

## FLORIDA STATE COLLEGE AT JACKSONVILLE

## COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER:	ATT 2822
COURSE TITLE:	Air Traffic Control Tower Operations w/Lab
PREREQUISITE(S):	ATT 1810 and ATT 2820
COREQUISITE(S):	None
CREDIT HOURS:	3
CONTACT HOURS/WEEK:	3
CONTACT HOUR BREAKDOWN:	
Lecture/Discussion:	3
Laboratory:	
Other _____:	
FACULTY WORKLOAD POINTS:	3
STANDARDIZED CLASS SIZE ALLOCATION:	30

## CATALOG COURSE DESCRIPTION:

This course provides students with fundamental knowledge of control tower operations, structure, and procedures. Tower concepts and theories, positions, standard terminology, and airspace orientation are included. Student evaluations are based on demonstrated application of acquired controller skills utilizing ATC simulation. Exercises progress in difficulty. Students must demonstrate their basic knowledge of control tower functions and operations through written examinations and performance evaluations. Emphasis will be placed on the application of ATC procedures and standards as they apply to control tower positions. Standard and enhanced equipment located in a tower, basic separation requirements, airspace, regulations, IFR/VFR separation standards, emergencies, communications, clearances, stripmarking, and teamwork.

SUGGESTED TEXT(S):	FAA Order 7110.65, Air Traffic Control, Washington D.C.: United States Government Printing Office
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IMPLEMENTATION DATE:	Fall Term, 2008 (20091)
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REVIEW OR MODIFICATION DATE:	
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COURSE TOPICS	CONTACT HOURS <u>PER TOPIC</u>
I. General Terminal Airport Traffic Control	3
II. Visual Signals, Airport Conditions, and Airport Lighting	3
III. Runway Selection	3
IV. Airport Surface Detection Procedures	3
V. Taxi and Ground Movement Procedures	3
VI. Spacing and Sequencing	5
VII. Departure Procedures and Separation	4
VIII. Arrival Procedures and Separation	3
IX. Helicopter Operations and Sea Lane Operation	3
X. NAVAID Use Limitations	3
XI. Clearances and Departure Procedures	3
XII. Route Assignment, Altitude Assignment and Verification	3
XIII. Holding Aircraft	3
XIV. Arrival Procedures and Approach Clearance Procedures	<u>3</u>
	45

PROGRAM TITLE: Aviation Operations (Air Traffic Control)

COURSE TITLE: Air Traffic Control Tower Operations w/lab

CIP NUMBER: 1649.010400

## LIST PERFORMANCE STANDARD ADDRESSED:

NUMBER(S): TITLES(S):

- 01.0 DEMONSTRATE AN UNDERSTANDING OF SAFE AND EFFICIENT WORK PRACTICES -- The student will be able to:
- 01.01 Demonstrate an awareness and understanding of health and safety hazards, prevention and correction of ecological problems and know the solutions unique to the industry.
  - 01.02 Demonstrate an awareness and understanding of physical hazards.
- 04.0 DEMONSTRATE UNDERSTANDING OF FEDERAL AVIATION ADMINISTRATION, STATE AND OTHER GOVERNMENTAL LAWS, RULES AND POLICES -- The student will be able to:
- 04.02 Describe the function, basic organization and responsibility of the National Transportation Safety Board.
  - 04.03 Explain major portions of Parts 1, 61, 67, 77, 91, NTSB 830 and FAR Parts 108 and 139 of the Federal Aviation Regulations.
  - 04.05 List and describe the major federal statutes pertaining to the regulation of aviation safety.
- 07.0 DEMONSTRATE UNDERSTANDING OF AVIATION SAFETY, ACCIDENT PREVENTION AND INVESTIGATION - The student will be able to:
- 07.01 Describe and explain the complete regulation that is currently exercised by the Federal government in the field of safety and investigation.
  - 07.02 State and discuss the portion of the Federal Aviation Act of 1958 as amended, which is generally described as Title VI, Safety Regulations of Civil Aeronautics.
  - 07.03 Demonstrate knowledge of the minimum standards governing design, materials workmanship, performance of aircraft, inspection, servicing, overhaul of aircraft, and parts and appliances, equipment and facilities, as required by section 601(a) of Federal Aviation Act of 1958.
  - 07.04 Discuss the maximum hours of service for airmen and other employees, and other practices, methods, and procedures as required by Section 601(a)
  - 07.05 Explain the Federal Aviation Regulations (FAR's) promulgated by the Administrator to implement the authority granted by the Federal Aviation Act of 1958, in the area of safety, and to prevent accidents.

LIST PERFORMANCE STANDARD ADDRESSED: (continued)

NUMBER(S):            TITLES(S):

08.0    DEMONSTRATE APPROPRIATE COMMUNICATION SKILLS - The student will be able to:

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

08.03    Read and follow written and oral instructions.

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

12.0    DEMONSTRATE APPROPRIATE UNDERSTANDING OF BASIC SCIENCE - The student will be able to:

12.01    Understand molecular action as a result of temperature extremes, chemical reaction, and moisture content.

12.02    Draw conclusions or make inferences from data.

12.03    Understand pressure measurement in terms of P.S.I., inches of mercury, and K.P.A.



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

<i>Section 1</i>	
COURSE PREFIX AND NUMBER: <u>ATT 2822</u>	SEMESTER CREDIT HOURS: <u>3</u>
COURSE TITLE: <u>Air Traffic Control Tower Operations w/lab</u>	

*Section 2*

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

<input type="checkbox"/> AA Elective	<input checked="" type="checkbox"/> AS Required Professional Course	<input type="checkbox"/> College Prep
<input type="checkbox"/> AS Professional Elective	<input type="checkbox"/> AAS Required Professional Course	<input checked="" type="checkbox"/> Technical Certificate
<input type="checkbox"/> Other _____		
<input type="checkbox"/> 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:

<input type="checkbox"/> Communication	<input type="checkbox"/> Social & Behavioral Sciences	<input type="checkbox"/> Mathematics
<input type="checkbox"/> Natural Sciences	<input type="checkbox"/> Humanities	

*Section 4*

INTELLECTUAL COMPETENCIES:

<input checked="" type="checkbox"/> Reading	<input checked="" type="checkbox"/> Speaking	<input checked="" type="checkbox"/> Critical Analysis	<input checked="" type="checkbox"/> Quantitative Skills	<input type="checkbox"/> Scientific Method of Inquiry
<input checked="" type="checkbox"/> Writing	<input checked="" type="checkbox"/> Listening	<input checked="" type="checkbox"/> Information Literacy	<input checked="" type="checkbox"/> Ethical Judgment	<input checked="" type="checkbox"/> Working Collaboratively

<i>Section 5</i>	
LEARNING OUTCOMES	METHOD OF ASSESSMENT
• Explain and apply the principles associated with the duties and responsibilities of each ATC Tower facility position.	Written testing
• Apply the principles learned to describe pilot/controller interaction.	Simulation exercise
• Apply the principles learned to describe local (LC), Ground (GC), and Flight Data/Clearance Delivery (FD/CD) interaction.	Simulation exercise
• Discuss and demonstrate proper communication phraseology.	Group project or individual term paper
• Apply Standard separation criteria.	Local field trip to area airports or in-class guest speakers
• Describe ATC Tower equipment and usage.	Written testing
• Apply ATC principles as it applies to emergencies and special handling situations.	Simulation exercise
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*Section 6*

Name of Person Completing This Form: David Dagenais