (*cumulative SJSU GPA*) as well as the courses listed on his or her candidacy form (*candidacy or degree GPA*).

7. Taking Courses

7.1) M S - Computer Engineering Course Information
The website at http://info.sjsu.edu/web-dbgen/catalog/departments/CMPE-courses.html contains the complete list of CMPE courses, including course numbers and names, as well as their descriptions and prerequisite requirements.

7.2) Course Requirements
All of the following are required to earn the master's degree in Computer Engineering:
a) condition courses – CMPE 180D, CMPE 180A, CMPE 180C (should be completed within the first two semesters). Students entering in a classified status (*i.e.*, graduates of the SJSU Computer Engineering bachelor's program) are not expected to take these courses or the waiver exams.
b) program core courses – CMPE 200, CMPE 220, CMPE 240 (prerequisites are strictly enforced)
c) specialization courses (refer to *Section 6.2b: Specialization Courses*)
d) graduate writing requirement (GWAR; CMPE 294)
e) technical electives (refer to *Section 6.2c: Technical Elective Courses*)
f) master's project (CMPE 295A, CMPE 295B), thesis (CMPE 299A, CMPE 299B), or comprehensive exam (CMPE 298) plus additional technical electives.

Be aware that one must take a letter-graded class in the first semester after matriculation, so taking all three condition courses alone is not allowed. It is also advisable that students, especially in the first semester, take no more than 10 units. Therefore, prepare to take one subject course (lecture, specialization, elective, or GWAR course) in the first semester. Check course prerequisites in the university catalog (http://info.sjsu.edu/web-dbgen/catalog/departments/CMPE-courses.html) to determine which to take.

7.3) Prerequisites and Constraints

Under certain circumstances (course scheduling, classroom capacity, duration of study, etc.) and with course instructors' consent, the course sequence shown above might be deviated from. However, there are hard prerequisite constraints that all students must comply with, as listed below:

a) Prerequisites to Program Core Courses

Program Core Courses	Prerequisites
CMPE 200	CMPE 180D
CMPE 240	CMPE 180D
CMPE 220	CMPE 180A and CMPE 180C

b) Requirements for CMPE 295A, 299A, and 298 (comprehensive exam)

Requirement	Description
1	Be a classified MS-CMPE student, *i.e.*, completed all admission conditions, a minimum of 9 letter-graded units, and GWAR and be in good standing
2	Both cumulative SJSU GPA and candidacy form GPA are 3.0 or higher
3	Completed at least two program core courses
4	Completed at least two specialization courses
5	Completed GWAR
6	Submit candidacy form and obtain approval during early stage of the semester when these courses are taken
7	All program core courses and GWAR must be completed before or together with CMPE 295A, CMPE 299A, or CMPE 298. Failure to fulfill the GWAR will lead to a failing grade for CMPE 295A/299A/298.

One may take the GWAR and third core course concurrently with CMPE 295A, 299A, or 298. There must be no core courses and only one specialization course left to take in the semester(s) following CMPE 295A, 299A, or 298. Plan your full degree program schedule carefully, taking into account courses not offered every semester, to meet these requirements. Summer courses are few and fill rapidly so relying on getting into one often leads to delays in graduating.

c) Requirements for CMPE 295B and CMPE 299B

Requirement	Description
1	Both cumulative SJSU GPA and candidacy form GPA are 3.0 or higher
2	Completed CMPE 295A or CMPE 299A
3	Completed all three program core courses
4	Passed all specialization courses or taking third one concurrently
5	Fulfilled GWAR

7.4) Number of Courses per Semester
Students are permitted to take no more than four courses (10 or 12 units) per semester, including CMPE 294, CMPE 298i, and MS project or thesis courses. This departmental restriction is strictly enforced. Students on an F-1 visa must take no fewer than 9 units per semester with the exception of semesters of enrollment in culminating experience (project or thesis) courses where all graduation requirements other than one subject class, at most, and the culminating experience have already been completed. In the latter case, permission for a reduced course load (RCL) can

be applied for with the department and ISSS. It is recommended for all students that no more than 10 units be taken in any semester.

7.5) Course Registration

All course registration is done online. Please visit the website at http://my.sjsu.edu/ for course registration information and instructions. If a course is unavailable for online registration, the student needs to request a permission code. To do so, visit the online CMPE Department permission code request page at https://cmpe.esjsu.edu/content/Permission-Number-Requests (accessible from the department webpage). One may also contact the course instructor in advance by email or, more often, in person on the first class meeting of the semester. Fee information can be found at the Bursar's Office website (http://www.sjsu.edu/bursar/fees_due_dates/). For other registration problems encountered, please contact SJSU's Office of the Registrar (registrar@sjsu.edu).

8. **Practical Training (Internship - CPT and OPT) for International Students**
   International students on an F-1 visa are eligible to secure internships via Curricular Practical Training (CPT) if the following conditions are met:

Condition	Description
1	Be a classified MS-CMPE student, *i.e.*, completed all admission conditions, a minimum of 9 letter-graded units, and GWAR and be in good standing
2	Cumulative SJSU GPA 3.0 or higher
3	Passed four CMPE graduate courses, including two program core courses
4	Enroll in CMPE 298i

The CPT can take place in the Spring, Summer, or Fall semester. A student can take a CPT up to three times.
For information regarding Optional Practical Training (OPT), please visit SJSU's International Student and Scholar Services (ISSS) website at
http://www.sjsu.edu/isa/employment/optional_practical_training/index.html.

A student planning to start practical training must file a CPT or OPT request form and submit it to the CMPE Department for approval (refer to *Section 10: Advising*).

Domestic students (including those holding H1B visas) can take an internship only by enrolling in CMPE 298i. To be eligible for enrollment, a copy of the offer letter, the admission letter showing conditions of admission if any, current student transcripts showing passage of two core and two additional graduate CMPE classes, proof of passage of condition classes, and the add form for CMPE 298i must be submitted to the department or to the Graduate Advisor.

9. **Probation, Disqualification, and Leave of Absence**
   9.1) Probation
   A graduate student will be placed on academic probation if his or her cumulative SJSU GPA falls below 3.0.
   9.2) Disqualification
   A graduate student on academic probation will be academically disqualified if he or she fails to achieve a 3.0 or higher semester GPA. The CMPE Department does not allow reinstatement via Programs of Study, so disqualification is final and the student is dismissed from the master's program.
   9.3) Leaves of Absence
   A student will lose active status if no courses are taken for two consecutive semesters. Students must file a *Leave of Absence Form* prior to the first semester of leave to avoid losing active status while on leave. Otherwise, the student must

reapply to the university to regain active status. The university policy on leaves of absence can be found at the *Attendance and Policy FAQs* section on the university registrar website at http://www.sjsu.edu/registrar/faqs/Attendance_and_Policy_FAQs/index.html and on the GAPE website at http://www.sjsu.edu/gape/faq/.

10. Advising

10.1) MS-CMPE Advising Procedure
a) Based on the advising need, go to the Computer Engineering Department front desk and pick up the appropriate request forms, as listed below:

Form Number	Purpose of Advising
1.1	CPT
1.2	OPT
1.3	Reduced course load
1.4	Letter for Change of Status to F-1
2.1	Transfer from Other Program
2.2	Reinstatement after Disqualification (not in use for Program of Study)
3.1	Establish and update Program (= Plan) of Study
3.2	Take Non-CMPE Department/Program Courses
3.3	Transfer Course Credit
3.4	Waiving a Core Course
4.1	Take CMPE or UNVS 290R to extend CMPE 295B or CMPE 299B
4.2	Waiving Technical Writing Requirement (GWAR)
5.2	Overlapping Course Registration
7.1	Candidacy Form (complete via CMPE 295A/299A/298 class)
7.2	Course Substitution (to substitute a course listed on the candidacy form)
7.3	Graduation application (complete via MySJSU once advanced to candidacy)
8.1	Leave of Absence
8.2	Semester Withdrawal or Course Drop

b) Complete the form and provide the required attachments as stated on the form.
c) Submit the form and its attachments to the CMPE Department front desk.

Normally, the requesting student will be notified about the decision (approval, denial, or making appointment with the MS-CMPE graduate advisor) within one week.

10.2) Contact Email Addresses
When necessary, students can contact the MS-CMPE Graduate Advisor or the CMPE Department front desk via email, as listed below:

- MS-CMPE Graduate Advisor: david.bruck@sjsu.edu or

advisor-mscmpe-group@sjsu.edu

- CMPE Department Front Desk: frontdesk-computer-engineering@sjsu.edu

- Marta Ramirez-Rodenas (College of Engineering International Graduate Student Advisor) in the Graduate Engineering Student Success (GESS) Center
  https://ges.sjsu.edu/gess
  (for summer advising and for candidacy form submission and CPT form consultation)

10.3) Websites for non-MSCMPE Advising Topics

- Office of the Registrar:
  http://www.sjsu.edu/registrar/

- Bursar's Office:
  http://www.sjsu.edu/bursar/fees_due_dates/

- International Student and Scholar Services (ISSS):
  http://www.sjsu.edu/isa/

- Office of Graduate Admissions and Program Evaluations (GAPE)
  http://www.sjsu.edu/gape/

- Office of Graduate and Undergraduate Programs (GUP):
  http://www.sjsu.edu/gup/index.html, or
  http://www.sjsu.edu/gradstudies/student_portal/index.html

11. Frequently Asked Questions (FAQs)

What are the application deadlines?

Visit http://www.sjsu.edu/graduateadmissions/deadlines/

What is the application procedure?

Online application information may be obtained from
http://www.sjsu.edu/graduateadmissions/want-to-apply/

Where do I submit my application?

Applications are submitted using the graduate admissions selection at *Cal State Apply* (https://www2.calstate.edu/apply/graduate). Applicants should select Engineering-Computer Engineering (MS) as the Major/Program Objective. GRE and TOEFL, IELTS, or PTE test scores should be routed to San José State University, code=4687. No department code is required. Do not choose Computer Science or Software Engineering if your interest is in Computer Engineering; the Computer Science Department is a separate department in the College of Science, and Software Engineering is a separate master's program within the Department of Computer Engineering. For more information, see http://www.sjsu.edu/graduateadmissions/

Does the Computer Engineering Department offer graduate assistantships to incoming or current students?

Graduate teaching, research, and instructional student assistantships are competitive and are awarded based on the student's qualifications and fit to particular tasks. We do not award assistantships at the time of admission.

I was admitted this semester. Is it possible for me to start my study next semester?

New graduate students must take at least one course during the first semester at SJSU. Otherwise, admission is forfeited, and application to SJSU must be repeated. Thus the CSU does not allow admission deferrals at all. Check with the GAPE office whether to resubmit admission documents.

Upon being admitted to the program, am I required to make an appointment with the Graduate Advisor?

It is not necessary. Read carefully the acceptance email sent to you (email the Graduate Advisor if you haven't received it or need a new copy) and this webpage. Attending the MS-CMPE new graduate student orientation session is required. It is not required but highly advisable to attend the university-wide SJSU Graduate Student Orientation presented by the Office of Graduate Studies.

Can one of my admission conditions be waived if I have taken a course in the same subject in another institution?

No admission conditions can be waived. You must pass the subject test or its corresponding condition class in order to satisfy each admission condition.

I have to satisfy one or more admission condition classes. How do they affect my GPA?

All upper-division (100-level) and master's level (200-level) letter-graded courses count towards the cumulative (or overall) SJSU GPA, even if they do not count towards the minimal requirements for the MS degree (*i.e.*, courses listed on the candidacy form). However, CMPE 180s are credit/no credit (CR/NC) courses, and therefore the grades in those courses do not count toward GPA

After completing all my admission conditions, do I have to change my status from "conditional" to "classified" immediately?

No, your status will be changed when you file a *Departmental Request for Candidacy and Graduate Degree Program Form* (containing the university form called the *Petition for Advancement to Graduate Candidacy*), which you will do as part of the course activities in CMPE 295A, CMPE 299A, or CMPE 298 (for comprehensive exam). At that time, you will submit your SJSU graduate transcripts, admission letter listing admission conditions (if conditionally accepted), evidence of completing conditions (aforementioned transcripts and emails from department indicating passage of conditional course waiver tests), departmental Plan (or Program) of Study, transfer course permissions (if any), permissions to take courses in other departments (if any), and any other documentation needed to evaluate the accuracy of your submitted candidacy form.

How can I register for classes?

Go to http://my.sjsu.edu/students/ to register, but pay attention to fee payment deadlines. Because graduate students cannot enroll in undergraduate courses online and in advance of the semester, you will have to request a permission number from the department website (https://docs.google.com/forms/d/e/1FAIpQLSdZEdf0fGpt3a6ez-yozi07YRrZZWxJN7oLw6r50dPxvfgi6A/viewform) in advance or from the course instructor, usually at the first class meeting of the semester. Some graduate courses also require permission numbers.

Whom do I contact with registration problems?

If you cannot gain access to the system, please contact cmshelp@sjsu.edu. If you have problems seeing the correct screen or problems with incorrect IDs, please contact erecords@sjsu.edu.

Do I need advising before enrolling in a class?

If you follow the guidelines described in Section 7, an advising appointment is not necessary.

If I am the first one on the wait list for a full class, will I be given priority to be added to the class by the instructor?

After the semester begins, a class might have some available seats to add more students. The instructor will consider several factors to decide the priority order for adding students. He or she will decide whether the "wait list sequence" is one of the factors but is under no obligation to count it.

I tried to enroll a class, but the enrollment (registration) system required departmental consent. How can I receive consent?

Consent in this case means acquiring a permission number. For some classes, such as project and GWAR classes, restrictions are put into place to ensure adequate preparation before enrolling. In addition, the department needs to be certain that those seeking enrollment are in our own master's programs, have satisfied the necessary prerequisites, and have the academic standing required. Follow the instructions in Section 7.5 to obtain a permission number.

Once the Add Deadline has passed, how can I get a permission number (*i.e.*, add code) for a class?

Again, follow the instructions in Section 7.5, which instruct you to attend the first class meeting of the semester and ask the instructor for a permission number.

The time overlap of two courses prevents me from enrolling into either one. What shall I do?

With a significant overlap, you can enroll in only one of them. The Graduate Advisor is not assigned to schedule the classes of the department. If the Department Chair

determines that a new section is needed and can locate the proper personnel to offer the class, it will post the additional section on the schedule section within MySJSU. If the overlap is less than 15 minutes, you might be able to enroll in both classes by filing a course overlap form and submitting it to the department office.

How late can I add or drop a class without penalty?

Courses may be dropped without penalty during the first fourteen days of the semester and added for the first 21 days. See the Calendar section of the university website www.sjsu.edu/provost/academic_affairs/resources/academic_calendars/ for exact dates and deadlines. Courses dropped during this initial period will not appear on the student's transcript.

If I drop a class now, can I enroll in it next semester?

Yes, you can enroll in the class by the same process as used this semester.

I enrolled in both CMPE 180D and CMPE 200 or 240 but then failed the Digital Design and Microprocessor test. Will I be penalized if I drop CMPE 200 or 240 after the semester begins?

Should this happen, CMPE 180D should be taken, but CMPE 200 and 240 cannot be taken. Courses may be added or dropped without penalty before the Add Deadline and Drop Deadline, respectively, so it is imperative that CMPE 200 and 240 be dropped via MySJSU before the deadline. A student with admission conditions can enroll in graduate classes and also CMPE 180A, C, and D in the first semester in the master's program. However, drop a condition course immediately after receiving a passing result in the pertinent waiver test. For refund and pro-rata charges that will occur after the Drop Deadline, refer to http://www.sjsu.edu/bursar/payment_refunds/.

When should I establish or update my Plan (Program) of Study?

It is not required to file a Plan of Study until applying for a CPT, filing a candidacy form, or being on probation. It is, however, helpful when seeking advising from the department or Graduate Advisor.

Can I transfer undergraduate units received at SJSU?

You can transfer a graduate course taken when you were a SJSU undergraduate senior student, but there are several restrictions. The course must not be listed on your undergraduate major form and thus must not have been used to satisfy any requirements for the bachelor's degree.

Can I transfer graduate credits from extension or Open University courses of other universities?

No.

Can I transfer graduate credits from non-U.S. institutions?

No.

Will a transfer course be counted as a core, specialization, or elective course?

It could be counted in place of any to which it is equivalent.

When can I request a transfer of courses?

After a semester begins, you can submit a *Transfer Non-SJSU or Open University Course Request Form* for each course you'd like to transfer. You must submit the request form with all supporting documents to the department office. The documents required include a syllabus from the course taken and an unofficial or official transcript showing the date taken, number of units/credits, and the grade earned. Minima of a "B" grade and 3 semester units/credits (or their equivalent) are required, and the course must have been taken recently enough that it will not expire by the seven-year limit at the point of graduating from the MS-CMPE program. The MS-CMPE Graduate Advisor will consult with the professors possessing the subject knowledge to decide whether to approve the request or not.

Can I take off-campus courses as part of my degree course?

Off-campus courses cannot be used for the on-campus MS-CMPE degree program.

I am working in the Silicon Valley. Is it feasible for me to attend classes?

Almost all single-section CMPE graduate courses are offered after 6:00 p.m.

What are the differences between a master's project and master's thesis?

A thesis has more rigid requirements for content and reporting style. A project in CMPE is a group affair over the course of two semesters. A thesis, a more in-depth and lengthy document, is an individual affair and often involves an additional semester or two of research, so it is advisable to start the research in the second semester after matriculation (or even the first). The submission date to the Office of Graduate Studies, which must approve theses but not projects, is relatively early in the semester, meaning half of the semester is lost in the thesis-preparation process. A project-track student must enroll in CMPE 295A and CMPE 295B in two consecutive semesters; a thesis-track student must enroll in CMPE 299A and CMPE 299B in two consecutive semesters. Summer enrollments are optional and depend on agreements with and availability of the supervising faculty member and other members of the research group.

How can I find a project or thesis advisor and decide on my project or thesis topic?

Your project/thesis topic must be closely related to your specialization. Your thesis or project advisor must be an SJSU Computer Engineering professor with expertise in the area of your specialization. To have a faculty member serve as your project or thesis supervisor, you must approach professors to inquire about joining their research team.

Will the classes I take to satisfy my admission conditions be counted as part of the required 9 units for students on an F-1 visa?

Yes.

Will CMPE 298i for CPTs be counted as part of the required 9 units for students on an F-1 visa?

Yes.

Are there any requirements for taking CMPE 294?

The only requirement for taking CMPE 294 is to be a registered Computer Engineering Department graduate student.

If I take CMPE 294 and CMPE 295A concurrently, what is the consequence if I fail CMPE 294?

The completion of GWAR (*e.g.*, receiving a passing grade in CMPE 294 or ENGR 200W) is required to obtain a passing grade in CMPE 295A or CMPE 299A. At the end of the semester, a student who has not completed GWAR will receive a failing CMPE 295A or CMPE 299A grade and must enroll in CMPE 295A or CMPE 299A again, restarting the project or thesis.

If I cannot complete CMPE 295B or CMPE 299B this semester, what should I do?

A student who is unable to complete CMPE 295B or CMPE 299B due to unforeseen circumstances beyond his or her control will be given a grade of "I" (Incomplete) or "RP" (Report in Progress) and will need to register for CMPE or UNVS 1290R for a one-semester extension. Please see the Graduate Advisor to arrange for a registration appointment for CMPE or UNVS 1290R, as it will not automatically be available on MySJSU. Documentation of the extenuating circumstance is needed to be given this privilege. A student who fails to complete the requirements of CMPE 295A or 299B without adequate documentation of circumstances beyond his or her control will have to repeat the class in a subsequent semester.

What are the timing, scope, and grading parameters of the comprehensive exam?

The exam is given twice a year, once in the Fall semester and once in the Spring semester. It is held at least one week before the last day of instruction. The time and place is announced one week after the last day to add courses. The exam is 2 hours long. No books or other assistive devices are allowed. It covers fundamentals of

MS-CMPE program core courses and specialization courses in the exam taker's declared area. The exam is graded on a CR/NC basis and can be taken multiple times. The course-only option will be phased out beginning in Fall 2018. Students who matriculate in that Fall semester or after will not have this option and therefore may not take the comprehensive exam. Those who were enrolled in the CMPE Department's MS programs prior to F18, and have not disenrolled and been re-admitted for or after F18, will be eligible to take the exam.