Course: MET 4306/5306 Dynamic Meteorology II (3 credits) Spring 2015
Instructor: Dr. Steven Lazarus
Pre-Requisite: MET 4305
Location: Link 325
Class meets: Tue/Thurs 8:00 - 9:15 a.m.
Office Hours: T/TH 9:30-10:30 a.m. (or by appointment)
Office phone: 394-2160
email: slazarus@fit.edu

*Grading: Undergraduate: 2 exams/20% each, final 25%, homework 15%, quizzes 20%
Graduate: 2 exams/25% each, final 30%, homework 20%

*For more info on class policies etc. see http://my.fit.edu/~slazarus/met4306/guidelines.html

**Graduate students taking this course will be presented with more rigorous exam questions with the expectation that their level of understanding of the material be more thorough.

Course description: Course material includes: vertical vorticity dynamics, severe storm dynamics, quasi-geostrophic theory, vertical motion, an introduction to Q-vectors, linear wave theory, and Rossby wave dynamics (Prerequisite: MET4305/5305 or permission of the instructor).

CRN: 17770 (MET 4306) / 17795 (MET 5306)

Textbooks: In addition to lecture notes, the primary text is:


For related dynamics texts go to http://my.fit.edu/~slazarus/met4306/refs.html

Course Objectives: The 4306 course is the second of a two part course sequence designed fulfill the requisites associated with a B.S. in meteorology. The overall goal of this course is to complement the first semester of dynamic meteorology by expanding on our basic understanding of atmospheric motion. This involves the application and expansion of concepts and ideas first introduced in MET 4305. Despite the theoretical nature of dynamical meteorology, the course is designed (in part) with practical applications in mind. Through the use of some relatively simple systems, the student should come away with a more complete understanding of atmospheric motion.

Topics Covered:
Large-scale vertical vorticity dynamics
Linear wave theory
Introduction to Rossby waves
Severe storm dynamics
Quasi-geostrophic theory