

Flying Training

# Remotely Piloted Aircraft Pilot Flight Screening

October 2010

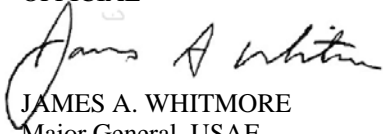


Air Education and Training Command

October 2010

This syllabus outlines the training required to achieve the proficiency specified in the course training standards. It prescribes the course content, instructions to conduct the training, and the approximate time required to successfully complete all requirements. Any training not specifically authorized in this syllabus or other AETC directives is prohibited without prior approval of this headquarters. Forward suggestions to HQ AETC/A3FP, 1 F STREET STE 2, RANDOLPH AFB TX 78150-4325. The next planned revision is October 2012.

OFFICIAL



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**Summary of Changes**

- This is a new syllabus and must be thoroughly reviewed.

# Chapter 1

## Course Description

1. **Title** — Remotely Piloted Aircraft Pilot Flight Screening.
2. **Identifier** — U-P2A-A
3. **Objective** — Screen, motivate, and prepare pilot candidates for entry into undergraduate RPA training (URT). This screening includes:
  - a. Flying training to teach the principles, procedures and techniques used in basic flying operations.
  - b. Ground training to supplement and reinforce flying training.
  - c. Orientation to military flight training.
  - d. Screening of pilot candidates who do not have the mental and/or physical aptitude for rated duties.
4. **Location** — Pueblo, Colorado.
5. **Duration** — 35 training days.
6. **Entry Prerequisites** — Selected as a candidate for Remotely Piloted Aircraft (RPA) training and medically qualified [Medical Flight Screening, Federal Aviation Administration (FAA) Class III Medical Certificate, and a USAF Flying Class IIU Medical Examination, IAW AFI 48-123, *Medical Examinations and Standards*].
7. **Status Upon Graduation** — Commissioned officer graduates of this course are qualified to enter undergraduate RPA training.
8. **Flying Training** — The times specified are actual mission times and do not include time for briefing or debriefing.

|              | <i>Sorties</i> | <i>Approximate Hours</i> |
|--------------|----------------|--------------------------|
| Dual Flying  | 21             | 29.3                     |
| Solo Flying  | 6              | 10.0                     |
| <i>Total</i> | 27             | 39.3                     |

| <b>9. Course Summary</b>  | <i>Hours</i> |
|---------------------------|--------------|
| a. Indoctrination         | 5.0          |
| b. Academic Training      | 22.0         |
| c. Officer Development    | 22.0         |
| d. Ground Training        | 14.0         |
| e. Aircraft               | 39.3         |
| <i>Total Course Hours</i> | 102.3        |

## Chapter 2

### Course Administration

#### Section A — Syllabus Management

##### 1. Syllabus Interpretation

This syllabus is directive and must be followed as written. If no clear syllabus guidance exists, resolve the situation using the appropriate chain of command. If the logical course of action appears to conflict with other directives, contact the OPR, HQ AETC/A3FP, DSN 487-9642 or 9652.

##### 2. Syllabus Waiver

An approved syllabus waiver is required for any *planned* exception to the syllabus caused by special or unusual circumstances. Do not accomplish or omit any training requested in a waiver until notification of approval. Maintain a permanent record of all approved waivers in the students' training folders. Permanent or blanket waivers are not authorized, but should be suggested as syllabus changes. Submit syllabus and entry prerequisite waiver requests electronically or in writing, on AETC Form 6, Waiver Request, through 19 AF/DOU to 19 AF/DO. 19 AF provides AETC/A3FP a copy of all waiver requests with the approval/denial outcomes annotated.

##### 3. Syllabus Deviation

A syllabus deviation is any *unplanned* variation from syllabus requirements such as prerequisite flow, turn times, landing currency, or maneuver item file (MIF) requirements. Document *all* syllabus deviations in the student's training folder. All syllabus-directed training must be accomplished unless a waiver request or proficiency advancement is approved. If unforeseen circumstances result in an omission of required training, the 306 FTG/CC (or designated representative) determines if the omitted training can be accomplished later in the syllabus flow without adversely affecting the quality of student training. Document 306 FTG/CC (or designated representative)-directed corrective actions and the accomplishment of the omitted training in the student's training folder.

#### Section B — Training Management

##### 1. Military Flight Commander Responsibilities

a. Monitor student training / screening. Coordinate with and assist the contractor-appointed civilian flight commander who is responsible for the day-to-day and normal training / screening of each student under their supervision. The contractor-appointed civilian flight commander ensures the military flight commander is aware of each student's progress and status to include the decision to proficiency advance a student, double-turn a student before **R203**, make a sortie incomplete, or give a student an additional training sortie.

b. Assist students and flight instructors with the training review process and provide for discipline, physical and mental well-being, and general welfare of students. Flight commanders must be aware of each student's progress in all areas, including the potential effect of external factors (personal problems, etc.). Flight commanders accomplish the following:

(1) Perform Student Counseling — Counsel students as necessary on military matters, including personal problems and disciplinary matters. Refer students to appropriate support agencies (Chaplain, Legal Office, etc.) for further assistance, if necessary. If training / screening is affected, ensure the contractor-appointed civilian flight commander is aware of the situation and any actions taken.

(2) Oversee the contractor's maintenance of student training folders IAW AETCI 36-2205.

**Note: Maintain sensitive personal information in a secure location.**

(3) Ensure proper management of:

(a) Military training, including student processing.

(b) Physical Training (PT) program, IAW AETCI 36-2205.

(4) Assist in syllabus-directed functions.

## 2. Requirements and Restrictions

- a. *Training Practices*—The student’s civilian flight commander and assigned instructor ensure overall maneuver continuity and currency throughout each unit. No more than three different instructors and one supervisor fly with a student prior to R306.
- b. *Average Hours / Events*—Students complete the course objectives with an average of 39.3 flying hours. Some students may require additional time because of AT sorties, unsatisfactory sorties at the end of a unit, and progress / elimination checks. Above average students (or students with prior flying experience) may require less flying time per unit to prepare for the final check. Individual sorties may be shortened if unit objectives are met.
- c. *Maneuver Continuity*—As a guide, each optioned MIF item should be accomplished a minimum of every third sortie. In the R6XX and R8XX units, accomplish each required maneuver at least twice during the unit. Give priority to “+” items followed by optioned but not “+” items. The contractor develops policies, practices, and review procedures to ensure students have proper maneuver currency and recency of experience and specifically evaluate these areas before authorizing solo missions. This does not apply to maneuvers specifically cited in unit training objectives to be accomplished once
- d. *Maximum Daily Student Flying Activities*—Students do not normally exceed one sortie per day through R203 except to complete an incomplete sortie. Beginning with R301, students do not exceed two sorties per day (consider R501 and R502 as one activity). The contractor’s chief pilot (or designated representative) may approve a student to exceed one sortie per day prior to R203 based on the student’s prior flying experience and ability. Document any deviations in the student’s training folder.
- e. *Minimum Total Hours*—No student may complete this program with less than 36.0 flying hours. **Exception:** Previously FAA certificated pilots may complete the program if they fly more than 30.0 hours and successfully complete **R1090**. Coordinate these exceptions with HQ AETC/A3FR, at DSN 487-9642 or 7306, commercial (210) 652-9642 or 7306 and document the approval in the student’s training folder.
- f. *Minimum Hours*—Students normally accomplish 11.4 hours of cross country, 3.0 hours of dual night, 3 hours of simulated or actual instrument, 10.0 hours of solo by the end of R805. Deviations from these minimums are documented in the student’s training folder. If a student doesn’t have at least 9.0 hours of solo time after the last solo flight, the flight commander normally authorizes a RX87 sortie prior to **R1090** to ensure achieving a minimum of 9.0 hours of total solo time.
- g. *Landing Currency*—Landing currency expires if a student has not accomplished a safe landing on a dual sortie within the preceding 7 calendar days. After R501, void a student’s landing currency in GTIMS on any sortie (dual or solo) if an approach or landing on the sortie is graded U. To regain landing currency after it is voided or expired, a student must demonstrate at least three safe landings on a dual sortie. See paragraph 12e for guidance on using AT sorties to regain landing currency.
- h. *Extracurricular Flying/Aviation activities*—RPA students are prohibited from participating as a student in any other flying training activity (soaring, jump, etc) while enrolled in this syllabus.
- i. *Sortie Lengths*—Sorties and approximate flying hours are listed below. Adhere to the approximate time per lesson (see Flying Training Summary in Chapter 4) as closely as possible for the average student.

| <i>Unit</i>                | <i>Dual Time</i> | <i>Solo Time</i> | <i>Total Time</i> |
|----------------------------|------------------|------------------|-------------------|
| R101                       | 1.2              | 0.0              | 1.2               |
| R201 – 03                  | 4.2              | 0.0              | 4.2               |
| R301 – 06                  | 8.4              | 0.0              | 8.4               |
| <b>R490</b>                | 1.4              | 0.0              | 1.4               |
| R501                       | 0.9              | 0.0              | 0.9               |
| R502 (Solo)                | 0.0              | 0.5              | 0.5               |
| R601 – 05                  | 4.2              | 2.8              | 7.0               |
| R701 – 02                  | 3.0              | 0.0              | 3.0               |
| R801 – 805                 | 3.0              | 6.7              | 9.7               |
| R901                       | 1.5              | 0.0              | 1.5               |
| <b>R1090 (Final Check)</b> | 1.5              | 0.0              | 1.5               |
| <i>Total</i>               | 29.3             | 10.0             | 39.3              |

### 3. Additional Training (AT) Sorties

AT sorties provide extra training to students in specific circumstances. Fly AT sorties in the current unit or the most recently completed unit and code for that unit. These sorties do not satisfy any maneuver requirements in any unit, but may be used to update or void landing currency. AT sorties are normally graded No Grade (NG), but may be graded Unsatisfactory (U) for safety of flight, flight discipline, or airsickness reasons (IAW AETCI 36-2205). (*Note:* Following an AT sortie graded unsatisfactory, the student returns to the normal syllabus flow.) An AT sortie graded U does not count toward triggering a progress check (PC) or elimination check (EC), nor does an AT sortie graded NG break a string of unsatisfactory syllabus sorties. Do not document AT sorties as incomplete except when objectives are not met because of unusual circumstances. Procedures for allocating AT sorties are contained in AETCI 36-2205.

- a. *Break-in-Training Events* — The contractor's chief pilot (or designated representative) may authorize these sorties for extended delays in training. As a guide, if a student has not flown for a minimum of 5 calendar days, the contractor's chief pilot (or designated representative) may authorize one RX86 sortie for this type break-in-training. The contractor's chief pilot (or designated representative) may use this authority only when remaining syllabus sorties are insufficient to compensate for the student's break-in-training. Document as RX86 sorties in the student's training folder. Additional AT sorties for the same break-in-training require the contractor's chief pilot's approval and are annotated on AF Form 4293.
- b. *Total Syllabus Time* — AT sorties flown to meet minimum syllabus time are normally full mission profiles. Sorties flown to meet total time are dual. The contractor's chief pilot (or designated representative) may authorize these sorties when it becomes apparent they are needed. Students must meet end of unit MIF requirements for the most recently completed unit in which the AT was given. Code these sorties as RX87.
- c. *Outside the PC/EC process (before RX88 or RX89 trigger)* — The contractor's chief pilot may authorize each student up to two AT sorties before a PC or EC. These sorties are not automatically given to every student, but are reserved for cases when the contractor's chief pilot feels some training irregularity or anomaly occurred and the student has demonstrated the potential to complete URT.
- d. *During the PC/EC process (after RX88 or RX89 trigger)* — The squadron commander may authorize each student up to two AT sorties during the PC or EC process. These sorties are not automatically given to every student, but are reserved for cases when the squadron commander feels some training irregularity or anomaly occurred and the student has demonstrated the potential to complete URT.
- e. *Reinstatement by Commander's Review* — Reference AETCI 36-2205, *Formal Aircrew Training Administration and Management*. Code sorties as a result of reinstatement as RX87.

### 4. Airsickness

- a. Instructors ensure both the civilian and military flight commanders are aware of any students having airsickness problems. Refer students who experience airsickness to a flight surgeon / aero medical examiner / medical technician for examination, counseling, and appropriate treatment. Instructors document airsickness episodes in the student's training folder.
- b. Students who become airsick during any of the last four sorties (includes R501) preceding the initial solo must receive the contractor's chief pilot's approval before flying the initial solo.
- c. Post-solo airsickness results in an overall grade of Unsatisfactory.

### 5. Manifestation of Apprehension (MOA)

Although some slight anxiety or nervousness is common among students learning to fly, real fear of flying can interfere with judgment, decision making, and physical ability to control the aircraft. MOA may include passive or active airsickness, insomnia, loss of appetite, anxiety and tension related to the flying environment. When a student exhibits or admits to MOA symptoms that impair performance, document the symptoms in the student's training folder and refer the student to the flight surgeon, aeromedical examiner, or medical technician for evaluation. Following the medical evaluation and a review of the student's training record, document the medical assessment and the student's potential to complete IFS in the student's training folder. If appropriate, and with the concurrence of the Chief Pilot, the Sq/CC justifies a recommendation for medical elimination in the student's training folder

### 6. Flying Safety

Emphasize aircraft mishap prevention training by recognizing, controlling, and correcting deficiencies in the student's judgment and skill. Stress flying safety throughout the course. Present safety briefings once per week (minimum) to promote group discussions of the briefing topics and improve student attitudes associated with aircraft mishap prevention.

## 7. Emergency Procedures (EP) Training

- a. Conduct EP training on all dual aircraft sorties to build the student's confidence in the aircraft. Conduct EP training during the mission briefing or debriefing for all flights, emphasizing proper application of procedures and realistic use of available publications. Attempt to correct procedural deficiencies by providing additional instruction and study assignments based on individual student needs.
- b. Thoroughly brief simulated aircraft emergencies prior to flight.
- c. Administer EP / aircraft operations limits examinations weekly (minimum). Civilian flight commanders may modify this requirement as necessary to meet training needs.

## 8. Student Standardization Program

Discuss standardization topics once per week (minimum) for each flying period as part of the mass briefing. Emphasize situational emergency procedures. Include overhead questioning and group discussion of topics appropriate to the student's stage of training.

## 9. Briefing Requirements

Briefings set the tone of the mission. Thoroughly brief all mission aspects, clearly establishing mission objectives. Accomplish a post-mission briefing to measure the success of meeting the mission objectives.

## 10. Maneuver Demonstrations

Instructors demonstrate maneuvers prior to the student practicing them. Only maneuvers optioned by the MIF may be demonstrated or practiced.

## 11. Unsatisfactory Performance

- a. *Commander's Awareness Program (CAP)* — Refer to AETCI 36-2205 for guidance.
- b. *Unsatisfactory Sortie Restrictions* — Following a sortie graded "Unable / Unsatisfactory" (U) overall, students progress to subsequent lessons in the same unit or repeat the last lesson of the unit, e.g., R306, until MIF standards are met or a progress check is required. Following a solo sortie graded U, students progress to the next lesson. If a solo sortie flown as the final sortie of any unit is graded "U" the unit is complete. Tailor subsequent sorties to address deficient area(s). R306, R401, R604, R702, R805, R901, and **R1090** sorties graded "U" solely because of the postflight ground evaluation are cleared by another ground evaluation.
- c. *Unsatisfactory Ground Evaluations* — Post-solo students who demonstrate an unsatisfactory level of knowledge during standardization, emergency procedures briefings, or written examinations may not perform syllabus-required sorties until demonstrating satisfactory performance in the applicable areas. As a minimum, this restriction includes one flying period devoted to directed study and reevaluation unless an intervening nonflying day occurs. The nonflying day may be used for directed study provided the students are notified. The contractor's chief pilot (or designated representative) may waive the one period grounding requirement. Document grounding and reduction of grounding period, if applicable, in the student's training folder.
- d. *Unsatisfactory Academic Examination* — The minimum passing score on the academic examination (A110), pre-solo examination (A111S), and RPA Final Examination (**A1090**) is 85 percent. Students who fail an academic examination receive extra instruction, emphasizing the student's weak area(s). Administer a written retake not earlier than one training day after the failed examination to allow the student the opportunity for additional self-study. Students who fail an academic examination may not continue further training until the failed examination is passed. Students who fail an academic examination a second time are entered in the commander's review process.
- e. *Maximum Pre-Solo Hours* — The civilian flight commander should direct a progress check for students who have not soloed after 18 hours of dual aircraft instruction, if the reason is poor performance / limited potential to complete URT. If a student's last sortie was R306, a progress check must meet all the requirements listed in R306. Successful completion of the progress check is clearance to resume normal syllabus flow. If the student's last sortie was prior to R306, the student proceeds with normal syllabus flow after a successful progress check. Do not include hours for any type of incomplete lesson or 86 sortie when determining maximum pre-solo hours. However, all R87/**88/89** aircraft sortie time is counted when determining maximum pre-solo hours.
- f. *Progress Check (PC)* — Figure 2-1 shows a list of PC triggers. When assigning an overall grade, the PC pilot should consider the student's ability to complete the course within syllabus constraints as well as overall proficiency and situational awareness. The overall grade is "No Grade" (NG) or U. Document a PC as **RX88** and include in the student's training folder. For progress checks successfully completed and flown as a result of the student not soloing, the PC pilot certifies the student is safe for solo and ensures the student is scheduled solo on the next syllabus sortie.

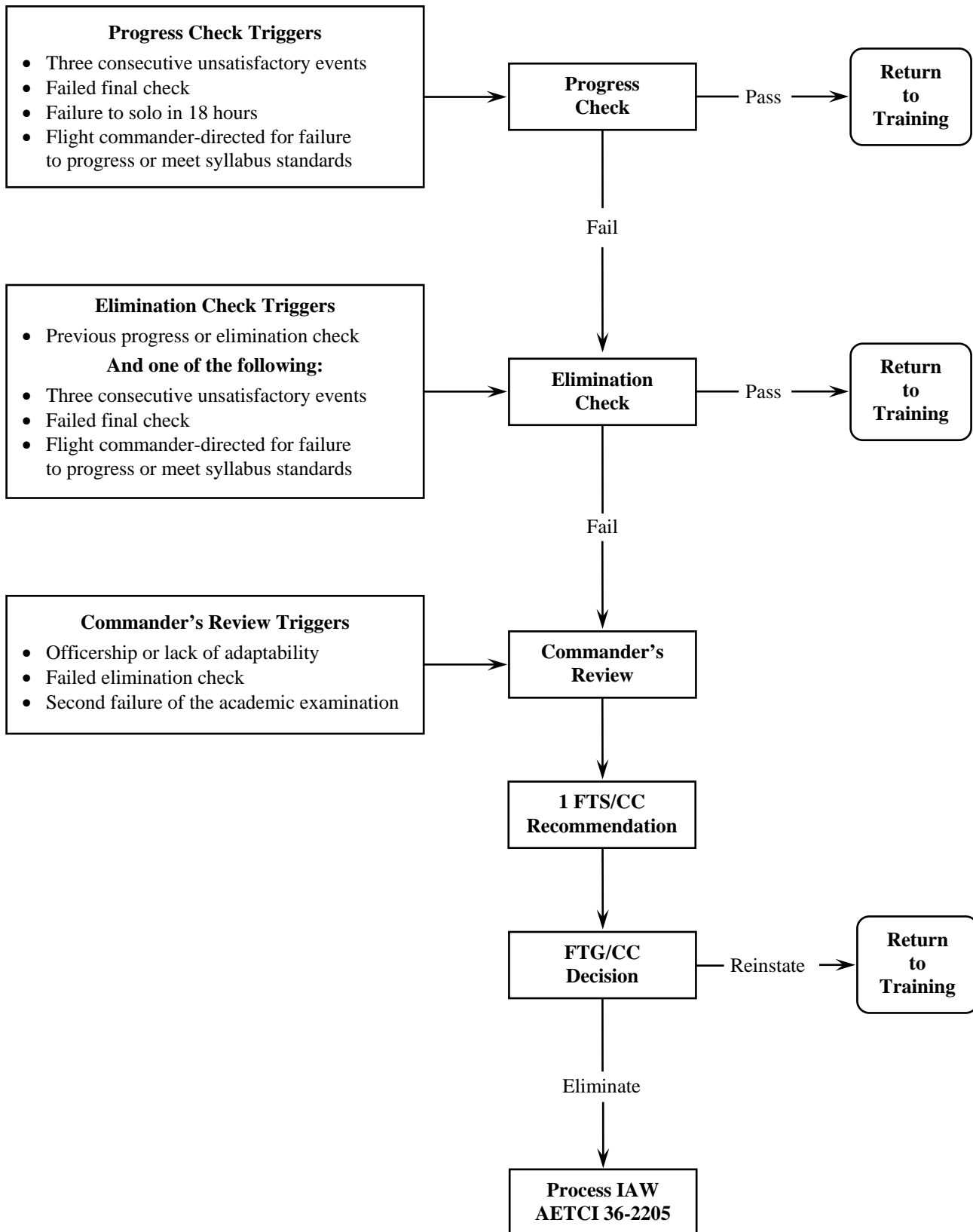


Figure 2-1 — Commander's Review Process

g. *Elimination Check (EC)* — Figure 2-1 shows a list of EC triggers. When assigning an overall grade, the EC pilot should consider the student’s ability to complete the course within syllabus constraints as well as overall proficiency and situational awareness. The overall grade is NG or U. Document an EC as **RX89** and include in the student’s training folder. For elimination checks successfully completed and flown as a result of the student not soloing, the EC pilot certifies the student safe for solo and ensures the student is scheduled solo on the next syllabus sortie. A student who fails an EC is entered in the commander’s review process according to AETCI 36-2205.

h. *Final Check, Progress Check, and Elimination Check Procedures*

(1) The following table identifies check pilots and the types of checks they are authorized to administer. Designated individuals complete a checkout program and are certified by the squadron commander. Only highly qualified QAEs and CFIs may be certified as PC pilots.

(2) The objective of the final check is to ascertain a student’s ability to adapt to military flying and complete URT.

| <i>Authorized Check Pilots</i> | <i>Final Check</i> | <i>Progress Check</i> | <i>Elimination Check</i> |
|--------------------------------|--------------------|-----------------------|--------------------------|
| SQ/CC or DO                    | <b>X</b>           | <b>X</b>              | <b>X</b>                 |
| Designated Military IPs        | <b>X</b>           | <b>X</b>              | <b>X</b>                 |
| Contractor’s Chief Pilot       | <b>X</b>           | <b>X</b>              | <b>X</b>                 |
| Designated CFIs                | <b>X</b>           | <b>X</b>              |                          |

i. *Passing a PC/EC* — Passing a PC/EC fulfills the requirements of the sortie that caused it to be flown and may be used to complete a unit if appropriate. If the next sortie is a check, all sortie objectives are satisfied on the PC/EC, and the student demonstrated the abilities and potential to successfully complete URT, the PC/EC substitutes for the check.

**12. Solo Requirements and Restrictions**

a. Prior to flying R501 each student must pass the pre-solo written examination (A111S), demonstrating adequate knowledge of

- (1) Federal Aviation Regulations (Title 14 Code of Federal Regulations, Parts 61 and 91)
- (2) Airspace rules and procedures for the airport where the solo flight is flown.
- (3) Flight characteristics and operational limitations for the make and model of aircraft to be flown.

b. At the conclusion of the examination, review all incorrect answers before conducting the flight.

c. Accomplish both sorties of R5XX on the same day. Fly R587, including the minimum requirements of R501, if conditions change significantly between R501 and R502 or there is more than a one day break between R501 and R502. Where possible, use the same aircraft for the solo flight (R502) as was used on the dual sortie (R501).

d. Failure to accomplish three solo landings on R502 because of circumstances beyond the student’s control does not require the sortie to be incomplete.

e. If a student loses landing currency and is scheduled for a solo sortie, the student must first fly a dual AT sortie and accomplish a minimum of three safe landings. Document the sortie in the student’s training folder as an RX87.

f. Students must not perform any maneuver while solo in the aircraft unless approved by the flight instructor and an instructor briefs the student prior to the flight. IPs having continuity with the student should accomplish and document the briefing on the grade sheet. Each briefing must cover all mission objectives to be accomplished and any other items appropriate to the mission.

**13. Minimum Scheduled Student Turn-Times**

Aircraft to Aircraft — 3+00  
 (Does not apply to R501/502 or planned out-and-back sorties)  
 Aircraft to Classroom — 2+30

#### 14. Commander's Review (CR) Process

Figure 2-1 depicts the triggers and decision-making flow for progress checks, elimination checks, and commander's reviews. Students reinstated into training after a CR because of a flying deficiency must fly an elimination check following completion of the additional training sorties authorized in the reinstatement write-up.

#### 15. Cockpit / Crew Resource Management (CRM)

Integrate CRM skills into flight briefings and debriefings, using the provisions of AFI 11-290, *Cockpit / Crew Resource Management Training Programs* and the AETC Supplement as guidelines. Grade sheets contain the following CRM items IAW AETC Sup 1 to AFI 11-290:

- a. Mission Planning / Briefing / Debriefing
- b. Communication
- c. Risk Management / Decision-Making
- d. Situational Awareness
- e. Task Management

### Section C — Grading Procedures

#### 1. Maneuver Grading

There are two methods of grading student performance: an absolute grading scale for rating individual maneuver items and a relative grading scale for assessing overall sortie performance.

#### 2. Absolute Grading Scale

Instructors judge the student's performance of maneuvers against the course training standards (CTSs) in this syllabus. Grade maneuvers on the student's characteristic performance. This grade does not consider the student's type and amount of training.

| <i>Proficiency Grades</i> | <i>MIF Level</i> | <i>Description</i>  |
|---------------------------|------------------|---|
| <b>No Grade (NG)</b>      | <b>1</b>         | The instructor pilot demonstrates a maneuver the student does not practice, or a solo student flies a maneuver the instructor does not observe.                                       |
| <b>Unsatisfactory (U)</b> | <b>2</b>         | The student is unsafe, unable, or lacks sufficient knowledge, skill or ability to perform the operation, maneuver, or task.   |
| <b>Fair (F)</b>           | <b>3</b>         | The student performs the operation, maneuver, or task safely, but has limited proficiency. Deviations occur that detract from performance and/or require instructor verbal prompting. |
| <b>Good (G)</b>           | <b>4</b>         | The student performs the operation, maneuver, or task satisfactorily. Deviations occur that are recognized and corrected in a timely manner without any instructor verbal prompting.  |
| <b>Excellent (E)</b>      | <b>5</b>         | The student performs the operation, maneuver, or task correctly, efficiently, and skillfully. Minor deviations occur that do not detract from the overall performance.                |

#### 3. Relative Grading Scale

The instructor uses the relative grading criteria to assess overall sortie performance with grades of Excellent (E), Good (G), Fair (F) or Unable / Unsatisfactory (U). Students are expected to progress as they advance in training. Students may receive grades of F or U on individual maneuvers new to them, but still receive a grade of E for overall sortie performance. A student's continued lack of progress should be reflected in an overall sortie performance grade of F or U, even if only a U is required for the maneuver proficiencies. The instructor grades the student with an overall grade of U if any maneuver is graded U when an F or G proficiency level is required.

#### 4. Regression rules

- a. Regression is defined as the student failing to maintain a proficiency level previously required by the syllabus and achieved by the student. Regression from a G to an F is acceptable within the constraints below. Any maneuver grade of U once an F or a G is required for that maneuver is not acceptable and the overall grade is U.

- b. Regression may occur from a G to an F (where G was previously required) on a maximum of three maneuvers. If regression occurs on more than three maneuvers, the overall grade is U. If regression occurs on any specific maneuver on two consecutive sorties, the overall grade is U. Regression is not allowed on end-of-unit sorties.

#### 5. Maneuver Item File (MIF)

Maneuvers followed by a plus (+) must be accomplished in the specified unit. Students do not fly maneuvers without a number. An IP may accomplish a non-numbered maneuver if required (proficiency, unexpected weather, etc.) Maneuvers with a number but without a plus (+) may be accomplished, but students must meet MIF standards by the end of the unit.

#### 6. Solo Flight Grading Procedures

Grade solo sorties NG or U overall, with grades of NG or U on individual maneuvers flown. If a maneuver is graded U, the overall grade is U, and do not re-fly the sortie.

#### 7. Incomplete Sorties

The contractor's chief pilot (or designated representative) in consultation with the instructor of record determines when a sortie is incomplete and grade it NG. If a maneuver is graded U when an F or G proficiency level is required, the sortie is complete and the overall grade is U. Document all incomplete lessons or maneuvers deferred to the next lesson in the student's training folder.

### Section D — Course Training Standards (CTS)

#### 1. Purpose

These standards outline the tasks and proficiency required of graduates of this syllabus. This program prepares students to enter URT with a high probability of completing the training.

#### 2. Duties and Responsibilities

The student accomplishes the following:

- a. Plan the mission.
- b. Ensure the aircraft is preflighted, inspected, loaded, and equipped to perform the assigned mission.
- c. Operate the aircraft to perform the mission using sound judgment and situational awareness.

#### 3. General Proficiency Standards

- a. Accomplish training standards in conjunction with clearing visually outside the aircraft.
- b. Aircraft control must be smooth and positive. Flight control and throttle inputs that are characteristically imprecise and erratic can warrant an unsatisfactory grade even if numerical standards are met. Slight deviations in establishing or maintaining the proper or desired aircraft attitude or position may occur during the maneuver being performed.
- c. Momentary deviations beyond flight value tolerances are acceptable if corrections are timely and flight safety is not compromised. The effects of weather (turbulence, for example) are considered when determining grades.
- d. Procedural knowledge and application must be in accordance with applicable directives and allow the mission to be accomplished efficiently. If individual tasks require pre-mission planning, the standards from **Mission Planning / Briefing / Debriefing** apply.
- e. Standards equate directly to the grade scale of Good (any deviations from the standards are recognized and corrected in a timely manner.) Tasks trained to the grading level of Fair reflect a "safe proficiency level" (deviations from the standards detract from the student's performance.) (Section C, paragraph 2, *Absolute Grading Scale*), Special performance tasks requiring introduction or ground training are specified under the job task *Performance* description.
- f. Where no specific standard is stated, these general standards and those of **Basic Aircraft Control** apply.

#### 4. Employment

- a. Conduct training in visual meteorological conditions.
- b. The MIF regulates student progression to meet required standards prior to course completion. Evaluate performance using the Course Training Standards.

## 5. Tasks

The following table specifies the standards of performance required to achieve a Good level.

| <i>Performance</i>  | <i>Conditions</i>   | <i>Standards</i>   |
|---|---|--|
| <b>1. Mission Planning / Briefing / Debriefing</b>  |   |  |
| a. Perform appropriate mission planning to include computing takeoff and landing data: plan mission profile and alternate course of action where appropriate.   | a. Appropriate forms and aeronautical charts, and local area map.<br>b. Access (in person, internet, or telephone link) to FAA or military weather briefing facility.<br>c. FAR, AIM, NOTAMs, local instructions, syllabus, flight manual, and checklist. | a. Plan mission in a timely manner to meet maneuver requirements, correctly complete all applicable forms, and comply with all directives.   |
| <b>2. Ground Operations</b>   |   |  |
| a. Perform preflight inspection of aircraft including maintenance documentation and perform appropriate checklists.   | a. Checklist and inflight guide.<br>b. Aircraft ready for inspection.<br>c. Fire extinguisher available.<br>d. Aircraft engine limitations memorized.<br>e. Appropriate aircraft forms  | a. Correctly complete all checks and procedures in accordance with flight manual.<br>b. Determine aircraft status and accept or reject the aircraft.   |
| b. Taxi to takeoff position and, after landing, to parking area. Complete appropriate checklists.   | a. Designated taxi route.<br>b. Checklist and inflight guide.   | a. Follow prescribed taxi routes while maintaining safe speeds<br>b. Visually clear for traffic and avoid obstacles during taxi<br>c. Maintain proper control deflection for wind conditions<br>d. Correctly complete all checks in accordance with the flight manual  |
| c. Check engine condition and aircraft configuration prior to takeoff. Complete appropriate checklist.  | a. Checklist and inflight guide.  | a. Make a proper decision to accept or reject airplane after engine checks.<br>b. Properly configure the airplane for takeoff.<br>c. Correctly complete all checks in accordance with the flight manual.   |
| d. Perform postflight duties  | a. Checklist, inflight guide, and aircraft forms.   | a. Correctly complete all checks in accordance with the flight manual.   |
| <b>3. Takeoff and Climb</b>   |   |  |
| a. Perform a takeoff to include:<br>(1) Complete appropriate checklists<br>(2) Check aircraft performance<br>(3) Maintain directional control, proper wind-drift correction, and alignment with the runway centerline throughout takeoff and climb<br>(4) Rotate and takeoff at recommended speeds.<br>(5) Accelerate to designated climb speed | a. Runway with a centerline stripe and current wind information.  | a. Maintain runway alignment $\pm 10$ feet during takeoff roll.<br>b. Establish and maintain proper takeoff attitude and become airborne at appropriate airspeed for existing conditions.<br>c. Hold correct pitch attitude to attain and maintain climb speed $+10$ to $-5$ KIAS.<br>d. Maintain ground track on the extended runway centerline until intercepting the published departure routing. |
| <b>4. Departure</b>   |   |  |
| a. Turn aircraft to clear traffic pattern at prescribed altitude.   | a. Published pattern procedures or ATC directions.  | a. Initiate turn out of traffic and fly initial heading or ground track consistent with procedural directives.   |

| <i>Performance</i>   | <i>Conditions</i>   | <i>Standards</i>   |
|--|---|--|
| <p>b. Turn to proceed to navigation points at the prescribed altitude and airspeed or IAW instructions from ATC.</p> <p>c. Overfly designated corridor entry point (if designated).</p> <p>d. Navigate and fly the aircraft to the area.</p> <p>e. Level off at assigned altitude.</p> | <p>a. Published departure instructions or ATC directions.</p> <p>a. Local area map.</p> <p>a. Ground references on the departure route.</p> <p>a. Prescribed or ATC-directed altitude.</p>                            | <p>a. Follow local departure procedures.</p> <p>a. Recognize and track to within ½ NM of corridor entry point with limited assistance from the instructor pilot.</p> <p>a. Use map, inflight guide, ground references, and VOR/GPS to navigate to the area with limited assistance from the instructor pilot.</p> <p>a. ±100 feet of desired altitude.</p> |
| <b>5. Basic Aircraft Control / Cross-Check</b>   |   |  |
| <p>a. Maintain basic aircraft control.</p> <p>b. Use outside references and aircraft instruments to achieve proper flight attitude</p>   | <p>a. At all times.</p>   | <p>a. ±100 feet of desired altitude.</p> <p>b. ±10 KIAS of desired airspeed.</p> <p>c. ±10 degrees of desired heading.</p> <p>d. Maintain coordinated flight, no more than ½ ball off-center</p> <p>e. Maintain smooth and positive control consistent with flight conditions</p>  |
| <b>6. Trim Use</b>   |   |  |
| <p>a. Use trim to relieve control pressures and improve aircraft control</p>   | <p>a. Aircraft with changing pitch and airspeed</p>   | <p>a. Trim aircraft to establish a stable pitch attitude. (Aircraft pitch does not change appreciably if controls are released.)</p>   |
| <b>7. Area Orientation and Inflight Planning</b>   |   |  |
| <p>a. Maintain area orientation and remain within assigned area limits.</p> <p>b. Perform inflight planning to include changing profile or adding or deleting maneuvers.</p>   | <p>a. Working area commensurate with type of mission, within specified boundaries defined by coordinates and or ground references, and upper and lower altitude boundaries.</p> <p>a. Preplanned mission profile.</p> | <p>a. Remain within area boundaries using ground references and VOR/GPS.</p> <p>b. Use assigned airspace in an efficient manner with minimum delay between maneuvers.</p> <p>a. Able to adjust mission profile to comply with time and/or fuel limitations, weather, and area limits.</p>  |
| <b>8. Climbs and Descents</b>  |   |  |
| <p>a. Maintain climb and descent schedules.</p> <p>b. Maintain heading or bank angle and coordinated flight.</p> <p>c. Maintain required power.</p>  | <p>a. Appropriate climb and descent schedules.</p> <p>a. Prescribed heading and course.</p> <p>a. Desired altitude and climb or descent schedule.</p>   | <p>a. Maintain airspeed ±10 KIAS of desired airspeed.</p> <p>a. ±10 degrees of desired heading or bank angle.</p> <p>b. No more than ½ ball off-center.</p> <p>a. Use appropriate power for climbs and descents.</p>   |
| <p>d. Level off at assigned altitude.</p>  | <p>a. Desired altitude.</p>   | <p>a. ±100 feet of desired altitude.</p> <p>b. ±10 degrees of desired heading.</p> <p>c. Maintain coordinated flight, no more than ½ ball off-center</p> <p>d. Maintain smooth and positive control consistent with flight conditions.</p>   |
| <b>9. Turns</b>  |   |  |
| <p>a. Roll into and maintain designated bank angle.</p>  | <p>a. Aircraft in level flight</p> <p>b. Designated bank angle.</p>   | <p>a. ±10 degrees of desired bank angle.</p>   |

| <i>Performance</i>  | <i>Conditions</i>   | <i>Standards</i>  |
|---|---|---|
| b. Maintain altitude.<br>c. Return to wings-level after a designated turn.<br>d. Maintain coordinated flight.                                     | a. Designated altitude.<br>a. Designated rollout heading.<br>a. Functional turn and slip indicator.                     | a. $\pm 100$ feet of desired altitude.<br>a. Obtain rollout heading $\pm 10^\circ$ .<br>a. No more than $\frac{1}{2}$ ball off-center.  |
| <b>10. Slow Flight Maneuvering</b>  |   |   |
| a. Control altitude, airspeed, bank angle, and yaw  | a. Minimum altitude: 1,500 feet AGL<br>b. Proper configuration  | a. +10 KIAS, -0 KIAS airspeed<br>b. $\pm 100$ feet of desired altitude.<br>c. $\pm 10$ degrees of desired heading.<br>d. Maintain coordinated flight, no more than $\frac{1}{2}$ ball off-center<br>e. Maintain smooth and positive control consistent with flight conditions<br>f. +0/-10 degrees of desired bank angle (not to exceed $30^\circ$ )  |
| <b>11. Steep Turns</b>  |   |   |
| a. Maintain altitude and airspeed. Roll into a $45^\circ$ bank angle.<br><br>b. Roll out on entry heading after turning $360^\circ$ .             | a. Aircraft in level flight at a designated airspeed and altitude.<br><br>a. Designated roll-in and roll-out reference. | a. $\pm 100$ feet of desired altitude.<br>b. $\pm 10$ KIAS of desired airspeed.<br>c. Maintain bank angle $\pm 10^\circ$ .<br>d. Maintain coordinated flight, no more than $\frac{1}{2}$ ball off-center<br>e. Maintain smooth and positive control consistent with flight conditions<br>a. Roll out on designated heading within $\pm 20^\circ$ .  |
| <b>12. Power-Off and Power-On Stalls</b>  |   |   |
| a. Perform power-off and power-on stalls in full-flap and takeoff-flap configurations, respectively.<br><br>b. Control bank and yaw during entry. | a. Minimum altitude 1,500 feet AGL<br>b. Proper configuration<br><br>a. Specified entry parameters.                     | a. Recognize and announce first indications of the impending stall.<br>b. Initiate recovery IAW flight manual procedures, upon encountering significant aerodynamic buffeting or after control effectiveness is lost.<br><br>a. Maintain heading $\pm 10^\circ$ in straight flight. Maintain $\pm 10^\circ$ of entry bank angle ( $20^\circ$ maximum)<br>b. Maintain coordinated flight, no more than $\frac{1}{2}$ ball off-center |
| c. Recover from stalls.   | a. Stall warning indication<br>b. Minimum altitude 1,500 feet AGL   | a. Recover to level flight or a slight positive climb with a clean configuration and a minimum altitude loss without entering a secondary stall. (Recovery confirmed by altimeter and VSI.)<br>b. Maintain coordinated flight, no more than $\frac{1}{2}$ ball off-center<br>c. Maintain smooth and positive control consistent with flight conditions<br>d. Retract flaps IAW normal climb schedule                                |

| <i>Performance</i>  | <i>Conditions</i>   | <i>Standards</i>   |
|---|---|--|
| <b>13. Ground Reference Maneuvers</b>   |   |  |
| a. Perform S-turns and turns around a point.  | a. Minimum altitude 500 feet AGL<br>b. Prescribed airspeed  | a. Exhibit knowledge of the elements related to S-turns, and turns around a point.<br>b. Determine wind direction / speed.<br>c. Enter maneuver between 600 to 1,000 feet AGL, on a downwind heading to begin the maneuver.<br>d. Apply drift corrections.<br>e. Maintain altitude $\pm 100$ feet.<br>f. Maintain airspeed $\pm 10$ KIAS.<br>g. Exit the maneuver as prescribed.<br>h. For turns around a point, exit after $720^\circ$ of turn.   |
| <b>14. Navigation Procedures / VOR / GPS / Map Use (RPA)</b>                          |   |  |
| a. Operate and interpret VOR/GPS navigation equipment.<br><br>b. Read local area map. | a. Aircraft equipped for instrument flight.<br>b. VOR/GPS.<br><br>a. Local area map.<br>b. Complete navigation map annotated with appropriate flight information. | a. Locate aircraft position using navigational equipment and local area map.<br><br>a. Navigate using navigational equipment and local area map.<br>b. Maintain appropriate altitude $\pm 200$ feet<br>c. Maintain headings $\pm 15^\circ$   |
| <b>15. Simulated Forced Landing — Pattern</b>   |   |  |
| a. Perform simulated forced approach and landing.                                     | a. Aircraft with a simulated engine failure.<br>b. Runway suitable for a forced landing.  | a. Establish and maintain recommended best-glide attitude, configuration, and airspeed $\pm 10$ KIAS.<br>b. Select suitable emergency landing area within gliding distance.<br>c. Plan and follow a flight pattern to the selected landing area considering altitude, wind, terrain, and obstructions.<br>d. Follow the appropriate emergency checklist.<br>e. Maintain positive control of the airplane at all times.<br>f. Fly the aircraft to a position where, if landing, touchdown would be:<br>(1) Below approach speed.<br>(2) Within 1,000 feet of the planned touchdown spot.<br>(3) Within 15 feet of the runway centerline with no side drift. |

| <i>Performance</i>   | <i>Conditions</i>   | <i>Standards</i>  |
|--|---|---|
| <b>16. Simulated Forced Landing — Area</b>   |   |   |
| a. Perform simulated forced landing approach in the area.  | a. Aircraft with a simulated engine failure.<br>b. Landing zone suitable for a forced landing.  | a. Establish and maintain recommended best-glide attitude, configuration, and airspeed $\pm 10$ KIAS.<br>b. Select suitable emergency landing area within gliding distance.<br>c. Plan and follow a flight pattern to the selected landing area considering altitude, wind, terrain, and obstructions.<br>d. Simulate complying with the appropriate emergency checklist.<br>e. Maintain positive control of the airplane at all times.<br>f. Fly the aircraft to a position where, continuation of the approach would likely result in a safe landing.<br>g. Initiate go-around so as not to descend below 500 feet AGL. |
| <b>17. Arrival</b>   |   |   |
| a. Overfly designated training area exit point (if designated).<br><br>b. Turn to proceed to navigation points at the prescribed altitude and airspeed or IAW instructions from ATC.<br><br>c. Perform letdown and traffic entry to the home field or auxiliary field. | a. Local area map.<br><br>a. Published arrival instructions or ATC directions.<br><br>a. Published recovery procedures or radar vectors.                                      | a. Recognize and track to within $\frac{1}{2}$ NM of corridor entry point with limited assistance from the instructor pilot.<br><br>a. Follow local arrival procedures.<br><br>a. Maintain altitudes and groundtrack depicted in recovery procedure.<br>b. $\pm 100$ feet of desired altitude.<br>c. $\pm 10$ KIAS of desired airspeed.<br>d. $\pm 10$ degrees of desired heading.<br>e. Maintain coordinated flight, no more than $\frac{1}{2}$ ball off-center<br>f. Maintain smooth and positive control consistent with flight conditions   |
| <b>18. Traffic Pattern</b>   |   |   |
| a. Perform arrival.<br><br>b. Perform traffic pattern.   | a. Published arrival procedures or ATC directions.<br>b. Inflight guide and local area map.<br><br>a. Published pattern altitude, airspeeds, groundtrack, and final approach. | a. Use map, inflight guide, and ground references to navigate to the traffic pattern entry point.<br><br>a. Establish and maintain appropriate groundtrack.<br>b. Maintain proper spacing from other aircraft (no closer than 3,000 feet horizontally)<br>c. Maintain airspeed $+10/-5$ KIAS.<br>d. Maintain altitude $\pm 100$ feet.<br>e. Configure the aircraft as appropriate for pattern.  |

| <i>Performance</i>  | <i>Conditions</i>   | <i>Standards</i>  |
|---|---|---|
| <b>19. Normal Approach and Landing</b>  |   |   |
| <p>a. Perform approaches and landings (transition from glidepath to runway).</p> <p>b. Slow aircraft from touchdown speed to taxi speed and exit the runway.</p>                          | <p>a. Aircraft established on proper visual glidepath.</p> <p>b. Aircraft properly configured.</p> <p>c. Various wind conditions.</p> <p>a. Aircraft on the runway centerline.</p> <p>b. Aircraft properly configured</p> | <p>a. Select suitable touchdown point.</p> <p>b. Establish recommended approach and landing configuration.</p> <p>c. Maintain stabilized approach and recommended approach speed +10, -0 KIAS on the correct ground track.</p> <p>d. Maintain crosswind correction and directional control at the appropriate airspeed throughout approach and landing.</p> <p>e. Make smooth, timely, and correct control applications during the roundout and touchdown. Touch down smoothly within the first 1,000 feet of the runway, with no side drift, and with airplane's longitudinal axis aligned with and over the runway centerline <math>\pm 15</math> feet.</p> <p>a. Make smooth, timely, and correct flight control and brake inputs</p> <p>b. Maintain crosswind correction and directional control throughout rollout and exit from runway.</p> |
| <b>20. No-Flap Approach and Landing</b>   |   |   |
| <p>a. Perform approaches and landings (transition from glidepath to runway) without the use of flaps.</p> <p>b. Slow aircraft from touchdown speed to taxi speed and exit the runway.</p> | <p>a. Aircraft established on proper visual glidepath.</p> <p>b. Aircraft properly configured.</p> <p>c. Various wind conditions.</p> <p>a. Aircraft on the runway centerline.</p> <p>b. Aircraft properly configured</p> | <p>a. Select suitable touchdown point.</p> <p>b. Establish recommended approach and landing configuration.</p> <p>c. Maintain stabilized approach and recommended approach speed +10, -0 KIAS on the correct ground track.</p> <p>d. Maintain crosswind correction and directional control at the appropriate airspeed throughout approach and landing.</p> <p>e. Make smooth, timely, and correct control applications during the roundout and touchdown. Touch down smoothly within the first 1,500 feet of the runway with no side drift, and with airplane's longitudinal axis aligned with and over the runway centerline <math>\pm 15</math> feet.</p> <p>a. Make smooth, timely, and correct flight control and brake inputs</p> <p>b. Maintain crosswind correction and directional control throughout rollout and exit from runway.</p>  |

| <i>Performance</i>   | <i>Conditions</i>  | <i>Standards</i>  |
|--|--|---|
| <b>21. Forward Slip Approach and Landing</b>   |  |   |
| <p>a. Perform approaches and landings (transition from glidepath to runway / landing zone) using a forward slip.</p> <p>b. Slow aircraft from touchdown speed to taxi speed and exit the runway.</p> | <p>a. Aircraft established on proper visual glidepath.<br/>b. Aircraft properly configured.<br/>c. Various wind conditions.</p> <p>a. Aircraft on the runway centerline.<br/>b. Aircraft properly configured</p> | <p>a. Select suitable touchdown point.<br/>b. Establish recommended approach and landing configuration.<br/>c. Maintain stabilized approach and recommended approach speed +10, -0 KIAS on the correct ground track.<br/>d. Maintain crosswind correction and directional control at the appropriate airspeed throughout approach and landing.<br/>e. Make smooth, timely, and correct control applications during the roundout and touchdown. Touch down smoothly within the first 1,500 feet of the runway with no side drift, and with airplane's longitudinal axis aligned with and over the runway centerline <math>\pm 15</math> feet.</p> <p>a. Make smooth, timely, and correct flight control and brake inputs<br/>b. Maintain crosswind correction and directional control throughout rollout and exit from runway.</p> |
| <b>22. Go-Around</b>   |  |   |
| <p>a. Perform a go-around from approach or landing.</p>  | <p>a. Aircraft configured for approach or landing.<br/>b. Aircraft in the approach or landing phase.</p>   | <p>a. Make a timely decision to discontinue the approach or landing.<br/>b. Apply takeoff power and establish the proper climb attitude.<br/>c. Retract flaps IAW the flight manual.<br/>d. Maintain takeoff power to a safe maneuvering altitude, then set power to maintain appropriate pattern speeds.<br/>e. Maintain directional control and proper wind-drift correction throughout the climb.</p>  |
| <b>23. Touch-and-Go</b>  |  |   |
| <p>a. Perform a Touch-and-Go.</p>  | <p>a. After a landing.<br/>b. Crosswinds within limits.</p>  | <p>a. Maintain runway alignment <math>\pm 10</math> feet after touchdown and during takeoff roll.<br/>b. Reposition flaps and smoothly apply full power and cross-check engine instruments.<br/>c. Establish and maintain proper takeoff attitude and become airborne at appropriate airspeed for existing conditions.<br/>d. Hold correct pitch attitude to attain and maintain climb speed +10 to -5 KIAS.<br/>e. Maintain ground track on the extended runway centerline until initiating closed, turning crosswind, or intercepting published departure.</p>  |

| <i>Performance</i>  | <i>Conditions</i>   | <i>Standards</i>  |
|---|---|---|
| <b>24. Breakout</b>   |   |   |
| a. Perform breakout procedures.   | a. Aircraft in the traffic pattern with insufficient spacing from other aircraft.<br>b. Published breakout procedures<br>c. Inflight guide and local area map.  | a. Make a timely decision to breakout.<br>b. Establish and maintain appropriate groundtrack.<br>c. Maintain proper spacing from other aircraft.<br>d. Maintain airspeed $\pm 10$ KIAS.<br>e. Maintain altitude $\pm 100$ feet.  |
| <b>25. Clearing / Collision Avoidance Precautions</b>   |   |   |
| a. Perform cockpit and mission tasks while visually and aurally (with radios and on-board equipment) avoiding other aircraft and ground obstacle conflicts.<br>b. Visually clear outside the aircraft. See and avoid inflight hazards.  | a. Aircraft in flight or on the ground.<br>b. Operable radio<br>c. Traffic avoidance equipment.   | a. Recognize actual or potential conflicts and adjust aircraft movement to safely avoid conflicts.<br>b. Effectively use accepted visual clearing techniques to avoid conflicts.<br>c. Effectively employ the radio and on-board equipment to aid in clearing.  |
| <b>26. Basic Instrument Maneuvers</b>   |   |   |
| a. Perform straight and level flight solely by reference to instruments.<br>b. Perform constant airspeed climbs and descents solely by reference to instruments<br>c. Perform turns to headings solely by reference to instruments  | a. Aircraft equipped for instrument flight.<br>b. Vision restriction device.  | a. Maintain straight and level flight, demonstrate constant airspeed climbs and descents, and turn to headings solely by reference to instruments.<br>b. Maintain altitude $\pm 200$ feet<br>c. Maintain heading $\pm 20^\circ$ .<br>d. Maintain airspeed $\pm 10$ KIAS.<br>e. Maintain a standard rate turn<br>d. Roll out on the assigned heading $\pm 10^\circ$  |
| <b>27. Recovery from Unusual Flight Attitudes</b>   |   |   |
| a. Recognize unusual flight attitudes solely by reference to instruments<br>b. Recover to a stabilized level flight.  | a. Aircraft equipped for instrument flight.<br>b. Vision restriction device.<br>c. Aircraft established in a flight attitude outside of straight and level flight<br>d. VMC conditions<br><i>Special:</i> Instructor pilot/check pilot accomplishes pre-entry maneuvering to establish aircraft attitude. | a. Recover to stabilized level flight promptly, using proper instrument cross check and interpretation and smooth, coordinated control application in the correct sequence.   |
| <b>28. Pilotage and Dead Reckoning</b>  |   |   |
| a. Follow a preplanned course by reference to landmarks<br>b. Identify landmarks by relating surface features to chart symbols.<br>c. Navigate by means of precomputed heading, groundspeeds, and elapsed time<br>d. Correct for and record the differences between preflight calculations and those determined enroute | a. VMC conditions<br>b. Preplanned route on appropriate aeronautical chart/local area guide annotated with appropriate flight information   | a. Correct for differences between preflight planned groundspeed and heading calculations and those encountered enroute.<br>b. Verify the airplanes' position within three nautical miles of the flight-planned route.<br>c. Arrive at enroute checkpoints within five minutes of the initial or revised estimated time enroute (ETA)<br>d. Maintain the appropriate altitude $\pm 200$ feet<br>e. Maintain headings $\pm 15^\circ$ |

| <i>Performance</i>  | <i>Conditions</i>  | <i>Standards</i>  |
|---|--|---|
| <b>29. Lost Procedures</b>  |  |   |
| <p>a. Use all available navigation aids, systems, facilities, and/or air traffic control (ATC) facility for assistance.</p> <p>b. Establish an appropriate course of action</p>   | <p>a. Aircraft equipped for instrument flight.</p> <p>b. VOR/GPS</p> <p>c. Local area map or a complete navigation map annotated with appropriate flight information</p>   | <p>a. Select an appropriate course of action.</p> <p>b. Maintain an appropriate heading and climb, if necessary.</p> <p>c. Maintain headings <math>\pm 15^\circ</math></p> <p>d. Identify prominent landmarks.</p> <p>e. Use all available aids, facilities, and or contact the appropriate ATC facility for assistance, as appropriate.</p>  |
| <b>30. Diversion</b>  |  |   |
| <p>a. Recognize the requirement to divert to an appropriate alternate airport and route.</p> <p>b. Develop a diversion plan.</p>  | <p>a. Aircraft equipped for instrument flight.</p> <p>b. VOR/GPS</p> <p>c. Local area map or a complete navigation map annotated with appropriate flight information</p>   | <p>a. Make a timely decision to divert.</p> <p>b. Select an appropriate alternate airport and route.</p> <p>c. Make an accurate estimate of heading, groundspeed, arrival time and fuel consumption to the alternate airport.</p> <p>d. Maintain the appropriate altitude <math>\pm 200</math> feet</p> <p>e. Maintain headings <math>\pm 15^\circ</math></p>   |
| <b>31. Soft Field Takeoff and Landing</b>   |  |   |
| <p>a. Perform a soft field takeoff to include:</p> <ol style="list-style-type: none"> <li>(1) Complete appropriate checklists</li> <li>(2) Check aircraft performance</li> <li>(3) Maintain directional control, proper wind-drift correction, and alignment with the runway centerline throughout takeoff and climb</li> <li>(4) Establish the proper pitch attitude</li> <li>(5) Rotate and takeoff at recommended speeds.</li> <li>(6) Accelerate to designated climb speed.</li> </ol> <p>b. Perform approaches (transition from glidepath to runway.) and soft field landings, landing on a simulated soft surface runway.</p> | <p>a. Simulated soft surface runway with a centerline stripe and current wind information.</p> <p>b. Aircraft established on proper visual glidepath.</p> <p>c. Aircraft properly configured.</p> <p>d. Simulated soft surface runway with a centerline stripe and current wind information.</p> | <p>a. Taxi onto the runway and begin takeoff roll without stopping.</p> <p>b. Maintain runway alignment <math>\pm 10</math> feet during takeoff roll.</p> <p>c. Establish and maintain proper takeoff attitude and become airborne at appropriate airspeed for simulated and existing conditions.</p> <p>d. Hold correct pitch attitude to attain and maintain climb speed <math>+10</math> to <math>-5</math> KIAS.</p> <p>e. Maintain ground track on the extended runway centerline until intercepting the published departure routing</p> <p>a. Select suitable touchdown point.</p> <p>b. Establish recommended approach and landing configuration.</p> <p>c. Maintain stabilized approach and recommended approach speed <math>+10, -0</math> KIAS on the correct ground track.</p> <p>d. Maintain crosswind correction and directional control at the appropriate airspeed throughout approach and landing.</p> <p>e. Make smooth, timely, and correct control applications during the roundout and touchdown. Touch down softly and smoothly within the first 1,000 feet of the runway, with no side drift, and with airplane's longitudinal axis aligned with and over the runway centerline <math>\pm 15</math> feet.</p> |

| <i>Performance</i>   | <i>Conditions</i>   | <i>Standards</i>   |
|--|---|--|
| c. Slow aircraft from touchdown speed to taxi speed and exit the simulated soft surface runway.  | a. Aircraft on the runway centerline.<br>b. Aircraft properly configured  | a. Make smooth, timely, and correct flight control and brake inputs<br>b. Maintain crosswind correction and directional control throughout rollout and exit from simulated soft surface runway   |
| <b>32. Short Field Takeoff and Landing</b>   |   |  |
| <p>a. Perform a short field takeoff to include:</p> <ol style="list-style-type: none"> <li>(1) Complete appropriate checklists</li> <li>(2) Check aircraft performance</li> <li>(3) Maintain directional control, proper wind-drift correction, and alignment with the runway centerline throughout takeoff and climb</li> <li>(4) Establish the proper pitch attitude</li> <li>(5) Rotate and takeoff at recommended speeds.</li> <li>(6) Accelerate to designated climb speed.</li> </ol> <p>b. Perform approaches and short field landings (transition from glidepath to runway), landing on a simulated short runway.</p> <p>c. Slow aircraft from touchdown speed to taxi speed and exit the simulated short runway</p> | <p>a. Simulated short runway with a centerline stripe and current wind information.</p> <p>a. Aircraft established on proper visual glidepath.<br/>b. Aircraft properly configured.<br/>c. Simulated short runway with a centerline stripe and current wind information.</p> <p>a. Aircraft on the runway centerline.<br/>b. Aircraft properly configured</p> | <p>a. Taxi onto the runway utilizing all available runway length (actual or simulated).<br/>b. Maintain runway alignment <math>\pm 10</math> feet during takeoff roll.<br/>c. Establish and maintain proper takeoff attitude and become airborne at appropriate airspeed for simulated and existing conditions.<br/>d. Hold correct pitch attitude to attain and maintain climb speed +10 to -5 KIAS.<br/>e. Adjust pitch attitude once clear of simulated obstacles and maintain climb speed +10 to -5 KIAS.<br/>f. Maintain ground track on the extended runway centerline until intercepting the published departure routing</p> <p>a. Select suitable touchdown point, simulating a short runway.<br/>b. Establish recommended approach and landing configuration.<br/>c. Maintain stabilized approach and recommended approach speed +10, -0 KIAS on the correct ground track.<br/>d. Maintain crosswind correction and directional control at the appropriate airspeed throughout approach and landing.<br/>e. Make smooth, timely, and correct control applications during the roundout and touchdown. Touch down smoothly at or within 200 feet beyond the specified touchdown point on the runway, with no side drift, and with airplane's longitudinal axis aligned with and over the runway centerline <math>\pm 15</math> feet.</p> <p>a. Make smooth, timely, and correct flight control and brake inputs.<br/>b. Maintain crosswind correction and directional control throughout rollout and exit from simulated short runway</p> |

| <i>Performance</i>   | <i>Conditions</i>  | <i>Standards</i>   |
|--|--|--|
| <b>33. Spin Awareness</b>  |  |  |
| a. Understand the aerodynamic factors related to spins, what flight situations can lead to unintentional spins, and the procedures for recovering from unintentional spins   | a. Airplane flight manual<br>b. During mission profile.                      | a. Explain the aerodynamic factors related to spins.<br>b. Describe the flight situations that can lead to unintentional spins.<br>c. Explain how to prevent entering a spin.<br>d. Memorize, repeat, and be able to explain the procedures for recovering from unintentional spins.   |
| <b>34. Checklist Use</b>   |  |  |
| a. Complete inflight checks.   | a. Checklist and inflight guide.   | a. Complete checks at the proper times in the mission.<br>b. Use challenge and response format on dual flights   |
| <b>35. Communication</b>   |  |  |
| a. Perform required verbal communications. Normal and emergency transmissions with ATC and other agencies Intercockpit communications.   | a. Operable radios and intercom.   | a. Make FAR, AIM, and local procedures required radio calls.<br>b. Select appropriate frequencies.<br>c. Use recommended terminology.<br>d. Acknowledge radio calls and comply with instructions.<br>e. Understand and prioritize transmissions in a multiple communications environment.  |
| <b>36. Risk Management / Decision-Making</b>   |  |  |
| a. Assess risks and make appropriate decisions   | a. FARs, airplane flight manual (AFM), and USAF instructions and directives. | a. Properly gather all available data before arriving at a final decision.<br>b. Select suitable course of action using logical and sound judgment based on available information.<br>c. Accurately identify contingencies and alternatives.<br>d. Modify actions as necessary to obtain the best outcome.   |
| <b>37. Situational Awareness</b>   |  |  |
| a. Maintain situational awareness to include the following areas:<br>(1) <i>Awareness</i> — Correlate and keep track of what happens on the ground, in own aircraft, and other flight members, and cope with any subsequent mission impact as a result of these happenings.<br>(2) <i>Flexibility</i> — Cope with rapidly changing situations or conditions, inflight or on the ground, and adjust mission as needed to obtain desired objectives.<br>(3) <i>Capacity</i> — Recognize loss of situational awareness, respond effectively, institute valid measures to preserve situational awareness and prevent spatial disorientation. | a. During mission profile.   | a. Demonstrate ability to minimize the effects of adverse factors and capitalize on opportunities to avoid mission degradation. Factors to consider may include, but are not limited to, such items as weather conditions, airspace and approach restrictions, high-density traffic, aircraft capabilities and limitations, and fuel conservation.<br>b. Maintain fuel awareness during all phases of flight to include bingo fuel, alternate / divert fuel, recovery fuel, etc.<br>c. Maintain awareness of time.<br>d. Correctly assess all possible factors bearing on the situation.<br>e. Have complete knowledge of all rules and regulations and carry out all duties with minimum supervision.<br>f. Adapt to new situational demands. |

| <i>Performance</i>   | <i>Conditions</i>   | <i>Standards</i>  |
|--|---|---|
| <b>38. Task Management</b>   |   |   |
| <p>a. Prioritize and manage tasks, based on existing and new information, while maintaining constructive behavior under stress.</p> <p>(1) Cognizant of how large a task loading they can cope with before becoming saturated, confused or frustrated to the degree that safety is jeopardized or the mission is ineffective.</p> <p>(2) Follow orders and carry out all required procedural steps in the proper sequence.</p> | <p>a. During mission profile.</p>   | <p>a. Correctly prioritize multiple tasks to avoid saturation or under-tasking.</p> <p>b. Use all available resources to manage workload.</p> <p>c. Ask for assistance when overloaded.</p> <p>d. Accept better ideas when offered.</p> <p>e. Focus attention on task at hand.</p>  |
| <b>39. Emergency Procedures</b>  |   |   |
| <p>a. Perform critical action emergency procedures</p> <p>b. Perform non-critical action procedures to include analysis of hypothetical aircraft malfunctions.</p>   | <p>a. Simulated engine loss and practice forced landing procedures.</p> <p>b. Ground training for other emergencies.</p> <p>c. Checklist and inflight guide.</p> <p>a. Hypothetical aircraft malfunctions and emergency situations.</p> <p>b. Checklist and inflight guide.</p> | <p>a. Analyze the situation and take the appropriate action, while maintaining aircraft control.</p> <p>b. Perform and/or state proper steps in critical action procedures, from memory, without error.</p> <p>c. Use proper checklist and inflight guide as necessary.</p> <p>d. Perform or state proper steps to satisfactory conclusion.</p> <p>a. Analyze the situation and take the appropriate action, while maintaining aircraft control.</p> <p>b. State proper steps to resolve non-critical action emergencies using proper checklist and inflight guide as required.</p> |
| <b>40. General Knowledge</b>   |   |   |
| <p>a. Demonstrate knowledge of aircraft systems, flying instructions, applicable procedures, associated directives, and instructions.</p>  | <p>a. Study guides, instructions, and manuals.</p>  | <p>a. Demonstrate a thorough understanding of aircraft systems.</p> <p>b. Be able to apply procedures from tech orders and associated directives.</p> <p>c. Refer to applicable publications as necessary.</p>  |

## Chapter 3

### Academic Training

#### Section A — Indoctrination

| <i>Lesson</i> | <i>Title</i>                                   | <i>Hours</i> |
|---------------|--|--------------|
| F101          | Commander / Military Training Officer Briefing | 1.0          |
| F102          | Program Overview                               | 3.0          |
| F103          | Flight Physiology                              | 1.0          |
| <i>Total</i>  |  | 5.0          |

#### Section B — Academics

| <i>Lesson</i> | <i>Title</i>                                   | <i>Hours</i> |
|---------------|--|--------------|
| A101          | Safety/ORM/CRM (Aeronautical Decision Making)  | 1.0          |
| A102          | Aircraft Systems                               | 1.5          |
| A103          | Aerodynamic Principles                         | 1.5          |
| A104          | Airplane Performance                           | 1.0          |
| A105          | Communications (Air Traffic Control)           | 1.0          |
| A106          | Airport Operations                             | 2.0          |
| A107          | Weather Reports                                | 1.0          |
| A108          | Airspace                                       | 1.0          |
| A109          | Basic Navigation                               | 1.0          |
| A110          | Written Examination                            | 1.0          |
| A111          | Pre-solo Examination                           | 1.0          |
| A112R         | Advanced Navigation                            | 4.0          |
| A113          | Meteorology (computer aided instruction (CAI)) | 1.0          |
| A114          | Instrument Orientation                         | 1.0          |
| A115          | Night Orientation                              | 1.0          |
| A116          | Federal Aviation Regulations (CAI)             | 1.0          |
| <b>A1090</b>  | RPA Final Examination                          | 1.0          |
| <i>Total</i>  |  | 22.0         |

#### Section C — Officer Development

| <i>Lesson</i> | <i>Title</i>      | <i>Hours</i> |
|---------------|-------------------|--------------|
| D101          | Aviation Ethics   | 1.0          |
| D102          | Physical Training | 21.0         |
| <i>Total</i>  |                   | 22.0         |

## Chapter 4

### Flying Training

#### Section A — Ground Training

| <i>Unit</i>  | <i>Title</i>                             | <i>Hours</i> |
|--------------|--|--------------|
| G101         | Aircraft Preflight / Postflight          | 1.0          |
| G102         | Takeoffs and Traffic Patterns            | 1.0          |
| G103         | Departures and Arrivals                  | 1.5          |
| G104         | Four Fundamentals                        | 0.5          |
| G105         | Steep Turns, Slow Flight, and Stalls     | 1.0          |
| G106         | Ground Reference Maneuvers               | 1.0          |
| G107         | Landings                                 | 1.0          |
| G108         | Emergency Procedures                     | 1.0          |
| G109         | Go-Arounds, Breakouts, and Forward Slips | 1.0          |
| G110         | Pre-Solo Awareness                       | 1.0          |
| G111         | Flight Check Briefing                    | 1.0          |
| G112R        | Enroute Navigation                       | 2.0          |
| G115         | Night Operations                         | 1.0          |
| <i>Total</i> |  | 14.0         |

#### Section B — Aircraft

| <i>Unit</i> | <i>Title / Objectives</i>  | <i>Sorties<br/>Dual / Solo</i> | <i>Hours<br/>Dual / Solo</i> |
|-------------|--|--------------------------------|------------------------------|
| R101        | <b>Orientation (Pre-Solo)</b>  | 1 / 0                          | 1.2 / 0                      |
|             | <i>Objectives</i> — Students practice basic aircraft control while adapting to the aircraft and basic maneuvers.<br>Checklist, inflight guide, and local area map use<br>FOD prevention<br>Sitting height assessment<br>Cockpit organization<br>Composite crosscheck<br>Coordinated flight<br>Trim use<br>Clearing<br>Ground operations<br>Basic aircraft control<br>Departure and arrival   |                                |                              |
| R201 – 03   | <b>Fundamental Maneuvers (Pre-Solo)</b>  | 3 / 0                          | 4.2 / 0                      |
|             | <i>Objectives</i> — Students build on basic aircraft control while adding additional maneuvers.<br>Slow flight maneuvering<br>Steep turns<br>Power-on stalls / power-off stalls<br>Ground reference maneuvers<br>Traffic patterns<br>Normal approach and landing<br>No-Flap approach and landing<br>Forward slips to a landing<br>Breakout and go-around<br>Simulated forced landing (pattern)<br>VOR/GPS and traffic avoidance system operation / orientation |                                |                              |

| <i>Unit</i> | <i>Title / Objectives</i>  | <i>Sorties<br/>Dual / Solo</i> | <i>Hours<br/>Dual / Solo</i> |
|-------------|--|--------------------------------|------------------------------|
| R301 – 06   | <b>Fundamental Maneuvers (Pre-Solo)*</b><br><i>Objectives</i> — Students build on basic aircraft control and gain proficiency, while adding additional maneuvers.<br>Previously introduced maneuvers<br>Simulated forced landing (pattern and area)<br>VOR/GPS orientation<br><br><i>Notes*</i><br>a. One sortie (minimum) should be flown pattern-only<br>b. At least one sortie should be flown with someone other than the primary instructor<br><br><i>Special Syllabus Requirement</i> — Students accomplish an arrival and traffic pattern at an alternate/auxiliary airfield (e.g., Fowler, Bullseye, or Fremont County Airport)  | 6 / 0                          | 8.4 / 0                      |
| <b>R490</b> | <b>Pre-Solo Check</b><br><i>Objectives</i> — Students build on basic aircraft control and gain proficiency<br>Evaluate student performance in previously introduced maneuvers<br>Complete one hour of ground evaluation in preparation for the solo flight   | 1 / 0                          | 1.4 / 0                      |
| R501 – 02   | <b>Supervised Solo</b><br><i>Objectives</i> — Students successfully fly the aircraft solo. (Prior to solo flight, ensure testing and documentation are complete.)<br>Dual — 3 satisfactory patterns / landings, go-around, slip, SFL<br>Solo — Normally 3 patterns / landings (min)  | 1 / 1                          | 0.9 / 0.5                    |
| R601 – 05   | <b>Basic Instrument Maneuvers / Introduction to Navigation</b><br><i>Objectives</i> — Students improve aircraft control and gain confidence.<br>Practice previously introduced maneuvers<br>Basic instrument maneuvers (Straight and level, climbs and descents, turns to headings, unusual attitude recoveries)<br>VOR/GPS operation and radar services<br>Lost procedures<br>Diversion<br>Area SFL<br>Spin prevention<br>Soft and short field takeoffs and landings<br><br><i>Note:</i> Solo flights in this unit are flown to the area and/or on a visual navigation route. While in the areas, solo students can fly only steep turns, slow flight and ground reference maneuvers. | 3 / 2                          | 4.2 / 2.8                    |
| R701 – 02   | <b>Night</b><br><i>Objectives</i> — Students improve aircraft control and gain confidence.<br>Practice previously introduced maneuvers<br>Pilotage and dead reckoning<br>Strange field procedures<br>Night operations<br><br><i>Note:</i> Students do not fly solo at night. R701/2 may be flown concurrently with R6XX or R8XX sorties as long as prerequisites are met.  | 2 / 0                          | 3.0 / 0                      |

| <i>Unit</i>                           | <i>Title / Objectives</i>   | <i>Sorties<br/>Dual / Solo</i> | <i>Hours<br/>Dual / Solo</i> |
|---------------------------------------|---|--------------------------------|------------------------------|
| R801 – 05                             | <b>Cross-Country</b><br><i>Objectives</i> — Students improve aircraft control and gain confidence.<br>Practice previously introduced maneuvers<br>Pilotage and dead reckoning<br>Strange field procedures   | 2 / 3                          | 3.0/6.7                      |
| R901                                  | <b>Check Preparation</b><br><i>Objectives</i> — Students improve aircraft control and gain confidence.<br>Practice previously introduced maneuvers<br>Preparation for check   | 1 / 0                          | 1.5 / 0.0                    |
| <b>R1090</b>                          | <b>Final Check</b><br><i>Objectives</i> — Students perform the required maneuvers and a cross section of maneuvers to the proficiency level required by the MIF. As a minimum, evaluate the following:<br>General Knowledge / EP evaluation (~ 1-hour ground-evaluation)<br>Normal Takeoff / Departure<br>Area work: Sampling of Slow Flight, Steep Turns, Power-On Stalls, Power-Off Stalls, ground reference maneuvers, and navigation procedures<br>Pattern work: Traffic Patterns, Normal Approach and Landing, sampling of Go-Arounds, Breakouts, No-Flap Approach and Landing, Forward Slip to a Landing, Soft Field Landing, Short Field Landing, Simulated Forced Landing | 1 / 0                          | 1.5 / 0                      |
| <i>Total Aircraft Sorties / Hours</i> |   | <u>21 / 6</u>                  | <u>29.3 / 10.0</u>           |

| <b>RPA Pilot Aircraft Maneuver Item File</b> |  |                        |               |               |               |               |               |               |               |               |                |
|--|--|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| <b>No.</b>                                   | <b>Maneuver</b>                          | <b>Units / Sorties</b> |               |               |               |               |               |               |               |               |                |
|  |  | <b>R1 / 1</b>          | <b>R2 / 3</b> | <b>R3 / 6</b> | <b>R4 / 1</b> | <b>R5 / 2</b> | <b>R6 / 5</b> | <b>R7 / 2</b> | <b>R8 / 5</b> | <b>R9 / 1</b> | <b>R10 / 1</b> |
| 1  | Mission Planning / Briefing / Debriefing | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 2  | Ground Operations                        | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 3  | Takeoff and Climb                        | 2                      | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 4  | Departure                                | 2                      | 2+            | 3+            | 3+            | 3             | 3+            | 3+            | 4+            | 4+            | 4+             |
| 5  | Basic Aircraft Control / Cross-Check     | 2+                     | 3+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 6  | Trim Use                                 | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 7  | Area Orientation and Inflight Planning   | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 8  | Climbs and Descents                      | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 9  | Turns                                    | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 10   | Slow Flight Maneuvering                  |                        | 2+            | 3+            | 3+            | 3             | 3+            | 3             | 3             | 3             | 3              |
| 11   | Steep Turns                              |                        | 2+            | 3+            | 3+            | 3             | 3+            | 3             | 3             | 3             | 3              |
| 12   | Power-Off and Power-On Stalls            |                        | 2+            | 3+            | 3+            | 3             | 3+            |               | 3             | 3             | 3              |
| 13   | Ground Reference Maneuvers               | 2                      | 2             | 3+            | 3+            | 3             | 3+            |               | 3             | 3             | 3              |
| 14   | Nav Procedures / VOR / GPS / Map Use     | 2                      | 2             | 3+            | 3+            | 3             | 3+            | 3+            | 4+            | 4+            | 4+             |
| 15   | Simulated Forced Landing — Pattern       |                        | 2+            | 3+            | 3+            | 3+            | 3+            |               | 3             | 3             | 3              |
| 16   | Simulated Forced Landing — Area          |                        |               | 3+            | 3+            | 3             | 3+            |               | 3             | 3             | 3              |
| 17   | Arrival                                  | 2                      | 2+            | 3+            | 3+            | 3             | 3+            | 3+            | 4+            | 4+            | 4+             |
| 18   | Traffic Patterns                         | 2                      | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 19   | Normal Approach / Landing                | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 20   | No Flap Approach / Landing               | 2                      | 2+            | 3+            | 3+            | 3             | 3             |               | 3             | 3             | 3              |
| 21   | Forward Slip Approach / Landing          | 2                      | 2+            | 3+            | 3+            | 3             | 3             | 3             | 3             | 3             | 3              |
| 22   | Go-Around                                | 2                      | 2+            | 3+            | 3+            | 3+            | 3+            | 3             | 4+            | 4+            | 4              |
| 23   | Touch-and-Go                             | 2                      | 2+            | 3+            | 3+            | 3+            | 3             | 3             | 4+            | 4+            | 4              |
| 24   | Breakout                                 | 2                      | 2+            | 3             | 3             | 3             | 3             | 3             | 3             | 3             | 3              |
| 25   | Clearing / Collision Avoidance           | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 26   | Basic Instrument Maneuvers               |                        |               |               |               |               | 3+            | 3+            | 3+            | 3+            | 3+             |
| 27   | Unusual Attitude Recoveries              |                        |               |               |               |               | 3+            | 3             | 3             | 3             | 3              |
| 28   | Pilotage and Dead Reckoning              |                        |               |               |               |               | 3+            | 3+            | 4+            | 4+            | 4+             |
| 29   | Lost Procedures                          |                        |               |               |               |               | 3+            | 3+            | 3             | 3             | 3              |
| 30   | Diversion                                |                        |               |               |               |               | 3+            | 3+            | 3             | 3             | 3              |
| 31   | Soft Field Takeoff and Landing           |                        |               | 2             | 2             | 2             | 3+            |               | 3             | 3             | 3              |
| 32   | Short Field Takeoff and Landing          |                        |               | 2             | 2             | 2             | 3+            |               | 3             | 3             | 3              |
| 33   | Spin Prevention                          |                        |               | 3+            | 3+            | 3             | 3+            | 3             | 3             | 3             | 3              |
| 34   | Checklist Use                            | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 35   | Communication                            | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 36   | Risk Management / Decision-Making        | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 3+            | 3+            | 3+             |
| 37   | Situational Awareness                    | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 3+            | 3+            | 3+             |
| 38   | Task Management                          | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 39   | Emergency Procedures                     | 2                      | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 40   | General Knowledge                        | 2+                     | 2+            | 3+            | 3+            | 3+            | 3+            | 3+            | 4+            | 4+            | 4+             |
| 41   | Special Syllabus Requirements            |                        |               | 2+            |               |               |               |               |               |               |                |

## Chapter 5

### General Instructions

#### Section A — Prerequisites

| Syllabus<br>Event        | Prerequisite(s) |      | Syllabus<br>Event | Prerequisite(s) |       | Syllabus<br>Event | Prerequisite(s) |              |
|--------------------------|-----------------|------|-------------------|-----------------|-------|-------------------|-----------------|--------------|
|                          | 1               | 2    |                   | 1               | 2     |                   | 1               | 2            |
| <b>Academic Training</b> |                 |      |                   |                 |       |                   |                 |              |
| F101                     |                 |      | A105              |                 |       | A112R             |                 |              |
| F102                     | F101            |      | A106              |                 |       | A113              |                 |              |
| F103                     |                 |      | A107              |                 |       | A114              | A113            |              |
| A101                     | F102            |      | A108              |                 |       | A115              |                 |              |
| A102                     |                 |      | A109              |                 |       | A116              |                 |              |
| A103                     |                 |      | A110              |                 |       | <b>A1090</b>      | A116            | G115         |
| A104                     |                 |      | A111S             | G110            |       |                   |                 |              |
| <b>Ground Training</b>   |                 |      |                   |                 |       |                   |                 |              |
| G101                     | A102            |      | G106              |                 |       | G110              | R203            |              |
| G102                     | G101            |      | G107              |                 |       | G111              | R203            | G110         |
| G103                     | G102            |      | G108              |                 |       | G112R             | A112R           |              |
| G104                     |                 |      | G109              |                 |       | G115              | A115            |              |
| G105                     |                 |      |                   |                 |       |                   |                 |              |
| <b>Aircraft</b>          |                 |      |                   |                 |       |                   |                 |              |
| R101                     | A101            |      | R306              | R305            |       | R701              | R601            | A114         |
| R201                     | R101            |      | <b>R490</b>       | R306            | G111  |                   | G115            |              |
| R202                     | R201            | A106 | R501              | <b>R490</b>     | A111S | R702              | R701            |              |
|                          | G106            |      | R502              | R501            |       | R801              | R601            |              |
| R203                     | R202            |      | R601              | R502            | A114  | R802              | R801            |              |
| R301                     | R203            |      |                   | G112R           |       | R803              | R802            |              |
| R302                     | R301            |      | R602              | R601            |       | R804              | R803            |              |
| R303                     | R302            |      | R603              | R602            |       | R805              | R804            |              |
| R304                     | R303            |      | R604              | R603            |       | R901              | R702            | R805         |
| R305                     | R304            |      | R605              | R604            |       | <b>R1090</b>      | R901            | <b>A1090</b> |

#### Section B — Bibliography

| 1. Training Manuals, Technical Orders, and Instructions  | <i>Basis of Issue</i> |
|--|-----------------------|
| a. AFI 11-290, <i>Cockpit / Crew Resource Management Training Programs</i>                                       | 1/course              |
| b. AETCI 36-2205, Vol. 1, <i>Formal Flying Training Administration and Management</i>                            | 1/course              |
| c. AETCI 36-2205, Vol. 3, <i>Formal Flying Training Administration and Management — Initial Flight Screening</i> | 1/course              |
| d. <i>Inflight Guide</i> (contractor-developed)  | 1/student             |
| e. <i>Local Area Procedures</i> (contractor-developed)   | 1/student             |
| f. <i>Pilot Operating Handbook / Flight Manual</i>   | 1/course              |
| g. <i>Pilot's Abbreviated Flight Crew Checklist</i>  | 1/student             |

## 2. Syllabus

*Basis of Issue*

- a. AETC Syllabus U-P2A-A, *Undergraduate Remotely Piloted Aircraft (RPA) Pilot Flight Screening* 1/instructor

## 3. Instructor Guide

- a. *Contractor Standard Operating Procedures* 1/instructor

## Section C — Glossary

### Abbreviations

| <i>Acronym or Initialism</i> | <i>Definition</i>                  | <i>Acronym or Initialism</i> | <i>Definition</i>                        |
|------------------------------|------------------------------------|------------------------------|--|
| AETC                         | Air Education and Training Command | IAW                          | In Accordance With                       |
| AETCI                        | AETC Instruction                   | IP                           | Instructor Pilot                         |
| AF                           | Air Force                          | KIAS                         | Knots Indicated Airspeed                 |
| AFROTC                       | AF Reserve Officer Training Corps  | MIF                          | Maneuver Item File                       |
| AFTO                         | AF Technical Order                 | MOA                          | Manifestation of Apprehension            |
| AGL                          | Above Ground Level                 | NM                           | Nautical Mile                            |
| AT                           | Additional Training                | NOTAM                        | Notice to Airmen                         |
| ATC                          | Air Traffic Control                | OPR                          | Office of Primary Responsibility         |
| CAP                          | Commander's Awareness Program      | PC                           | Progress Check                           |
| CBT                          | Computer-Based Training            | POH                          | Pilot Operating Handbook                 |
| CFI                          | Certified Flight Instructor        | PT                           | Physical Training                        |
| CPT                          | Cockpit Procedures Trainer         | RPM                          | Revolutions per Minute                   |
| CR                           | Commander's Review                 | SFL                          | Simulated Flame-Out Landing              |
| CRM                          | Cockpit / Crew Resource Management | SQ/CC                        | Squadron Commander                       |
| CSO                          | Combat Systems Officer             | SUPT                         | Specialized Undergraduate Pilot Training |
| CTS                          | Course Training Standards          | TAF                          | Terminal Aerodrome Forecast              |
| DME                          | Distance Measuring Equipment       | TIMS                         | Training Integration Management System   |
| EC                           | Elimination Check                  | UAS                          | Unmanned Aircraft Systems                |
| EP                           | Emergency Procedure                | UCT                          | Undergraduate CSO Training               |
| FAA                          | Federal Aviation Administration    | UFT                          | Undergraduate Flying Training            |
| FAR                          | Federal Aviation Regulations       | USAF                         | United States Air Force                  |
| FLIP                         | Flight Information Publications    | USAFA                        | United States Air Force Academy          |
| FOD                          | Foreign Object Damage              | VMC                          | Visual Meteorological Conditions         |
| FTG                          | Flying Training Group              | VOR                          | VHF Omni-directional Range               |
| GPS                          | Global Positioning System          | VSI                          | Vertical Speed Indicator                 |

### Terms

**Additional Training (AT) Sorties** — Additional sorties given for extended breaks in training, because of Commander's review process or for other reasons specified in the syllabus.

**Cockpit / Crew Resource Management** — The effective use of all available resources — people, weapon systems, facilities, equipment, and environment — by individuals or crews to safely and efficiently accomplish an assigned mission or task.

**Commander's Awareness Program (CAP)** — A management system used to focus supervisory attention on student's progress in training, specific deficiencies, and potential to complete the program. The flight commander administers CAP.

**Commander's Review (CR) Program** — A process to consider circumstances relative to a student's training and to arrive at specific recommendations regarding retention in training, elimination from training, and future training. The Commander's Review is governed by AETCI 36-2205.

**Course** — The entire program of preflight, flying, simulation, academics, and officer development conducted in all media during the programmed training days.

**Elimination Check (EC Coded 89)** — A special check given to determine whether a student should continue in training or be recommended for elimination.

**Maneuver Item File (MIF)** — A listing of all the maneuvers and proficiency required on each maneuver for all units.

**Pilot Candidate** — An officer or cadet who is scheduled to attend URT.

**Progress Check (PC Coded 88)** — A special check given to determine whether a student should continue in normal syllabus flow or be recommended for an elimination check.

**Special Syllabus Requirements** — Maneuvers required on a onetime basis are documented under this heading.

**Student Activity Record (AF Form 4293)** — A form included in the training folder used to record IP/supervisor comments concerning the training given to a student.

**Undergraduate Flying Training (UFT)** — UFT includes URT, SUPT, and CSO Training.

**Unit** — A grouping of lessons in any category with the same first two numbers in the lesson designators and the same list of maneuvers and objectives. (Example, The R2XX unit, etc.)