MSME Comprehensive Exam Policy
Effective July 28, 2015

I. INTRODUCTION

The Comprehensive Exam in one of three options for satisfying the MSME Culminating Experience requirement. It is an alternative to the thesis (ME 299) and project (ME 295 A/B) options for satisfying the Culminating Experience. More details about graduation requirements are provided by Graduate Admissions and Program Evaluations (GAPE) at http://www.sjsu.edu/gape/. In order to meet the requirements of the Comprehensive Exam, a student must choose any three subjects from the following list and pass each one with satisfactory performance (discussed later in this document).

- ME 210 Advanced Thermodynamics
- ME 211 Advanced Heat Transfer
- ME 230 Advanced Mechanical Engineering Analysis
- ME 240 Rigid Body Dynamics
- ME 250 Precision Machine Design
- ME 260 Applied Stress Analysis
- ME 273 Finite Element Methods in Engineering
- ME 280 Automatic Control Engineering

II. ELIGIBILITY AND TIMING

A. Dates offered: Exams will be held on the first Friday of November and on the first Friday in April. Unless otherwise specified for a given semester, the exam period will ordinarily be in the morning hours.

B. Eligibility: A student must have approved Candidacy status before taking the exam, and 24 program units should have been completed before taking Comprehensive Exam. Students on academic probation or disqualification are not eligible for the exam. However, a student may apply for an upcoming exam after submitting his/her Candidacy Form and while some course units are still in progress.

C. Application deadline: The deadline for applying for an upcoming exam is the same as the add-courses deadline designated for the same respective semester (i.e., typically mid-September for a November exam and typically in mid-February for an April exam).

III. FORMAT AND PREPARATION

A. Question types: Each subject may require at most one analytically worked problem, and any other exam content within the same subject is limited to short-answer, multiple choice, fill-in, or true/false format. For the analytically worked problem in a given subject, the examinee will be given a choice from a set of two or more problems, from which he or she would choose just one to solve and submit for grading. (An "analytically worked problem" is one that is beyond solving by inspection, one-step operation, or algebraic manipulation. These generally require comprehending a worded problem statement and applying methodical problem-solving skills.)
B. **Length:** The time allocation for each subject is one hour. Accordingly, the combined duration for all three subjects is three hours.

C. **Stipulations:** Exam stipulations will be made available to students at least six weeks before the respective exam, and the stipulations document must be acknowledged and signed in hard copy before a student may take an exam.

D. **Preparation and help:** Each subject has a specific coordinator who is responsible for authoring its content (or alternatively working with respective course instructors for joint authoring). Examinees are very strongly encouraged to visit the respective coordinator in person several weeks before the exam to clarify stipulations and to solicit help with subject-specific studying. The latest list of subject coordinators will be included in the stipulations document. Faculty office hours are posted on the ME Department website, and students are also welcome to request meeting by appointment.

IV. PASSING REQUIREMENTS

A. **Minimum passing level:** Each subject must be passed with a minimum score of 65%.

B. **Incremental progress:** All three subjects will be administered on the same exam date, and it is naturally best to pass all components at once. However, it is possible to receive credit for passing subjects even if all three are not passed in the same semester. The ME Department will maintain a log of prior subjects that have already been passed. For example, if a student passes two subjects but fails the third, at the next exam opportunity he/she will be required to take only the subject that was not passed previously.

C. **Re-take allowance:** It is not permissible to change subject selection because of a failed attempt. In case of not passing upon first attempt, each subject (from the original selection of three subjects only) may be repeated up to 2 times thereafter. If after 3 attempts a student is unable to pass, he or she is no longer eligible for using the Comprehensive Exam to satisfy the Culminating Experience requirement. Plans beyond the 3-attempt limit should be discussed with the Graduate Program Advisor.

D. **7-year limit:** Students are reminded that there is a university-imposed 7-year time limit on all MS degrees, explained at: [http://info.sjsu.edu/web-dbgen/narr/static/catalog/graduatinelimit.html](http://info.sjsu.edu/web-dbgen/narr/static/catalog/graduatinelimit.html). Passing all three subjects must comply within this time limit, which supersedes the re-take allowance described above.

E. **No-show policy:** Failure to appear for an exam counts as one of the allowed attempts, unless pre-approved for compelling reasons by the Graduate Program Advisor.

F. **Tuition implications:** If all of the courses on one's approved Candidacy Form have been completed, a student is not required to register for classes in order to take the Comprehensive Exam, as long as he or she is still operating within the university-imposed 7-year time limit for MS degrees.