



COLLEGE OF THE
ALBEMARLE

Transform Your Tomorrow

Aviation Systems Technology Handbook

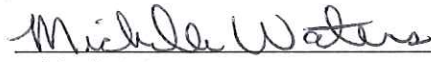
Academic Year 2017-2018


COLLEGE OF THE ALBEMARLE
AVIATION SYSTEMS TECHNOLOGY
STUDENT HANDBOOK

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College of The Albemarle's Aviation System Technology Program Handbook

Our faculty prepared this handbook to inform each Aviation student of the policies and guidelines specific to the Aviation program. This handbook serves as a supplement to the College of The Albemarle's Catalog which covers the general institutional policies.

It is the responsibility of each Aviation student to review the handbook independently and refer to it as needed during his/her enrollment. This handbook is designed to provide general information appropriate to the Aviation Systems Technology (AST) program and is aligned with current Aviation industry partners and the Federal Aeronautical Association (FAA). If any policy referenced in this handbook established by the FAA is updated or changed, students will be informed and this handbook will be updated within a reasonable amount of time. If any conflicts arise in this program that fall under FAA Policies and Procedures, the FAA shall be followed first.

All students are reminded that the aviation profession, while a skill, is constantly subjected to the prevention of accidents and mishaps thus saving lives. Safety will always be a determining factor in any task assigned.

Our Aviation Systems Technology Program runs five days a week through the fall, spring, and summer. This AST program normally follows the COA holiday and break schedule, but special sessions may be scheduled on days when most classes are not in session to ensure FAA time standards are fully met. In this instance, all time missed must be made up. Students are to be aware that some semesters may run outside of normal start and stop dates. Course information, including special sessions and start/stop dates are posted on the WebAdvisor schedule when a student registers for a class.

I. **Academics**

- A. Grading System for Aviation System Technologies. The following grading system will be used for all courses with a prefix of AVI:

<u>Letter</u>	<u>Numerical Equivalent</u>
A	100 - 93
B	92 - 86
C	85 - 78
D	77 - 70
F	69 - below

- B. Aviation Courses include: AVI-110, 120, 130, 230, 240, 250, and 260. These courses are made up of modules. According to IAW FAA Part 147, all aviation students must have a passing grade of **70** or above at the end of each module. This means that a student will not be able to take the FAA official certification test if all modules within each course are not passed with a 70 or better. Furthermore, if a student fails any module within a course, he/she will fail the entire AVI course and have to retake it the next time the course is offered by the college.
- C. All students entering into the Aviation program of study must start and complete the AVI-110 General rating portion with a grade of 70 or better before advancing to any of the Airframe or Powerplant classes.
- D. See COA's Aviation FAA Part 147 Procedure Manual for transferring-in students.
1. Any student transferring-in from another FAA Part 147 school will be evaluated for eligibility by completing a comprehensive exam. The comprehensive exam is designed to ensure the previous school's training level was at FAA standards. This is covered under FAA FAR Part 147.
- E. In accordance with College of The Albemarle's graduation policy, students in the AVI program must have a 2.0 or higher GPA to graduate with an AAS Degree or Diploma.

II. **Attendance**

The nature of the Aviation industry and the profession demands dedication, safety awareness, punctuality, and dependability. These professional ethics are obtained by participation in daily classes and lab activities. To ensure that students learn the skills necessary for the Aviation field and progress toward attaining Airframe and Powerplant certifications, complete attendance is mandatory.

In accordance with FAA requirements:

- A. Students who miss time away from class or lab activities must make-up that entire time.
- B. That time and class subject(s) missed will be documented by the instructor.

- C. The student and the instructor will discuss scheduling a make-up time and date. That meeting will be documented on form F-0009.
- D. The form F-0009 can be found in COA's FAA Part 147 Policies and Procedures manual
 - 1. The form will be filled out and a duplicate copy given to the student. The original copy will be filed in the student's aviation record.
 - 2. That missed class or lab/project make-up time will cover the subject missed.
 - 3. In the event that the absences or tardies are related to personal or mandatory reasons, that missed time must be made up one-for-one. (For example: missed 3 hours in class AMT 102 Physics).
 - a. Make-up time would consist of reviewing PowerPoint slides, text, or handouts given out during that time as minimum.
 - b. If the time missed was a lab portion, all lab projects will be completed.
 - 4. Upon completion of daily make-up hours or days:
 - a. The student will have the instructor sign the form
 - b. Once the form has been completed, an electronic note will be filed on the class attendance roster for that AMT and the paper form F-0009 will be filed in the student's permanent aviation record.
 - i. This is trackable by the FAA. It is the nature of the industry training that students complete this entire program to include class time, labs, and practicals.
 - 5. A student is not allowed to miss more than 10% of a total AMT module (or 1 day, whichever is greater).
 - a. Once the 10% is exceeded in an individual AMT module, the Instructor and Aviation Program Coordinator will review on a case by case basis for the student's continual enrollment in the current AVI semester.
 - 6. Each module is unique and will contain different hours of instruction and knowledge base.
 - 7. At the beginning of each module, instructors will inform students of the total hours in that module. It is the student's responsibility to monitor his/her hours to not exceed the 10% of that module's total hours.
- E. Any missed hours must be made up within 10 days of the class missed. If a student exceeds the 10% amount of any AMT module, that time missed will be evaluated by the instructor and Aviation Program Coordinator.
 - 1. In no case shall a student be granted a waiver to remain in the AST Program, if in the same semester/AVI course, the student exceeded 10% in another AMT module.
 - 2. If a student is granted the first waiver and then exceeds 10% in a subsequent AMT module, that student will be released from that AVI course/semester of aviation study and receive a grade of W or F per college policy.
- F. Students who require make-up time will use the provided time punch clock located in faculty office room 117 of RATTC.
 - 1. If the punch clock is inoperative, a sign-in sheet will be used. It will be located in the faculty office room 117.

- G. It is imperative that a student achieves the hours of instruction specified in each module to become effective, knowledgeable, safety trained, and within the required, mandated FAA hours.
- H. All students are reminded that classes start and end promptly at the assigned times.
- I. Instructors are mandated to document all missed time on the electronic attendance log.
- J. It is the responsibility of the student to notify the instructor if he/she will be late or absent to allow the instructor to adjust teams during lab or class assignments.
 - 1. Again, any time missed must be made up.
 - 2. If during a class or lab a student has to leave, he/she shall inform the instructor.
 - 3. This will aid the instructor in the event of a fire drill or emergency for accountability of all student and faculty.

III. Safety Requirements

- A. Students are required to have in their possession the following personal protection equipment (PPE):
 - 1. Safety glasses Z87 – Clear
 - 2. Respirator
 - 3. Latex non-powdered gloves
 - 4. Dust mask
- B. Due to each student's different physical characteristics, students are required to purchase these items.
- C. If a student does not have the required safety equipment, he/she will not be able to participate in the lab and will be marked as absent for the lab time portion.
 - 1. Safety is on-going at COA and in every practical lab/class. All instructors have the paramount goal of preventing accidents or mishaps.
 - 2. All instructors at the RATTC are charged with enforcing safety rules and regulations.
 - 3. If a student in the aviation curriculum is corrected by another instructor, whether in aviation systems or not, that student must abide by the correction.
 - a. If the instructor who saw the safety violation feels that the incident warrants further action, he/she will address those safety violations to the student's instructor.

IV. Moving Aircraft

- A. Movement of an aircraft will be conducted under the supervision of an instructor or lab assistant.
- B. The crew will be a minimum of one director, one tow bar operator, two wing walkers, and a tail observer.
- C. Prior to moving any aircraft, a safety brief will be conducted.
- D. If safety vests are available, each person in the group shall wear a safety vest.

V. Running/Operating Aircraft Engines on Test Cells

- A. Prior to starting any engine, a safety brief will be conducted with all students engaged.

- B. The brief will include starting, stopping, personnel safety, and emergency egress as a minimum.
- C. Test cells shall be chained down with a minimum of two tie-downs.
- D. All students not performing the turn-up operation will be positioned by the instructor.
- E. At NO time will students loiter beside or behind operating engines
- F. All students will wear required eye protection and ear plugs.
- G. Instructors will remain on the test cell from start to finish
- H. Students are **never** to start-up an engine without an instructor present.

VI. **Taxiing Aircraft on RATTC Tarmac**

- A. Prior to starting any aircraft engine, a safety brief will be conducted with all students engaged.
 - 1. That brief will include starting, stopping, personnel safety, and emergency egress as a minimum.
- B. All students not performing taxing operation will be positioned as directed by the instructor and contracted C.F.I..
- C. At no time should students be around the outside of a running aircraft to include front, side, or behind.
- D. All students shall wear eye protection and ear plugs around turning engines. Standard aircraft procedures will be followed inside the aircraft to include a headset worn by both the instructor and student.
- E. Students are never to start up an engine without an instructor present.
- F. Instructor will remain on the aircraft from start to finish.
- G. No school owned aircraft will be taxied at any time by non-rated personnel.

VII. **Operation of Shop Equipment**

- A. Students will be properly briefed by an instructor or lab assistant on the operation and safety of any piece of equipment that is to be operated during the length of the Aviation Systems Technology program.
 - 1. Once trained, a list of the student's current training will be maintained in the student's permanent aviation folder.
- B. Each shop has its unique equipment and each pose safety related problems.
 - 1. Prior to using any equipment initially, the student will receive training on that piece of equipment to include Personal Protective Equipment.
 - 2. Student shall inspect the equipment being operated for cleanliness and operation prior to plugging machine in.
 - 3. Any discrepancies in equipment due to condition or cleanliness shall be immediately reported to the instructor.
 - 4. Students are required to wear PPE from beginning to securing equipment. Students who violate the safety rule will not be allowed to use equipment in the shop until he/she receives a safety requirement brief from an instructor and completes a safety essay.
 - 5. Prior to using any equipment, instructors are required to be notified and informed of the project.
 - 6. Instructors will periodically monitor the use of equipment by students.

7. Upon completion of work by student on a machine or equipment, the area will be cleaned-up and the equipment unplugged.
8. Instructor will be notified that work is complete and area is clean.
9. Instructor will inspect area after work for cleanliness.
10. If area is not cleaned, student will be tasked with cleaning up the area.
11. At no time shall a student use a piece of equipment at the COA aviation site without prior permission.
12. If a student uses a piece of equipment without approval, that student shall receive a warning in his/her record on a counseling sheet. If it happens again, the student will not be allowed to use any equipment without immediate supervision.

VIII. **Tools**

- A. Tools are provided by the college and due diligence by students is expected when handling or using tools.
- B. Students will be trained in the proper use prior to beginning any lab or project.
- C. Tools do break from time to time due to wear.
 1. If a tool breaks while in use by a student, that student is required to fill out a "Broken Tool Report" and give it to the instructor or lab assistant.
 2. Both student and instructor will annotate the Tool Box Inventory sheet that the tool is broken and replacement is on order.
 3. In the event a student breaks a tool based on neglect, a statement will be filled out by the student and instructor as to why this happened.
 4. If it is determined by the instructor and Program Coordinator that the student was negligent, the student must replace the tool at his/her cost and a form for damage to college property will be completed.
 - a. Also in this case, the student will receive training from the instructor on the proper use of that tool.
- D. Tools are required to be checked out before each use.
 1. In the case of tool boxes, the student will inventory the tool box for accountability of all tools.
 2. If a tool is missing, the student will notify the instructor or tool room representative to verify lost or missing tool.
 3. Student and lab assistant/instructor will annotate the tool inventory sheet for the tool box.

IX. **Calibrated Items**

- A. Students are reminded that some items used in aviation are termed "calibrated".
- B. If a student uses a calibrated tool, he/she is reminded to handle it with the utmost care.
- C. Any damage to a calibrated tool is to be immediately reported to the instructor.

X. **Forklifts**

Forklifts are to be used only by qualified instructors and/or staff – no students.

XI. **Withdrawal**

Students must refer to COA's Catalog for instructions.

XII. **Dismissal**

Failure to meet the academic standard as set forth in the COA Catalog and Aviation System Technology handbook may result in withdrawal from a course. For a list of reasons for dismissal from the college or program, refer to the current Student Code of Conduct.

XIII. **Appeals Process**

There are two appeal policies. One for grading and the other for discipline. Students can refer to the current COA Catalog and Student Handbook for guidance.

GENERAL POLICY INFORMATION

I. **Classroom / Lab Behavior**

A. **Cell phone – is not allowed in class or in the lab**

1. Use of a cell phone by texting and or talking is a distraction to the class and the instructor leading the class.
2. Students are reminded that an attendant is at the front desk at all times while classes are being conducted at RATTC. If a student receives a call at the front desk, the attendant will locate the student via the instructor for the phone message or call.
3. Front Desk at the RATTC -252-453-3035
4. Infractions:
 - a. First Offence – Warning
 - i. Participation point deducted for the hours.
 - b. Second Offence same day:
 - i. May be asked to leave class and a counseling form will be completed by the instructor
 - ii. Participation point deducted for the day
 - iii. Habitual use of cell phone in class may result in removal from the current AVI class

B. Inappropriate/foul language will not be tolerated in the Aviation Systems Technology program.

1. Students will conduct themselves in the class and lab as professionals and with the appropriate language.
2. Students using inappropriate language will be handled in accordance with COA policies.

- C. Students are expected to adhere to the College's Drug-Free and Smoke-Free Environment Policies and Student Code of Conduct.
 - 1. No smoking, use of tobacco, use or purchase of alcohol, drug consumption or other violations to the College's Student Code of Conduct are allowed in college vans, campus building, campus parking lots, or on the campus grounds.
- D. Protocol in the Aviation Systems Technology program:
 - 1. The Aviation Systems Technology curriculum has an established protocol or chain of command.
 - 2. The chain of command in curriculum is as follows: Instructor, Aviation Program Coordinator, Chair Design Manufacturing and Industrial Technology, Dean of Business and Applied Technologies, and Vice-President of Learning.
 - 3. In order to maintain a confident path to question, students shall follow the established chain of command in order.
 - a. A full list of the Chain of Command can be found in the front of this handbook.

II. Personal Appearance Dress Code

- A. During labs, students are expected to dress appropriately. For example, in the sheet metal class, students should wear long pants to prevent metal shavings from entering their shoes causing possible injury to feet.
- B. Flip-flop or open toe shoes are not allowed during any labs conducted in the Aviation Systems Technology curriculum or on the tarmac.
 - 1. If a student arrives with flip-flop or open toed shoes for a lab or activity, he/she will be asked to change.

III. Testing

- A. Comprehensive testing is required in order for the college to issue a Certificate of Completion for either Airframe or Powerplant.
- B. This comprehensive test consists of two parts, written and practical.
- C. This test is made up of:
 - 1. 100 questions from the General and Airframe portion
 - 2. 100 questions from the Powerplant portion
- D. This comprehensive testing will be conducted using COA's My Courses Learning Platform
 - 1. Testing can be done online or at the RATTC
 - 2. Time allowed to complete the test online is shorter than that given when students complete the test at the RATTC due to the unsupervised nature of the online test.
 - 3. During testing in the RATTC, for both written and practical, the student is not allowed a personal calculator, notes, or books. Pencil and scratch paper is given to the student at the beginning. The Practical portion is supervised and only aircraft publications are allowed to be used during the practicals.
- E. The comprehensive test must be scheduled ahead of time and will be conducted during AMT-216 and AMT-260 between the hours of 2-5 pm daily.
- F. The written and practical tests should be scheduled with the assigned instructor.

- G. This test will not be conducted during normal class times as it will encroach on the required/established FAA hours and AMT course.
- H. Once a student achieves an overall score of 85 or better on the written portion, the student can then complete 3 small practical portions. Those practical tasks are located in COA's FAA Part 1467 Processes and Procedures manual.
- I. Once a student satisfactorily completes the required written and practical testing, the Aviation Program Coordinator will issue the student's Certificate of Completion for that section.
 - 1. This allows the student to take the official FAA General, Airframe or Powerplant test at the designated testing site established in the COA FAA Part 147 Policy and Procedural manual.
 - 2. Students are reminded that the Certificate of Completion must be shown in order to take the test.
- J. The Aviation Program Coordinator can assist the students with the location of certified FAA written testing sites and a Designated Mechanic Examiner (DME) phone number.
- K. The cost of the required FAA written testing and Oral/Practical is the sole responsibility of the student.
 - 1. All DME govern their own pricing for Oral/Practical tests. Neither the FAA nor COA will intervene on cost with a DME.

IV. Personal Injury in Class or Lab Areas

- A. Any injury that occurs on campus must be reported to the instructor.
- B. The instructor is responsible for the documentation of any injury.
- C. First Aid kits can be found in each shop, the Faculty office area, and in the main hallway.

V. Complaint Policy

- A. Students have the right to express concerns regarding faculty-student matters and perceived problems. Students are encouraged to follow the chain of command as addressed in item 1-D under General Policies. Students are encouraged to seek assistance from faculty members and academic advisors to resolve issues at the lowest level of authority.
- B. Formal complaints are defined as any written grade or discipline appeal that has been filed by a student in accordance with the student grievance procedures for disciplinary, sexual harassment, or non-disciplinary issues as noted in the Colleges' Catalog of the current year, or any written complaint filed with agencies that have governance over the Aviation Systems Technology program.

VI. Example of Counseling Form

- A. See next page.

I understand that I must comply with and follow these guidelines and policies during my enrollment as an aviation student at College of The Albemarle. I also understand that this signed agreement will be filed in my student file.

Student Name: Please Print

Student Signature

Date