Aerospace Engineering and Mechanics Graduate Program
PhD-ESM 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

AEM COURSE REQUIREMENT (9 hours)

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

MINOR

MATHEMATICS COURSE REQUIREMENT (6 hours)

One course must be GES 554 Partial Differential Equations.

	Credit Hours	Grade	Term
GES 554 Partial Differential Equations (REQUIRED)	3	_____	_____
AEM 585 Genetic Algorithms	3	_____	_____
AEM 587 Neural Networks	3	_____	_____
GES 551 Matrix and Vector Analysis	3	_____	_____
GES 658 Numerical Methods	3	_____	_____
Other (approved)_____	3	_____	_____

Other Approved Courses (33 hours)

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

DISSERTATION COURSE REQUIREMENT (24 hours)

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

After "Admission to Candidacy" pursue completion of Dissertation research without interruption by enrolling in at least 3 hrs of AEM 699 each semester

Admission to Candidacy

(1) ***earn 3.0 average for the core courses***
(2) ***pass qualifying exams &***
(3) ***defended Dissertation proposal***

[ ] AEM 500 Intermediate Fluid Mechanics
[ ] AEM 562 Intermediate Dynamics
[ ] AEM 637 Theory of Elasticity
[ ] GES 554 Partial Differential Equations
[ ] Dissertation Proposal defended
[ ] Pass Qualifying Exams

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 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 period of 3 full years w/one (1) full year (2 consecutive semesters) in residence as a full-time student which can not include dissertation research.