



## Outcome-based 18/SU Course Syllabus

*Course Rubric Number Section:* AIRP 2175 1001  
*Lecture-Lab-Credit:* 1-0-1  
*CIP Code:* 49.0102  
*Course Title:* Human Factors in Aviation  
*Course Description:* Instruction in flight physiology, the decision-making process, pilot health maintenance, psychological aspects of flight, human behavior as related to the aircraft flight deck, and aeromedical information of significance to flight crews.  
  
*Prerequisites:*  
*Co-requisites:*  
*Course Meets:* 1ASC N178 LEC T 12:00PM 12:55PM  
  
*Instructor:* John Connor  
*Office Phone Number:* 254-867-2634  
*Email Address:* jrconnor@tstc.edu  
*Office Fax Number:* 254-867-2600  
*Building & Office Room Number:* Aerospace N154  
*Office Hours:* Lead instructor has open door policy when not in class

<b>Approved by:</b> Angel Newhart	<b>Date:</b> 2018-05-03
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### Course Outcomes

- CO1:** Describe various aspects of flight physiology
- CO2:** Analyze the pilot decision-making process
- CO3:** Identify aeromedical factors hazardous to the pilot
- CO4:** Explain basic health maintenance factors

### Added Outcomes

- CO5:** Students will demonstrate professionalism and dedication by attending all scheduled classes.

### TSTC Grading Policy

(Grades for courses must be C or better)

Grade	Percent	Description	Grade Points
A	90-100	Excellent/Superior Performance Level	4
B	80-89	Above Required Performance Level	3
C	70-79	Minimum Required Performance Level	2
D	60-69	Below Required Performance Level	1
F	Below 60	Failure to meet Performance Requirements	0
IP	--	In Progress	
W	--	Withdrawal	0
CR	--	Credit	0
AUD	--	Audit of Course	0

See College Catalog for complete descriptions.

## Competencies Rating Scale

Rating Scale Key			
6	90+	Proficient	Student consistently performs the task accurately to industry standards without supervision.
5	80-89	Proficient	Student performs the task to industry standards with no supervision.
4	70-79	Proficient	Student performs the task to industry standards with little supervision. This is the minimum performance rating for STAR skill completion.
3	60-69	Exposed/Not Proficient	Student has been introduced to the task and can perform some of the tasks to industry standards.
2	50-59	Exposed/Not Proficient	Student has been introduced to the task, but cannot perform the task to industry standards.
1	0-49		Student was absent or did not complete assignment.

## Campus Standard Policies

The [Student Handbook](#) contains valuable information on campus policies and procedures.

- Student Code of Conduct
- Student Drug and Alcohol Testing Policy
- Plagiarism
- Student Grievances and Complaints

## Disability Services

Any student who, because of a disability, may require special accommodations in order to meet the course requirements, should contact the Disability Services office, as soon as possible, to make necessary arrangements. Please note that instructors are not allowed to provide classroom accommodation to a student until appropriate verification from the Disability Services office has been provided.

### Abilene Campus

Susan Hash  
Testing and Support Services  
Abilene Main Campus Bldg. Rm. 112  
325-734-3641

### Breckenridge Campus

Lisa Langford  
Testing and Advisement located in  
The Main Building Rm. 106  
254-559-7731

### Brownwood Campus

Nicole Whitley  
Testing and Advisement  
Building 2 Rm. 120  
325-641-5955

### Fort Bend Campus

Schauna Boynton  
Brazos Center Rm. 113  
346-239-3394

### Harlingen Campus

Corina De La Rosa  
Disabilities Services  
Student Support Services  
Student Services Bldg. Rm. 216  
956-364-4521

### Marshall Campus

Annette Ellis  
Administration and Admissions Rm. 150  
909-923-3313

### Sweetwater Campus

Misty Walden  
Disability Services  
Student Support Services  
Lance Sears Building Rm. 140  
325-236-8292

### North Texas Campus

Amanda Warren  
Student Services, Room 227  
972-617-4724

### Waco Campus

Marilyn Harren  
Disabilities Services Office  
Student Services Center Rm. 198  
254-867-3600

### Williamson County

Chemese Armstrong  
Enrollment Services Rm. B113C  
512-759-5907

## Tutoring Statement

The Supplemental Instruction & Tutoring Program at TSTC offers free tutoring and academic support services to help you achieve your academic and career goals. You can access the Tutoring Schedule, as well as *MyTSTC Video Tutor Library*, by visiting: [https://portal.tstc.edu/student/Student\\_Learning/Pages/Tutoring.aspx](https://portal.tstc.edu/student/Student_Learning/Pages/Tutoring.aspx) (shortened link: [goo.gl/Z9vJvY](https://goo.gl/Z9vJvY)). For more information, please contact Norma A. Salazar@ [956-364-4557](tel:956-364-4557).

## Learning Resource Center

The purpose of the TSTC Learning Resource Center is to serve the TSTC Community and support academic, advanced, specialized and

The purpose of the TSTC Learning Resource Center is to serve the TSTC Community and support academic, advanced, specialized and emerging programs, contributing to the educational and economic development of the State of Texas. You can access the Learning Resource Center page at <https://portal.tstc.edu/employee/Departments/operations/Pages/Learning%20Resource%20Center.aspx>

## **Aerospace Grading Policy:**

Passing any course will require a minimum overall course grade of 70%. The student cannot fail more than one test per course. More than one test score below 60 is a failure of the entire course with a final grade of "D" or "F". The grade difference between "D" and "F" will be based on each individual program policy.

## **Aerospace Students reference HB 1508:**

For students in this course who may have a criminal background, please be advised that the background could keep you from being licensed by the State of Texas and certifying agency. If you have a question about your background and licensure, please speak with your faculty member or the department chair. You also have the right to request a criminal history evaluation letter from the applicable licensing agency.

## **Aerospace Student Dress Code:**

The student dress requirements mirror standards seen in our profession and will identify you as an Aviation Program Student. Your image reflects your professional attitude and conduct. How you present yourself is important to companies, airlines, FAA and hopefully to yourself. We expect you to look like a professional in your dress as well as in your conduct.

All APT, AER, AVI, ADT and ATC students are expected to be clean and well groomed. The TSTC aviation blue, steel grey, Baylor aviation shirt, or approved substitute, must be worn when in the classroom. Pants should reflect a professional image and worn at waist level. Ripped or baggy clothing is not acceptable; nor is overly tight or revealing clothing; yoga pants are not acceptable. NO short shorts! Shorts must be no more than 5" above the knee. Jeans that don't detract from a professional image may be worn. Close toed shoes, tennis shoes, or boots are acceptable. Open toed shoes, sandals, and flip flops are not permitted due to safety issues. If heels are worn they must be two inches or less for safety. Hair should be clean and neat.

Jewelry will be kept to a minimum to prevent loss and /or injury. Earrings are acceptable, but should be conservative and not extend beyond the ear. Tattoos covering large parts of the body or reflecting crude taste will limit your chances of being hired, are not recommended, and will be covered to promote an aviation professional image.

The purpose of these appearance standards is to promote a safe and comfortable work environment that is free of unnecessary distraction. The aviation industry as a whole is conservative in dress and appearance, and we hold you to these standards. Crude, provocative, or radical clothing will not be permitted. Students who arrive for class or for a flight inappropriately groomed or attired may be asked to leave and/or make changes. If you have opposition to conforming to conservative dress standards, you should probably consider other career options. Unless a notification is sent out Fridays are considered Relaxed Dress Code days.

Only the Department Chair or Lead instructor can issue waivers to this policy.

By attending our programs, you agree to the standards so described.

Represent TSTC and the Aerospace Department with pride.

## **Class Behavior Policy:**

1. Students will be considered tardy past the classroom start time.
2. No tobacco products in class. No food allowed in classrooms. Drinks allowed at instructors discretion.
3. *Appropriate attire is required.* See Student Handbook, Section 3.
4. Attending class sessions, other than the one enrolled in, requires prior written request and permission by both instructors.
5. If an Instructor requests you to leave the class for any reason, leave the room immediately. Do not disrupt the class with appeals or arguments.
6. Vulgar or profane language is not tolerated and is unprofessional.

## **Class Participation Policy:**

1. Be in class and seated on time. The definition of "on-time" is to be seated at the start of roll call at the top of the hour. If the class starts at 8AM, be seated by 8AM.
2. It is the **student's responsibility**, not the instructors, to inform the instructor before the end of that class period that he/she is tardy but present.
3. It is the student's responsibility to inform the instructor of any planned absences.

4. Perfect participation will earn a class participation grade of 100, to be averaged with your test grades, if your academic average equals a passing grade.
5. Each unexcused absence will result in a 5-point loss on your participation grade. Each unexcused tardy will result in a 3- point loss on your participation grade.
6. Excessive non-participation will require the student to receive a failing grade.
7. The student will fail the course if unexcused absences exceed 15% of total classes, or any combination of excused or unexcused absences exceed 25 % of classes (or flights). This includes up to the last class meeting, regardless of that student's test grade average. The maximum absence for a class that meets 3 times a week is 6 unexcused and total absences not to exceed 11. For a class that meets 2 times a week is 4 unexcused and 7 total absences. One absence past this limit, results in a failing grade. Any appeal or reconsideration to continue will be with the Department Chair. **This policy applies to scheduled flight training.**

**Class participation:** means being present in appropriate attire, on time, with all required textbooks and materials, and taking an active part in the classroom lesson. Participation points may be deducted for not meeting the participation requirements, or sleeping in class.

#### **Grading Procedures:**

1. Every exam may be comprehensive, covering material for that unit and any previous material.
2. Test material may come from the textbook, handouts, lectures, videos, and/or class projects.
3. Unscheduled quizzes may be given at the discretion of the instructor.
4. Missed Exam: One missed exam may be made up for an excused absence.
5. Grades will be the average of tests, homework, quizzes and if applicable, the class participation grade (refer to: **Class Participation Policy #4**). Presentations, projects, or other assignments may also be averaged into the final grade at the discretion of the instructor.
6. Passing this course will require a minimum overall course grade of 70%.
7. The student cannot fail more than one test per course. More than one test score below 70 is a failure of the entire course with a final grade of "D" or "F". The grade difference between "D" and "F" will be based on the average of the test scores. Students with no unexcused absences may retake one failed exam for the semester. Re-examination must be completed prior to the next test with method and type at the Instructor's discretion, and your highest grade will be 70.
8. Flight privileges may be suspended from student pilots who do not maintain a passing grade in any APT ground school course.
9. The instructor reserves the final authority in evaluating students involved in extenuating circumstances concerning class attendance and grading policy.
10. Cheating of any kind will result in immediate referral to the Student Dean and removal from the program.

\* *Note:* The grade "D" represents performance below the minimal performance level sufficient for related job entry. The grade of "D" cannot count toward credit for graduation, if received in a student's major courses.

#### **Academic Exams/FAA Writtens and Flight Training:**

1. For each semester with a course of instruction that has a corresponding FAA written exam associated it, the FAA written exam will be the final exam for that course (APT students only). Example: Private Pilot ground will have the Private Pilot FAA written for the final exam. Instrument ground, Commercial ground and CFI ground have the same requirements.
2. Students will present a Laser Scan grade sheet to the instructor from an approved FAA test center. Grades above a 70 are passing. If the student opts to not take their FAA exam, they will not pass the course.
3. FAA written exams require an endorsement by a CFI or AGI/IGI. Check with your instructor in plenty of time to prepare for your exam. Check with your flight instructor or the Chief Pilot to do online test prep for any FAA Written. The APT department provides online test prep support and services.
4. If a student fails an FAA written, they may retake within the semester the test is required. If a second test is not passed, the student will

be placed on academic and/or flight suspension.

## Resources

### Textbooks & Publications:

Item Title	Author	Publisher	Edition	ISBN
1 Risk Management Handbook	Federal Aviation Administration	U.S. Department of Transportation	2009	FAA H-8083-2

### Tools, Materials:

Item	Resource	Quantity
1	Computer Internet Access	1

Grade Scheme		
Category Description	Category Value	
TEST 1	20%	
<b>Assessment Label:</b>	<b>Assessment Description</b>	<b>Assessment Value</b>
UNIT 1 TEST:	Covers weeks 1-3	20.00%
<b>Category Description</b>	<b>Category Value</b>	
TEST 2	20%	
<b>Assessment Label:</b>	<b>Assessment Description</b>	<b>Assessment Value</b>
UNIT 2 TEST:	Covers weeks 5-7	20.00%
<b>Category Description</b>	<b>Category Value</b>	
TEST 3	20%	
<b>Assessment Label:</b>	<b>Assessment Description</b>	<b>Assessment Value</b>
UNIT 3 TEST:	Covers Weeks 8-12	20.00%
<b>Category Description</b>	<b>Category Value</b>	
FINAL EXAM	20%	
<b>Assessment Label:</b>	<b>Assessment Description</b>	<b>Assessment Value</b>
FINAL EXAM:	Comprehensive exam covering all materials discussed	20.00%
<b>Category Description</b>	<b>Category Value</b>	
PARTICIPATION	20%	
<b>Assessment Label:</b>	<b>Assessment Description</b>	<b>Assessment Value</b>
ATTENDANCE:	Students attendance	20.00%
Total Assessment Percent		<b>100.00%</b>
Total Category Percent		<b>100.00%</b>
<b>A = 100-90</b>	<b>B = 89-80</b>	<b>C = 79-70</b>
		<b>D = 69-60</b>
		<b>F = 59-0</b>

Description of Graded Elements of the Course			
Assessment Label	Assessment Description/Course outcomes met	Assessment Value in Percent	% of Final Grade
UNIT 1 TEST	Covers weeks 1-3 <b>Course outcomes met:</b> CO1, CO2, CO3, CO4	20.00	20.00%
UNIT 2 TEST	Covers weeks 5-7 <b>Course outcomes met:</b> CO4, CO3, CO2, CO1	20.00	20.00%
UNIT 3 TEST	Covers Weeks 8-12 <b>Course outcomes met:</b> CO1, CO2, CO3, CO4	20.00	20.00%
FINAL EXAM	Comprehensive exam covering all materials discussed <b>Course outcomes met:</b> CO4, CO3, CO2, CO1	20.00	20.00%
ATTENDANCE	Students attendance <b>Course outcomes met:</b> CO5	20.00	20.00%
		<b>100.00</b>	<b>100.00%</b>

<b>Course Schedule</b>			
<b>Unit/ Week</b>	<b>Unit Description/Objectives</b>	<b>Assessment Label:Description</b>	<b>Due Date</b>
1	Week 1: Course introduction and Defining Elements of Risk Management		
	<ul style="list-style-type: none"> <li>Students will recognize the Hazards of Risk Management</li> <li>Students will be able to describe the Tools for Hazard Awareness</li> <li>Students will be able to describe techniques for Managing Risk</li> </ul>	<i>Read Risk Management Handbook Chapter 1</i>	
2	Week 2: Human Behavior		
	<ul style="list-style-type: none"> <li>Students will be able to describe the role of Human Behavior in Risk Management</li> </ul>	<i>Read Risk Management Handbook Chapter 2</i>	
3	Week 3: Identifying and Mitigating Risk Review for Test 1		
	<ul style="list-style-type: none"> <li>Students will describe the P.A.V.E. checklist</li> <li>Students will describe how a pilot's health will affect Risk Management</li> </ul>	<i>Read Risk Management Handbook Chapter 3</i>	
4	Week: UNIT 1 TEST		
		<b>UNIT 1 TEST:</b> Covers weeks 1-3	As Scheduled
5	Week 5: Assessing Risk		
	<ul style="list-style-type: none"> <li>Students will be able to describe the elements of Assessing Risk</li> </ul>	<i>Read Risk Management Handbook Chapter 4</i>	
6	Week 6: Aeronautical Decision Making - A Basic Staple		
	<ul style="list-style-type: none"> <li>Students will be to explain the D.E.C.I.D.E. Model</li> <li>Students will be able to describe the principal of decision making in emergency situations</li> <li>Students will be able to explain the operational pitfalls of decision making</li> </ul>	<i>Read Risk Management Handbook Chapter 5</i>	
7	Week 7: Single Pilot Resource Management Review for Test 2		
	<ul style="list-style-type: none"> <li>Students will recognize hazards of Single Pilot Operations</li> <li>Students will be able to identify resources in Single Pilot Operations</li> <li>Students will understand the concept of the 5P check</li> </ul>	<i>Read Risk Management Handbook Chapter 6</i>	
8	Week 8: UNIT 2 TEST		
		<b>UNIT 2 TEST:</b> Covers weeks 5-7	As Scheduled
9	Week 9: Automation		
	<ul style="list-style-type: none"> <li>Students will understand how Automation affects Risk Management</li> </ul>	<i>Read Risk Management Handbook Chapter 7</i>	
10	Week 10: Risk Management Training		
	<ul style="list-style-type: none"> <li>Students will describe the phases of System Safety Flight Training</li> </ul>		
11	Week 11: Personal Assessment and Minimums Review for Test 3		
	<ul style="list-style-type: none"> <li>Students will understand the steps involved in setting personal minimums</li> </ul>	<i>Read Risk Management Handbook Chapter 8</i>	
12	Week 12: UNIT 3 TEST		
		<b>UNIT 3 TEST:</b> Covers Weeks 8-10	As Scheduled

13	Week 13: Sample Risk Management Scenarios		
	<ul style="list-style-type: none"> <li>Students will discuss various Risk Management scenarios</li> </ul>	<i>Read Appendix B</i>	
14	Week 14: CFIT Checklist Review for Final		
	<ul style="list-style-type: none"> <li>Students will be introduced to the CFIT checklist</li> <li>Students will be able to identify terms used in Risk Management</li> </ul>	<i>Read Appendix C</i>	
15	Week 15: FINAL EXAM		
		<b>FINAL EXAM:</b> Comprehensive exam covering all materials discussed <b>ATTENDANCE:</b> Students attendance	As Scheduled  Throughout Course