

## FLORIDA STATE COLLEGE AT JACKSONVILLE

## COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER: ATF 2400

COURSE TITLE: Multi-engine Flight

PREREQUISITE(S): None

COREQUISITE(S): None

STUDENT ADVISING NOTES: Suggested Course: ATF 2230 or FAA Commercial Pilot Certificate with Instrument Rating

CREDIT HOURS: 2

CONTACT HOURS/WEEK: 4

CONTACT HOUR BREAKDOWN:

    Lecture/Discussion: 2

    Laboratory: 2

    Other \_\_\_\_\_:

FACULTY WORKLOAD POINTS: 2

STANDARDIZED CLASS SIZE ALLOCATION: 30

CATALOG COURSE DESCRIPTION:

This course consists of the ground and flight instruction necessary to achieve the FAA Multi-engine Rating . In order to receive credit for the course, the student must have earned the Multi-engine rating.

SUGGESTED TEXT(S): Jeppesen JS314540 - GFD Multi-Engine Textbook

IMPLEMENTATION DATE: Spring Term, 2007 (20072)

REVIEW OR MODIFICATION DATE: Fall Term, 2008 (20091) (was ATF 2401)  
Fall Term, 2008 (20091) - Outline Review 2007

COURSE TOPICS	CONTACT HOURS <u>PER TOPIC</u>
I. PREFLIGHT PREPARATION	6
II. PREFLIGHT PROCEDURES	6
III. TAKEOFF AND DEPARTURE PHASE	7
IV. IN-FLIGHT MANUEVERS	7
V. INSTRUMENT PROCEDURES	6
VI. LANDINGS AND APPROACHES TO LANDINGS	8
VII. NORMAL AND ABNORMAL PROCEDURES	6
VIII. EMERGENCY PROCEDURES	8
IX. POSTFLIGHT PROCEDURES	6

PROGRAM TITLE: PROFESSIONAL PILOT TECHNOLOGY

COURSE TITLE: Multi-engine Flight

CIP NUMBER: 1649010200

LIST PERFORMANCE STANDARD ADDRESSED:

NUMBER(S): TITLES(S):

01.0 DEMONSTRATE AN UNDERSTANDING OF SAFE AND EFFECTIVE WORK PRACTICES—The student will be able to:

01.03 Demonstrate an understanding of situation awareness.

02.0 DEMONSTRATE AN UNDERSTANDING OF FUNDAMENTALS OF FLIGHT—The student will be able to:

02.05 Discuss how and why an airplane stalls and spins.

02.06 Describe and explain how pitot/static vacuum, pressure and engine instruments work.

02.07 Explain the aircraft design performance and operation.

03.0 UNDERSTAND AND EXPLAIN FEDERAL AVIATION ADMINISTRATION REGULATIONS—The student will be able to:

03.01 Explain major portion of Parts 1, 61, 67, 91, 135 and NTSB of the Federal Aviation Regulations.

05.0 DEMONSTRATE KNOWLEDGE OF AIRCRAFT COMMUNICATION EQUIPMENT—The student will be able to:

05.01 Use and explain aircraft voice communication equipment.

05.02 Explain function and use of ELT's, voice recorders, and other emergency communication systems.

06.0 DEMONSTRATE KNOWLEDGE AND UNDERSTANDING OF AIRCRAFT PROPULSION AND ASSOCIATED SYSTEMS—The student will be able to:

06.01 Describe and identify reciprocating and turbine engine components.

06.02 Describe a typical cooling system.

06.03 Describe and sketch a basic float type carburetor.

06.04 Describe the advantages of a fuel-injected engine.

06.05 Describe a typical lubrication system.

06.06 Describe a typical magneto ignition system, including proper magneto checks.

06.07 Describe the difference between a normally aspirated engine and one that is supercharged or turbocharged.

## LIST PERFORMANCE STANDARD ADDRESSED: (CONTINUED)

NUMBER(S): TITLES(S):

06.08 Demonstrate basic operation of an aircraft engine, including proper interpretation of instruments and operation of throttle, mixture control, carburetor heat control

08.0 DEMONSTRATE FLIGHT PLANNING SKILLS—The student will be able to:

08.01 Explain major portions of Parts 1, 61, 67, 91 and 830 of the Federal Aviation Rules and Regulations.

08.02 Define weight and balance.

08.03 Define center of gravity, moment, datum line, CF envelope basic empty weight and gross weight.

08.04 Solve given weight and balance problems.

08.05 Determine route of flight.

08.06 Demonstrate acquisition of appropriate weather data.

08.07 Demonstrate proper selection of destination/enroute/alternate airports.

08.08 Explain fuel requirements.

08.09 Calculate and compute weight/balance.

08.10 Calculate aircraft performance.

08.11 Access and analyze NOTAMS.

08.12 Acquire and define mission profile.

09.0 DEMONSTRATE EFFECTIVE COMMUNICATION SKILLS — The student will be able to:

09.02 Read and understand graphs, charts, diagrams, and tables commonly used in this industry/occupation area.

09.03 Read and follow written and oral English instructions.

09.04 Answer and ask questions coherently and concisely.

09.05 Read critically by recognizing assumptions and implications and by evaluating ideas.

11.0 DEMONSTRATE UNDERSTANDING OF APPLIED SCIENCES—The student will be able to:

11.01 Draw conclusions or make inferences from data.

11.02 Understand pressure measurement in terms of P.S.I., inches of mercury, and metric.

13.0 DEMONSTRATE AIRCRAFT OPERATIONS—The student will be able to:

13.02 Demonstrate the operation of aircraft in accordance with FARs and AFMS.

13.03 Identify specific aircraft handling characteristics.

13.04 Explain Crew Resource Management.

13.05 Demonstrate proper passenger briefing procedures.

13.06 Demonstrate post-operation report completion.

13.07 Demonstrate situation awareness.

13.08 Demonstrate correct decision-making skills.



**Florida State College  
At Jacksonville**

**Course Learning Outcomes & Assessment  
For All College Credit Courses**

NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

Section 1	
COURSE PREFIX AND NUMBER: <b>ATF 2400</b>	SEMESTER CREDIT HOURS: <b>2</b>
COURSE TITLE: <b>Multi-Engine Flight</b>	

Section 2

TYPE OF COURSE: (Click on the box to check all that apply)

**AA Elective**                       **AS Required Professional Course**                       **College Prep**  
 **AS Professional Elective**     **AAS Required Professional Course**                       **Technical Certificate**  
 **Other** \_\_\_\_\_  
 **General Education: (For General Education courses, you must also complete Section 3 and Section 7)**

Section 3 (If applicable)

INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:

**Communication**                       **Social & Behavioral Sciences**                       **Mathematics**  
 **Natural Sciences**                       **Humanities**

Section 4

INTELLECTUAL COMPETENCIES:

**Reading**     **Speaking**     **Critical Analysis**                       **Quantitative Skills**                       **Scientific Method of Inquiry**  
 **Writing**     **Listening**     **Information Literacy**                       **Ethical Judgment**                       **Working Collaboratively**

Section 5		
LEARNING OUTCOMES		METHOD OF ASSESSMENT
•	Knowledge of the elements related to airworthiness requirements.	FAA Flight Test
•	Knowledge of the elements related to performance and limitations	FAA Flight Test
•	Knowledge of the elements related to the operation of systems on the airplane	FAA Flight Test
•	Knowledge of the elements related to engine inoperative principles of flight	FAA Flight Test
•	Knowledge of the elements related to stalls	FAA Flight Test
•	Knowledge of the elements related to attitude instrument flying	FAA Flight Test
•	Knowledge of the elements related to the procedure used for engine failure	FAA Flight Test
•	Knowledge of the elements related to an approach and landing with an engine inoperative	FAA Flight Test
•	Knowledge of the elements related to system and equipment malfunctions	FAA Flight Test
•	Knowledge of the elements related to maneuvering with one engine inoperative	FAA Flight Test

Section 6

Name of Person Completing This Form: **Richard Rozanski 7/24/06**