MAE 3406.001 – Flight Performance & Stability

Fall Semester 2019
Bernd Chudoba • NH 125B • Tel: 817-272-1436 • E-Mail: chudoba@uta.edu

MAE 3406.001
FLIGHT PERFORMANCE & STABILITY

CONTENT
Review of aerodynamics and propulsion. Introduction to aircraft performance and the assessment of aircraft stability and control characteristics. Performance topics covered include cruise, climbing, gliding and turn flights, range and endurance. Stability and controlled topics covered include longitudinal, lateral and directional stability and control.

TOPICS COVERED
1) Overview of Aerodynamics, 2) Overview of Propulsion, 3) Aircraft Performance, 4) Longitudinal Static Stability & Control and Trim, 5) Lateral Static Stability & Control and Trim

PREREQUISITES
MAE 3303 (Aerodynamics of Compressible Flow)

CLASS SCHEDULE
Lectures during the Fall 2019 semester totaling 210 minutes per week, MoWe 8:00 am – 8:50 am, Fr 8:00 am – 9:50 am.

CLASS ATTENDANCE
It is part of the students’ obligation to attend lectures.

INSTRUCTOR
Bernd Chudoba, Associate Professor, MAE
Nedderman Hall 125B, Phone: 817-272-1436
E-Mail: chudoba@uta.edu
Office Hours: TBD

PLACE OF CLASS
MoWeFr GACB 103

TEXT

REFERENCES

COURSE WEBSITE
Canvas

GRADING
Comprehensive Final Exam 30%
Mid-Term Exam 25%
Homework Assignments 35%
Pop-Quizzes 10%
**GRADE ALLOCATION** Course grades will be earned based on the following criteria:

- A = 90% - 100%
- B = 80% - 89%
- C = 70% - 79%
- D = 60% - 69%
- F = 0% - 59%

This criteria is ABSOLUTE and there is no intention to deviate from it.

**COURSE POLICIES**

**COURSE DELIVERABLES**
Failure to turn in *any* course-related assignment (weekly homework, etc.) *on its assigned date, and at the assigned time*, will result in a grade of a 0% being assigned for that course-related assignment. No late deliverables will be accepted for any reason; no grades of incomplete will be assigned. Each homework assignment is due at the day & time assigned. Only conceptual discussion among students is allowed; sharing of results is not permitted.

**UNIVERSITY POLICIES**

**STUDENT EVALUATION OF TEACHING**
The students will be asked to complete course feedback online at the end of the semester.

**ABSENCES BASED ON RELIGIOUS BELIEFS**
A student who misses an examination, work assignment, or other project due to the observance of a religious holy day will be given the opportunity to complete the work missed. To be eligible for such a make-up, the students must notify his/her instructor in writing within the first 15 days of class. Failure to follow the rules provided above within the time frames listed will result in the absence being considered unexcused.

**AMERICANS WITH DISABILITY ACT**
The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 93112 – The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled Americans With Disabilities Act (ADA), pursuant to section 504 of The Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens. As faculty members, we are required by law to provide *reasonable accommodation* to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels. For more information contact the Office for Students with Disabilities.

**ACADEMIC DISHONESTY**
It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. Any person involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the university. It is the student’s responsibility to know University policies on these matters. “Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another
person, any act designed to give unfair advantage to a student or the attempt to commit such acts.”
(Regents’ Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22)

INCLEMENT WEATHER POLICY
In the event that weather or other conditions are such that normal campus operations could be
impeded, the following policy will apply for this class. If the University is closed, this class will not
meet. Any assignments due or examinations scheduled will be due or rescheduled to the very next
class period that the class meets. Local media should announce any closings.

STUDENT SUCCESS
UTA supports a variety of student success programs to help you connect with the university and
achieve academic success. They include learning assistance, developmental education, advising and
mentoring, admission and transition, and federally funded programs. Students requiring assistance
academically, personally, or socially should contact the Office of Student Success Programs for
more information and appropriate referrals.

EMAIL TO FACULTY
To contact a faculty member, use the email address shown on the top of the syllabus. Use as the
‘subject line’ MAE 3306, put your name inside the email message, start with the main
point/question of the message. Emails from outside the UTA domain are subject to being treated as
spam by the server and are possibly deleted.

NOTICE
The instructors reserve the right to make changes to the course syllabus as necessary. It is the
student’s responsibility to keep up with changes to the syllabus as posted on the class website.

COPYRIGHT
Copyright 2008 UTA COE as to this syllabus, all lectures, and all materials. Students are prohibited
from selling notes taken during this course (or being paid for taking by) any person or commercial
firm without the express written permission of the professor teaching this course.

By signing this syllabus, the student acknowledges that he/she has read and understood this
document.

Print Name:___________________________________________________________
Signature:___________________________________________________   Date:_______________

Prepared by: Dr. B. Chudoba

Date: 20 August 2019

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By signing this syllabus, the student acknowledges that he/she has read and understood this document.

Print Name:___________________________________________________________

Signature:___________________________________________________   Date:_______________

Prepared by:   Dr. B. Chudoba

Date:   20 August 2019