

# Aerospace Engineering and Mechanics Graduate Program PhD-AEM Degree Requirement Checklist

Student: \_\_\_\_\_ CWID #: \_\_\_\_\_

Start Date: \_\_\_\_\_ End Date: \_\_\_\_\_ Advisor: \_\_\_\_\_

**Credit Hour Requirement: 72 total semester hours**  
**48 hours of coursework and 24 hours of dissertation**  
**Seven (7) Year Time Limit**

## MAJOR CORE COURSE REQUIREMENT (12 hours)

### Aerospace Track

	Credit Hours	Grade	Term
AEM 500 Intermediate Fluid Mechanics	3	_____	_____
AEM 530 Continuum Mechanics	3	_____	_____
AEM 520 CFD or AEM 635 FEM	3	_____	_____
AEM 668 Advanced Dynamics of Flight	3	_____	_____

### Mechanics Track

	Credit Hours	Grade	Term
AEM 500 Intermediate Fluid Mechanics	3	_____	_____
AEM 530 Continuum Mechanics	3	_____	_____
AEM 562 Intermediate Dynamics	3	_____	_____
AEM 637 Theory of Elasticity	3	_____	_____

### MINOR MATHEMATICS COURSE REQUIREMENT (9 hours)

	Credit Hours	Grade	Term
GES 554 Partial Differential Equations	3	_____	_____
GES 551 Matrix and Vector Analysis	3	_____	_____
Other (approved) _____	3	_____	_____

### DISSERTATION COURSE REQUIREMENT (24 hours)

AEM 699 Dissertation Research			Credit Hours	Grade	Term
Credit Hours	Grade	Term	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

**Once enrollment is initiated in AEM 699, a student must enroll without interruption each fall and spring semester for at least 3 hours until graduation.**

### Other Approved Courses (27 hours)

	Credit Hours	Grade	Term
_____	3	_____	_____
_____	3	_____	_____
_____	3	_____	_____
_____	3	_____	_____
_____	3	_____	_____
_____	3	_____	_____
_____	3	_____	_____
_____	3	_____	_____

**Coursework completed towards a Masters with a minimum "B" average can be applied to the PhD; a maximum of 24 hours may be transferred to UA from another institution.**

### PhD Qualifying Exams

Students must pass qualifying exams in 3 of the 4 areas and earn a "B" in the core course of the fourth (4) area.

- take after two full years are completed and nine months before degree is awarded
- may be taken only twice

	Date	Pass/Fail
Fluid Mechanics	_____	_____
Solid Mechanics	_____	_____
Dynamics	_____	_____
Mathematics	_____	_____

### Residency Requirement

Minimum requirement of 3 full years w/one (1) full year [2 consecutive semesters] in residence as a full-time student which cannot include dissertation research.

### Admission to Candidacy (Aerospace Track)

- (1) earn 3.0 average for the Core courses and GES 554
- (2) pass qualifying exams &
- (3) defended Dissertation proposal
  - AEM 500 Intermediate Fluid Mechanics
  - AEM 530 Continuum Mechanics
  - AEM 520 CFD or AEM 635 FEM
  - AEM 668 Advanced Dynamics of Flight
  - GES 554 Partial Differential Equations
  - Pass Qualifying Exams
  - Dissertation Proposal defended

### Admission to Candidacy (Mechanics Track)

- (1) earn 3.0 average for the Core courses and GES 554
- (2) pass qualifying exams &
- (3) defended Dissertation proposal
  - AEM 500 Intermediate Fluid Mechanics
  - AEM 530 Continuum Mechanics
  - AEM 562 Intermediate Dynamics
  - AEM 637 Theory of Elasticity
  - GES 554 Partial Differential Equations
  - Pass Qualifying Exams
  - Dissertation Proposal defended