

Mechanical & Aerospace Engineering
 Checklist for DOCTOR OF PHILOSOPHY DEGREE
BEYOND a MS Degree

Name _____

Student No. _____

60 credits beyond a MS degree: 12 credits of 6000 or higher MAE coursework, 3 credits of advanced math, 1 credit of graduate seminar, 24-39 credits of dissertation MAE 7970, pass 3 PhD Qualifier Exams 80% or higher before the end of the third semester, author or co-author a manuscript submitted for publication in a refereed journal, dissertation proposal defense, and successfully pass final defense. Your committee will look at your MS transcript and may make other requirements.

MECHANICAL AND AEROSPACE ENGINEERING PHD REQUIREMENTS:												
Twelve credits of 6000-level (or above) MAE coursework exclusive of MAE 6930, 6950, 6970, and 6990, 7930, 7970, and 7990.												
A minimum of three (3) credits of 5000-level (or above) coursework in approved mathematics. Math 5270, 5410, 5420, 5460, 5760, 6270, 6410, 6420, 6440, 6450, 6470, 6610, 6620, 6640, ECE 6030, Stat 5200.												
Graduate Seminar – 1 credit – two semesters (.5 credits each)												
A minimum of 60 credits beyond the MS including no more than six credits of (MAE 6930, 6950, and 7930 combined). Include at least 24 credits but no more than 39 credits of dissertation (MAE 7970).												
Course	Cr	Sem	Gr	Course	Cr	Sem	Gr	Course	Cr	Sem	Gr	
Oral Research Presentation									Date:			
Submission of Application for Candidacy.									Date:			
Submission of dissertation proposal.									Date:			
Successful completion of at least 24 credits but no more than 39 credits of MAE 7970.					List Credits:							

A manuscript with the student as author or co-author, must be submitted for publication in a refereed journal. List title of manuscript, name of journal and date of submission. A copy of the manuscript must be attached.	Title:
	Journal:
	Date submitted:

The Ph.D. qualifying exam will be based on undergraduate-level coursework, and will consist of individual subject area exams covering the areas listed in the chart below. Corresponding USU courses are also shown on the chart. Students must pass the exam before completing three semesters (not counting summer semester) as a matriculated, provisionally matriculated, or matriculated-probationary Ph.D. student. Students must also have a Plan of Study for the Ph.D. program approved prior to registering for the exam. The qualifying exam will be given once during each of the Fall and Spring semesters, as necessary (see dates below). Students must select two areas for examination, in addition to a required mathematics area. Passing grades must be obtained on each of these three subject area exams. A minimum grade of 80/100 is required to pass a subject area exam. The candidate must take all three exams on their first attempt and will be given a maximum of two attempts to pass the qualifying exam. Should a student not pass all subject areas on the first attempt then they must retake all subject area exams in all areas for which failing grades were received on their second attempt. The exam will be administered by the graduate curriculum committee. The time limit on each subject area exam is three hours, and a maximum of two subject area exams may be taken in any one day.

Subject Area	USU Course	Date Taken	Pass or Fail	Date Taken	Pass or Fail
Mathematics	MATH 2210/2250/4700				
Fluid mechanics	MAE 3420				
Thermal sciences	MAE 3400/3440				
Solid mechanics/structures	MAE 3040/4300				
Materials science	MAE 2060				
Astronautics	MAE 5560				
Aeronautics	MAE 5500/5510				
Manufacturing	MAE 2650/5600				
Dynamics and Vibrations	MAE 3320/5300				

Qualifying Exam Dates

Fall Semester: Register to take the Exam by October 1, Exam given in early November

Spring Semester: Register to take the Exam by February 1, Exam given in early March

Successful defense of dissertation. The dissertation should be submitted to committee members 4 weeks prior to the scheduled defense. Give Date of Defense.	
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Semester Graduating: _____

Applicant: _____

Dept. Official: _____

Major Professor: _____

This checklist must be filled out and signed before PHD Comprehensive Exams are taken.