MAE 437 VSTOL Aerodynamics  
CRN 88072  

Fall 2017

Prerequisites: MAE 215, MAE 365 & ENGL 102

Schedule: Tuesday and Thursday: 9:30-10:45

Instructor: Dr. Pete Gall  
pete.gall@mail.wvu.edu

Office hours: MW: 11:00 to 1:00

Office: Room 929, ESB; 293-3463 (cell: 412 512 0085)

Required Text: VSTOL Airplanes by David Kohlman  
Iowa State University Press, 1981

Grading Procedure:  
Two Exams 20% ea  
Two Projects 15% ea  
Homework 10%  
Final Exam 20%

Final grades: Final grades will be based on 90-100 A; 80-89 B; etc.

Exam Schedule: Mid-term: October 6, Final: December 11, 8:00 am – 10:00 am

Course Description:  
Topics will include basic aerodynamics, induced drag, induced power, propeller theory, propeller applications, VSTOL takeoff and landings, ducted fans, jet flaps, blown flaps, circulation control and operational considerations.

Instructors Remarks:  
It’s been 5 years since I taught this course and I am excited to teach it this year. I was taught VSTOL aerodynamics by my mentor, Dr. Barney McCormick, someone many consider to be the father of VSTOL aerodynamics following his tenure as director of aerodynamics at Boeing VERTOL and the Department Head of Aerospace Engineering at Penn State.
Two special projects will be assigned, one of them will deal with ramp takeoffs and the other will deal with vertical takeoff and transition to fixed wing flight.

I hope to make this a very fun course as well as a great learning experience. The good news is you will walk away with a great sense of accomplishment. Relax, learn and enjoy!

Social Justice Statement

West Virginia University is committed to social justice. The course instructors concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and nondiscrimination. Our University does not discriminate on the basis of race, age, disability, veteran status, sexual orientation, color or national origin. Any suggestions as how to further such a positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing accommodation in order to participate in this class, please advise the course instructor and make appropriate arrangements with Disability Services 9293-6700)

Academic Honesty

Students are expected to conduct themselves in an ethical manner during this course. Cheating and plagiarism will not be tolerated.
See http://www.arc.wvu.edu.admissions/integrity.html