San José State University
Department of Mechanical Engineering
Stipulations for the Comprehensive Examination on
ME 250 Precision Machine Design

1. **Time, Date and Place for the Exam:**
   To be determined by the ME department Graduate Program Coordinator

2. **Emphases on the Exam:**
   The exam will focus on the major concepts presented in ME 250 Precision Machine Design, such as:
   - The nature of precision machine design, its principles and definitions
   - Kinematic design and constraints
   - Compliant and stiff degrees of freedom
   - Errors and compensation
   - Contact stresses
   - Stiffness in design
   - Material properties and their implications in precision machine design
   - Geometric Dimensioning and Tolerancing
   - Resolution, repeatability, and accuracy
   - Reversal and self-calibration
   - Sensors and metrology

3. **General Rules of the Exam:**
   Students may use a single reference page consisting of one sheet of 8.5 x 11 in. paper on which study notes can be written (on one or both sides). Students are also expected to observe the following stipulations:
   (1) Students are allowed to use an electronic calculator. However, notebook computers, mobile smart phones and any other wireless communication devices are **NOT** allowed to be used in the examination.
   (2) Students are not allowed to share their reference page or computational devices with other students in the exam.
   (3) Student must secure Examiner's permission to leave the room during the exam for any reason. Failing to do so may invalidate his or her exam.

4. **Format of the Exam:**
   At the discretion of the examiner, the format of this exam may include, but not limited to the following: (1) Short questions and answers. (2) Multiple choice problems. (3) True/false problems. (4) Computational problems.

5. **Passing Mark:**
   The passing mark for the exam is 65%.