TO: UGCC

FROM: K. E. Crooks

College of Aeronautics

DATE: April 23, 2010

RE: ADDING A NEW COURSE (AVF 4500) TO THE CURRICULUM

1. The College of Aeronautics requests approval for adding a new course to the curriculum. Using recently revised FAA guidelines, AVF 4500 is an intense, six-week course that leads to an FAA type rating on a large turbine aircraft (such as Boeing 737) and a concurrent Commercial Pilot Certificate.

2. The course will be conducted during the Summer term by Aeroservice Center, LLC, using full motion simulator training and accompanying lab instruction under contract with Florida Tech. The College of Aeronautics will be responsible for oversight of the training. Current COA courses, AVT 4201, Advanced Aircraft Systems, and AVT 4202 Advanced Aircraft Operations, are prerequisites and will serve as the preparatory academic training for the course, and will be offered on campus during the first six week summer session.

3. Successful completion of the end-of-course FAA certification evaluation is required for course credit and for a passing course grade. Course grades will be assigned by the COA faculty member responsible for course oversight and will be based on the student evaluations recorded for each lesson.

4. Attached for review is the request form and the course syllabus.
This course is available for student registration only after the approval process has been completed.

SUBJECT A V F COURSE NO. 4500 CREDIT HOURS 3 TERM TO BE ADDED TO THE FILE Summer 2010
(e.g., CSE) (e.g., 1301) (e.g., Fall 2010)

CLASS HOURS 126 LECTURE HOURS 126 LAB HOURS 126 CONTACT HOURS (CEU ONLY)

DEPARTMENT College of Aeronautics SCHEDULE TYPE Lab
(e.g., Computer Sciences) (e.g., Lecture, Lab or Special Topics/Project)

☑ COLLEGE OF AERONAUTICS - 23 ☐ COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS - 25
☐ NATHAN M. BISK COLLEGE OF BUSINESS - 24 ☐ COLLEGE OF SCIENCE - 26
☐ COLLEGE OF ENGINEERING - 1 ☐ EXTENDED STUDIES DIVISION / NATHAN M. BISK COLLEGE OF BUSINESS - 90

COMPUTER TITLE Restricted to 25 characters, including spaces Commercial Pilot & Type

CATALOG TITLE Commercial Pilot Certificate and Type Rating

CATALOG DESCRIPTION OF COURSE Restricted to 350 characters, including spaces

Provides all required simulator, flight training device and instruction to prepare for the FAA commercial pilot and type rating practical tests. Adds FAA type rating to pilot certificate on successful completion of course. (Requirements: Private pilot certificate, multiengine-land, instrument rating and program chair approval)

In addition, please attach a course syllabus and/or more detailed description.

REQUIREMENTS ☑ Prerequisite AVT 4201 ☐ Corequisite Course Number
☐ Prerequisite Course Number

GRADING TO BE ISSUED ☑ A, B, C, D, F ☐ A, B, C, D, F, CEU
☐ CEU ☐ S, U ☐ P, F ☐ Other

ADDITIONAL RESTRICTION (e.g., Major, Class Level, Department Head Approval)

If this course replaces a course currently offered in BANNER, please indicate old course information and the date/term the course may be removed from the system.

SUBJECT Alpha Prefix (e.g., CSE) COURSE NO. (e.g., 1301)

APPROVALS: Upon completion of appropriate department approvals, submit form to Chair, Graduate Council, or Chair, Undergraduate Curriculum Committee for approval below and forward to Catalog Director.

Originator 23 April 2010
Chair, Graduate Council 23 April 2010

Department Head/Program Chair 23 April 2010
Chair, Undergraduate Curriculum Committee 23 April 2010

CATALOG DIRECTOR
These changes/additions have been made for the University Catalog/policy management system and entered into the BANNER term named above.

Catalog Director

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College of Aeronautics

MASTER COURSE SYLLABUS

AVF 4500: Commercial Pilot Certificate and Type Rating

Catalog Course Description

AVF 4500 Commercial & Type Rating (3 credits). Provides all required simulator, flight training device and instruction to prepare for the FAA Commercial pilot and Type Rating practical tests. Adds FAA type rating to pilot certificate on successful completion of course (Prerequisites: AVT 4201, AVT 4202, Program Chair approval)

Course Objectives:

At the conclusion of this course, each student shall be able to complete the following maneuvers and tasks within the prescribed FAA standards for type ratings: (ATP PTS):

1. Pre-flight Preparation
2. Pre-flight procedures, in-flight maneuvers and post-flight procedures, including:
   a. Pre-flight Inspection
   b. Powerplant Start
   c. Taxiing
   d. Pre-takeoff Checks
   e. Normal and crosswind takeoff
   f. Powerplant failure during takeoff
   g. Rejected Takeoff
   i. Air work such as steep turns, and approaches to stalls, and flight characteristics
   j. Engine failure in flight
   k. Normal and crosswind takeoffs and approaches
   l. Landing and go-around with an engine inoperative
   m. Rejected landing from low altitude
   n. Landing with no flaps or other non-standard configuration
   o. Normal post-flight procedures and critique
3. Normal and Emergency procedures accomplishment including Navigation
4. Crew Resource Management tasks including:
   a. Required briefings
   b. Proper coordination with all available resources, as appropriate
   c. Effective prioritization and decision-making
Lead Instructor

P.G. Dunn, MS, AGI, ATP, Type 737, 757, 767, 777, A320
Assistant Professor of Aeronautics

Curriculum Coordinator

P.G. Dunn, MS AGI ATP
Chair, Flight Education Programs.

Texts and References

Boeing 737-300 and B 737-800 Flight Manuals
Boeing 737-300 and B 737-800 Performance Manuals
Boeing 737-300 and B 737-800 Checklists
14 CFR 61.63 and 61.64
AC FAA-S-8081-5 Airline Transport Pilot and Type Rating Practical Test Standards
AC 61-89E Pilot Certificates: Aircraft Type Ratings

Student Materials beyond Texts, References, and Common Student Materials
Checklists; manuals provided by contractor; Calculator; flashlight;

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<th>Topical Content</th>
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<td>Preflight Planning and Performance</td>
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<td>Taxi, Takeoff Climb</td>
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<tr>
<td>Totals</td>
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<td>50</td>
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Grading (typical)

Course grades will be based on individual lesson evaluations and course progress report. For credit with a passing grade, student must successfully complete the end-of-course FAA certification.

Teaching Media and Delivery Methods
Media: Flight manuals; graphic projections; videos; computer-based instruction.
Delivery Methods: One–on–two lesson discussion; Flight Training Device procedural practice; full-flight simulators.
All maneuvers and procedures are taught to the mastery level.

Laboratory Use

Course is a laboratory course involving FTD and simulator training for a turbojet aircraft. CBT and briefings directly support tasks in the simulator. Students must fly the required maneuvers in the simulator to the tolerances expected in the practical test standards.

All simulator sessions are based upon Line-oriented Flight Training (LOFT) model, wherein actual flights from one point to another are conducted as the vehicle for training in normal, abnormal and emergency operations.

Team Training Concepts

A two-person crew model is used throughout the course. Each student receives half the total hours in the left seat (captain) and half in the right seat (first officer). Teamwork and other aspects of crew resource management are taught and stressed throughout. Students will receive collaborative homework/study assignments.