Qualifying Exam Procedure
Manufacturing & Design Area
Department of Mechanical Engineering
The University of Texas at Austin

Written Exams over Academic Material
M&D students are required to take three one-hour academic written exams. Each student will choose three topics from the following menu. The book titles listed with each title are suggested study materials.

1. **Dynamics**

2. **System Dynamics and Controls**

3. **Thermal/Fluids**

4. **Design Methodology**

5. **Manufacturing Processes**
   - S. Kalpakjian and S. Schmid, *Manufacturing Engineering and Technology*

6. **Engineering Education**
   - A. Johri and B. M. Olds, *Cambridge Handbook of Engineering Education Research*
   - G. P. Wiggins and J. McTighe *Understanding by Design*

7. **Machine Elements**

Exams are closed-book, closed-notes exams. All materials needed to complete the exam (equations, tables of data, etc.) will be provided with the exam. Students may use calculators approved by the exam proctor. Exams will be administered before the beginning of classes in long semesters.

Oral Exams over Academic Material
Within two weeks of the administration of the written exams, the student will meet with a committee of three M&D faculty for a one hour oral examination. The student will be examined over the same three topic areas chosen for the written exams.
Results of Exams
After completion of all exams, M&D faculty will meet to discuss each student’s performance for a final determination. The results of this meeting will be reported to the students immediately after the meeting.

Registration
Students must register their intent to take the exams with the Area Coordinator (currently Dr. Richard Crawford, rhc@mail.utexas.edu) by the end of the previous semester. Students should provide the name of their advisor and list the three exams they wish to take.