



# USU Aviation Professional Pilot Student Handbook



Welcome to the USU Aviation Technology-Professional Pilot Program. We hope you will find your experiences in this program to be exciting and motivating as you prepare for a career in aviation.

The flight training program at Utah State University must adhere not only to all university policies, but also to the Federal Aviation Regulations, aircraft and airport policies.

This manual will help guide users through the various levels and stages required to become a professional pilot and the requirements set forth by the program for safe aircraft operation and pilot professionalism

All pilots (Students, Instructors, staff, and Examiners) of USU aircraft are subject to the following rules and may not violate these unless explicitly permitted by the Chief Flight Instructor.



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# Directory

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# New Students

Welcome new Flying Aggies! We are excited to have you with us. Please read the handbook in its entirety so that there will be no training or policy surprises. If at any time students find themselves left with additional questions please contact us as soon as possible so that any issues can be resolved.

Please note before you start flying you need ALL of the following:

- Current FAA Class Medical (see Appendix C)
- Student Pilot license (see Appendix C)
- TSA Clearance (see Appendix C)
- Funds secure in Talon (see Appendix D)

All of these must be in place by the end of the first week, Friday, of the semester. If the student does not they will automatically be dropped from the flying and ground school courses. Students may reenroll if they obtain the necessary documentation before the semester add/drop date.

Students must also make a few purchases when starting their careers in aviation. A few of these items and their associated costs are below and covered in Appendix D.

The following items will need to be purchased at the Logan-Cache Airport:

- USU Flight Uniform ~\$40
- Aircraft Checklist \$8
- Diamond DA40 POH \$30

Additionally, these items will be needed as well, but can be purchased at online retailers such as Amazon or Sporty's Pilot Shop:

- Federal Aviation Regulations Book ~\$30
- Flashlight with red filter \$20 - \$100
- Headset - Large price range. A good one that will last all of training expect to spend at least \$200-\$400

Additional information on purchases can be found in Appendix D.





# Appendix A Student Conduct



## Ethical Conduct

In its programs and activities, Utah State University does not discriminate based on race, color, religion, sex, national origin, age, genetic information, sexual orientation or gender identity/expression, disability, status as a protected veteran, or any other status protected by University policy or local, state, or federal law.

*Note that harassment is not limited to the areas above, and can be in any verbal, non-verbal, or electronic communication.*

Individuals from all races, genders, and ethnic backgrounds are represented among our students and are some of the best pilots and aviation professionals in the industry. Disrespect of this kind is considered a symptom of profound ignorance, and to create a hostile, non-collaborative environment that detracts from learning and from safety. All students should review the USU Student code (link below) for information concerning student conduct, Academic Integrity, Student Code of Conduct, and additional assistance in other related areas. Any harassment is grounds for immediate and permanent dismissal from the program.

<https://studentconduct.usu.edu/>

Students are expected to comply whole-heartedly with federal, state, and local laws, and with the regulations and policies of USU. Violations of traffic or criminal laws, Federal Aviation Administration (FAA) regulations, or ethical infractions can result in disciplinary action within the program, separate from any University or Law Enforcement actions.

### Alcohol and Illicit Drug Policy

No Alcohol at any time or anywhere on campus, including the airport.  
Legal and responsible drinking may take place off campus. No illegal drugs.

Students are advised that known illegal use/arrest for alcohol and drug offenses will result in disciplinary action within the program, separate from any University or Law Enforcement actions.

Also note that while marijuana is legal for recreational use in many states and foreign countries, it is still illegal on a Federal Level. Therefore, it is still illegal to consume marijuana at any time and any place for all pilots holding FAA Certificates. This includes all pilots currently enrolled and employed by the program and university.

**USU reserves the right to have any pilot perform random drug screening.**



## Honesty and Integrity

Utah State Aviation expects integrity and honesty from all pilots in both their personal and professional lives. Failure to acknowledge a breakdown or defect, failure to report an infringement, failure to abide by rules or required procedures, all have a damaging effect on safety.

## Cheating

Per Article VI Section VI-1 of the USU Student Code:

1. Cheating: (1) using or attempting to use or providing others with any unauthorized assistance in taking quizzes, tests, examinations, or in any other academic exercise or activity, including working in a group when the instructor has designated that the quiz, test, examination, or any other academic exercise or activity be done "individually"; (2) depending on the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (3) substituting for another student, or permitting another student to substitute for oneself, in taking an examination or preparing academic work; (4) acquiring tests or other academic material belonging to a faculty member, staff member, or another student without express permission; (5) continuing to write after time has been called on a quiz, test, examination, or any other academic exercise or activity; (6) submitting substantially the same work for credit in more than one class, except with prior approval of the instructor; or (7) engaging in any form of research fraud.
2. Falsification: altering or fabricating any information or citation in an academic exercise or activity.
3. Plagiarism: representing, by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes using materials prepared by another person or by an agency engaged in the sale of term papers or other academic materials.

Any student found violating the cheating rules stated above will be subject to discipline which can include independent investigations and actions from the FAA, University, and/or the aviation program.

## Notification and Communication

USU Aviation students are expected to reach out and contact their instructor, dispatch, or management any time that things are not going as planned. We want you to succeed, and if we are not in the know, we cannot help.

Similarly, it is a USU Pilot's responsibility to notify management any time there has been any deviation or violation of the Federal Aviation Regulations.



If at any point a USU Pilot receives an FAA, Tower, or Controller phone number to call at ANY time while in a USU aircraft, the pilot is required to notify USU management. In the event of a deviation, keeping program Instructors and Faculty members informed better prepares everyone for BOTH resulting FAA meetings. Failure to notify management could lead to unwanted consequences.

## **Disciplinary Actions**

All pilots that utilize USU aircraft will be under the same scrutiny. Any actions that result in failures to moral and academic standards will first be dealt with legally. Following, Federal Actions with the FAA and program level may also be required.

Conviction by the judicial system or medical/certificate suspensions from the FAA may disqualify students from further participation in the Aviation Program at Utah State University. Since each case is different, the severity of the incident will be considered as decisions are made.

Here is a list of items we would prefer never to deal with again:

- Cheating on an FAA test
- Minor in possession of alcohol or illegal drug
- DUI
- DWI
- Falsification of pilot logbook, etc.

Poor choices such as these should be self-reported and that will be taken in consideration if disciplinary actions are taken. Any violation of the Student Code of Conduct will result in notification of the flight department. These infractions are taken very seriously, poor decision making skills, anti-authority attitudes, and impulsivity are traits not in line with professionalism nor the aviation industry as a whole.

Continued participation in the program, ruling dependent, may require counseling and the formation of a support group to both enhance safety and help the pilot at fault correct for current and future mistakes

Order of reprimand is as follows:

1. Verbal Warning and retraining
2. Letter of reprimand in record and retraining.
3. First letter goes permanent and second item added to it.
4. Suspension from flying
5. Dismissal from program or termination of employment.

In some severe instances, especially ones resulting in unsafe flying, steps can and will be skipped.



## Flight Uniforms and Dress Code

All USU Flight Students are required to purchase and wear uniforms. Uniforms are to be worn anytime flight, ground, or simulator instruction is given at the Logan-Cache Airport Aviation Campus, and must be kept neat and clean in order to maintain a professional image. Uniforms are as follows:

**Pants:** Semi-formal pants, preferably brown/khaki in color. Clean and in good condition with no rips or tears. No leggings or yoga pants.

**Shorts:** Semi-formal shorts, preferably brown/khaki in color. Clean and in good condition with no rips or tears. Must end slightly above or past the knee.

**Shoes:** Closed toe and closed heel and low heel.

Approved colors in single or mixed use:

- Black
- Grey
- White
- Blue
- Brown
- Tan

**Shirts:** Approved uniform shirts only:

- Blue oxford with approved USU Aviation insignia, tucked in!
- Blue knit shirt with approved USU Aviation insignia, tucked in!

**OPTIONAL:**

- Flight jackets with approved USU Aviation insignia are available.
- Hats: Must contain USU Colors (blue, grey, white) or logos

Personal Appearance is up to the student. There are no rules against hair length/color, piercings, tattoos, or any other accessory as long as they are not crude or offensive in nature. The only expectation is that regular hygiene schedules are adhered to.

Students will NOT be checked-in for your training activity nor dispatched an aircraft without the appropriate uniform. If you are denied an operational check-in due to inappropriate uniform standards, you will be assessed a “NO-SHOW” fee.



# Appendix B Training Guidelines



## Attendance

Private, instrument, commercial, and flight instructor ground school classes are conducted under FAR Part 141. 100% attendance is mandatory and attendance records will be taken each class period. Missed classes **MUST** be made up with the student's flight instructor at current flight instructor rates. Each flight instructor will be provided with class syllabi and attendance records for each ground school course. If a student misses a ground school session, they must contact their instructor and he/she will cover the information missed.

## Availability

Flying courses require the student to be available to fly for a minimum of 2 hour blocks during 3 separate days of the week.

## Flight Course Grading

Grades are issued in the semester they are enrolled. All grades reflect the earned grade at the end of the associated semester. For example, if the checkride is scheduled, but not completed, the student will receive an Incomplete Fail.

### **\*EXTREMELY IMPORTANT\***

**Students should be able to complete their flying course within the semester enrolled.** However, if the student knows that they will not finish a flight course by the end of the semester, **and they are at least 50% complete (VA funded students must be 70% complete)** they must do the following **before finals week:**

1. Complete an INCOMPLETE GRADE DOCUMENTATION FORM
2. MEET with the CHIEF FLIGHT INSTRUCTOR to discuss their plan to finish the course

If the student does not complete this process, the student **will receive an F and will forfeit all remaining flight course fees.** The Aviation Program must do this in order to comply with university and Federal Financial Aid policies.

The Incomplete Grade Documentation Form will give the student an additional 12 months to complete the flight course. If the student does not complete the course during this time, known as the "I Period," then the resulting action will occur: **an F grade will be given, remaining course fee will be forfeited, and the student will need to meet with the Chief Flight Instructor to determine which course will be needed to complete the required flight certification or stage check.**



If the student has not completed 50-70% of his training by the end of the semester, they will need to meet with Student Services at the airport to discuss their options regarding their grade and flight course fee.

For all flight courses that require a stage check to complete the course, the Stage Check Completion Form must be completed and turned into Student Services at the airport. Be sure all forms are filled in completely and have the certified flight instructor's signature. This process must be done prior to beginning the next flight training course.

**As of Fall 2018, the following certificates and ratings are required for graduation:**

Fixed Wing:

- Private Pilot Certificate
- Instrument Rating
- Multi Engine Commercial Certificate
- Certified Flight Instructor

Rotorcraft:

- Private Pilot Certificate
- Instrument Rating
- Commercial Pilot
- Certified Flight Instructor
- Certified Flight Instructor, Instrument

## **Standards of Progress**

Students are required to keep in contact with their Flight Instructors and fly on a regular basis in addition to keeping up with their course work. Below are the progress standards that the aviation program requires students to adhere to:

- Students must fly a minimum of 4 hours a week
- Students must be available for a minimum of 2 hour blocks during 3 days a week
- Private Pilot and Instrument candidates are expected to complete at least one stage every 60 days.
- Commercial Pilot and CFI candidates are expected to complete at least one stage every 120 days.
- Written stage exams must be taken and passed in compliance with the course syllabus and Training Course Outline.
- Maintain at minimum a bi-weekly contact with your instructor or administrator

If a student cannot maintain the minimum pace above, they may be temporarily suspended from flight training. Additionally, students will be required to meet with the Chief Flight Instructor or Assistants to determine how much of their previous flight time can be brought forward.

**See your advisor and/or chief flight instructor early in the program if you might have a problem with the pace of instruction.**





## Failure to Progress

There are many possible issues that can delay or influence a student's training. Some of the aspects are, but not limited to, new language, first time living on your own, first time at college, first time learning a physical skill, etc.

The Aviation program has defined failure to progress as the following, keep in mind this is during the semester in which the student has enrolled into the class or is working towards completing an incomplete grade:

- No scheduled flights in the preceding 4 consecutive weeks.
  - Includes summer semester if student has not completed a course
  - Excluding the third week of November and time between the end of fall and start of spring semesters.
- Repeating a flight more than 5 times.
- More than 3 No-Shows during that training course.
- Failing to respond to instructors/administrative phone calls, texts, or emails within a period of 2 weeks maximum.
- Failing a stage check 3 consecutive times.
- Not providing required documentation in a timely manner, such as Medicals, stage checks, Make and Model checkouts, etc.
- Scheduling and cancelling a flight (non-weather related cancel) more than 3 times.
- Failing to complete online ground lessons required for flight lessons
- Failing to complete any assignments from your flight instructor
- Any additional issues that leads the student's assigned Flight Instructor or Administration to believe that the student in question is purposefully avoiding completing the course.

If any students are in violation of the rules above, they will have to complete a meeting with Administration in order to figure out the best way to resolve the outstanding issue. Repeated offenses could result in suspension or dismissal from the program.

These rules are not enacted to punish those who are going through hard times. It is however, put in place so that students may finish their training within a semester by having access to aircraft and instructors. Any student that is having adverse issues in life but are actively in discussion and communication about their issues with their Instructor or Administration will not face these consequences.



## Stage and End of Course Written Exams

Although Stage Exams and End of Course Exams are available through the Jeppesen Online Courses, the Stage Exams and End of Course Exams will only count towards training when taken under the supervision of a current USU Flight Instructor or Dispatcher. A screen shot of the results will need to be signed by the Flight Instructor or Dispatcher who proctored the exam and uploaded to Talon. Flight Instructors must review any wrong answers on written stage exams before the applicable stage check. Stage Exams and End of Course Exams are closed book.

Students may use an E6B, Map Plotter, and one piece of scratch paper.

## Stage and End of Course Check

Stage checks are designed to test students in their knowledge and flying ability. Failure results in additional training and retest. Stage checks are scheduled by, and at the discretion of, the student's assigned flight instructor.

**Students do not dictate or determine when they are ready for a stage check, nor do students schedule stage checks.**

Before a stage check can be started the following must be completed:

- All required flight time
- If less than 1 hour of dual instruction is left that can be covered during the stage check
- Corresponding Written exam with an initial score of 80% or more
- Corresponding Written exam corrected to 100% with an instructor
- Applicable documents are uploaded in Talon



## Grading

There are three possible grades for stage checks:

- Satisfactory (Pass)
  - Student displayed knowledge and skill to satisfy all line items
  - Student was able to demonstrate safe operational knowledge
  - Student operated the aircraft safely with no input or corrections needed from instructor
- Unsatisfactory (Fail)
  - Student did not display required knowledge
  - Student operated the aircraft in an unsafe or reckless manner
  - Stage Check Instructor had to take controls away from the Student in order to correct any unsafe situation directly caused by the student.
  - Any oral check that exceeds 4 hours
  - Any other issue that the Stage Check Examiner deems as an issue or point of failure
- Incomplete
  - Weather did not permit the flight to be completed
  - Any situation outside of the students control such as, but not limited to, an aircraft mechanical issue.
  - Student elected to end the stage check themselves.

For each stage check students must complete the oral and practical parts in order to progress to the next stage. No preemptive flights or activities can be completed until all previous stages are passed. These must be done by a stage check instructor or Administration. Below are descriptions and requirements for stage checks:

### Oral Section

The initial portion of a stage check consists of an oral exam between the student and stage check instructor. During this time the stage check instructor will ask various questions regarding the stage material. Questions asked by the stage check instructor are completely at the discretion of the instructor. This means that the stage check instructor can ask questions outside of the course material if the stage instructor deems it necessary.

For the Oral portion students are **required** to bring:

- Be in Uniform
- Logbook
- Pilots License
- Medical
- Flight ID Badge
- Government ID
- FARs – Digital or print, no more than 2 years old.
- Pen and/or Pencil
- Notebook/scratch piece of paper
- Flight plan *\*Excluded for Private Stage 1*



## Practical (Flight) Section

The practical portion will consist of various skill sets that the student pilot is required to know and be able to demonstrate. Requirements vary for each stage check. However, any unsafe or reckless flying as determined by the Stage Check Instructor will **ALWAYS** be grounds for immediate failure.

For the Practical portion students are required to bring:

- Be in Uniform
- Logbook
- Pilots License
- Medical
- Flight ID Badge
- Government ID
- Headset
- Hood\*
- Flight Plan\*
- Appropriate Charts\*
- E6B\*
- Map Plotter\*

\* May or may not be required. Ask Stage Check Instructor.

If the student is missing any of the required documents above for oral or practical sections, the stage check will end and the student will be charged a no show fee.

## Flying Prerequisites

Before any current or incoming students start flying they must have these prerequisites completed by the first week of class:

1. All required and applicable documentation outlined in Appendix C
2. Valid and current TSA Clearance (see Appendix C)
3. Valid and current FAA Medical (see Appendix C)
4. Funds already in place on their flight accounts (see Appendix D)
  - If funds are “on the way” or delayed, student will be dropped from the course
5. Any previous flying course must be completed, which includes passing of checkride

**All the above must be in place by the end of the first week of the semester. If not, students WILL be dropped from the course.**



## Prerequisites for Ground Courses

All ground school courses must be taken during the same semester as their appropriate flight courses. For example, Private Ground is paired with Private Pilot Certification.

If students are not able to fly that semester they will be dropped from ground school as well.

## Pre-Requisites for Flight Courses

In order to begin flying students must have all documents applicable to students as stated in Appendix C and have funding secured before the first week of the semester. Additionally, students must have passed all portions of the previous flying course, including stage checks and checkrides if applicable/

## University Drop Policy

Students may drop courses for a limited period of time during the semester. Below is a short summary of the university's drop policy – to see the complete Drop and Refund Policy, refer to the USU General Catalog. The times below are approximate.

- **During the first 20% (approximately the first three weeks)** of the semester, the student may drop a course without notation on their transcript and receive a full refund, minus the cost of any flights taken.
- **Between 20% and 60% (approximately the next six weeks)** of the semester, the student may drop a course, but will receive a “W” (withdrawal) on their transcript and **no refund will be given.**
  - The student may submit a petition online to the Registrar's Office to request a grade change from an “F” to a “W” and to request a refund of any remaining flight course fees. Go to: <https://www.usu.edu/registrar/records/ara>. If a grade request is made, a \$20 fee will apply. The request must be accompanied by documentation proving extenuating circumstances out of the student's control. The Registrar's Office will determine the request on a case by case basis, for such reasons as medical, military, death, relocation, etc. If the flight course refund is granted, the amount refunded will be for the course fee originally paid, minus the cost of any flights taken.
- **After 60% of the semester**, withdrawing from courses is not permitted.

A student may not drop all his/her classes without an official withdrawal from the University. **The student must not register for any flight courses if they know they will not be able to start it in that semester.**

Useful Links:

- <https://www.usu.edu/registrar/index>
- <https://www.usu.edu/registrar/registration/dates>
- <https://www.usu.edu/registrar/registration/after/add-drop>



# Appendix C Documentation



## Student Pilot Certificate

A person may apply for a student pilot certificate with one of the following authorized individuals:

- Certified Flight Instructor
- Designated Pilot Examiner
- Through an FAA ASI
- AST
- Airman Certification Representative (ACR) associated with a 14 CFR part 141 pilot school.

All student pilot certificates will be issued by the Civil Aviation Registry (AFS-700) on high quality plastic card stock containing tamper and counterfeit-resistant features. Once a student pilot certificate has been issued, the pilot must hold a current medical certificate while exercising solo privileges in any USU or FAA Registered Aircraft in specific reference to FAR § 61.23(b)(3).

Any students planning on attending Utah State University will need to make an appointment with a USU Flight Instructor or any previously listed person to submit a student pilot application. To make an appointment with a USU CFI please call USU Dispatch at 435-797-7897. If an appointment with a Utah State University representative is not feasible the student must seek out one of the individuals above.

**Students will need to submit their student pilot application at least 6 weeks prior to beginning flight training.**

NOTE: An email will be sent to the student with an attached Temporary Airman Certificate. It will be issued for use while waiting for the permanent certificate to be received. Per USU Policy, the permanent certificate must be in the pilot's possession to exercise solo privileges. For further information please contact us at 435-797-7897



## Medical Certificate

In accordance with the Code of Federal Regulations Title 14, Part 61.3(c), all Professional Student Pilots are required to obtain an FAA Medical Certificate. There are three classes of medicals: First Class, Second Class, and Third Class. Although only a Third Class medical is required for student pilot operations at USU Aviation, it is highly recommended that a student obtain a First Class certificate to ensure no medical conditions exist which would disqualify him/her from obtaining certificates/licenses at a later date. Many pilot jobs require a current First Class Medical.

A Medical **must** be on record at the airport before the end of the first week of the semester enrolled. Medicals and any documentation must be brought to Airport Student Services in order to be copied into the student's digital and paper file.

A medical certificate may be obtained from a certified Aviation Medical Examiner (AME). Cost varies depending on the examiner and type of physical sought, average costs typically range from \$80-\$130.

To locate an AME, please visit <https://www.faa.gov/pilots/amelocator/>

Details of each medical class requirements and durations are explained in CFR Title 14, Part 67. If there are still questions that need to be answered please contact the program.





## TSA Documentation

Students will be required to submit required identification to Airport Student Services before they start their flight training. Airport Student Services will upload these documents to the student's digital and physical filing systems. Per TSA guidelines, these documents will remain on file for a period of five years upon completion or withdrawal of training. The required documentation for Domestic and International Students are listed below:

### U.S. Citizens:

Acceptable documents to verify U.S. citizenship include:

- A Current U.S. Passport\* OR
- A Current Driver's License **AND:**
  - An original, "Raised Seal" Birth Certificate (photocopies not accepted)
  - OR-**
  - An original "raised Seal" Certificate of Naturalization (photocopies not accepted)

\*If any submitted documents will expire before the completion of training or if a newer document supersedes the old, it is the student's responsibility to provide the new/required documents to satisfy TSA requirements.

### International Students:

Students will be required to show a passport\*, F Type VISA\* and an I-20 form from their country to USU Flight Operations. Airport Student Services will upload these documents to the student's digital and physical files. Per TSA guidelines, these documents will remain on file for a period of five years upon completion or withdrawal of training.

\* If a passport or F Type VISA submitted expires before the completion of training, it is the student's responsibility to provide new ones.

The Alien Flight Student Program (AFSP) is a mandatory process for foreign students who are seeking training at a flight school regulated by the FAA, (Public Law 108-176, Dec 12, 2003). Federal Law prohibits flight schools from providing flight training to a foreign student unless the Secretary of Homeland Security first determines that the student does not pose a threat to aviation or national security. On September 20, 2004, the TSA issued an interim final rule establishing the AFSP.

All students who cannot provide appropriate proof of U.S. citizenship must complete the AFSP process for all flight training where this approval is required.

By legal mandate, USU may not provide certain flight training to any individual who cannot provide appropriate proof of U.S. citizenship until receiving TSA clearance.



International Students: to Obtain TSA clearance follow the steps below:

- 1) Go online to <http://www.flightschoolcandidates.gov>
  - a) Scroll to FAQ on top of the homepage and read entire selection
  - b) Create a Valid User ID and Password- Click the CREATE NEW STUDENT ACCOUNT link near the top of the login page. Enter the appropriate information to create a new account. Once the account is created, the student will then receive an email with their assigned USER ID and PASSWORD. If a problem arises go to FAQ's again and scroll to applicable question.
- 2) The student will receive an email requesting \$130 to be submitted via AFSP website- Instructions to be found in the FAQ's.
- 3) Fingerprints: Once payment is received, the student will receive email instructions for obtaining fingerprints.
  - a) DO NOT GET FINGERPRINTED PRIOR TO RECEIVING THESE INSTRUCTIONS AS THEY WILL NOT BE ACCEPTED.
  - b) Student must schedule two fingerprinting sessions and this must be done with USU campus police.
- 4) Passport: When requested, the student must provide a copy which is:
  - Not grainy
  - Shows both eyes clearly
  - Not top light or dark when copied
  - All information on passport copy must be legible and visible
- 5) The Chief Flight Instructor will be informed of the student's request and its progress. He will be notified by TSA when their initial clearance has been awarded.

**\*Extremely Important\***

TSA Clearance for International Students takes SEVERAL WEEKS (over 6) and must be completed before **ANY** flying is permitted.

**If TSA Clearance is not given before the end of the first week of the semester students will be dropped from the course**



# Appendix D Fees



## Uniforms and Jackets

Uniforms are available at any time -- see Student Services at the airport to purchase.

Flight Jackets must be individually ordered:

- **We place a group order once each semester after the third week of school**
- Order jackets online by the third week of school on our Aviation website at <https://aste.usu.edu/aviation/students/uniforms>. Payment for the flight jackets will be made when they are picked up. **WE ACCEPT CASH, CREDIT CARDS OR CHECKS.**
- If you miss the semester order, you may contact Image Matters directly at 435-787-0557.

## Pilot Supplies

Pilot supplies, such as the Pilot Operating Handbook (POH), Checklist, Badge Holders, Lanyards, and Hats are available anytime – see Student Services at the airport to purchase.

Required items that all students will need to purchase and own:

- Uniforms
- Logbook
- Headset
- Aircraft Checklist
- POH (Pilot Operating Handbook)
- Federal Air Regulations Book (FARs)
- Maps (May be electronic)



## Flight Course Fees

It is highly recommended that the entire flight fee is paid before beginning flight training. This will ensure the student will have the funds available in their Talon flight account to keep up with the pace of training. Flight lessons will be scheduled on a regular basis, and the student will be assessed a “no-show” fee for each session missed due to insufficient funds in their Talon flight account.

- Due to insurance requirements, a student **MUST BE REGISTERED** for an active Flight Course to proceed or continue with flight training.
- Flight course fees are automatically assessed to the student’s Banner account when they register for the corresponding AV course.
- All Financial Aid, Loans, 3rd Party and Veteran’s payments will be applied to any unpaid flight course fees by the Registrar’s Office.
- Flight course fee payments are not accepted at the airport. Payments are taken at the Registrar’s Office, or online using the TouchNet system. Acceptable forms of payment are cash, check, or credit card (USU does NOT accept all credit cards).

If a student is unable to pay the entire flight course fee at one time, there are two different installment plans available. The student can only have one installment plan set up per semester. Setting up an installment plan only keeps the student from being dropped from their classes for non-payment. The installment plan is NOT A LINE OF CREDIT. Until payments are made on the installment plan, the student will not have funds in their Talon flight account and will not be able to fly.

- **Aviation Installment Plan.** This installment plan **ONLY COVERS FLIGHT COURSE FEES**. There is no fee to set up the plan, and the flight course fee will be divided out equally over 6 payments. Regular monthly payments are required. There are no late fees for non-payment, but USU Student ID cards will stop working on campus if a payment is missed.
- **Tuition Installment Plan (TIP).** This installment plan **COVERS TUITION, OTHER UNIVERSITY FEES, and FLIGHT COURSE FEES**. There is a fee to set it up, late fees for non-payment, and it must be paid in full before the end of the semester. Payments will be applied first to tuition and fees. Flight course fees are paid last.

Flight course fees are considered a fixed course fee. Meaning, the course fee pays for a specific number of ground and flight training hours that takes the average student to complete the course. The current fee schedule is available online at <https://aste.usu.edu/aviation/students/fees> or from the academic advisor. The fixed course fee does not guarantee that the student’s individual progress will allow them to



complete their training with the course fee. Students must meet the certification standards established by the FAA, so any overages due to unsatisfactory performance during flight or ground training will require additional funds to be paid by the student.

To pay for additional funding to complete a course, the student needs to contact Student Services at the airport. The amount needed to continue in the course will be posted to the student's Banner account as MFLT (miscellaneous flight) funds. Once that charge is paid at the Registrar's Office, or on TouchNet, the funds will be posted to the student's Talon flight account.

- After a flight course is completed, any remaining MFLT funds ARE REFUNDABLE, as they are not considered course fees.

On the other hand, if the student completes a flight course and did not spend all of the flight course fee that was originally paid, THERE WILL BE NO REFUND of REMAINING FEES, and they CANNOT BE USED for a FUTURE FLIGHT COURSE. If the excess funds are more than \$100 for fixed wing, or \$150 for rotorcraft, the student will have the opportunity to use remaining funds to gain additional flight experience and accumulate overall flight time. The student will have approximately 3 weeks to use these funds. When the additional flying is done, THE STUDENT MUST CONTACT STUDENT SERVICES at the AIRPORT. A grade will then be given, the course will be completed, and any remaining funds will be removed from the student's Talon flight account.



# Appendix E Talon & Scheduling



## Talon

Talon is the system that the USU Aviation department uses to schedule and operate the fleet. Additionally, each pilot has their own Talon profile which is used to track training, information, documentation, and flying funds as well as multiple other training parameters. All students will receive their own individual log for Talon as well as a PIN. Students are expected to remember their logins, password, and PIN as well as check their Talon weekly to verify scheduling and read any important messages that have been sent out.

Talon Website:

[Talon-systems.com/usu](http://Talon-systems.com/usu)

In the event of a lost password or PIN contact Dispatch to reset account.

## Scheduling

Flights are scheduled and approved on a first come, first serve basis. In order to schedule a flight, students must contact their flight instructor at least 7 days prior to the date requested. Flights scheduled with less than 7 days of notice face a decrease in aircraft availability

**Students cannot, and will not schedule their own flights.**

## Availability

Flying courses require the student to be available to fly for a minimum of 2 hour blocks during 3 separate days of the week.

## Flight Late Returns

In order to facilitate organized fleet performance, students and instructors must return the aircraft before the end of their allotted time. This means the aircraft is on the ramp, parked, and shut down no later than the scheduled return time.

**Failure to return on time will result in disciplinary action.**





## Scheduling FAA Checkrides

Upon completion of Private Pilot, Instrument, ME Commercial 3, Commercial SE add-on, CFI, CFII, and MEI flight courses, students will take an FAA Checkride. Checkride schedule requests will be submitted by the student's flight instructor to Megan Harris. Megan will then contact available DPE's to schedule the Checkride.

**Scheduling of checkrides must go through the student's flight instructor.**  
**Students may not schedule their own checkrides!**

The Checkride fee is included in the flight course fee. If the student exceeds the standard flight course fee, they will be responsible to cover the remainder of the Checkride fee. This must be paid through MFLT (see Appendix D) and done prior to the Checkride.

**Checkride Schedule Request will only be processed during business hours.**

\*Rotorcraft students please send requests to the Rotorcraft Chief.

Students are required to bring all documents required for stage checks to their FAA Checkrides. In addition, students must bring their original raised seal written test report.

## Scheduling FAA Written Test

All written tests are scheduled through test proctors and are by appointment only. Contact information for proctors can be obtained at dispatch or Brandon Parish.

The Written test fees are included in the initial ground course fee. If a student fails a written test and must retake it, additional fees will be assessed. Students must not lose any written test report(s).

A test report cannot be reprinted by any testing center. In order to replace a lost test report the student must contact the FAA main office to acquire a new one. This process takes several weeks.

## Cancellation Policy

To insure efficient use of instructors and aircraft availability, all ground and flight sessions must be canceled on ETA prior to **6:00 pm one day before** the scheduled session. Any sessions not canceled by this deadline will be billed to the student! If a student does not show up within **30 minutes** of their scheduled session, they will be billed a "No-Show" fee and the scheduled aircraft and/or instructor may be given to another student. Minimum billing for a "No-Show" will be 1 hour of scheduled aircraft time at the current aircraft rate and the total scheduled instructor time at the instruction rate associated with the type of instruction scheduled. At the discretion of USU Flight Operations, a "No-Show" billing can include any time, up to and including, the total time the student was scheduled for that aircraft and/or instructor.



# Appendix F Aircraft Operations



# OPERATIONS MANUAL

## (Airplane)

The following safety procedures have been established to protect Utah State University students, instructors, and aircraft. These procedures are based upon and in no instance overrule the Federal Aviation Regulations. Violation of any of these procedures will be considered as grounds for disciplinary action or dismissal. The Chief Flight Instructor, Assistant Chief Instructor, or Designee must approve deviation from any of these rules not federally mandated. Deviations from the handbook must be approved prior to the flight by the Chief Flight Instructor and are a case-by-case single use only.

### 1. All Flights

**(a) Dispatch Flight** - All flights must be properly dispatched through USU Dispatch and Talon Systems;

1. No USU pilot will be dispatched an aircraft without a completed and current weight and balance form that is signed by a USU instructor who is present at the airport. Weight and Balances can never be signed prior to completion of a weight and balance sheet and applicable flight plan.
2. Weight and balance sheets must be filled out (completely) including:
  - LOCAL- Weather data including METAR's and TAF's for KLGU, KBMC.
  - CROSS COUNTRY- Weather data including METAR's and TAF's for KLGU, destination airport and all airports along the intended route of flight. If no MEATR is available for the destination airport, then the closest available will be used.
  - Regardless of departure time, students shall have the aircraft back at the end of their scheduled period unless otherwise previously arranged.
3. USU Dispatch will oversee tracking flights during business hours.
4. All flights occurring outside business hours (i.e. when dispatch is closed) require notification of the on-call instructor.
5. *Insert Dispatch hours?*



**(b) Preflight Briefing** – A preflight briefing will be conducted on each training flight. This briefing will include, but not be limited to;

1. A pre-flight briefing with discussions concerning, but not limited to: fuel, destinations, weather, weight and balance, flight time and contingency plans.
2. Introduction to new maneuvers and review of SOP's.
3. Flight instructor and student's responsibilities during the flight.
4. Weather conditions expected for route of flight, NOTAMS, and any TFRs.
5. Mandatory use of aircraft checklist.
6. Proper utilization of maintenance logbooks/correspondence regarding maintenance performed on the aircraft.
7. Pilot documents, photo ID, and medical are on/with each pilot.
8. CFIs and students are also encouraged to discuss three-way exchange of the flight controls and CFI/Student responsibilities in the event of an emergency.
9. **\*The flight instructor is directly responsible (at all times) for safety and is the final authority as to the operation of the aircraft. This authority is only superseded by the chief flight instructor or an assistant chief flight instructor. Prior to flight, each Instructor is responsible for being familiar with all the information concerning that flight as well as the aircraft.**

**(c)** Items will be confirmed to be inside the aircraft for all flights;

- 1) Airworthiness certificate
- 2) Aircraft registration
- 3) Pilot's Operating Handbook (AFM, RFM)
- 4) Weight and Balance
- 5) Headsets for each pilot and passenger
- 6) Checklists
- 7) Aircraft 'CAN'
- 8) Handheld microphone
- 9) Tie Downs
- 10) Chocks
- 11) Fuel Sump

**(d) CFI/PIC's** are responsible for the condition of the aircraft prior to, during, and after the flight. If a discrepancy is found the CFI/PIC shall alert the Chief Flight Instructor, Assistant Chief Instructor, Dispatcher, Designee, Director of Maintenance, and/or other Maintenance Personnel as soon as possible. Reporting all discrepancies and/or damage is the responsibility of the CFI/PIC.

- 1) Unless previously reported, when damage is discovered by a CFI/PIC prior to a flight, the previous CFI/PIC will be held responsible for that damage.
- 2) If there is an open discrepancy without a signature from an authorized maintenance personnel, then the aircraft will be grounded until it is returned properly to service.



- (e) **Passenger Briefing** – When a flight is being conducted with passengers or a student who has flown less than three flights, the PIC shall at a minimum brief all occupants of the aircraft on the following items, utilizing the SAFE-T.P.N. acronym;
- 1) Seatbelts and how to use them
  - 2) Air vents
  - 3) Fire extinguishers- location and how to use
  - 4) Emergency Exits- how to evacuate from the front and rear doors
  - 5) Taxi and Traffic- the route of taxi, zones or areas of scanning, and what to do if you spot another aircraft
  - 6) Positive Exchange of flight controls (3 way challenge)
  - 7) NO SMOKING
  - 8) Use of Cellphones or Cameras
  - 9) Front passenger – how to not interfere with flight controls
- (f) **Emergency Equipment** – USU Dispatch has a couple cross country bags that have minimal food, lights, and water in the event that the aircraft and passengers are stranded. USU encourages students to make and maintain their own kits and adjust them by season.
- (g) **Post Flight Procedures** – Upon completion of each flight, the correct Hobbs will be recorded as well as the post flight procedures checklist. Flight Plans will be closed. Flights will be checked in using Talon Systems and the activity will be completed. To complete the activity both the CFI and the student will record progress, make notes for improvement, and input their pins into ETA. The post flight briefing will give the student an accurate and clear understanding of their performance, completion, and expectations of their next lesson.

## 2. Weather Minimums

Before any flight the PIC of the aircraft must be aware of a synopsis of weather conditions, including but not limited to, METARS, TAFs, AIRMETs, SIGMETs, Convective SIGMETs and winds along the intended route of flight. All Flights will adhere to the regulations found in 14 CFR 91.155.

USU will adhere to Title 14 CFR's for all weather minimum, if found in contradiction to the FAR's we will default to the FAR's.

Weather must be forecast to remain at the minimums listed or be improving for at least 2 hours prior to and past the estimated time of departure and arrival at each airport(s) of intended use.

**FIXED WING**

1. Please refer to the chart below-
2. For any deviations to minimums you need chief approval
3. Temperature must be -40 C or greater
4. Visual Reference **MUST** be maintained for the entire duration of the flight (except for IFR flights)
5. Ceilings must allow for all obstacle clearances
6. \* indicates that visibility for the airspace supersedes posted values
7. No solo flights if density altitude exceeds 8,000 feet
8. No intro flights in winds in excess of 15 knots

**(a) Wind Limitations** – No training flights will be conducted when the surface winds exceed 25 knots or in the presence of gust spreads exceeding 15 knots. Any dual flights where the winds indicate over 35 knots including gust factors will terminate training and return to the airport.

**(b) Gust factor** – is the speed of the possible gusts. Winds reported at 12 gusting 21 would have a solid wind factor of 12 and a gust factor of 9.

**(c) Solo Wind Limitation** - each student will observe the surface winds and gust limitations as directed by his/her instructor and as endorsed in the students log book.

- *Under no circumstances are students permitted to fly solo with wind gust spreads in excess of 7 knots. Example “winds at 170 at 5 knots gusting 13.” This would exceed the 7 knots and cause the flight to be terminated.*

**(d) Field Condition Reports (FICON)** - The FICON score is awarded by the airport manager and is reported in the ATIS. Below are the limits for USU fixed wing aircraft-

FICON RCC code Limitations	
< 3	No Flights
3	Dual only - soft field proc.
4	Solo Instrument rating
5	Solo PVT/STUD with briefing
6	No restrictions

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*FICON scores must be altered by a adding (-1) to the score if the following conditions are reported or exist- Ice, Slush, or Compacted Snow*

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While field conditions are apt to change quickly all attempts for safety will be taken into consideration prior to any flights at USU.





### Minimum Weather for USU Dispatch

PIC - Minimums	Wind Speed (KTS)	Gust Factor (KTS)	Crosswind Component (KTS)	Flight visibility (SM)	Visual Reference to Ground	Ceiling (Feet)	FICON Score
<b>Student Pilot (solo)</b>							
Pattern	10	0	5	5	X	1,500	5*,6
Practice Area	10	0	5	7	X	4,000	5*,6
Cross Country	10	0	5	7	X	5,000	5*,6
Night	PROHIBITED						
FICON of 5 requires an instructor briefing							
<b>Private Pilot (solo)</b>							
Pattern	12	5	8	5	X	1,500	5*,6
Practice Area	12	5	8	5	X	4,000	5*,6
Cross Country	12	5	8	5	X	5,000	5*,6
Night	PROHIBITED						
FICON of 5 requires an instructor briefing							
<b>Instrument Training DUAL</b>							
Pattern	15	7	8	3	X	1,500	4
Practice Area	15	7	8	3	X	3,000	4
Cross Country	15	7	8	3		4,000	4
Night Local	12	5	8	5	X	3,000	4
Night X-C	15	5	8	5		4,000	4
Gusting less than 20 KTS when all combined							
<b>ALL DUAL and Commercial Rating</b>							
Pattern	25	10	Max Demo	3*	X	1,500	4
Local Practice Area	25	10	Max Demo	3*		3,000	4
Cross Country	25	10	Max Demo	3*		3,000	4
Night	25	10	Max Demo	5	X	4,000	4
Gusting less than 35 KTS when all combined,							
IFR Clearance	20	10	Max Demo	1		800 AGL	

**Gust factor** – is the speed of the possible gusts. Winds reported at 12 gusting 21 would have a solid wind factor of 12 and a gust factor of 9.





### 3. Collision Avoidance

- a) **Ground** – No USU Instructor or student shall operate an aircraft on the ground so close to another as to create a collision hazard and shall adhere strictly to the general operating and flight rules of FAR part 91.111 and 91.113. Nor shall aircraft be operated within 10 feet of any other aircraft, vehicle, structure, or hazard.
- b) **In-flight** – No USU Instructor or student shall operate an aircraft in flight so close to another as to create a collision hazard and shall adhere strictly to the general operating and flight rules of FAR part 91.111 and 91.113

### 4. Taxiing Precautions

All pilots shall avoid taxiing over any surface which has debris or litter which may be ingested by the aircraft. All aircraft will avoid blasting any other vehicle, hangar, or people. Lowest power settings necessary for movement will be used. When taxiing into tie down locations, USU aircraft will stop, verbally announce they are clear of any debris, chains, ropes, or chocks- then they can taxi into their final spot. If you cannot taxi through, then you will park 90 degrees to the parking spot and push the aircraft into its tie down location. We do not do 180 degree turns, taxi into hangars, and we avoid blasting any rotorcraft with prop wash.

### 5. Practice Areas

(a) All practice areas are available for the use and benefit of student training. Flights en-route to the practice areas shall maintain the minimum altitude as stated in paragraph 6 and should not conflict with the airport traffic pattern for the current runway in use. Maneuvers conducted in these areas will be at the instructor's discretion. However, during solo flight operations the maneuvers stated in paragraph 12 of this document will not be permitted.

### 6. Flight Altitudes

- All flights will be conducted at a minimum of 700 ft. AGL except for the purposes of takeoff, landings, traffic pattern work, and as necessary to comply with FAA Air Traffic Control.
- Simulated emergency and off airport landings may only be conducted with a USU Flight Instructor on board and must be performed in a manner that allows for full go around and recovery procedures to be completed before 500' AGL
- If a flight will climb above 12,500' MSL for ANY length of time, oxygen is to be brought with you in the aircraft. Flights above 12,500' must also adhere to FAR 91.211



## 7. Inflight Operations

Students are not allowed to listen to music or make telephone calls while flying USU aircraft. At this level it is important that all students be able to hear radios and communication. Also, we discourage the use of telephones in the aircraft unless there is an emergency. Students and CFI's will follow the checklists as they are printed and keep up with the most current version. Review and understand the SOP's for flight, including Carb heat, leaning, power settings, etc.

## 8. Precautionary Landings

In the event of a precautionary landing, the Chief Flight Instructor, Assistant Chief Instructor or Designee must be notified as soon as practical. The pilot in command will be responsible for the aircraft until released to authorized personnel at USU. The aircraft will not be approved for flight until the cause of the precautionary landing has been examined by the Director of Maintenance, an Authorized Mechanic, and/or Chief Flight Instructor, Assistant Chief Instructor, or Designee and has been found to be flight worthy and authorized to return to service.

**Note: PIC must be familiar with the Emergency Response Plan in the event of any precautionary landing.**

## 9. Maintenance and Squawks

Each pilot shall check the Maintenance Reminders prior to each flight. The Hobbs time shall be checked against all maintenance times, and the aircraft will not be flown over any times stated in the maintenance reminders. All maintenance discrepancies shall be recorded in the Discrepancy Log and USU management and Dispatch will be notified of the discrepancy. No flight will be conducted in an aircraft unless maintenance discrepancies have been addressed and the aircraft has been found to be flight worthy and authorized to return to service by the Mechanic, Chief Flight Instructor, Assistant Chief Instructor, or Designee.

## 10. Fuel

- (a) No VFR flights local or X/C will be initiated with less than enough fuel to make your planned flight plus 45 min. reserve at normal cruise speed and mixture setting for airplanes.
- (b) For IFR flight plans, there must be enough fuel on board to fly to the first airport of intended landing, then to the alternate airport, and fly for 45 minutes after that at normal cruise speed and mixture setting.
- (c) Under no circumstances will USU students hot fuel an aircraft, fueling with the engine running, due to the possible risk of fire. Please remember to use common sense while fueling the aircraft.
- (d) Always ground the aircraft to the fueling body. (i.e., fuel tank, fuel truck)



- (e) Smoking is always prohibited on the aircraft ramp and is only allowed in designated areas on the public side of the ramp
- (f) No fueling if lightning is within 5 miles of the aircraft.
- (g) Fuel spills need to be treated with immediate attention. Due to the high flammability of aviation fuel, fuel spills create a large hazard to persons as well as property. The following guidelines will be implemented to help.
  - 1) Wipe all fuel off the aircraft immediately with a rag. Fuel eats paint.
  - 2) If a puddle accumulates under the aircraft do not start it. Move the aircraft in case it backfires which can cause ignition of the fuel.
  - 3) If the spill is larger than six feet in any dimension it needs to be reported to the airport for cleanup.
  - 4) Do not walk through a fuel spill. Static charge on clothing can cause an ignition source.
- (h) Fuel caps must be secured before flight! Forgetting a fuel cap is means for probationary action.

## 11. Ramp Operations Procedures

- (a) All aircraft will be positioned/repositioned with at least two people. Ask for assistance from dispatch if you are going solo.
- (b) The Pilot in Command shall do a final walk-around to assure the aircraft is in good working condition. Verify that the gas caps are tight, there is enough oil, the windscreens are clean, brakes and tires are sufficient, and that chocks and tie downs have been removed and stowed.
- (c) When leaving the aircraft unattended canopies must be closed and chocks deployed.
- (d) Precautions will be taken as to not taxi close to or prop blast any helicopters with their blades turning.
- (e) Taxi speeds shall not exceed 12 knots. The aircraft keys will remain in the dispatch can when not in the ignition.
- (f) Care when moving aircraft to avoid hangar rash is expected at all times. Two people are required to move aircraft. If in doubt stop and look.
- (g) When returning from a flight pilots must contact dispatch on 129.075 to receive parking instructions. The parking options that are given are as follows:



- (I) "Up Front" – park the aircraft in one of the six Tees in front of FL9A. Chocks must be applied.
- (II) "In a Tee" – Park the aircraft in one of the available Tees in front of FL10 or FL11. The aircraft must be chocked and tied down via the wing and tail securement points
- (III) "In the Hangar" – Shut the aircraft down perpendicular to the hangar doors per the aircraft checklist. Then move the aircraft into an outlined spot following paragraphs (a) and (f). Once in position apply chocks.

## 12. Aircraft Performance

Prior to the flight, the student will calculate a weight and balance and determine take-off and landing distances for all airports of intended landing. The weight and balance and performance data will be left with USU dispatch.

## 13. Emergency Procedures

(a) In the event of an emergency, (i.e. aircraft fire), the pilot in command shall follow the Emergency Procedures as outlined in the aircraft's Pilot Operating Handbook. As soon as all occupants have exited the aircraft, or the need arises, contact the appropriate Emergency Services and the Chief Pilot.

**Note: PIC must be familiar with the Emergency Response Plan in the event of any emergency landing.**

### (a) Fire

- In the event of a fire on the ground the PIC must make the decision to abandon the aircraft
- If an aircraft fire develops on the ramp during engine cranking the PIC must continue to crank so that the running engine can extinguish the flames.
- Aircraft and ramp fire extinguishers must be immediately deployed as long as it is done so in a way that does not jeopardize the safety of any persons

## 14. Maneuver Limitations

### (a) Solo Limitations

- 1) No solo power off 180 landings are authorized.
- 2) No solo Touch-and-Go's are approved.
- 3) No airports with only one landing direction will be approved by USU.

### (b) Dual Limitations

- 1) VFR or IFR flights must comply with all parts of FAR part 91
- 2) All flights must additionally comply with any restrictions within this Appendix

## 15. Cross Country Flights

A VFR flight plan must be filed with the students CFI, and flight service for all solo cross-country flights. All day cross-country flights must be planned to terminate 30 minutes prior to sunset.



## **16. Overall Health and Safety**

Please reference the FAR's for instructions on specific medications. Before taking ANY medication please double check its approval by the FAA. USU encourages all pilots to be fully rested, alert and feeling well before getting in the aircraft. Please bring specific concerns to the Chief Flight Instructor/Director of Operations. We want all students to be safe and keep their schedules in line with what the FAA recommend. Including 14 duty days (start of any work, class, or commitment). This allows for 10 hours rest to eat, do laundry, and sleep.

## **17. Electronic Record Keeping**

Utah State University Flight uses ETA/Talon Systems for electronic record keeping. It utilizes a login process which creates a username and a specific pin for every employee and student. This pin is used as an electronic signature or digital signature and is very specific to each user and can only be changed by the individual user or management. This pin will be used for every activity completion from ground to flight, including check-rides. Please do not share your login information or pin with anyone. These pins are only used by the signatory. If ever changed by management, the user is informed immediately and he or she is requested to change their pin. Talon/ETA Systems contains highly confidential information, so it is crucial that login information be kept confidential.

## **18. End of Day Procedures**

USU expects everyone to work as a team. If you are the last flight of the day, please make sure that the aircraft get back in the Hangar, doors locked, lights off, and the premises secured.

## **18. Maintenance Test Flights**

Maintenance test flights are to be performed by the most qualified USU Flight instructor available. Only USU employees, required for the completion of the flight can be on board the aircraft. If there is any question regarding the safe completion of the flight, contact the Chief Flight Instructor, Assistant Chief Instructor, or Designee for assistance.



# OPERATIONS MANUAL

## (Helicopter)

The following safety procedures have been established to protect Utah State University students, instructors, and aircraft. These procedures are based upon and in no instance overrule the Federal Aviation Regulations. Violation of any of these procedures will be considered as grounds for disciplinary action or dismissal. The Chief Flight Instructor, Assistant Chief Instructor, or Designee must approve deviation from any of these rules not federally mandated.

### 1) All Flights

- a) **Dispatch Flight** – All flights must be properly dispatched through USU dispatch and Talon Systems. No USU pilot will be dispatched an aircraft without a completed and current weight and balance form that is signed by a USU instructor who is present at the airport.
  - i) Weight and balance sheets must be filled out including;
    - (1) Local – Weather data including METAR's TAF's for KLGU and KBMC.
    - (2) Cross Country – Weather data including MEATR's and TAF's for the destination airport and all airports along the route of flight. If no METAR or TAF is available for the destination airport then the next closest available will be used.
  - ii) Regardless of departure time, students shall have the aircraft back at the end of their scheduled period unless otherwise previously arranged.
  - iii) USU Dispatch will be in charge of tracking flights during business hours. All flights occurring outside business hours i.e. when dispatch is closed, require notification of the on-call instructor.





**b) Preflight Briefing** – A preflight briefing will be conducted on each training flight.

This briefing will include but not be limited to:

- i) Discussions concerning;
  - (1) Fuel
  - (2) Destinations
  - (3) Weather
  - (4) Weight and Balance
  - (5) Flight time contingency plans
  - (6) Introduction to new maneuvers
  - (7) Use of check lists
  - (8) Maintenance reminders and Discrepancy log
  - (9) Aircraft performance data
  - (10) CFI's and students are also encouraged to discuss three-way exchange of the flight controls and CFI/Student responsibilities in the event of an emergency.

*\*The flight instructor is at all times directly responsible for, and is the final authority as to the operation of the aircraft. Prior to flight, each instructor is responsible for being familiar with the information concerning that flight as well as the aircraft.*

**c) The following items will be in the aircraft for all flights;**

- i) Airworthiness certificate
- ii) Aircraft registration
- iii) Pilot's Operating Handbook (AFM, RFM)
- iv) Weight and Balance specific to aircraft
- v) Headsets for pilots and passengers
- vi) Checklists

**d) CFI/PIC's** are responsible for the condition of the aircraft prior to, during, and after the flight. If a discrepancy is found the CFI/PIC shall alert the Chief Instructor, Assistant Chief Instructor, Designee, Director of Maintenance, and/or Maintenance personnel as soon as possible. Reporting all discrepancies and/or damage is the responsibility of the CFI/PIC. Unless previously reported, when damage is discovered by a CFI/PIC prior to a flight, the previous CFI/PIC will be held responsible for that damage.



- e) **Passenger Briefing** – When a flight is being conducted with passengers or a student who has flown less than three flights the PIC shall at a minimum brief all occupants of the aircraft on the following items;
  - i) Use of seat belts
  - ii) Location of emergency exits and their operation
  - iii) Location of fire extinguisher
  - iv) Briefing of main and tail rotor danger areas when approaching or departing from the aircraft.
  - v) NO Smoking
  
- f) **Emergency Equipment** – Located in each helicopter is a first aid kit. It is the pilot's responsibility to bring emergency equipment such as rain gear or warm clothes as well as a flashlight in the event that the aircraft and passengers are stranded.
  
- g) **Post Flight Procedures** – Upon completion of each flight, the correct Hobbs will be recorded as well as the post flight procedures check list. Flights will be checked in using Talon Systems and an invoice will be created. At the time the student's activity will be completed by the CFI and the student will have an accurate and clear understanding off their performance and completion of their lesson.

## 2) Weather Minimums

Before any flight the PIC of the aircraft must be aware of a synopsis of weather conditions, including but not limited to, METAR's, TAF's, AIRMET's, SIGMET's, Convective SIGMET's and winds along the intended route of flight. All flights will adhere to the regulations found 14 CFR 91.155.

Weather must be forecast to remain at the minimums listed or be improving for at least 2 hours before and after the estimated time of departure and arrival at each airport of intended use.

- a) **Day Instructional Flights** – all instructional flights during the day will be conducted under VFR (visual flight rules). Minimum cloud clearances will be according to the Federal Aviation Regulations established for each specific airspace. Flights in class G airspace will be limited to no less than 2 statute miles visibility and ceilings no less than 800 ft. AGL, (flights in class G with weather minimums less than those stated previously must be approved by the Chief Flight Instructor, Assistant Chief Instructor, or Designee).





- b) Day Solo Flights** – All solo flights will be conducted under VFR (visual flight rules). Minimum cloud clearances will be according to the Federal Aviation Regulations established for each specific airspace.
- i) Patterns** – Flights in the traffic pattern will be conducted with at least 3 statute miles visibility and ceilings no less than 1000 ft. AGL.
  - ii) Practice Areas** – Flights in the practice areas will be conducted with at least 5 statute miles visibility and ceilings no less than 1500 ft. AGL.
  - iii) Solo X/C** – Solo cross-country flights will be conducted with at least 5 statute miles visibility and ceilings no less than 2000 ft. AGL.
- c) Night Instructional Flights** – All instructional flights during the night will be conducted under VFR (visual flight rules). Minimum cloud clearances will be according to the Federal Aviation Regulations established for each airspace. Flights at night in class G airspace will be limited to no less than 3 statute miles visibility and ceilings no less than 1000 ft. AGL.
- i) Dual X/C** – Dual cross-country flights at night will be conducted with at least 5 statute miles visibility and ceilings no less than 2000 ft. AGL.
- d) Night Solo Flights** – All solo flights will be conducted under VFR (visual flight rules). Minimum cloud clearances will be according to the Federal Aviation Regulations established for each specific airspace.
- i) Patterns** – Flights in the traffic pattern will be conducted with at least 3 statute miles visibility and ceilings no less than 1000 ft. AGL.
  - ii) Practice Areas** – Flights in the practice areas will be conducted with at least 5 statute miles visibility and ceilings no less than 1500 ft. AGL.
- e) Wind Limitations** – No training flights will be conducted when the surface winds exceed 25 kts or in the presence of gust spreads exceeding 15 kts.
- i) Discovery Flights** – No discovery flights will be permitted when surface winds exceed 15 kts.
  - ii) Solo Flights** – Each student will observe the surface wind limitations including gust spreads as directed by his/her instructor and signed off in their logbook.
    - (1)** \*Under no circumstances are students permitted to fly solo in surface winds more than 15 kts.
    - (2)** \*\*Under no circumstances are students permitted to fly solo with gust spreads more than 8 kts.



### 3) Collision Avoidance

- a) **Ground** – No USU instructor or student shall operate an aircraft on the ground so close to another as to create a collision hazard and shall adhere strictly to the general operating and flight rules of FAR part 91.111 and 91.113.
- b) **In-Flight** – No USU instructor or student shall operate an aircraft in flight so close to another as to create a collision hazard and shall adhere strictly to the general operating and flight rules of part 91.111 and 91.113.

### 4) Taxiing Precautions

All pilots shall avoid air taxiing or hover taxiing over any surface which has debris or litter which may be ingested into the motor cooling system, main rotor blades, or tail rotor blades. All air taxis shall be done from point A to point B in a straight line. If a turn would be required during the air taxi the pilot shall do a pattern in lieu of an air taxi.

- a) **Solo Taxi Procedures** – Students must have at least 25 hours before being able to solo taxi. The student shall maintain a hover taxi over hard surface taxiway areas. No student pilot will takeoff or land over non-hard surface areas.

### 5) Practice Areas

All practice areas are available for the use and benefit of student training. These practice areas are listed and designated in an appendix of this document. Flights en-route to the practice areas shall maintain a minimum altitude as stated herein and should not conflict with the airport traffic pattern for the current runway in use or instrument approach procedures. Maneuvers conducted in these areas will be at the instructor's discretion. During solo flight operations the maneuvers listed in sec. 13 of this document will not be permitted.

### 6) Flight Altitude Minimums

All flights will be conducted at a minimum of 700ft. AGL except for the purposes of takeoff and landings, traffic pattern work, and as necessary to comply with FAA Air Traffic Control.

### 7) Inflight Operations

Students are not allowed to listen to music or make telephone calls while flying USU aircraft. At this level, it is important that all students be able to hear radios and communication. Also, we discourage the use of telephones in the aircraft unless there is an emergency.



## 8) Precautionary Landings

In the event of a precautionary landing, the Chief flight instructor, Assistant Chief Instructor, or Designee must be notified as soon as practical. The pilot in command will be responsible for the aircraft until released to authorized personnel at USU. The aircraft will not be approved for flight until the cause of the precautionary landing has been examined by the Director of Maintenance, an Authorized Mechanic, Chief Flight Instructor, Assistant Chief Instructor, or Designee and has been found flight worthy and authorized to return to service.

## 9) Maintenance Reminders and Discrepancy Log

Each pilot shall check the Maintenance Reminders prior to each flight. The Hobbs time shall be checked against all maintenance times, and the aircraft will not be flown over any times stated in the maintenance reminders. All maintenance discrepancies shall be recorded in the Discrepancy Log and USU management will be notified of the discrepancy. No flight will be conducted in an aircraft unless maintenance discrepancies have been addressed and the aircraft has been found to be flight worthy and authorized to return to service by the Director of Maintenance, an authorized Mechanic, Chief Flight Instructor, Assistant Chief Instructor, or Designee.

## 10) Fuel

- a) No VFR flights local or X/C will be initiated with less than enough fuel to make your planned flight plus 30 minutes reserve at normal cruise speed.
- b) Under no circumstances will USU students hot fuel an aircraft, due to the possible risk of fire. Please remember to use common sense while fueling the aircraft.
- c) Always ground the aircraft to the fueling body, (i.e., fuel tank, fuel truck or fuel station).
- d) **NO SMOKING WITHIN 50 FEET OF FUELING OPERATIONS**  
Fuel vapors are heavier than air and in the right wind conditions can drift far beyond the aircraft being fueled. Therefore, passengers standing within 50 feet can ignite a fire. All it takes is a source of ignition.
- e) Fuel spills need to be treated with immediate attention. Due to the high flammability of aviation fuel, fuel spills create a large hazard to persons as well as property. The following guidelines will be implemented to help.
  - i) Wipe all fuel off the aircraft with a rag. Fuel eats paint.
  - ii) If a puddle accumulates under the aircraft do not start it. Move it with ground handling wheels, backfire can cause ignition of the fuel.
  - iii) If the spill is larger than six feet in any dimension it needs to be reported to the airport for cleanup.
  - iv) Do not walk through a fuel spill. Static charge on clothing can cause an ignition source.
  - v) Fuel caps must be secured before flight! Forgetting a fuel cap is means for probationary action.



### 11) Ramp Operation Procedures

- a) All helicopters will be positioned as to have enough room for takeoff without encountering any obstructions.
- b) The Pilot in Command shall do a final walk-around to assure the gas caps are tight, ground handling wheels and tie downs have been removed and have been either stowed or placed back into the hangar.
- c) The Pilot in Command shall remain in the aircraft any time the blades are moving, or the anti-collision light is activated. A CFI must remain in the aircraft until the blades have stopped moving with any Private student. USU strongly encourages CFI's to remain in the aircraft with students of all levels while proper cool down procedures are performed.
- d) Under no circumstances will the Pilot in Command allow anyone to walk behind the aircraft or under the tail cone while the engine is running, or the blades are moving.
- e) Precautions will be taken as to not over fly parked or taxiing aircraft.
- f) To secure the aircraft when parked on the ramp the blade tie down shall be in place and the rotor brake engaged. The aircraft keys will remain in the dispatch can when not in the ignition.
- g) **Only an authorized employee of USU is allowed to ground handle any aircraft.**

### 12) Aircraft Performance

Prior to any flight the student will calculate a weight and balance and determine the IGE and OGE hover performance for the proposed flight path or training airport. The weight and balance and performance data will be placed on file with dispatch.

- i) No pinnacle or confined area operation will be conducted without knowledge of the IGE and OGE performance. The landing area must be a minimum of 500 ft below the maximum IGE or OGE performance.
- ii) Each cross country or passenger flight will have its own weight and balance filed with USU Dispatch regardless of student proficiency.

### 13) Emergency Procedures

In the event of an emergency, (i.e. aircraft fire), the pilot in command shall follow the Emergency Procedures as outlined in the aircraft's Pilot Operating Handbook. As soon as all occupants have exited the aircraft, or the need arises, contact the appropriate Emergency Services and the Chief Pilot.

**Note: PIC must be familiar with the Emergency Response Plan in the event of any emergency landing.**



#### 14) Maneuver Limitations

The following maneuvers shall **not** be practiced unless a USU CFI is on board the aircraft;

- a) Autorotation's
- b) Hovering Autorotation's
- c) Settling with Power
- d) Low Rotor RPM recognition and recover
- e) Rapid Decelerations (Quick Stops)
- f) Running Landings
- g) Pinnacle landings and Takeoffs
- h) Confined Area Landings and Takeoffs
- i) Slope Landings and Takeoffs
- j) Off Airport Landings and Takeoffs
- k) Max Performance Takeoffs
- l) Air Taxi
- m) Mountain Flights

#### 15) Cross Country Flights

A VFR flight plan must be filed with dispatch and flight service for all solo cross-country flights. All day cross-country flights must be planned to terminate 30 minutes prior to sunset.

#### 16) Overall Health and Safety

Please reference the FAR's for instructions on specific medications. Before taking ANY medication please double check its approval by the FAA. USU encourages all pilots to be fully rested, alert and feeling well before getting in the seat. Please bring specific concerns to the Chief Flight Instructor. As per the FAR's USU restricts pilots flight time to 8 hours per day and limits duty time to 14 hours. Each pilot is required a minimum of 8 hours of rest between shifts.

#### 17) Restrictions for Practice Autorotation

Practice Autorotation's to the flare and with a power recovery will be practiced as per the following conditions; All autorotation's will be done to a hard surface including glides and forced landings. Surface conditions will be observed and deemed suitable for potential full touchdown autorotation prior to any practice autorotation. If surface conditions are less than ideal all practice autorotation's will be done to a runway.

<b>Maximum Density Altitude</b>	<b>Amount of Wind Necessary</b>
above 7000' Density Altitude	5 knots or greater
above 7500' Density Altitude	10 knots or greater
above 8000' Density Altitude	Restricted

Note: winds must be within 45 degrees of the aircraft's nose for autorotation's done to a flare.





### **18)End of Day Procedures**

USU expects everyone to work as a team. If you are the last flight of the day, please make sure that the aircraft and ground handling wheels get back in the Hangar.

### **19)Maintenance Test Flights**

Maintenance test flights are to be performed by the most qualified company instructor available. Only USU employees, required for the completion of the flight are allowed on board the aircraft. If there is any question regarding the safe completion of the flight, contact the Chief Flight Instructor, Assistant Chief Instructor, or Designee for assistance.

### **20)Overspeed Prevention**

#### **a) Autorotation's**

Instructors shall remain on controls during all practice autorotation's.

No autorotation shall continue below 200 feet unless the following conditions are met.

##### **i) Straight in Autorotation**

Airspeed stable between 60-70kts,

RPMs stable between 98-102%

Descent rate no greater than 1700fpm

##### **ii) 180 Autorotation**

Airspeed stable between 60-70kts

RPMs stable between 98-102%

Descent rate no greater than 1700fpm

Turn completed

No full-down autorotation's above 7000 ft D.A.

No autorotation to a power recovery above 8000 ft D.A.

#### **b) Pick Ups**

To prevent over speeds on pick up a verbal light and gauge check shall be done before every pick up.

#### **c) Gov. Off**

To prevent over speeds in gov. off operations all instructors shall assure that engine RPMs never exceed 104%.

#### **d) Start Up**

To prevent over speeds on start up the throttle shall be rolled into the over travel spring by the instructor and a verbal check "throttle closed" shall be made prior to engine start.



## 21) ELECTRONIC RECORD KEEPING

Utah State University Flight uses ETA/Talon Systems for electronic record keeping. It utilizes a login process which creates a username and a specific pin for every employee and student. This pin is used as an electronic signature or digital signature and is very specific to each user and can only be changed by the individual user or management. This pin will be used for every activity completion from ground to flight, including check-rides. Please do not share your login information or pin with anyone. These pins are only used by the signatory. If ever changed by management, the user is informed immediately and he or she is requested to change their pin. Talon/ETA Systems contains highly confidential information, so it is crucial that login information be kept confidential





# Appendix G

## Approved Airports





Utah Airports Approved		Code	Stipulation	Elevation
Bountiful Skypark Airport	BTF	No Restrictions	4,234'	
Brigham City Airport	BMC	No Restrictions	4,230'	
Cedar City Regional Airport	CDC	No Restrictions	5,622'	
Delta Muni Airport	DTA	No Restrictions	4,759'	
Logan-Cache Airport	LGU	No Restrictions	4,457'	
Moab Canyonlands Airport	CNY	No Restrictions	4,590'	
Ogden Airport	OGD	No Restrictions	4,473'	
Provo Muni Airport	PVU	No Restrictions	4,497'	
Salt Lake City International Airport	SLC	No Restrictions	4,230'	
South Valley Regional Airport	U42	No Restrictions	4,606'	
Spanish Fork Springville Airport/Woodhouse Field	SPK	No Restrictions	4,529'	
St George Muni Airport	SGU	No Restrictions	2,884'	
Utah Airports with Restrictions				
Heber City Muni/Russ McDonald Field	HCR	Student pays landing Fee	5,637'	
Vernal Airport	VEL	Only with an Instructor	5,280'	
Price -Carbon County	PUC	Night flights with Instructor only	5958	
Idaho Airports Approved		Code	Stipulation	Elevation
American Falls Airport	U01	No Restrictions	4,419'	
Bear Lake County Airport	1U7	No Restrictions	5,933'	
Boise Air Terminal (Gowen Field)	BOI	No Restrictions	2,871'	
Caldwell Industrial Airport	EUL	No Restrictions	2,432'	
Driggs-Reed Memorial Airport	DIJ	No Restrictions	6,231'	
Idaho Falls Regional Airport	IDA	No Restrictions	4,744'	
Jerome County Airport	JER	No Restrictions	4,053'	
Nampa Muni Airport	MAN	No Restrictions	2,537'	
Pocatello Regional Airport	PIH	No Restrictions	4,452'	
Preston Airport	U10	No Restrictions	4,728'	
Twin Falls/Joslin Magic Valley Reg	TWF	No Restrictions	4,154'	
Idaho Airports with Restrictions				
McCall	MYL	Only with an Instructor	5,024'	
Sun Valley - Friedman Memorial	SUN	Only with an Instructor/No night flights	5320	



Montana Airports Approved		Code	Stipulation	Elevation
Bert Mooney (Butte)	BTM		No Restrictions	5,550'
Billings International	BIL		No Restrictions	3,662'
Bozeman Yellowstone	BZN		No Restrictions	4,473'
Helena Regional	HLN		No Restrictions	3,877'
West Yellowstone	WYS		<b>When open no restrictions</b>	6,649'
Montana Airports with Restrictions				
Dillon	DLN		Night flights with Instructor only	5,245'
Wyoming Airports Approved		Code	Stipulation	Elevation
Casper County International	CPR		No Restrictions	5,344'
Wyoming Airports with Restrictions				
Afton Muni Airport	AFO		Only With an Instructor	6,221'
Evanston - Unita Co Burns Field	EVW		Day VFR Only, No Winter Flights	7,143'
Fort Bridger Airport	FBR		Day VFR Only, No Winter Flights	7,038'
Jackson Hole Airport	JAC		Only With an Instructor, VFR Only, No Reported or forecast ceiling	6,451'
Kemmer Muni Airport	EMM		Day VFR Only, No Winter Flights	7,289'
Laramie Regional	LAR		Only with an Instructor	7,284'
Rawlins - Harvey	RWL		Only with an Instructor	6,817'
Riverton Regional	RIW		Only with an Instructor	5,516'
Rock Springs Sweetwater Co	RKS		Only with an Instructor	6,765'
Sheridan County	SHR		Only with an instructor	4,021'
Yellowstone Regional/Cody	COD		Only with an Instructor	5,102'
Nevada Airports with Restrictions				
Elko	EKO		Only with an Instructor	5,140'
Eureka	05U		Only with an Instructor - No night flights	5,958'
Jackpot/Hayden	06U		No Night Flights	5,224'
Wendover	ENV		Only with an instructor	4,237'
Colorado Airports Approved		Code	Stipulation	Elevation
Grand Junction Regional	GJT		No Restrictions	4,858'
Oregon Airports Approved		Code	Stipulation	Elevation
Ontario	ONO		No Restrictions	2193
Arizona Airports Approved		Code	Stipulation	Elevation
Page	PGA			4,316'



# Appendix H

## Practice Areas

