SEMESTER CONVERSION
COURSE PROPOSAL

GRADUATE   Level I   X   Level II   UNDERGRADUATE

SCHOOL, DEPARTMENT, COLLEGE   AEROSPACE ENGINEERING   DATE 11/18/1997

1. Course Number AE6341	2. Hours: *LECTURE 3 LAB 3 RECITATION 0 TOTAL SEMESTER CREDIT 4*

3. Descriptive Title: Aircraft Design II

4. Recommended Abbreviation for Transcript - (24 characters including spaces):

A	I	R	C	R	A	F	T		D	E	S	I	G	N		I	I						

5. Catalog Description - (25 words or less): Students work together on this application to complete the preliminary design stage of a specific aircraft. Participants are exposed to disciplinary and interdisciplinary issues.

6. Basis: L/G   X   P/F   X   Audit   X

7. Prerequisites: AE 6340
   Corequisites:
   Note: Course can NOT be approved without a listed prerequisite or corequisite. (Undergraduate Only)

8. Expected Mode of Presentation:	*MODE*	*% OF COURSE*
	Lecture	50%
	Laboratory- Supervised Unsupervised	25%
	Discussion	
	Seminar	
	Independent Study	25%
	Library Work	
	Demonstration	
	Other (Specify)	

9. Planned Frequency of Offering:	*TERM TO BE OFFERED*	*EXPECTED ENROLLMENT*
	FALL	
	SPRING	
Every year	SUMMER	25

10. Are you requesting that this course satisfy: Humanities   Social Science   (Must be 1000 or 2000 level)

11. Probable instructor(s) - *Please mark with an asterisk any non-tenure track individuals*
Dimitri Mavris[*]

12. To replace what course or courses in quarter system?
New Course.

13. Required   Elective   X

14. Please attach a topical outline of the course.

Catalog Data: AE 6341: Aircraft Design II. Credit 4 (3-3-4). Prerequisite: AE 6340.

Students work together on this application to complete the preliminary design stage of a specific aircraft. Participants are exposed to disciplinary and interdisciplinary issues.

Textbook: b) Raymer, Daniel P. *Aircraft Design: A Conceptual Approach.*
                          AIAA Education Series, Inc. Washington D.C. 1992.

References: Course notes and select papers relevant to aircraft design.

Coordinator: Dr. Dimitri Mavris, professor of A.E.

Goals: The course builds upon the material learned and conceptual design work completed in AE6340, to accomplish preliminary design of a aircraft. The objectives are:

> (a)   to examine the implementation of the skills learned in AE6340, by carrying the conceptual design developed in AE6341 through the preliminary design.

> (b)   to introduce students to both specific disciplinary needs and interdisciplinary needs .

> (c)   to allow students to learn how to apply their disciplinary knowledge to a multidisciplinary design project.

Topics:

1.   Elements of preliminary-level aerospace systems design.
2.   Experience in applying disciplinary skills and knowledge within a multidisciplinary environment.
3.   Execution and completion of a preliminary vehicle design effort.
4.   Student presentation of results to a combined Industry/Government/Academia review board.

Computer Usage:

Familiarity with programming (FORTRAN) and scripting (UNIX,Tk/Tcl) languages.
Working knowledge in use of UNIX, PC, and Macintosh computing platforms.
Knowledge of pertinent computational analysis and design tools.